THE ASILIDAE (DIPTERA) OF CHILE

VOLUME I

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By


* * * * * * *

The Ohio State University
1967

Approved by

[Signature]

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Dedication

For my wife, Ivette, in appreciation of her effort and sacrifice
ACKNOWLEDGMENTS

It is impossible for me to acknowledge individually the generous help I have received in the preparation of this paper. Suffice it to say that such help has been both unstinting and constructive. The very kind interest of my adviser at The Ohio State University, Dr. Donald J. Borror, must not, however, go unmentioned. Much of the merit of this paper is the result of his efforts. Any deficiencies, of course, belong to the author.

I wish to express my deep appreciation to the curators of the museums who lent material for this study: Dr. Willis W. Wirth of the U. S. National Museum; Dr. A. Haltenbach of the Naturhistorisches Museum in Wien; Dr. Leonides Tsacas of the Museum National d'Histoire Naturelle in Paris; Dr. Fr. Kuhlhem of the Zoologische Sammlung des Bayerisches Staates in Munchen; Dr. Paul H. Arnaud, Jr. of the California Academy of Sciences; Dr. Nelson Papavero of the Departamento de Zoologia, Secretaria de Agricultura of Brasil; Dr. E. Taylor of the Hope Department of Zoology, University of Oxford; Dr. Harold Oldroyd of the British Museum (Natural History) in London; Dr. H. Schumann of the Institute für Spezielle Zoologie und Zoologisches Museum in Berlin; Dr. J. R. Vockeroth of the Entomology Research Institute, Ottawa, Canada; Dr. Laverne L. Pechuman of the Department of Entomology, Cornell University; Dr. Pedro Wygodzinsky of the American Museum of Natural History; Dr. Paul H. Freytag and Dr. Charles A. Triplehorn of the
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University of Concepcion, Dr. Ignacio Gonzalez G., and to the Director
of the Instituto Central de Biologia of the same University, Dr. Hugo
L. Barrales, for their permanent help and kind considerations.
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Studies in Interpretation of Biological Data.

Professor Russell V. Skavaril
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<tr>
<td>1A first anal vein; first anal cell</td>
<td></td>
</tr>
<tr>
<td>2A second anal vein; second anal cell</td>
<td></td>
</tr>
<tr>
<td>a anus</td>
<td></td>
</tr>
<tr>
<td>abpl abdominal pleuron</td>
<td></td>
</tr>
<tr>
<td>act acanthophorite</td>
<td></td>
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<tr>
<td>aed aedeagus</td>
<td></td>
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<tr>
<td>AMNH The American Museum of Natural History, N. Y.</td>
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<tr>
<td>ant antenna</td>
<td></td>
</tr>
<tr>
<td>appr apical process of the penis sheath</td>
<td></td>
</tr>
<tr>
<td>atp anterior tentorial pit</td>
<td></td>
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<tr>
<td>B basal cell</td>
<td></td>
</tr>
<tr>
<td>b beard</td>
<td></td>
</tr>
<tr>
<td>bal basalar sclerite</td>
<td></td>
</tr>
<tr>
<td>bas basistylus</td>
<td></td>
</tr>
<tr>
<td>BERL Zoologisches Museum, Berlin</td>
<td></td>
</tr>
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<td>BRAS Dept. Entomologia, Secr. Agric. Brasil</td>
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</tr>
<tr>
<td>BRIT British Museum</td>
<td></td>
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<tr>
<td>ce central stripes of mesonotum</td>
<td></td>
</tr>
<tr>
<td>CEE Centro de Estudios Entomologicos U. de Chile</td>
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</tr>
<tr>
<td>cd cardo</td>
<td></td>
</tr>
<tr>
<td>cl claw</td>
<td></td>
</tr>
<tr>
<td>cll collar</td>
<td></td>
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<tr>
<td>cllb collar bristles</td>
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<td>C &amp; P Carrera &amp; Papavero</td>
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<td>Co. cerro (hill)</td>
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<td>Coll. collector</td>
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<tr>
<td>Cu cubital vein</td>
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<tr>
<td>cx_1 front coxa</td>
<td></td>
</tr>
<tr>
<td>cx_2 middle coxa</td>
<td></td>
</tr>
<tr>
<td>cx_3 hind coxa</td>
<td></td>
</tr>
<tr>
<td>cx_{c1} front coxal cavity</td>
<td></td>
</tr>
<tr>
<td>cx_{c2} middle coxal cavity</td>
<td></td>
</tr>
<tr>
<td>cx_{c3} hind coxal cavity</td>
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1 Some abbreviations appearing in Material Examined are taken directly from the insect's label, and their meanings are unknown.
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<td>discal cell</td>
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<td>dorsocentral bristles</td>
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<td>dististylus</td>
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<td>dpr</td>
<td>dorsal process of the penis sheath</td>
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<td>dsclb</td>
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<td>eye</td>
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<td>Edgardo Oherens B.</td>
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<tr>
<td>ejap</td>
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<td>ejaculatory pore</td>
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<td>ejaculatory duct</td>
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<tr>
<td>emp</td>
<td>empodium</td>
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<tr>
<td>epp</td>
<td>epiproct</td>
</tr>
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<td>metepimeron</td>
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<tr>
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<td>railway station</td>
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<td>foramen magnum</td>
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<td>fm</td>
<td>femur</td>
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<td>frontal tibial spur</td>
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<tr>
<td>miss.</td>
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<tr>
<td>gen. prep.</td>
<td>genitalia cleared for study</td>
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<td>gonopod</td>
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<td>humeral vein</td>
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<td>halter</td>
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<td>hc</td>
<td>humeral callus</td>
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<td>Hda.</td>
<td>hacienda (ranch)</td>
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<td>hypopleuron</td>
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<td>ib</td>
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<td>INCO</td>
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<td>J.A.C.</td>
<td>J. N. Artigas</td>
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<td>J. T. Medina collection at MNHN</td>
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<tr>
<td>km.</td>
<td>kilometer</td>
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<tr>
<td>L</td>
<td>lago (lake)</td>
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<tr>
<td>lbl</td>
<td>labella</td>
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<tr>
<td>lbr</td>
<td>labrum</td>
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<tr>
<td>M</td>
<td>medial vein</td>
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<tr>
<td>Macq.</td>
<td>Macquart, P.J.M.</td>
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<tr>
<td>mb</td>
<td>membrane</td>
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<tr>
<td>MC</td>
<td>marginal cell</td>
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<tr>
<td>m-cu</td>
<td>mediocubital cross-vein</td>
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<td>MGZ</td>
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<td>me</td>
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<td>mf</td>
<td>medial fork</td>
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<td>mi.</td>
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<td>msg</td>
<td>microsegment</td>
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<td>Mtn.</td>
<td>Mountain</td>
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<td>MUNCH</td>
<td>Zoologische Saamlung des Bayerischen Staates, Munchen</td>
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<td>my</td>
<td>mystax</td>
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<td>Term</td>
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</tr>
<tr>
<td>pc</td>
<td>posterior callus</td>
</tr>
<tr>
<td>pgl</td>
<td>paraglossa</td>
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<tr>
<td>ph</td>
<td>pharynx</td>
</tr>
<tr>
<td>pl₁</td>
<td>propleuron</td>
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<tr>
<td>pl₂</td>
<td>mesopleuron</td>
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<tr>
<td>pn₂</td>
<td>postmesonotum</td>
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<tr>
<td>prb</td>
<td>proboscis</td>
</tr>
<tr>
<td>poa</td>
<td>postocular area</td>
</tr>
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<td>pob</td>
<td>postocular bristles</td>
</tr>
<tr>
<td>pol</td>
<td>posterior lobe</td>
</tr>
<tr>
<td>posls</td>
<td>postsutural lateral spot</td>
</tr>
<tr>
<td>prls</td>
<td>presutural lateral spot</td>
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<tr>
<td>pscl</td>
<td>postscutellum</td>
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<tr>
<td>psh</td>
<td>penis sheath</td>
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<td>pthl</td>
<td>prothoracic lobe</td>
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<td>ptp₁</td>
<td>pteropleuron</td>
</tr>
<tr>
<td>Pto.</td>
<td>puerto (port)</td>
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<tr>
<td>pul</td>
<td>pulvillus</td>
</tr>
<tr>
<td>pwp</td>
<td>pleural wing process</td>
</tr>
<tr>
<td>Q</td>
<td>quebrada (ravine)</td>
</tr>
<tr>
<td>R</td>
<td>radial vein</td>
</tr>
<tr>
<td>R &amp; M</td>
<td>Ross &amp; Michelbäcker, collectors</td>
</tr>
<tr>
<td>Rf</td>
<td>radial fork</td>
</tr>
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*xi*
stn₈  eighth abdominal sternite
stn₉  ninth abdominal sternite
stp  stipes
stpl₂  sternopleuron of the mesothorax (mesosternopleuron)
stv  stump vein (base of sectorial cross vein
sur  surstylus
sv  sectorial cross vein

t₁  front tarsus
t₂  middle tarsus
t₃  hind tarsus

th₁₂ph  prothoracic phragma

ts  transverse suture
INTRODUCTION

Chile is one of the few continental nations of the world possessing a distinct fauna of its own (Peña, 1966:1), and its study presents a challenge for the entomologist because of the distinct lack of close relationships with the better studied entomofaunas of other nations.

This study of the Chilean asilids has been greatly helped by the publication of Dr. Hull's paper in 1962; the bibliography, the study of generic taxa, and the check list of species, simplified much of the painstaking work necessary when starting from scratch.

In preparing a revision of the Chilean asilids, I have been fortunate in having on hand most of the specimens in existence, including most of the available types, and the necessary literature.
MORPHOLOGY

A short description of the chief morphological characters used in the systematic work is presented here; the terms more often used by dipterists for different parts and structures have been used. The following references have been consulted on the external morphology of the group: Bonhang, 1949; Borror & Delong, 1964; Brindle, 1962; Bromley, 1946; Cholodkovsky, 1900; Cole, 1927; Cole & Pritchard, 1964; Crampton, et al., 1942; Emden & Henning, 1956; Engel, 1929; Govin, 1949; Hansen, 1883; Hardy, 1930, 1942, and 1944; Hull, 1962; Janssens, 1959; Karl, 1959; Linsley, 1960; Martin, 1961 and 1962; Melin, 1923; Owsley, 1946; Pennak, 1964; Peterson, 1916; Reichard, 1929; Deguy, 1927; Snodgrass, 1902 and 1935; Timon-David & Nicoli, 1955; Torre Bueno, 1936; Tuxen, 1956; Whitfield, 1925; Zinov'eva, 1960.

The body of an asilid (Figs. 173, 203) is elongated, usually slender, and similar to those of therevids or stiletto flies (Therevidae), from which asilids can be separated by the sunken vertex; some asilids resemble hymenopterans (Mallophora, Andrenosoma, Hexameritia, etc.) because of their broad densely pilose body; others are slender (Deromyia, Graptostylus, Oberon, etc.), and a large number (Asilinae) are distinct because of the large thorax, the long wings, and the slender abdomen; these are mostly gray in color. The head is connected to the thorax by a narrow flexible neck, allowing great mobility of head, eyes and the feeding
apparatus form most of the head. The thorax is usually strong and elevated, the mesothorax being the most developed; the prothorax is small but recognizable in dry specimens, and the metathorax is reduced (Fig. 3). The abdomen (Figs. 6 and 7) is usually long, mostly subcylindrical; the genital structures are located at the end of the abdomen and include in males segment 9 epandrium (ep) and hypandrium (hy), and 10 epiproct (epp) (Figs. 8 and 10); in females the ovipositor includes segments 7 or 8 to 11 (Fig. 12), in some only segment 9 acanthophorites (act) (Fig. 191) is distinctly modified for oviposition. The legs are long and slender; in a few cases the femora are distinctly enlarged (Creoles-tes), and spines, bristles, and hairs are commonly present. The length of the legs allows asilids to struggle with their prey without being stung (most prey are aculeate Hymenoptera). The wings are long, well developed, with strong venation, and are kept flat over the abdomen at rest. The new genus Atractocoma has most of the body with a peculiar kind of spindle-shaped hairs (Fig. 220).

The head. In front view (Fig. 209) on each side are the large eyes, which are usually as long as the head height; between the eyes is the face (f) on the lower part, the frons (fr) on the upper part, and the base of the antennae separating the two areas. The top of the face is the vertex (v) which is sunken, with the ocellarium (ocl) at the center; the lower limit of the face is the oral border (ob) (Fig. 1). The height of the head is shown by line A on Fig. 15, and the head width by line B; the relative length of these two measurements is used in the generic accounts. In lateral view (Fig. 1),
the eyes occupy most of the head; a narrow area, posterior to the eyes, is the postocular area (poa). The relative width of the eyes (C) and postocular area (D), as shown in Fig. 1d, is used in the generic accounts. On the lower part of the face are located the feeding elements, which are arranged in a tubelike structure, the proboscis (Fig. 16) (prb). The face is distinct from a lateral view in those species with a facial gibbosity (fg) (Fig. 1); species with a flat face have the eye as the foremost limit of the head (Fig. 70). The posterior area of the head or postocular area (poa) is usually flat, rounded, with a distinct hole in the center, the foramen magnum (fmg), where the neck is connected (Fig. 2). Below the foramen magnum are located the basal structures of the feeding apparatus. Inside the cephalic capsule as it is shown in Fig. 1, there is the tentorium (tent) which is the internal skeleton of the head; the anterior arms of the tentorium attach to the wall of the cephalic capsule near the base of the antennae; the attaching points are the anterior tentorial pits (atp). In Fig. 1 the pharynx (ph), the salivary gland (sgl), and their connections with the hypopharynx (hyph) are also shown.

Head areas (Figs. 1, 2, 209). The head is divided into several areas for practical purposes. There is usually no definite boundary between them (e.g. occiput and postocular areas), but at least their central parts can be recognized. Sometimes a name refers to the distinct characteristic of an area (facial gibbosity which is a distention of the face), or else refers to a group of elements (mystax, beard), or the places where they are located.
Face (f). The face is the area between the eyes from the base of the antennae to the oral border. This area is sometimes flat (Fig. 70), or produced, forming a bulky projection, the facial gibbosity (fg) (Figs. 1, 87, 297). The vestiture of the face is the mystax (my), which varies from a few sparse hairs located on the oral border (Fig. 133) to abundant pilosity covering most of the facial gibbosity (Figs. 101, 372); the face is usually covered by silver or golden micropubes­cence (minute appressed hairs). The lower limit of the face is the oral border (ob). In Pronomopsis the face is produced in a long, hoodlike facial gibbosity (Fig. 213).

Frons (fr). This is the area between the eyes from the base of the antennae to the base of the ocellarium (ocl); it is sometimes slightly excavated, mainly near the ocellarium, or slightly produced (Fig. 317), but usually does not extend beyond the limit of the eyes; the face is usually covered by silver or gray micropubescence, most of the time similar to the vestiture of the face; the hairs present on the frons are the frontal hairs (frh), which are mostly located near the eye borders, forming one to several rows which may extend lower than the base of the antennae (Fig. 209); seldom are there abundant hairs on the center of the frons; when present, they are usually similar to the hairs of the ocellarium.

Ocellarium (ocl). The ocellarium is an elevation on the upper part of the frons bearing the 3 ocelli (oc); it varies from a low slope (Fig. 209) to a high tubercle reaching the upper level of the
eyes (Fig. 64); sometimes it extends posteriorly in a more or less triangular structure; it bears the ocellar bristles (ocb), which vary in number, length, and direction (proclinate, reclinate, divergent or convergent). The ocelli vary in size, but usually they keep some proportion with the size of the ocellarium; the color of the ocelli in dry specimens varies from whitish to reddish and from light brown to shiny black. In some species there are abundant hairs surrounding the ocelli, and sometimes the hairs are as long as the ocellar bristles (Fig. 63).

Antennae (ant). The antennae are located between the face and the frons, near the anterior tentorial pits. Their location varies; sometimes they are located on the upper third of the head, and sometimes almost at the center. The antennae are extremely diverse and constitute a good taxonomic character due to the little variation among specimens of the same group. The first two segments are usually cylindrical, the second sometimes beadlike; the relative length of these segments varies; the first is usually longer than the second, or they can be of the same size; both segments have hairs which are variable in length and density, but the hairs on the ventral side are always longer. The third segment presents more variations, from cylindrical (Fig. 64) to pear-shaped and compressed (Fig. 372), or strongly stalked or clublike (Figs. 101, 115); the third segment is often covered by dense micropubescence and sometimes has a few short hairs on the dorsal side (Fig. 159). The third segment may bear a simple terminal spine (Fig. 198), a short microsegment with or without a terminal spine (Fig. 253), or two microsegments, the last one with
or without terminal spine (Figs. 77-86). When the second microsegment is long it could be called style, but in this paper the name style is used to indicate a long slender segment which is at least half as long as the third segment, with or without an intermediate microsegment. A distinct style is characteristic of the subfamily Asilinae, except in the genus Lycomyia (Fig. 292).

**Proboscis** (prb). The proboscis is long and more or less tubelike; it may be depressed (*Andrenosoma* (Fig. 189) or compressed (*Stizolestes* (Fig. 355)), but it is usually cylindrical and tapered at the apex; in *Hexameritia* (Fig. 34) the proboscis is short and blunt; there are hairs on the ventral side, which are usually long, fine and sparse, similar in color to the beard. The proboscis (Figs. 1, 2) is formed by the hypopharynx (hyph), the galea (ga), the labrum (lbr), and the labium (mn, lbl, and pgl); the labium is located ventrally and the borders curve up enclosing the hypopharynx and the galeae; the tubelike structure formed by the labium is closed basoventrally by the cardo (cd) and the stipes (stp), and basodorsally by the labrum. The hypopharynx is the piercing element. The *maxillary palpi* (mxp) are 1 or 2 segmented, and with pile usually more distinct near the apical third. The maxillary palpi are usually subcylindrical and blunt at the apex, except in *Andrenosoma* and *Obelophorus* where the second palpal segment is leaf-like. In dry specimens the maxillary palpi are usually close to the upper part of the oral cavity, at the borders of the cavity, and since the area is usually densely pilose detailed observation of the palpi is extremely difficult. For that reason they have been omitted as a
taxonomic character in this study; in several cases, even in cleared heads, it has been impossible to determine if the palpi are one or two segmented.

**Oral cavity** (ocv). This is a closed cavity formed by the flexible position of the lower part of the face, which is retracted when the proboscis is folded up; the boundary between the flexible portion and the hardened part of the face forms the oral border.

**Beard** (b). The beard consists of the hairs on the lower part of the postocular area, the lower border of the eyes, and the stipes; these hairs appear to form a single group and are usually of the same color. The beard varies in density, length, and color.

**Postocular area** (poa). This is the area behind the eyes surrounding the *foramen magnum* (fmg); it is usually covered by micropubescence and by hairs of different sizes but usually longer toward the basal area. The upper part behind the vertex is the occiput, and the bristles located there are the *occipital bristles* (occb); these bristles are arranged in groups on each side of the vertex or distinctively behind the eyes or form rows continued along the posterior border of the eyes where they are called *postocular bristles* (pob); sometimes the occipital and postocular bristles are similar and impossible to separate, but most of the time if forming a continuous row they are of different size or color. In *Stizolestes* there are no distinct occipital bristles, only hairs. In most species there is a line of whitish micropubescence along the eye borders; this line is more distinct in dark specimens.
The Thorax. The thorax is formed by a small prothorax, a large mesothorax, and a reduced metathorax (Figs. 3, 4, 5).

Prothorax. The anterior border is the collar (clI), which usually bears a distinct row of bristles, the collar bristles (clIb); the pronotum extends laterally and the anterior border on the sides projects forward in a lobe, the prothoracic lobe (ptl), where the pilosity is often denser than on the dorsal area and sometimes of different color. The propleuron (plI) is small. Immediately behind the pronotum is the prothoracic spiracle (spl). Between the front coxae (cxI) is located the prosternum, which may or may not be attached to the propleuron; this character has been used by Hull (1962, text-figure 1) to separate genera, but it has not been used in this paper because it is difficult to observe in most dry specimens due to the abundant pilosity of the area.

Mesothorax. This segment occupies most of the thorax; the mesonotum (nI) and the thoracic pleura are distinctly separate and divided in sclerites. The mesonotum (Fig. 4) is divided by the transverse suture (ts), which is interrupted dorsally and divides the mesonotum into presutural and postsutural areas; posterior to the postsutural area is the mesoscutellum (sclI). On each corner of the anterior border of the mesonotum are the humeral calli (hc), and on the posterior border the posterior calli (pc). Distinct patterns are commonly present on the mesonotum; these are the central stripes (ce), two parallel lines which sometimes are fused forming a broad band, and the lateral
spots, which according to their position in relation to the transverse suture are indicated as presutural spots (prls) or postsutural spots (posls). The central stripes and the lateral spots are usually of a different color than the rest of the mesonotum; sometimes the lateral spots are connected forming a line on each side, then the mesonotum appears three or four banded. The vestiture of the mesonotum varies from a few short mostly appressed hairs (Oberon) to a dense pilosity, sometimes longer and more dense on the midline (Stizolestes). The bristles located along the midline are the dorso-central bristles (dcb), and the ones located on the lateral borders before the transverse suture are the notopleural bristles (nplb); the ones after the suture are the intraalar bristles (ib); and the ones on the posterior calli are the posterior bristles (pb). The bristles on the center of the disc of the mesoscutellum are the discoscutellar bristles (dsclb), which are often absent, and the ones along the posterior border are the scutellar bristles (scb). The scutellar bristles vary from none (Oberon) to 10 or more on each side (10 pairs). The mesopleuron (Fig. 3) is distinctly divided into: mesopleuron (p1₂), sternopleuron (stp1₂), pteropleuron (ptpl), hypopleuron (hpl), mesepimeron (epm₂), and the mesepisternum (ep₂); the mesothoracic spiracle (sp₂) is located between the mesepimeron and the mesepisternum; the wing base, including the basalare (bal) and the subalar (sal) sclerites, is located over the pteropleuron. In Mallophora (Fig. 300) the subalar sclerite has a distinct tuberclelike process which is unique for this genus. The mesepimeral bristles are always present and vary in color from whitish to black; the remaining sclerites seldom have abundant pilosity,
except in Obelophorus, Mallophora, and Proctacanthus. The area under
the mesoscutellum and extending toward the wing base is the postmeso-
notum; the sides are indicated as slopes of postmesonotum (slpn₂), and
the presence or absence of pile in this area provides a useful taxo-
nomic character. The postscutellum (pscl) is minute. The sternum
(Fig. 5) has not been used for taxonomic purposes because of the close
disposition of the coxae making observation difficult.

Metathorax. This segment is reduced; only the metepimeron (epm₃)
and the metasternum (st₃) are distinct. The metasternum and the first
sternite (stn₁) have been called the ventral metasternum (Hull, 1962:
10-11); they can be wholly membranous, weakly sclerotized, or forming
a thick arc.

The Abdomen. The abdomen is distinctly divided into 10 segments;
the first eight are usually not modified; the second segment is longer
than the next four. The first tergite (tg₁) may be slightly membranous
on the midline (Pronomopsis Fig. 215, Nesiotes Fig. 345); this condition
is referred to as divided, opposed to complete when the tergite is uni-
formly sclerotized. The lateral borders of the tergites always overlap
the lateral borders of the sternites; in dry specimens the sternites may
remain in their natural convex position, curved down, but sometimes
they curve up in the same way as the tergites; this happens often in
some genera like Hexameritia, Deromyia, Dasypecus, etc. The first
sternite is narrow (Fig. 7) and in dry specimens often appears to
belong to the thorax. The last sternite in the ʃ may be large with
conspicuous extentions and lobes and abundant pilosity (Figs. 261, 263, 363, 367), and usually appears to be part of the genitalia. Segments 9 and 10 form the genital apparatus. The vestiture of the abdomen varies from a few sparse appressed hairs - the abdomen then appears glabrous (*Scylaticus, Deromyia Pronomopsis*) - to dense usually erect pile (*Mallophora, Obelophorus*); the hairs on the sternites are always longer than those on the tergites.

Male genitalia. The male genitalia are formed by tergite 9 or epandrium (ep), sternite 9 or hypandrium (hy), the gonopods (g), and the epiproct (epp). The epandrium is usually located dorsally; in rotated genitalia (45° to 180°) it is located laterally or ventrally, with the hypandria on the opposite side. The epandrium may be of one or two pieces; when divided in two pieces it is usually referred to as the epandria or superior forceps; in this paper the epandria are said to be forcepslike only when the two pieces oppose each other as the prongs of a forceps (Fig. 246, 275). In *Saropogon* (Fig. 181) the epandrium is not divided, but presents only a deep notch on the distal border; in some genera as in *Andrenosoma* (Fig. 197), *Araio-pogon* (Fig. 171), etc., the two pieces of the epandrium are located dorsally and are not forcepslike. The hypandrium is usually smaller when located ventrally; in rotated genitalia the hypandrium is similar in size to the epandrium (ventral) as in Fig. 106, seldom is it distinctly smaller (Figs 146, 147) or distinctly larger (Fig. 155); when the hypandrium is located dorsally it usually closes at least the base of the genital cavity, and often has the distal border
notched (Figs. 190, 192), with spines (Figs. 110, 114), or with a pointed process (Fig. 93). When the hypandrium is located ventrally it is sometimes minute and hidden by sternites 8 (Fig. 201), or fused to the base of the gonopods (Fig. 20). In Pronomopsis (Fig. 216) and Deromyia (Figs. 175, 179) the hypandrium and the epandrium are fused forming a complete ring. The gonopods are always located on each side of the genitalia, between the epandrium and the hypandrium, attached to the ninth sternite (hypandrium); they are mostly globous at base, often pointed distally (Figs. 45, 103, 106). The base of the gonopods is the basistylus (bas); two usually long elements attached to the gonopods are the dististylus (dist) (clasper according to Hull, 1962:13)(Figs. 9, 10, 374) and the surstylus (sur) (Figs. 134, 135); these elements are used in directing the aedeagus and holding the female genitalia during copulation. Surrounding the anus (a) and surrounded by the epandrium, gonopods, and hypandrium is the epiproct (epp) (Figs. 8, 10) which represents segments 10 and 11; the epiproct is mostly membranous, with two dorsal cerci \(^1\) (c) (possibly the tenth tergite) and a ventral subanal plate (sap) (possibly the tenth sternite); sometimes there is a small sclerite between the cerci and the subanal plate, the ventral lamella (vl), which could be segment 11.

**Penis sheath.** This is a heavily sclerotized structure enclosing the aedeagus; it is attached to the gonopods by two lateral extensions. The shape of the penis sheath varies greatly, from a simple compact

\(^1\)These are not true cerci (segment 11); the name has been used to follow former authors.
structure as shown in Fig. 277 to a small base with long whiplike terminal processes as in Figs. 315, 326; at the distal end of the penis sheath is an orifice, the ejaculatory pore (ejp), from which the seminal fluid is ejected; connecting the ejaculatory pore with the aedeagus is the ejaculatory duct (ejd) (Fig. 91); at the base of the aedeagus is the ejaculatory apodeme (ejap), a flat heavily sclerotized plate with a stalk; the aedeagus and the ejaculatory apodeme (in part) are shown in dotted lines. The shape of the penis sheath is of great value in species taxonomy. A lateral view of it is shown for most species.

**Ovipositor.** The ovipositor forms the apex of the female abdomen, and usually includes segments 8 and 9. In the subfamily Asilinae the ovipositor is conical (Figs 265, 273) or bladelike (Figs. 268, 270); when conical, it is formed by segment 9 and the cerci, in which case tergite 9 projects lateroposteriorly under the cerci (Figs. 270, 272); in other species the ovipositor is truncate (Fig. 60) or gently tapered (Fig. 22), and sometimes as in some Dasypogoninae, armed with 6-12 spines on each acanthophorite (act) (Fig. 123). The acanthophorites are part of the ninth segment; in few cases the spines of the ovipositor are located on the cerci (Proctacanthus, Fig. 373 and Creolestes wirthi n. sp. Figs. 230 and 231). In Hexamerita the ovipositor is telescoped (Figs. 40 and 41), and in Obelophorus it is distinctly long and cylindrical (Fig. 33).

**Legs.** The legs are long with large coxae, and usually have short, dense pile and a few longer bristles; the pile is generally more dense
on the anterior side of the front coxae and varies from scarce, short, and appressed hairs to abundant pile sometimes forming distinct tufts (Stizolestes modellus); the femora and tibiae may have hairs, bristles, and spines; some species of Dasypogoninae and all Megapodinae have a front tibial spur (ftbs) (Fig. 140), a long sigmoid spine which extends to the middle of the first tarsal segment. In Prolepsis there are many stout spines on the ventral side of the middle femora (Fig. 142); in Theromyia murina ♂ the presence of stout spines on the hind tibiae (Fig. 186) characterizes the species. Bristles are commonly abundant on the legs, and are useful in taxonomic accounts (Figs. 56, 58). The tarsal segments are seldom used in taxonomy for there is little variation in shape and vestiture; they may be beadlike or cylindrical in shape (Figs. 71, 75). The claws show little variation; in Leptochela n. g. (Fig. 131) and in Theromyia (Fig. 186) they are long and gently curved, and the pulvilli (pul) are reduced to one-fourth the length of the claws. In Mallophora the claws are distinctly blunt (Fig. 299). Typical claws and pulvilli are shown in Fig. 62.

Wings. The color of the membrane varies from deep dark brown (Deromyia fuscipennis, ♂) to hyaline (Oberon fulvipes); some species have the wings partially fumose, or with brownish or hellowish areas, of with orange areas (Scylaticus venustus, Prolepsis quadrinotata); in some species with dark wings, the wings show bluish highlights

2This structure has been called spur and not spine in order to follow former authors' nomenclature.
as *Araiopgon cayi*. The veins vary from light brown to black in color. The wing venation\(^3\) (Fig. 13) provides excellent generic characters, but there are no important variations within a genus. In *Dasypecus* (Fig 66) \(M_2, M_3 + Cu_1, \text{ and } Cu_2 + 2A\) end before the wing border. The most useful variations in wing venation are: marginal cell (MC) open (Fig. 69) or closed (Fig. 13), when closed far from the wing border \(R_{1+2+3}\) forms a stalk; \(R_4\) may reach the wing border far before (anterior) the wing apex (Fig. 13) or at the wing apex; \(R_5\) may reach the wing border before the apex (Fig. 13) or far behind (posterior) the apex (Fig. 118); the position of \(R_5\) forms either a narrow first posterior cell (1st P) (Fig. 118) or a widely open first posterior cell (Fig. 13); \(M_3\) and \(m\) may form an angle from 90° (Figs. 13, 154, 174) to 180° (Fig. 18); the fourth posterior cell (4th P) may be open (Fig. 76), closed at wing border, or closed and stalked (Fig. 13), depending on whether \(M_3\) ends on the wing border or joins \(Cu_1\) before the border; the anal cell (Al) may be slightly open (Fig. 196), closed at the wing border (Fig. 183), or closed and stalked (Fig. 13); \(R_4\) may be angulate at the base, with or without a stump vein (stv). The stump vein is the base of the sectorial vein, which divides the first submarginal cell (1st SM) into two cells; the wing then appears to have 3 submarginal cells (*Mallophora*, Fig. 298); 2-4 extra cross veins may be present near the apex of the subcostal cell (SC), as in *Prolepsis* (Fig. 145); the costal area may be expanded and the membrane slightly rippled, a sexual character in *Lochmorhynchus* (Fig. 267), *Nomomyia* n. g. (Figs. 361 and 362), and *Philonerx* (Fig. 370).

\(^3\) The Comstock-Needham venational terminology has been used in this paper, except for some of the cells, where an older terminology has been used (Fig. 13).
A drawing of the wing venation of each genus is given in this paper.
1. *Cratopoda helix* (after clearing), head in lateral view; eye removed; hairs and bristles not shown.

2. *Cratopoda helix* (after clearing), head in posterior view; hairs and bristles not shown.

3. *Cratopoda helix* (after clearing), thorax in lateral view; hairs and bristles not shown.

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5. C. "", thorax (after clearing), in ventral view; hairs not shown.

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</tbody>
</table>
6. Cratopoda helix, abdomen in lateral view.

7. C... metasternum and sternites 1 and 2 in ventral view.

8. C... epiproct in ventral view, after removing the gonopods and the hypandrium.


10. C... genitalia in lateral view, after removing the epandria.

11. Cratopoda helix, ovipositor (after clearing), in lateral view and extended.

12. Cratopoda helix, ovipositor (after clearing), in ventral view and extended.

a  anus
bas  basistylus
  cercus
cx30  hind coxal cavity
dist  dististylus
ep  epandrium (tg9)
epp  epiproct
epm3  metepimeron
gp  gonopod
hyp  hypandrium (tg9)
mb  membrane
psh  penis sheath
sap  subanal plate

st3  metasternum
stn1  first abdominal sternite
stn2  second abdominal sternite
stn3  third abdominal sternite
stn7  seventh abdominal sternite
stn8  eighth abdominal sternite
stn9  ninth abdominal sternite
t51  first tergite
t52  second tergite
t57  seventh tergite
t58  eighth tergite
t59  ninth tergite
vl  ventral lamella (segment 10)
13. Cratolestes chilensis, wing venation according Comstock-Needham venational terminology, except for some of the cells (see below).

14. Lateral view of a head showing: head high, A; eye width, C; postocular area, D.

15. Front view of a head showing: head width, B; head high, A.

16. Pritchardia hirtipes, head in lateral view.

17. P. " , σ genitalia in lateral view.

A  anal cell (IA)
Cal calypter
ep epandrium
gp gonopod
MC marginal cell (R₁)
P posterior cells (R₅, M₁, 2ⁿ M₂, M₃, Cu₁)
pol posterior lobe
prb proboscis
SM submarginal cells (R₃, R₄)
BIOLOGY OF THE CHILEAN ASILIDAE

There are no records of the biology of Chilean asilids; however, a few observations relating to prey are included in the accounts of the species. The ontogenies of the species are unknown. When clearing female specimens for genitalic studies some eggs were found inside the abdomens; the number of eggs was recorded under the species, but since the eggs were found inside the abdomens, the dates cannot be considered the dates of oviposition; an egg of *Pritchardia hirtipes* (Macquart) is shown in Fig. 23.

Some larvae of Chilean asilids are deposited in the insect collection at Concepcion, but none of them are identified. Four puparia of *Proctacanthus rubriventris* (Macquart) were collected with 2♂ and 3♀ at the time of emergence; the puparia were about 10 cm deep in sandy soil, in a place near the sea shore. These specimens were collected by Mr. Orellana in Arauco, January 15, 1961. A puparium is shown in Fig. 252.
MATERIAL STUDIED

Most of the available specimens of Chilean Asilidae collected during the last 150 years have been studied in this paper. A total of 3,359 specimens (1622♂, 1726♀, and 11 with genitalia missing) have been lent by the following museums and collections: American Museum of Natural History, New York (AMNH); British Museum of Natural History, London (BRIT); California Academy of Sciences, San Francisco (CAS); Centro de Estudios Entomologicos, Universidad de Chile, Santiago (CEE); Department of Entomology, Cornell University, Ithaca (CORN); Departamento de Zoologia, Secretaria de Agricultura, Sao Paulo (BRAS); Department of Zoology and Entomology, Ohio State University, Columbus (OSU); Departamento de Zoologia, Universidad de Concepcion, Concepcion (INCO); Entomology Research Institute, Ottawa (OTT); Hope Department of Entomology, Oxford University (OXF); Michigan State University, Department of Entomology, East Lansing (MICH); Ministerio de Agricultura, Santiago (MA); Museo Nacional de Historia Natural, Santiago (MNHN); Museum National d'Histoire Naturelle, Paris (PAR); Naturhistorisches Museum, Wein (WEIN); Museum of Comparative Zoology, Harvard University, Cambridge (MCZ); Coleccion L. E. Pena, Santiago (LEP); U. S. National Museum, Washington, D. C. (USNM); Zoologisches Museum, Humboldt Universitat, Berlin (BERL); Zoologische Saamlung des Bayerischen Staates, Munchen (MUNCH).

The initials in parenthesis following each institution are used to identify them in the Material Examined.
These institutions and persons have lent all the Chilean material they have, except the Museum National d'Histoire Naturelle and the British Museum, which retained types; however, compared material was sent in most cases.

Two important collections of Chilean Asilidae have not been studied: the one in Colegio San Pedro Nolasco, Santiago, which has most of the material collected by Flaminio Ruiz, and the material recently collected by Dr. Evert I. Schlinger of the University of California, Riverside (January, 1966 to February, 1967).

The museums listed above include the private collections of A. E. Pritchard (USNM), E. E. Reed (CAS), E. C. Reed (CAS), Kaiser (BRAS), Ross & Michelbacker (CAS), P. Herbst (CAS), S. W. Bromley (USNM), E. G. Crampton (USNM), R. A. Philippi (MNHN), J. T. Medina (MNHN), and L. E. Pena (INCO).
METHODS

Systematic Treatment

A uniform method of treatment has been followed in the accounts of genera and species. The genera are arranged alphabetically in each subfamily, and the species are arranged alphabetically in each genus. The distribution of each genus is given by zoogeographic regions when it includes areas outside of Chile; where the range is entirely in Chile it is given as "Neotropical (Chile)." The total number of species in each genus is based on data from Hull (1962), with the number of Chilean species indicated at the end. The keys to species include only the Chilean species, except in Pronomopsis and Theromyia, where non-Chilean species are included in order to present a key to all the known species.

All available data on type specimens, including the present location of each, are given; types that have been seen are so indicated. In cases where no type was designated, a lectotype has been designated from the original material; neotypes have been designated in cases where the original types have been lost. For the new species described in this paper all material in addition to the type is considered paratypic.

All measurements are given in millimeters; measurements of types are given in brackets. Measurements of types not seen, taken from the original description, are so indicated.

In the listing of Material Examined the label data have been reproduced without modification, to enable identification of the specimens
concerned; the location of each specimen is indicated by an abbreviation in parentheses, and a list of these abbreviations is given at Page viii. Specimens lacking the apex of the abdomen and hence not sexed are indicated as "(gen. miss.)". Genitalia removed from a specimen and cleared have been placed in small vials and the vials attached to the pin of the insect; such specimens are indicated as "(gen. prep.)". The localities are arranged alphabetically by provinces (of Chile); specimens from other countries are listed at the end, with the name of the country underlined. Under "Locality Uncertain" are listed those localities not found in Gazetteer No. 6, Chile (second ed., 1967), and localities with the same name in two or more provinces (with the province not indicated on the label). Specimens listed under "No locality or date" are from Chile.

The distribution of each species is shown in Figures 408-504, and the location of the various Chilean provinces is shown in Fig. 414.

Technical procedures

Genitalia study. The structure of genitalia and the ovipositor has great value in the taxonomy of the group. These structures must be cleared for detailed study; after clearing, some hairs and bristles are lost, but the shape of the genital elements can be accurately observed.

The male genitalia were separated from the abdomen between segments 7 and 8 because in some species (Myaptex) part of the penis sheath is retracted as far forward as segment 8. The genitalia were boiled for 20 minutes to 2 hours in a 25% solution of KOH or left in the solution for 24 to 36 hours at room temperature. Each specimen was treated separately in a 10 ml beaker; after clearing, it was washed for 5 minutes
in a 1% acetic acid solution to neutralize, then rinsed in distilled water. The observations and illustrations were made with the genitalia submerged in glycerine. Dissecting the penis sheath was done under glycerine, by separating the gonopods or sometimes removing them and cutting the lateral attachments of the penis sheath to the gonopods; in a few cases the penis sheath could be dissected from the open side of tergite 8. The genitalia were stored in a genitalia vial (K. & L. 10 x 5, #82-530-01), with no more glycerine than that remaining after being blotted for one minute on tissue paper. The vial was closed with a 3/16 x 5/16 cork and pinned on the insect's pin. The ovipositor was handled the same way, but no elements were dissected.

Drawings. The illustrations in Figures 1-403 were made with the aid of an ocular reticule.
CHILE

Chilean Biogeography

Chile is a distinct isolated zoogeographic area limited by important geographic boundaries. The political boundaries are coincident with the geographical boundaries, and usually also with the ecological limits. Chile is limited on the North by the Atacama desert, on the South by the Antarctic Continent, on the East by the high part of the Andes cordillera, and on the West by the Pacific Ocean. These boundaries isolate the country and have resulted in the formation of a distinctive Chilean fauna and flora, which sometimes differs from that of adjacent countries, more than from distant New Zealand, Tasmania, and Australia. Chile is one of the few continental countries of the world possessing a distinct fauna of its own. In the northern part of the country there are areas bordering Peru and Bolivia (collectively referred to as Altiplano) where no distinct boundaries exist, therefore several floristic and faunistic elements in those areas are common to the three countries. In the south where the Chilean provinces of Malleco, Aysen, and Magallanes (Fig. 414) border the Argentine territories of Neuquen, Rio Negro, and Chubut, the Patagonian steppe and the Notophagus and Araucaria forests occur in both countries. Also, various species of plants and animals inhabiting the high Andes are common to Chile and Argentina.
Intensive studies of some animal groups like birds, reptiles, amphibians, mammals, and some groups of insects like Curculionidae, Tachinidae, Bombyliidae, Scarabaeidae, Tipulidae, Tenebrionidae, etc., have shown that there are more genera and species endemic to Chile than are common to Chile and some other countries. This has also been found in the present study.

Pena (1966) in a study of the Chilean Tenebrionidae proposed a classification for the "Chilean Entomofaunal Regions". He divides the country into 18 regions, giving a complete description of the topography, dominant flora, and climatic conditions of each; as a result a useful picture of the habitat is presented. It has been found that Pena's regions are decidedly useful in the study of the Chilean asilids, and careful consideration of these regions has been followed when preparing the distribution maps presented in Figs. 408 to 504.

Material Collected in Past Years

The first recorded collections of Chilean asilids are approximately 120 years old. In the older days most of the collecting was near the cities of the central valley, mainly Santiago and Concepcion and the surrounding areas, and along the road connecting the two cities. Schonemann, R. A. Philippi, P. Herbst, E. C. Reed, E. P. Reed, F. Ruiz were the most important collectors between 1840 and 1920, and the material collected by them is available and in good condition in Chile, France, and Germany. Later the number of collectors increased and new regions were visited. Some collectors, like E. C. Shannon, F. W. Edwards, Ross & Michelbacker, the expedition from University of Chile, Ministerio de
Agricultura (Chile), Escuela Agricola El Vergel (Angol), collected material from other places than the central valley, some reaching the extreme south (Patagonia and Tierra del Fuego) and the high plateau of the northern Andes (Altiplano). D. S. Bullock, from El Vergel, has collected during the last 50 years a large number of asilids near Angol and in the Cordillera de Nahuelbuta. Since 1945, L. E. Pena has been the most active collector of insects in the country, and his material has been deposited in Chile, Brasil, Canada, United States, etc. In this study, almost 30% of the material used has been collected by him, and it represents a sample of most of the regions proposed in his 1966 paper.

A large collection of Chilean asilids was made from January, 1966 to February, 1967, by Dr. I. Schlinger (U. of California, Riverside); this material is at present time being mounted and labelled.

**Distribution of the Species Present in Chile**

Of 40 genera and 102 species recognized from Chile, 26 genera and 62 species are exclusively from Chile. Of the 14 remaining genera, 7 are neotropical with a total of 131 species (112 species of *Mallophora*), of these 13 species are common to Chile and other countries: Chile and Argentina, 10 species; Chile and Peru, 1 species; Chile, Peru, Brasil, and possibly other countries as well, 1 species (*M. freycineti*, Fig. 413); Chile, Argentina, and Brasil, 1 species. One genus (*Hypenetes*) with 11 species of Ethiopian and Neotropical distribution has 9 species solely from Chile. Another genus (*Holopogon*), with 61 species of Neartic, Neotropical, and Ethiopian distribution has 10 species limited
to Chile. Two genera (Saropogon and Andrenosoma) are of Neartic, Neotropical, Paleartic, Ethiopian, Oriental, and Australian distribution; Andrenosoma, with a total of 43 species, has 1 species limited to Chile, A. rufiventris (Blanchard); Saropogon with a total of 90 species has 1 species in Chile, Saropogon nigronasutus Bigot (only one specimen is known, the type, and the locality label could be questioned). One genus (Proctacanthus) with 56 species of Neartic, Neotropical, and Australian distribution has 1 species exclusive for Chile, P. rubriventris Macquart. One genus (Scylaticus) with 31 species of Neotropical, Paleartic, Ethiopian, and Oriental distribution has 5 species limited to Chile. The genus Efferia, Neartic and Neotropical in distribution, with 189 species, has 1 species, Efferia patagonensis (Macquart), recorded from Argentina and Patagonia, and could possibly be present in Chile.

According to present records, the Chilean asilid fauna is more abundant and diverse in the central part of the country; 82 species occur between the provinces of Coquimbo and Llanquihue (Fig. 414), 11 from Tarapaca to Atacama, and 7 from Chiloe to Magallanes (a few species are uncertain in distribution). This situation reflects in part the relations between the asilids and other insects (their prey), because in the central part of the country are distributed most of the flowering plants which attract hymenopterans and lepidopterans, the most common prey of asilids. The importance of the central provinces is probably an artificial, rather than a natural distribution, and is due to the lack of collections in remote areas.

Bromley (1932:261) states: "Asilidae are pre-eminently insects of
hot, dry, open regions, it is not surprising to discover that the fauna of the cool, rainy area of the southernmost part of South America is not more extensive in this group". Bromley listed 28 species from the region extending from Concepcion to Magallanes, plus the southern part of Argentina south of Rio Negro (F. W. Edwards added in Bromley's paper 2 species, raising the total to 30); a few of these species are exclusively from Argentina, and some others have been placed in synonymy; at the present time 53 species are recorded from Chile south of Concepcion. Since asilids are pre-eminently insects of hot, dry, open regions, the asilid fauna north of Santiago should be far more abundant than that in the Central Valley; only 33 species have been recorded from the hot, dry, open regions from Coquimbo to Tarapaca, and 67 from Aconcagua to Magallanes, where the regions are less hot, more rainy, and usually bushy or forest type.

Future studies and collections will probably increase significantly the number of species, and the present distribution is nothing but the expression of the field work done in different regions of the country.
SYSYSTEMATICS

The systematics of Asilidae were first studied by Loew (1847), and subsequently by Schiner (1868), Williston (1908), and Hermann (1920). These authors based their systems mainly on European and North American species, with little consideration of neotropical species which at that time were only superficially known.

Hardy (1934–1935) modified the system prepared by the earlier authors to fit the Australian species. In 1948 he completed his system to include the asilid fauna of the world.

Of the 4 subfamilies proposed in the old system (Dasypogoninae, Asilinae, Leptogasterinae and Laphriinae), only Dasypogoninae and Asilinae were kept by Hardy; the other two were considered tribes; Leptogastrinae a tribe of Asilinae and Laphriinae a tribe of Dasypogoninae. Hardy separated the two subfamilies according to the number of antennal and palpal segments: Dasypogoninae with one or two micro-segments on the third antennal segment, never with a style, and the maxillary palpi two-segmented; Asilinae with a long filiform terminal style on the third antennal segment, articulated at base, and the palpi always one-segmented. According to Hardy, these are two separate groups with no known bridge between them. Carrera (1949), working with neotropical Asilidae, pointed out that the genera Glaphyropyga Schiner, Leinendera Carrera, and Lycomyia Bigot, belonging undoubtedly to the
subfamily Asilinae, have a reduced style (Fig. 292), and that Atractia Macquart (a distinct Dasypogoninae) has the third antennal segment extended in such a way that it appears to be a style. Carrera found that with the exception of the tribe Xenomyzini (Holcocephala), the tribes of the subfamily Dasypogoninae can be grouped in two sections, one with the prosternum large and extending to the pronotum, the other with the prosternum reduced to a small chitinized plate between the front coxae.

Hull (1962), working the asilid genera of the world, recognizes five subfamilies: Dasypogoninae (10 tribes), Leptogastrinae, Laphriinae (4 tribes), Megapodinae, and Asilinae (2 tribes).

A catalog of the Diptera of the Americas south of the United States is being prepared under the auspices of the "Fundação de Amparo a Pesquisa do Estado de São Paulo" Brasil; the Asilidae are being worked by Dr. C. H. Martin from Oregon State University.

Chilean Asilidae. Of the five subfamilies recognized by Hull (1962), only Leptogastrinae is not present in Chile.

The subfamilies Asilinae and Megapodinae are clearly distinct, and distinct from Dasypogoninae, but there are little differences between Dasypogoninae and Laphriinae and these are inconsistent. Since the present work deals only with Chilean species, no attempt has been made to modify the family classification. The tribes recognized by Hull have been found to be somewhat confusing when working with Chilean material, therefore no tribal grouping has been used.
An attempt to fit the genera present in Chile into Hull's system of tribes would be as follows:

**Dasypogoninae**

* Dioctini: Pritchardia
  * Phellini: Obelophorus
  * Laphystini: Hexameritia
  * Stenopogonini: Alyssomyia, Creolestes, Dasypecus, Graptostylus, Holopogon, Hypenetes, Leptochela, Oberon, Prolepsis, Scylaticus.
  * Dasypogonini: Araiopogon, Deromyia, Saropogon, Theromyia.

**Laphriinae**

* Andrenosomini: Andrenosoma
  * Atomosini: Lamprozona

**Megapodinae**

* Pronomopsis

**Asilinae**


Most of the Chilean Asilidae have been discussed with indication of the country in the following papers: Macquart 1838-1855, Bigot 1857, Philippi 1865, Williston 1891, Kertesz 1908, Herman 1912, Carrera 1949 and Stuardo 1946.
In this paper, 40 genera are recognized (10 n32) with 102 species (41 new). Most of the species have been found to be exclusively from Chile (see Section on Chilean Entomofaunal regions)

Genera and Species of Chilean Asilidae

Subfamily DASYPOGONINAE

Alyssomyia Hull

Brevicornis (Philippi)

Bulbosa n. sp.

pampina n. sp.

Araiopogon Carrera

choapensis n. sp.

cyanogaster (Loew)

fraternus (Bigot) n. comb.

gayi (Macquart)

perniger (Schiner) n. comb.

Creolestes Hull

rubricornis (Philippi) n. comb.

refescens (Philippi) n. comb.

keisseri (Carrera & Papavero) n. comb.

nigribarbis (Philippi) n. comb.

parvum (Bigot) n. comb.
**Dasypecus** Philippi

- *heteroneurus* Philippi

**Deromyia** Philippi

- *fuscipennis* (Blanchard)
- *nigriventris* (Bigot)

**Graptostylus** Hull

- *dolosus* Hull

**Hexameritia** Speiser

- *micans* (Philippi)

**Holopogon** Loew

- *arrayanensis* n. sp.
- *coquimbensis* n. sp.
- *hippopilosus* n. sp.
- *lanosus* n. sp.
- *medinae* n. sp.
- *minusculus* n. sp.
- *notocinereatum* n. sp.
- *papaveroi* n. sp.
- *sucinopedis* n. sp.
- *tener* Bigot

**Hypenetes** Loew

- *asiliformis* Wulp
- *critesi* n. sp.
- *davidsoni* n. sp.
- *digitatus*
fucosus n. sp.
magellanicus n. sp.
punctipennis (Philippi)
schineri n. sp.
valentinei n. sp.

Leptochela n. gen.
jaujensis n. sp.

Obelophorus Schiner
landbecki (Philippi)
terebratus (Macquart)

Oberon Carrera & Papavero
fulvicornis (Macquart)
fulvipes (Philippi) n. comb.

Pritchardia Stuardo
curicoensis n. sp.
hirtipes (Macquart)
puella (Bromley)
tertialis (Bromley)

Prolepsis Walker
quadrinotata (Bigot)

Saropogon Loew
nigronasutus (Bigot)

Scylaticus Loew
chilensis (Macquart) n. comb.
cuneigaster n. sp.
lugens (Philippi) n. comb.
rufipes (Philippi) n. comb.
venustus (Philippi)

Theromyia Williston

murina (Philippi)
nana (Pritchard)
pegnai n. sp.

Subfamily LAPHRIINAE

Andrenosoma Rondani

rufiventris (Blanchard)

Lamprozona Loew

auricincta Loew

chilensis (Hermann) n. comb.

Subfamily MEGAPODINAE

Pronomopsis Hermann

chalybea Hermann

rubripes Hermann
talabrensis Artigas

Subfamily ASILINAE

Atractocoma n. gen.
nivosa n. sp.

Chilesus Bromley
geminatus Bromley
**Cratolestes** Hull

*chiliensis* (Macquart) n. comb.

*wirthi* n. sp.

**Cratopoda** Hull

*emarginata* n. sp.

*helix* (Bromley) n. comb.

**Efferia** Coquillet

*patagonensis* (Macquart) n. comb.

**Eremomyia** n. gen.

*tumbrensis* n. sp.

**Lochmorhynchus** Engel

*borrori* n. sp.

*griseus* (Guerin)

*puntarenensis* n. sp.

**Lochyrus** n. gen.

*balmacedensis* n. sp.

*crassus* (Bromley) n. comb.

*frezieri* n. sp.

**Lycomyia** Bigot

*germainii* Bigot

**Mallophora** Macquart

*freycineti* Macquart

**Megametopon** n. gen.

*immisericorde* n. sp.

*occidentale* (Philippi) n. comb.
Menexenus n. gen.

concepcionensis (Bromley) n. comb.

veredus n. sp.

Myaptex Hull

brachyptera (Philippi) n. comb.

hermanni Hull

vexillaria n. sp.

virilis n. sp.

Nesiotes n. gen.

chiloensis n. sp.

Nomomyia n. gen.

ivetteae n. sp.

murina (Philippi) n. comb.

Philomerax Bromley

mucidus (Walker)

chilechicoensis n. sp.

Proctacanthus Macquart

rubriventris Macquart

Rhadinosoma n. gen.

calderense n. sp.

Stizolestes Hull

aureomaculatus (Bromley) n. comb.

atribarbis n. sp.

eritrichus (Philippi)

gayi (Macquart) n. comb.
mayi (Edwards) n. comb.
modellus (Bromley) n. comb.
migriventris (Philippi)
pamponeroides (Edwards) n. comb.

Zoticus n. gen.

toconaoensis n. sp.

Species Incertae Sedis

Asilus megastylus Philippi
Asilus poecilopus Philippi
Atomosia modesta (Philippi)
Dasycyrtion gibbosus Philippi
Dasypogon punctipennis Macquart
Dasypogon latus Philippi
Saropogon carbonarius Philippi
Stichopogon ocrealis (Rondani)
Promachus spissibarbis (Macquart)
Key to the Genera of Chilean Asilidae

1. Front tibial spine present (Fig. 140) ............... 2
1'. Front tibial spine absent ....................... 7

2(1). Fourth posterior cell closed and stalked (Fig. 13) . . . 3
2'. Fourth posterior cell open, or closed at wing border,
never stalked (Fig. 118) (Dasypogoninae) ......... 4

3(2). Facial gibbosity extremely large, hoodlike, with a long
apex directed forward (Fig. 213); robust flies
(Megapodinae) . . . . . . . . . Pronomopsis (p. 343)
3'. Facial gibbosity greatly reduced or absent; slender
flies (Dasypogoninae) ................ Deromyia (p. 117)

4(2'). Scutellar bristles present ..................... 5
4'. Scutellar bristles absent ..................... Oberon (p. 208)

5(4). Pulvilli more than half as long as claws; body
metallic bluish .................. 6
5'. Pulvilli not more than one-fourth as long as claws
(Fig. 186); brownish species .......... Theromyia (p. 260)

6(5). Epandrium completely divided into two separate
parts (Fig. 165)¹ ........................ Araiopegon (p. 71)

¹No characters are known to separate the females of Araiopegon
and Saropogon.
6'. Epandrium of one piece, but usually with a large V-shaped notch dividing the apical three-fourths (Fig. 181) ... 

........................................ Saropogon (p. 236)

7(1'). Length of the antennal microsegment, style, or the two combined at least half the length of the third segment (Figs. 64, 251) ........... 8

7'. Length of antennal microsegment (microsegment sometimes lacking), style, or the two combined not more than one-third the length of the third segment (Fig. 34) ...... 27

8(7). Marginal cell open (Fig. 59) (Dasypogoninae) ........... 9
8'. Marginal cell closed (Fig. 224) (Asilinae) ........... 10

9(8). M₂, M₃, and Cu₁ not reaching wing border; fourth posterior cell closed far from wing border, and not stalked (Fig. 66) ........... Dasypecus (p. 111)

9'. Wing venation not as above ................. 37

10(8'). Basalar sclerite with a well developed pointed process (Fig. 300); 3 submarginal cells (Fig. 298); tarsal claws blunt (Fig. 299) ........ Mallophora (p. 435)

10'. Basalar sclerite without a distinct process; usually 2 submarginal cells; tarsal claws sharp ........... 11

11(10'). R₅ ending at or in front of wing tip (Fig. 377) ........ 12
11'. R₅ ending behind wing tip (Fig. 349) ........... 17
12(11). Sternite 8 of ♂ with widely separated plate-like processes bearing abundant long hairs and forming a scooplike structure (Fig. 363, 367) ovipositor globose, with a deep constriction on each side before apex (Fig. 369) .................. Philonerax (p. 488)

12'. Sternite 8 of ♂ without plate-like processes, or if such processes are present they are neither widely separated nor directed outward; ovipositor not as above ........................................... 13

13(12'). Ventral border of dististyli with abundant short, stout, black spines that are situated laterally and are easily visible in ventral view (Fig. 374); ovipositor with 12-13 pairs of stout spines (Fig. 373); beard, mystax, thoracic pleura, and first abdominal tergite densely pilose; very robust flies .............

............... Proctacanthus (p. 497)

13'. Dististyli and ovipositor not as above; medium sized to large flies, never very robust ............ 14

14(13'). Epandria globose in dorsal view (Fig. 254); ovipositor forked apically (Fig. 259) .......... Eremomyia (p. 391)

14'. Epandria elongated; ovipositor not forked apically . . . 15
15(14'). $R_4$ angulated at base, sometimes with a stump vein (Fig. 252); middle femora with not more than 2 strong bristles on center of posterior side; males without a tuft of hairs on sternite 8, and costal area of wings not distinctly expanded. ......... 16

15'. $R_4$ not angulated at base, or if so with the transverse part very short (Fig. 267, 269); middle femora with 4-7 strong bristles on center of posterior side; males with a long hair tuft on sternite 8 (Figs. 261, 263), and costal area of wing distinctly expanded. ................. Lochmorhynchus (p. 396)

16(15). Male genitalia compressed, the epandrium with a depression in center of outer side (Fig. 249); ovipositor strongly compressed, sheetlike .........

.............. ................. Efferia (p. 387)

16'. Male genitalia not compressed, without a depression as described above; ovipositor usually conical, slightly or not at all compressed. . Cratolestes (p. 383)

17(11'). Slopes of postmesonotum pilose, with medium to long hairs ................. 18

17'. Slopes of postmesonotum not pilose ................. 21
18(17). Facial gibbosity reduced to a very moderate slope to oral margin; mystax of long weak hairs arising all over the small facial gibbosity (Fig. 335); 2 scutellar bristles; scutellar disc with scattered short weak hairs that are not more than one-fourth as long as the marginal bristles .... Menexenus (p. 448)

18'. Facial gibbosity well developed, occupying 3/4 to 4/5 of the face; mystax of abundant, usually strong, long hairs; usually more than 2 scutellar bristles; scutellar disc with abundant hair that is at least one-third as long as the marginal bristles .......... 19

19(18). Scutellar disc usually with dense, woolly, whitish hairs arranged in 2 tufts, one on each side of the disc, with a more or less bare space along midline of disc ...................... Cratopoda (p. 373)

19'. Vestiture of scutellar disc not as above ............. 20

20(19'). Third antennal segment short and pear-shaped; 6-10 short, strong occipital bristles; male genitalia large and globose (Fig. 280) .... Lochyrus (p. 413)

20'. Third antennal segment long and slender; no distinct occipital bristles, the vestiture of abundant long fine hairs bent forward; male genitalia small, not globose (Fig. 388) ........... ............................ Stizolestes (p. 507)
21(17'). First abdominal tergite with a depression on mid-dorsal line, and posterior border sometimes appearing interrupted (Fig. 345) .......................... 22

21'. First abdominal tergite entire, not as above .......................... 24

22(21). Body and legs with sparse, depressed, distinctly spindle-shaped white hairs (Fig. 220) .......................... Atractocoma (p. 355)

22'. Body and leg hairs normal, not as above .......................... 23

23(22'). Hind femora with a lateroventral row of 6-9 strong bristles; penis sheath ending in 2 long whiplike processes (Fig. 326) .......................... Myaptes (p. 457)

23'. Hind femora without such a row of strong bristles; penis sheath as in Fig. 346 .......................... Nesiotes (p. 474)

24(21'). Sides of tergites with medium-sized fine hairs and 1-5 weak, hairlike, usually appressed bristles .......................... Megametopon (p. 439)

24'. Sides of tergites with sparse stout hairs and 2-4 strong, laterally directed bristles .......................... 25

25(24'). No facial gibbosity but oral border slightly produced; mystax reduced to a few bristles and hairs near oral border (Fig. 379) .......................... Rhadinosoma (p. 503)

25'. Facial gibbosity well developed; mystax of abundant hairs .......................... 26
26(25'). No collar bristles; R₄ angulated at base, usually with a well developed stump vein; males with femora dilated and costal border of wings expanded (Fig. 361); posterior border of sternites without distinct bristles........ Nomomyia (p. 479)

26'. Collar bristles present; R₄ not angulated at base, without a stump vein; males with femora not dilated and costal border of wings not expanded; posterior border of sternites with distinct bristles........ Zoticus (p. 540)

27(7'). Marginal cell open ......................... 28

27'. Marginal cell closed .......................... 38

28(27). Fourth posterior cell closed and stalked .......... 29

28'. Fourth posterior cell open, or closed at wing border, never stalked ....................... 35

29(28). Abdomen wide and depressed ........ Hexameritia (p. 131)

29'. Abdomen more or less cylindrical .................. 30

30(29'). Two or more cross veins in subcostal cell (Fig. 145); a distinct multispinous armature on ventral side of middle femora (Fig. 142) ........ Prolepsis (p. 231)

30'. No cross veins in subcostal cell; no distinct multispinous armature on middle femora ........ 31
31(30'). R with a distinct stump vein at base; ovipositor long, slender, and cylindrical, sometimes arrow-shaped; large, robust, densely pilose flies, over 30 mm in length .................. Obelophorus (p. 201)

31'. Without the above combination of characters ........ 32

32(31'). Third antennal segment broadly oval (Fig. 16); ovipositor without spines (Figs. 21, 22) Pritchardia (p. 216)

32'. Third antennal segment not as above; ovipositor with spines (Figs. 44, 47, 53, 60) ............. 33

33(32'). Face flat, or slightly produced at oral border, the mystax directed downward (Fig. 42); epandrium with a long terminal process (Figs. 43, 45) Alyssomyia (p. 57)

33'. Face with a moderate gibbosity, the mystax directed forward and then downward (Fig. 54); epandrium without a long terminal process ............. 34

34(33'). Pulvilli almost as long as claws, the claws strongly curved (Fig. 62) ........ Creolestes (p. 90)

34'. Pulvilli not more than one-fifth as long as claws, the claws gently curved (Fig. 131). Leptochela (p. 197)

35(28'). Third antennal segment strongly pedunculate and distinctly clubbed distally (Figs. 101, 115) ........

................................. Hypenetes (p. 167)
35'. Third antennal segment variable, but never strongly pedunculate .............................. 36

36(35'). Third antennal segment with microsegment and style combined at least one-fourth as long as the segment (Figs. 77-86); R₄ ending at or behind wing tip (Figs 69,76) ...................... 37

36'. Third antennal segment with a microsegment that is not more than one-sixth as long as the segment (Fig. 159); R₄ ending distinctly before wing tip . . (Fig. 154) . . . . . . . . . . . . . Scylaticus (p.240)

37(9',36). Abdomen short, broad, and depressed; second, third, and fourth segments of hind tarsi beadlike (Fig. 75) . . . . . . . . . . . . . Holopogon (p.137)

37'. Abdomen long and cylindrical; second, third and fourth segments of hind tarsi cylindrical (Fig. 71) . . . . . . . . . . . . . Graptostylus (p.127)

38(27'). Slopes of postmesonotum bare, or with micropubescence only (Laphriinae) . . . . . . . . . . . . . Andrenosoma (p.321)

38'. Slopes of postmesonotum pilose .............................. 39

39(38'). Third antennal segment with 2 microsegments, the second longer than the first (Figs. 223, 292); abdomen cylindrical, narrower than thorax; length over 25 mm (Asilinae) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 40
39'. Third antennal segment with a single indistinct microsegment (Fig. 206); abdomen depressed, as wide as thorax (Fig. 203); length 10 mm or less

(Laphriinae) ...................... Lamprozona (p. 328)

40(39). Antennal style three to four times as long as microsegment, and one-third as long as third antennal segment (Fig. 223) .......................... Chilesus (p. 359)

40'. Antennal style twice as long as microsegment, and one-eighth as long as third antennal segment (Fig. 292) .............................. Lycomyia (p. 429)
Subfamily DASYPOGONINAE

The Chilean species of Dasypogoninae can be recognized by the following combinations of characters: palpi one segmented; marginal and fourth posterior cells open, or one closed and the other open, never both closed, except in Cratolestes (Fig. 13); third antennal segment with or without one or two microsegments that together are not more than one-third the length of the third segment; epandrium and hypandrium not fused, except in Deromyia (Figs. 175, 179) where they form a complete ring; ovipositor with or without spines on the acanthophorites; front tibial spur present or absent.

The subfamily is represented in Chile by 17 genera and 56 species.

Alyssomyia Hull


Type of the genus, Clavator brevicornis Philippi 1865, by original designation.

Head in front view one-third wider than high; vertex moderately sunken. Head in lateral view with postocular area one-sixth width of eye; face plane, no facial gibbosity. Antennae with third segment not stalked, compressed, dilated in center, usually twice as wide as second segment, in some species only one-third wider than second segment; microsegment slightly tapered, with a short apical spine. Mystax usually on lower half of face, directed downward, lower hairs longer.
Mesonotum with variable patterns, some uniformly black. Mesonotal vestiture of short, usually spindle shaped, sparse hairs; dorsocentral bristles distinct. Scutellum covered with micropubescence, a few short hairs seldom present; 2-4 pairs of scutellar bristles. Slopes of postmesonotum with micropubescence. Marginal cell open; fourth posterior cell closed with a long stalk; \( R_4 \) vein reaching wing margin before apex; \( R_5 \) vein reaching wing margin a short distance behind apex; anal cell slightly open or closed at margin; \( M_3 \) and \( m \) veins forming a 130°-140° angle. Front tibial spur absent. Abdomen usually long, slightly tapered. Wings short, usually shorter than abdomen. Male genitalia variable in size, rotated 90°-180°; hypandrium elongated and directed backwards or swollen and curved ventrally in a 90° angle; epandria variable in size, with a fingerlike process directed backwards; gonopods swollen at base, with a variable terminal process. Female genitalia truncated, telescoped; ovipositor with 8-9 pairs of strong spines.

**Distribution:** Neotropical (Chile), 6 species

**Discussion.** The type specimen of *Clavator brevicornis* Philippi is lost. I believe there is an error in Philippi 1865, pp. 699-700, where Fig. 3 is indicated to be the antenna of this species. Philippi described five new species of *Clavator* and figured the antennae of three of them: *C. punctipennis*, *C. nigribarbis*, and *C. brevicornis*. The three drawings are arranged in a row according to the length of the third antennal segment, Fig. 1 the shortest and Fig. 3 the longest. Philippi's *C. brevicornis* description reads: "third antennal segment
suboval and scarcely stalked [from Latin]". The third antennal segment shown in Fig. 3 is strongly stalked. Philippi assigned the name brevicornis to this species due to the short antenna. In my opinion his Fig. 1 is the antenna of C. brevicornis Phillipi.

Hull, 1962, Fig. 154, shows the antenna of Alyssomyia brevicornis (Phillipi), this drawing is correct and should be considered in the diagnosis of the genus Alyssomyia.

Key to the Species of Alyssomyia

1. Males ................................................ 2
1'. Females .............................................. 4

2(1). Epandria directed almost straight backward;
    hypandrium of moderate size with a long process
directed posteriorly and gently bent toward apex
    of epandria (Fig. 43) .............................. 3

2'. Epandria swollen at base, extended posteriorly in a
    long fingerlike process extending beyond tip of
    hypandrium; hypandrium globose, bent in a 90° angle,
    with the apex directed ventrally (Fig. 45) .......
    ................................................. A. bulbosa n. sp.

3(2). Widest part of third antennal segment only slightly
    wider than second segment; body mostly black with
    red marks on sides of tergites; hind femora black,
    basal one-sixth reddish ...................... A. pampina n. sp.
3'. Widest part of third antennal segment at least twice as wide as second segment; body mostly reddish; hind femora black externally, reddish internally ...... A. brevicornis (Philippi).

4(1'). Spines on ovipositor white ...... A. pampina n. sp.

4'. Spines on ovipositor black or reddish brown ...... 5

5(4'). Sternite 8 notched on posterior border (Fig. 44); hairs of last abdominal segments fine, not distinctly spindle-shaped ...... A. brevicornis (Philippi).

5'. Sternite 8 not notched (Fig. 47); hairs of last abdominal segments thick, distinctly spindle-shaped A. bulbosa n. sp.

Alyssomyia brevicornis (Philippi)
(Figs. 42, 43, 44 and 482)

Clavator brevicornis Philippi, 1865, pp. 699-700, Fig. 1 (not fig. 3), Santiago; Illapel.

Hypenetes brevicornis (Philippi). Bromley, 1932, p. 264, South Chile.


Type: lost. A neotype is hereby designated as a ♂ from Hacienda Illapel, Coquimbo, 00 m., Chile, Nov. 21-24, 1959, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de
Concepcion, Chile.

**Diagnosis.** A brownish species with body covered by short, white, sparse hairs; mystax white; third antennal segment black; femora and tibiae black externally, reddish brown on interna; male genitalia partially rotated, hypandrium flat and triangular at base, apex prolonged into a fingerlike process, slightly curved toward the apex of the epandria.

**Description of Neotype. (♂).** Head in front view: face covered by dense golden micropubescence; front and ocellarium black with sparse golden micropubescence, ocelli shiny black; ocellar bristles white. Head in lateral view (Fig. 42): face flat, no facial gibbosity; mystax white, occupying basal half of face, upper hairs shorter than lower ones; first two antennal segments reddish brown, with scarce short, white hairs, third antennal segment black, ventrally expanded, with a black, more or less conical microsegment with a terminal spine; beard white, woolly; occipital bristles whitish, more or less arranged in one row; a line of short whitish bristles along posterior border of eyes; postocular area black with sparse golden micropubescence and few short, scarce, white hairs; proboscis shiny black, a few long white hairs at base, short white hairs at tip; maxillary palpí brown with long whitish hairs. Prothorax black with sparse golden micropubescence and sparse white hairs; collar bristles black. Thoracic pleura with reddish and black areas, some sclerites with areas of silver micropubescence; mesopleura, pteropleura, and hypopleura with groups of white hairs;
mesepimeral bristles yellowish. Mesonotum covered by golden micro-
pubescence, except over the broad black central stripe and lateral
spots; humeral and posterior calli similar to mesonotum; scarce short
thick white hairs over mesonotal disc, humeral and posterior calli,
except over the central strips and lateral spots; scutellar disc
black, scarce golden micropubescence; 7-8 brown dorsocentral bristles
located in front of and behind transverse suture; 3 short white bristles
on humeral cali; 3 long brown notopleural bristles; 1 brown intraalar
bristle; 2 brown postalar bristles; 3 pairs of white scutellar brist-
les, a few short white hairs among the bristles; slopes of post-
mesonotum reddish, covered by silver micropubescence, no hairs present.
Wings hyaline, veins dark brown. Coxae reddish and black, partially
covered by silver micropubescence and short thick white hairs, dense
on anterior side of front coxae; femora and tibiae black externally
and reddish internally, especially on femora; tarsi reddish; short,
thick, white hairs uniformly distributed on femora, tibiae, and tarsi,
spines white or brown; claws black, basal one-fifth reddish; abdomen
reddish, dorsum black, short thick white sparse hairs uniformly dis-
tributed all over abdomen, no bristles, except on side of first ter-
gite. Genitalia (Fig. 43) rotated 90°, brown, with abundant short
white hairs; epandrium divided in two fingerlike processes, not forceps
like; hypandrium long, flat, triangular at base, its apex extended pos-
teriorly in a fingerlike process, moderately bent toward tip; extended
posteriorly in a fingerlike process, shorter than epandria and
hypandrium.
Female. Similar to male; ovipositor telescoped, with 8-9 pairs of black or reddish spines (Fig. 44).

Measurements. Total length 8.1-12.3 mm, average 9.5 mm. (neotype 11.1 mm); wing length 5.0-6.1 mm, average 5.2 mm (neotype 6.5 mm); wing width 1.3-2.8 mm, average 1.5 mm (neotype 2.7 mm).


Geographic distribution. As shown in Fig. 482.

Discussion. This is a variable species. Variations in size are given in measurements. Specimens vary from blackish to light brown; mesonotum usually brown with central stripes and lateral spots blackish, some specimens with mesonotum totally black and humeral calli red; femora and tibiae vary from black externally and reddish internally to light brown with the outer side slightly darker; dorsum of tergites from light brown to deep black with reddish posterior borders; spines on female ovipositor black to reddish brown.
Females are difficult to separate from *A. bulbosa* n. sp. *A. brevicornis* has finer hairs on the abdomen, and sternite 8 shows the posterior border notched (after clearing); *A. bulbosa* has thicker hairs on the abdomen and sternite 8 not notched.

**Alyssomyia bulbosa** n. sp.

(Figs. 45, 46, 47, 48 and 436)

**Type:** ♀, Quebrada Algondones, Carrizal Bajo, Atacama, October 18, 1957, L. E. Pena; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

**Diagnosis.** Body brownish, hairs and bristles white, except mesonotal bristles which are black; male genitalia enlarged; hypandrium globose, shiny brown, located dorsally; epandria long, swollen at base, extended posteriorly in a fingerlike process.

**Description of Type.** (♀). Head in front view: frons, face, and ocellarium covered by golden micropubescence; frons with a row of 5 bristles on each eye border; 4 long brown ocellar bristles; ocelli yellowish. Head in lateral view: face flat; mystax white, occupying basal half of face, longer hairs toward oral border; first two antennal segments dark brown; white hairs on first antennal segment, longer on ventral side; second antennal segment with short scarce white hairs and a long strong brown bristle on ventral side, directed forward; third antennal segment black, strongly dilated at center; beard white; occipital bristles brown; postocular area black, with sparse golden and silver micropubescence; proboscis shiny black, with long white hairs.
on basal ventral part, short yellow hairs at tip; maxillary palpi reddish brown, long white hairs at base, sparse weak yellow bristles on apical half. Prothorax black with golden micropubescence, hairs white; collar bristles yellowish with shorter white hairs intermingled, hairs scarce on dorsum. Pleural sclerites of thorax black with large areas of golden and silver micropubescence; mesopleura, sternopleura, pteropleura, and metepisterna with groups of white hairs; mesepimeral bristles white, intermingled with hairs of similar length. Meso-notum and humeral calli covered by golden micropubescence, except over central stripe and lateral spots; mesonotum with scarce short white hairs and dark brown bristles; 4-5 white bristles on humeral calli; posterior calli with sparse white hairs and 2-3 brown postalar bristles, one longer and curved; 3 strong blackish notopleural bristles; 1-2 black intraalar bristles; scutellar disc black with scarce golden micropubescence and a few white hairs; 2 pairs of brown scutellar bristles; slopes of postmesonotum with dense silver micropubescence, no hairs. Wings (Fig. 48) hyaline, veins dark brown.

Coxae black and reddish brown, partially covered by dense silver micropubescence and white hairs, which are more abundant on anterior side of front coxae; femora and tibiae black externally, reddish brown internally; tarsi reddish brown; short white hairs uniformly distributed on leg segments, bristles white, a few short black bristles on tarsi; claws black, basal one-fifth reddish. Abdomen brownish, with short white hairs uniformly distributed, a few longer hairs on sides of tergites 1-3; posterior border of tergites golden, lateral borders silver; 3-4 white bristles on sides of first tergite; seventh abdominal
segment narrower than the others. Genitalia (Fig. 45) shiny dark brown, almost black, rotated 180°; hypandrium globose, bent downward 90°, no hairs in dorsal area, white hair on sides; gonopods with a fingerlike process directed posteriorly with a few white hairs; epan-
drium swollen at base, prolonged posteriorly in a fingerlike process which extends beyond tip of hypandrium, with abundant white hairs.

Female. Similar to male; ovipositor (Fig. 47) telescoped, with 8-9 black or reddish brown spines; posterior border of sternite 8 not distinctly notched (after clearing).

The name bulbosa refers to the swollen condition of the genitalia.

Measurements. Total length 9.0-13.5 mm, average 10 mm (holotype 11.5 mm); wing length 4.5-7.1 mm, average 5.2 mm (holotype 5.9 mm); wing width 1.2-2.1 mm, average 1.7 mm (holotype 1.9 mm).

Etcheverry (CEE); 2♂ (one, gen. prep.) Lampa, Santiago, no date, Zapata (CEE); 1♂ 1♀ Pudahuel, Santiago, Oct., 1953, (MNHN); 1♀ 50 Km West of Santiago, Dec. 19, 1950, R & M. (INCO); 1♀ 34 Km. West of Santiago, Dec. 19, 1950, R. & M. (INCO); 1♂ Pudahuel, Santiago, Oct. 1, 1953, L. E. Pena (INCO); 4♂ 1♀ Pudahuel, Santiago, Oct. 1, 1953, L. E. Pena (BRAS); 1♂ 1♀ (copula) San Cristobal, Santiago, Feb. 3, 1951, J. Herrera (INCO). VALPARAISO: 1♀ El Salto, Valparaiso, Dec. 27, 1919, E. P. Reed (CAS); 1♂ El Salto, Valparaiso, Jan., 1911, P. Ferbst (INCO); 1♂ (gen. prep.) (CAS); 1♀ La Paloma, Quilpue, Dec., 1939, E. P. Reed (INCO); 1♂ La Calera, Quilpue, Dec., 1939, E. P. Reed (CAS); 1♂ Renaca, Dec. 11, 1946, E. P. Reed (CAS); 2♂ 1♀ Valparaiso, no date, Dr. Reed (CAS); 1♀ Valparaiso, Feb. 7, 1917, P. Herbst (CAS); 1♂ Valparaiso, #92, no date, Dr. Reed (USNM); 1♂ Valparaiso, Oct., 1909, P. Herbst (CAS); 1♂ Vina del Mar, Feb. 3, 1898 (INCO). No locality or date: 1♂ 2♀ Chile, E. C. Reed (USNM); 1♂ 1♀ Chile, Dr. Reed (CAS); 1♂ 2♀ (JTM).

Geographic Distribution. As shown in Fig. 436.

Discussion. This is a variable species; variations in size are shown in the measurements. Mesonotum color varies from light brown with a dark brown central stripe and lateral spots, to uniform black with no distinct pattern; mesonotal bristles yellow to black; abdomen light brown to black on dorsum; external femora and tibiae brown to black. Young specimens are usually lighter; specimens from the northern part of the country are usually darker; greased specimens are darker, greased micropubescence looks opaque. Spines of the ovipositor vary from red to black.
Three specimens; 1♀ and 2♂, no locality or date, from Jose T. Medina Coll. (MNHN) have labels of Philippi's handwriting: "Clavator nigricornis ??"; "Clavator nigricornis Ph. n. sp."; "Clavator nigricornis ?♂ faltan las antenas". Philippi described only one species **nigricornis**: *Dolichogaster nigricornis* Philippi, 1865, p. 683, a Mydaidae (Diptera) from Chile. These three labels are a nomen nudum.

*Alyssomyia pamplina* n. sp.

*(Figs. 49, 473)*

Type: ♀ from Chinina, Talabre (Toconao), Cordillera Antofagasta, Oct. 6, 1955, L. E. Pena. This specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Similar to *A. brevicornis* (Philippi), but body black with reddish marks on sides of abdomen; legs black and light brown; body hairs short, thick, white, uniformly distributed; mystax white; bristles white; genitalia small, not swollen, with fingerlike process directed backward; ovipositor with white spines. Wings hyaline.

**Description of the Type (♂).** Head in front view: frons and face black with silver micropubescence, more dense on face; frontal bristles white. Head in lateral view: facial gibbosity absent, face flat, slightly produced beyond eye borders; mystax white, occupying four-fifths of face, hairs on oral border longer; first two antennal segments dark brown, the second darker, with a few white hairs on ventral side, longer on second segment; third segment black, its widest part
slightly wider than second segment, one and one-half times length of first two segments combined, microsegment as long as first segment, with a terminal spine (Fig. 49); beard white; occipital area covered like frons, bristles yellowish, haris white and of similar length; postocular area with a row of short yellow bristles and white hairs; proboscis shiny black, reddish at tip, with white hairs on basal ventral part and short yellow hairs at tip; maxillary palpi dark brown, with sparse white hairs and a few strong white bristles at tip. Prothorax black, with sparse silver micropubescent and sparse white hairs; collar bristles white, similar to hairs. Thoracic pleurae black with sparse white and yellow micropubescent, groups of sparse white hairs on some sclerites; mesepimeral bristles white. Mesonotum, humeral and posterior calli blackish with sparse golden and silver micropubescent, except over central stripes and lateral spots; mesonotal vestiture of sparse thick white hairs; 3 short white bristles on humeral calli; 3 white notopleural bristles; 2 white intraalar bristles; 3 long white postalar bristles; 8 yellowish inclined dorso-central bristles, gradually longer posteriorly; scutellar disc black with sparse silver micropubescent, no hairs; 2 pairs of white scutellar bristles, a few short white hairs intermingled; slopes of post-mesonotum black, covered by dense silver micropubescent, no hairs. Coxae black with silver micropubescent and groups of strong white hairs, more abundant in front part of anterior coxae; trochanters reddish brown; front and middle femora mostly shiny black, with reddish brown areas on ventral side, posterior femora shiny black, reddish brown on basal one-sixth; tibiae and tarsi brown, hind tibiae darker;
hairs and bristles white, hairs spindle-shaped; claws shiny black, basal one-fifth reddish. Abdomen black, posterior and lateral borders of tergites and sternites reddish; abdominal vestiture of strong, spindle-shaped, white sparse hairs, first tergite with longer hairs and 5 white bristles on each side. Genitalia black, rotated 170°; epandrium divided, each arm broad at base, projected posteriorly in a fingerlike process; hypandrium triangular at base, prolonged in a fingerlike process gently curved toward tip of epandria; gonopods slightly swollen at base, with a terminal process; genital vestiture of abundant white spindle-shaped hairs; hairs on gonopods more dense.

**Female.** Similar to male; genitalia telescoped, ovipositor with white spines.

The name *pampina* refers to the character of the type locality (pampa).

**Measurements of Type.** Total length 9.5 mm; wing length 6.0 mm; wing width 2.6 mm. Paratype identical in size.


**Geographic Distribution.** As shown in Fig. 473.

**Discussion.** This species is similar to *A. brevicornis* from which males can be separated by the color of the hind tibiae, which are
bicolorous in *brevicornis* and black in *pampina*; females can be separated by the color of the spines of the ovipositor, which are white and black or reddish brown in *brevicornis* and *bulbosa*.

*Araiopogon* Carrera


Type of the genus: *Dasypogon gayi* Macquart, 1838, by original designation.

Head in front view one-fourth wider than high; vertex gently sunken; ocellarium small. Head in lateral view; postocular area one-fourth the width of eyes; face slightly depressed; no facial gibbosity. Antennae long; third segment one and one-half to two times the length of the two first segments combined; microsegment short. Mystax of a few bristles located in 1-4 rows near oral border. Mesonotum without distinct patterns on central area, vestiture mostly short. Scutellum bare of with micropubescence; 1-4 pairs of scutellar bristles. Slopes of postmesonotum without hairs. Marginal cell open; fourth posterior cell open; R₄ ending before wing apex; R₅ ending behind wing apex; anal cell narrowed but open at wing border; M₃ and m forming a 110°-130° angle. Front tibial spur present. Abdomen tapered, almost as wide as thorax, sometimes depressed. Wings extending beyond tip of abdomen. Male genitalia rotated 45°-90°; epandrium longitudinally divided in 2 parts; gonopods globose with a large terminal hook; hypandrium small, leaving exposed the genital cavity. Ovipositor with spines.

**Distribution.** Neotropical (Chile), 5 species.
This genus differs from Saropogon in having the epandrium completely divided (Fig. 165); in Saropogon the epandrium is one-pieced, shieldlike, or with a V-shaped notch at apex, sometimes dividing the apical three-fourths of the sclerite (Fig. 181).

Key to the species of Araiopogon

1. Femora, tibiae, and tarsi uniformly orange or reddish .......................... A. choapensis n. sp.
1'. Femora, tibiae, and tarsi black or black and reddish in different combinations .......................... A. perniger (Schiner) n. comb.
2(1'). Femora, tibiae, and tarsi black .......................... A. cyanogaster (Loew)
2'. Femora, tibiae, and tarsi black and reddish in different combinations .......................... 3
3(2'). Mesonotum surrounded by a distinct golden line including all or part of scutellum (in greased specimens the golden line appears gray); proximal one-half or three-quarters of femora black, tibiae and tarsi reddish .......................... A. cyanogaster (Loew)
3'. Mesonotum not surrounded by a golden line; color of femora and tibiae in different combinations; tarsi dark .......................... 4
4(3'). Posterior femora black ........ A. gayi (Macquart)
4'. Posterior femora all or mostly reddish  A. fraternus (Bigot)

Araiopogon choapensis n. sp.
(Fig. 442)

Type. A♂ #13 from Choapa, Nov. 1931, F. Ruiz; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Close to A. cyanogaster, but with femora, tibiae, and tarsi uniformly light reddish brown, wings uniformly brownish, second and third antennal segment reddish, and females with 8 yellow bristles on mystax; mystax of males with 4 black bristles; body black, silver on humeral areas, sides of mesonotum, and scutellum; a white line on posterior border of tergites 2-5.

Description of Type (♂). Head in front view: frons and face black with sparse silver micropubescence mainly near antennae and along eye borders; frontal hairs fine, white; ocellarium black, glabrous, ocelli reddish; ocellar bristles fine, white, proclinate. Head in lateral view: mystax of 2 pairs of strong long black bristles, 1 pair on each side of oral border; first antennal segment dark on sides, with abundant black hairs on lateral and ventral surfaces, second segment reddish, similar in length to first with 2 black bristles on ventral side and short yellow hairs at apex, third segment reddish, attenuated distally, twice the length of the first two combined, with
a reddish cylindrical microsegment with a short spine at tip; beard of fine white hairs; postocular area black, with silver micropubes- cence along posterior borders of eyes and near border of foramen magnum, vestiture of strong bristlelike black hairs near border; occi- pital bristles short, sparse, light brown; proboscis shiny black with long fine white hairs on basoventral half, short fine yellowish hairs at tip; maxillary palpi black with strong bristlelike hairs on second segment, first segment with fine, white hairs. Prothorax black with sparse fine whitish hairs; prothoracic lobe with abundant black hairs; collar bristles fine, whitish, intermingled with fine sparse white hairs; a large area of silver micropubescence on dorsum. Thoracic pleura shiny black, glabrous; mesepimeral bristles hairlike, fine, white; a patch of minute white hairs near border of metepimeron. Meso- notum black, no central stripes or lateral spots distinct, with sparse short yellowish hairs on dorsum and longer fine white hairs on lateral borders; light golden micropubescence on humeral calli and extending anteriorly contacting prothoracic silver spot, on transverse broad lines posterior to each humeral calli, on a spot on each side behind trans- verse suture, on posterior borders of posterior calli, and all over scutellum; 3 short fine white dorsocentral bristles posterior to trans- verse suture; 2 brownish notopleural bristles; 2 brownish intraalar bristles; 2 brownish postalar bristles; 1 pair of short brownish scutellar bristles. Slopes of postmesonotum black with silver micro- pubescence visible only from dorsal view. Wings uniformly brownish, slightly reddish toward costal area, veins reddish, becoming brownish posteriorly. Coxae and trochanters shiny black; coxae with silver
micropubescence and fine white hairs, which are more abundant on anterior side of front coxae; femora, tibiae, and tarsi reddish with short fine golden hairs; front tibial spur black; no bristles on femora; bristles on tibiae and tarsi similar in color to those on legs. Claws black. Abdomen shiny black with bluish highlights, with sparse minute fine white hairs on dorsum; sternites with longer sparse fine white hairs; tergites 2-5 with a white line on posterior border, which is less distinct on tergite 5. Genitalia black, rotated 90°; epandria short with fine white hairs; gonopods globose with black hairs; hypandrium broad, slightly pointed distally; epandria, gonopods, and hypandrium of similar length.

Female. Similar to male; mystax of 4 pairs of strong yellow bristles, more or less uniformly distributed on oral border; no white line on posterior border of tergite 5; ovipositor with 7 pairs of yellowish spines.

The name choapensis refers to type locality.

Measurements of Type. Total length 11.2 mm (♂ 14.0 mm); wing length 7.2 mm (♂ 9.8 mm); wing width 2.4 mm (♂ 2.8 mm). ♂ and ♀ similar in size.

Material Examined. 1♂ and 1♀. COQUIMBO: 1♂ (type) #13, 1♀ #12, Choapa, Nov., 1931, F. Ruiz (INCO).

Geographic Distribution. As shown in Fig. 442.
Discussion. The ♀ is greased, therefore most of the areas covered by silver or golden micropubescence and the lines on posterior border of tergites appear mostly reddish.

Araiopogon cyanogaster (Loew)
(Fig. 168, 170, 171 and 438)

Dasypogon (Saropogon) cyanogaster Loew, 1851, p. 5, Chile.
Dasypogon pictus Philippi, 1865, p. 688, Colchagua.
Saropogon pictus (Philippi). Bromley, 1932, p. 266; Stuardo, 1946, p. 82.

Type: ♂ #433, Chile, Eschsch. S., in Zoologisches Museum, Humboldt Universität, Berlin, Germany (seen). Type of D. pictus ♂ (head miss.), in Museo Nacional de Historia Natural, Santiago, Chile (seen).

Diagnosis. Body black; femora black, reddish on apical one-half, tibiae reddish; mesonotum surrounded by a line of golden micropubescence; antennae black; mystax black or black and white, limited to oral border; bristles on tibiae and tarsi reddish.

Redescription of Type. Head in front view: face densely covered with golden micropubescence; front black, frontal hairs long black; ocellarium black, ocelli light brown; ocellar bristles long, black. Head in lateral view (Fig. 168): mystax of 4-5 rows of strong
black bristles on oral border; antennae black, first segment longer than second, with black hairs which are shorter on dorsum; second segment with a few strong black bristlelike hairs on ventral side, short white hairs on dorsum; third segment one and one-half times the length of first 2 segments combined, microsegment short, cylindrical, concave at apex with a short spine in the cavity; beard black; postocular area black, a line of silver micropubescence on ventral one-half of eye borders, vestiture of strong black hairs; occipital bristles black, curved at apex; proboscis shiny black with fine black hairs on baso-ventral half, short yellow hairs at apex; maxillary palpi black, hairs black, similar to hairs of beard and proboscis. Prothorax shiny black with black hairs, more abundant on prothoracic lobe; collar bristles black, intermingled with fine black hairs; on dorsum 2 golden spots of micropubescence. Mesonotum black, covered by sparse black hairs, 2 rows of fine black reclinate hairs on anterior part, gradually decreasing in length posteriorly, a group of similar hairs posterior to humeral calli; a line of golden micropubescence along lateral borders, contacting golden spots of pronotum and golden cover-ture of scutellum, mesonotum appearing surrounded by a golden line; basal half of scutellum with dense golden micropubescence, apical one-half glabrous; 10 pairs of fine black dorsocentral bristles; 3 strong black notopleural bristles on right side, 2 reddish and 1 black on left side; 3 black intraalar bristles, 1 weaker; 2 strong black post-alar bristles; 3 pairs of black scutellar bristles. Slopes of post-mesonotum with a patch of golden micropubescence; a similar patch on mesepisternum. Wings reddish brown in costal area, fumose in center,
and hyaline on posterior border, basal one-half of R and M veins reddish, remaining veins dark brown. Coxae, trochanters, and basal one-half of femora black with white hairs and a few short black hairs intermingled, hairs on coxae and ventral side of femora longer, on anterior side of front coxae hairs are more abundant; silver micro-pubescence sparse on coxae, more abundant on anterior side of front coxae; distal half of femora, tibiae, and tarsi reddish, covered with short golden hairs, bristles reddish; hind tarsi brownish. Claws black. Abdomen shiny black with bluish purple highlights, and short sparse black hairs which are longer over sternites; tergites 2-4 with a white line on side of posterior border; first tergite with 1 black and 3 white bristles on each side. Genitalia (Fig. 171) black, large, rotated 90°, and bent ventrally forming a 45° angle with abdomen, hairs of genitalia black; epandria and gonopods similar in length.

**Female.** Similar to male; abdomen tapered; 8 pairs of small reddish spines on acanthophorites.

**Measurements.** Total length 9.3-14.1 mm, average 12.2 mm (type 9.6 mm); wing length 6.8-9.8 mm, average 8.2 mm (type 7.6 mm); wing width 2.2-2.9 mm, average 2.4 mm (type 2.4 mm).

**Material Examined.** 102♂ and 81♀. ACONCAGUA: 2♂, 2♀ and 1 (gen. miss.) 5 mi. W of La Ligua, Dec. 14, 1950 (USNM). ARAUCO: 1♂ 1♀ Contulmo, Jan. 2, 1902, Schonemann S. (BERL); 1♀ Contulmo, Jan. 7, 1902, Schonemann S. (BERL); 2♂ Contulmo, Jan. 31, 1906, Schonemann S. (BERL); 1♀ Contulmo, Oct. 26, 1903, Schonemann S. (BERL); 1♀ Contulmo, Schone-mann (BERL); 1♀ Contulmo, Jan. 4, 1906, Schonemann S. (BERL); 1♂
Contulmo, Dec. 20, 1904, Schonemann S. (BERL); 1♂ Contulmo, March 8, 1906, Schonemann S. (BERL); 1♂ Lebu, Jan. 21, 1960 (INCO). BIO-BIO: 1♂ Candelaria (JTM); 1♀ Mulchen, Jan., 1926, F. Ruiz (USNM). CAUTIN: 2♂ Cholchol, Jan., 1940, D. S. Bullock (INCO); 1♂ Co. Nielol, Jan., 1963, Fetis (INCO); 1♂ Galvarino Feb. 26, 1929 (USNM); 1♂ 1♀ Mision Queue, Feb. 12, 1933 (INCO); 2♀ N. of Imperial, 1962, A. S. Huenuqueo (INCO); 1♂ Temuco, March 27, 1959, Pflaumer (INCO); 1♂ Temuco, Feb. 12, 1936 (USNM); 1♂ 4♀ 20 km. E. of Temuco, Jan. 8, 1951, R. & M. (USNM); 1♂ 20 km. E. of Temuco, Jan. 7, 1951, R. & M. (USNM).

CONCEPCION: 1♂ Concepcion, Feb. 21, 1962, Mendez (INCO); 3♂ 3♀ Concepcion, Dec. 26-28, 1926, F. & M. Edwards (2♂ 2♀ USNM; 1♂ 1♀ BRIT); 1♂ Lota, Dec. 22, 1958, J. Ramirez (INCO); 1♂ San Pedro, Nov. 7, 1956, Cid (INCO); 2♂ 1♀ San Pedro, Nov. 3, 1956, Cid (INCO); 2♂ San Pedro, Nov. 24, 1956, Cid (INCO); 1♂ San Rosendo, Dec., 1926, R. & E. Shannon (USNM). COLCHAGUA: 1♂ (type of D. pictus) Colchagua, 1861 (JTM); 1♀ Lolol, Colchagua, Feb. 30, 1955, L. E. Pena (BRAS); 1♀ El Peumo, Colchagua, Feb. 1, 1953, L. E. Pena (BRAS). LINARES: 1♂ Buileo, Cordillera Parral, Dec. 15, 1960, Pena (INCO); 21♂ 10♀ Cordillera Parral, Dec. 1-8, 1960, Pena (INCO); 1♂ 1♀ El Coigo, Cordillera Curico, Jan., 1962, Pena (INCO); 1♂ El Coigo, Cordillera Parral, Dec. 20-31, 1959, Pena (INCO); 1♀ Estero Leiva, Cordillera Parral, Jan. 8-12, 1953, Barros-Pena (INCO); 2♀ Las Cruces, Cordillera Parral, Dec. 12, 1960, Pena (INCO); 1♂ 1♀ Parral, Puente Curaguilla, Jan., 1899, Schonemann (BERL); 1♀ Romeral, Cordillera Parral, Nov. 5-10, 1960, Pena (INCO); 12♂ 10♀ Villega, Cordillera Parral, Dec. 1-8, 1960, Pena (INCO). MAULE: 1♂ Constitucion, Costa de Maule, Nov. 27, 1953, L. E. Pena (INCO).
MALLECO: 1♂ Angol, Nov. 30, 1958, J. Perez (INCO); 1♀ Angol, Nahuelbuta, Nov. 25, 1962, Fetis (INCO); 1♀ Angol, Dec. 9, 1961, R. Romero (INCO); 1♀ Angol, Nahuelbuta, Dec. 4, 1959, N. Hernandez (INCO); 1♂ Angol, Dec. 5, 1961, R. Romero (INCO); 1♂ Angol, Cerros de Nahuelbuta, 660 m., Oct. 1, 1956, D. S. Bullock (INCO); 1♂ Angol, Nov. 17, 1958, Sperberg (INCO); 1♂ Angol, Cerros de Nahuelbuta, Nov. 23, 1935, D. S. Bullock (USNM); 1♂ Sierra de Nahuelbuta, W. of Angol, 1200 m., Jan. 3, 1951, R & M. (USNM); 2♂ 3♀ Sierra de Nahuelbuta, W. of Angol, 1200 m., Jan. 3, 1951 (USNM). NUBLE: 2♂ 2♀ Cocquecura, Dec. 14, 1953, L. E. Pena (BRAS); 1♂ (gen. prep.) 40 km. of San Carlos, Dec. 23, 1950, R. & M (USNM); 1♂ Tregualemu, 300-500 m., Dec. 7-12, 1953, L. E. Pena (BRAS).

O'HIGGINS: 1♀ Rancagua, Jan. 3 1906, Schonemann S. (BERL); 2♂ 1♀ Aculeo, Santiago, Nov. 3-7, 1959, Pena (INCO); 1♂ Codigua, Feb. 2, 1955, L. E. Pena (BRAS); 3♂ 3♀ El Canelo, Dec. 21, 1952, E. & R. (INCO); 1♂ El Canelo, Santiago, Dec. 29, 1950, L. E. Pena (INCO); 1♂ El Canelo, Santiago, Jan., 1950 (MUNCH); 1♂ El Canelo, Santiago, M. Etcheverry (CEE); 2♂ 4♀ El Canelo, Nov.-Dec., 1954, L. E. Pena (BRAS); 1♂ El Canelo, Santiago, Jan., 1950 (BRAS); 1♂ #21792 El Canelo, Santiago, Dec., 1949 (BRAS); 2♂ #21794 and #21795, 1♂ #111208 El Canelo, Santiago, Jan., 1949 (BRAS); 1♀ #111207 El Canelo, Dec., 1944, Ramirez (BRAS); 1♀ #23466 La Obra, Santiago, Nov., 1951 (BRAS); 1♂ (prey) 2♀ Melipilla, Feb. 18, 1941, P. A. Berry (2♀ USNM; 1♂ INCO); 1♀ Penalolen, Feb. 3, 1953, Etcheverry (CEE); 2♀ Quilicura, Santiago, M. Etcheverry (CEE). TALCA: 1♀ 4♂ Las Mercedes, Jan. 16, 1937, F. Ruiz (USNM). VALPARAISO: 1♂ 5 mi. N. of Concon, Dec. 16, 1950, R & M. (USNM); 1♂ 1♀ 10 mi. N. of Concon, Dec. 16, 1950, R. & M. (USNM); 1♀ #36 Limache, Jan. 31, 1920, A. Faz
(USNM); 1♀ Limache, Jan. 31, 1920 (CEE); 1♀ Valparaiso, A. Faz (CORN);
1♂ Valparaiso, Dr. Reed (USNM); 1♀ Villa Alemana, March, 1960, Madariaga (INCO). Locality uncertain: 2♂ (gen. prep.) Colli, Jan. 6, 1962, E.
Salgado (INCO). No locality or date: 1♂ #433 (type of D. cyanogaster),
Chile, Eschsch S. (BERL).

Geographic Distribution. As shown in Fig. 438.

Prey: Hymenoptera, Halictus sp.

Discussion. This species varies in size and color, but is easily
recognized by the legs color and the golden line surrounding the meso­
notum. The mystax sometimes has yellow hairs on center; the white lines
on tergites 2-4 are often poorly distinct; the golden line of mesonotum
and scutellum is undistinct in old or greased specimens; the black area
of femora varies in size from basal one-fourth to three-fourths, but the
apex is always reddish.

Araiopogon fraternus (Bigot) n. comb.
(Figs. 166, 167, and 432)

Saropogon fraternum Bigot, 1878, p. 414, Chile; Bromley, 1932, p. 266;
Stuardo, 1946, p. 82.


Type: lost. A neotype is hereby designated as a ♀ from Hda.
Illapel, Coquimbo, Nov. 21-24, 1959, L. Pena; this specimen is deposited
in Departamento de Zoologia, Universidad de Concepcion, Chile.
**Diagnosis.** Body and body hairs black; front and middle femora black, tarsi mostly black; posterior femora and tibiae reddish; mystax of 3 ♀ and 6 ♂ pairs of strong long black bristles; antennae black; wings dark brown.

**Description of Neotype (♂).** Head in front view: face shiny black; front with sparse silver micropubescence; frontal hairs black; ocellarium mostly glabrous, ocelli reddish brown; ocellar bristles white; mystax of 6 long strong black bristles located in groups of 3 on each side of oral border. Head in lateral view (Fig. 167): antennae black, first and second segments with abundant strong black hairs, third segment one and one-half times the length of first 2 segments combined, attenuated ventrally on apical one-half, with five short proclinate black hairs on dorsal side, microsegment cylindrical with a short spine at tip; beard scarce, black; postocular area shiny black with sparse silver micropubescence and short sparse stout black hairs; occipital bristles black, similar to postocular vestiture; proboscis black with long fine white hairs on basoventral one-half and short sparse yellow hairs at tip; maxillary palpi black, first segment with long fine hairs on ventral side, second segment with strong bristlelike black hairs all over the segment. Prothorax shiny black with fine black hairs which are more abundant on prothoracic lobe; collar bristles black, intermingled with a few fine black hairs. Thoracic pleura shiny black, glabrous, with bluish highlights; mesepimeral bristles black. Mesonotum shiny black, covered with short sparse black hairs on dorsum; 2 parallel lines more shiny than the rest; humeral calli covered by silver micropubescence and extending toward pronotum; a small spot of
silver micropubescence on each side, immediately behind transverse suture and on posterior side of posterior calli; scutellum shiny black; 3 black notopleural bristles; 2 long black intraalalar bristles; 2 long black postalar bristles; 4 pairs of black dorsocentral bristles located posterior to transverse suture, several long black hairs between dorsocentral bristles; 2 pairs of black scutellar bristles. Slopes of postmesonotum black, with silver micropubescence. Wings dark brown with purple highlights, darker toward base, a hyaline spot on M fork. Coxae and trochanters black, with black hairs, abundant silver micropubescence, and more abundant hairs on anterior side of front coxae; front femora black; middle femora black on basal one-half, reddish on apical one-half; posterior femora reddish, black on basal one-sixth; femora covered with short black hairs, longer hairs on ventral side of front and middle femora; tibiae reddish with fine sparse white hairs, front and middle tibiae with short black hairs on ventral side, bristles black; front tibial spur black, tibia basad of spur dark brown; front and middle tarsi black, posterior tarsi brown; hairs and bristles of tarsi black. Claws black. Abdomen shiny black covered with minute appressed sparse black hairs, longer hairs on sternites and on sides of first tergite which also has 3 black bristles on each side. Genitalia same color as abdomen, rotated 90°; epandria short; gonopods shorter than epandria; posterior border of hypandrium straight; hairs of genitalia black; penis sheath as in Fig. 166.

**Female.** Similar to male; mystax of 4-6 pairs of black bristles on oral margin; ovipositor with 9 pairs of black, apically flattened spines.
Measurements. Total length 15.0-23.0 mm, average 19.2 mm (neotype 19.5 mm); wing length 11.2-15.0 mm, average 13.0 mm (neotype 11.2 mm); wing width 3.8-4.1 mm, average 3.0 mm (neotype 3.9 mm).


Geographic Distribution. As shown in Fig. 432.

Discussion. Some specimens show purple highlights on tergites, other have the tergites plain black. The amount of black on middle and hind femora varies to some extent; some specimens have middle femora with basal one-third black and hind femora completely reddish; tibiae are sometimes dark at apex, especially front and middle tibiae.
Araiopogon gayi (Macquart)
(Figs. 165, 169, 172, and 453)

Dasypogon gayi Macquart, 1838, p. 37, Chile; Blanchard, 1852, p. 365; 1854, Pl. 3, fig la-d, Coquimbo; Walker 1854, p. 434; Brethes, 1918, p. 49, La Ligua.

Saropogon gayi (Macquart). Williston 1891, p. 74; Kertesz 1909, p. 138; Stuardo, 1946, p. 82.


Dasypogon (Saropogen) chalybeiventris Loew, 1851, p. 5, Chile.

Saropogon hyacinthinum Bigot, 1878, p. 413; Stuardo, 1946, p. 82.

Cotypes: 1♂ and 1♀ in Museum National d'Histoire Naturelle, Paris, France (not seen). Type ♂ of S. hyacinthinum Bigot in Hope Department of Entomology, Oxford University, England (seen). Type ♂ of D. chalybeiventris Loew in Zoologisches Museum, Humboldt Universität, Berlin, Germany (seen).

Diagnosis. Body black, glabrous with bluish, purple, or greenish highlights; femora black, tibiae mostly reddish; wings dark brown, darker at base, with purple highlights; mystax of 4 pairs of black bristles.

Male. Head in front view: face and front shiny black with silver micropubescence along eye borders and on lower part of face; frontal hairs usually black, sometimes whitish; ocellarium black, ocelli
reddish brown; ocellar bristles black. Head in lateral view: face appearing shiny white; antennae black, first and second segments with black hairs; third segment one and one-third the length of first 2 segments combined, attenuated at apex, with 4-5 short bristles on dorsal basal half and a cylindrical microsegment with a short spine at apex; beard usually black; postocular area shiny black with silver micropubescence along eye borders, vestiture of black hairs; occipital bristles black, strong, proclinate at apex; proboscis shiny black with long black hairs on basoventral half and short yellow hairs at tip. Maxillary palpi black with black bristlelike hairs. Prothorax shiny black with black hairs, more abundant on prothoracic lobe; collar bristles black, intermingled with fine black hairs. Thoracic pleura shiny black, glabrous; mesepimeral bristles black. Mesonotum black with short sparse black hairs; some silver micropubescence in front of humeral calli and behind posterior calli, usually indistinct; scutellum similar in color to notum; 3 pairs of black dorsocentral bristles; 3 black notopleural bristles; 2 black intraalar bristles; 2 black postalar bristles; 1 or 2 pairs of scutellar bristles, usually weaker than mesonotal bristles. Slopes of postmesonotum black with silver micropubescence. Wings dark brown, usually darker at base, with distinct purple highlights, veins dark brown. Coxae, trochanters, and femora black; coxae with some long black hairs which are more abundant on anterior side of front coxae; femora with short black hairs, a few longer hairs on ventral side, no distinct bristles; tibiae mostly reddish, some specimens with base or apex black, bristles black; tarsi dark, bristles black; front tibial spur black. Claws black. Abdomen
shiny black with bluish green or purple highlights, covered with short, sparse, indistinct black hairs, hairs on sternites longer; sides of first tergite with some longer hairs and 2-3 black bristles. Genitalia (Fig. 165) small, same color as abdomen; epandria, gonopods, and hypandrium of similar length; hairs on genitalia long, bristlelike, black; penis sheath as in Fig. 169.

**Female.** Similar to male; 7 pairs of black spines on ovipositor.

**Measurements.** Total length 12.5-18.5 mm, average 13.5 mm; wing length 9.2-13.5 mm, average 11.0 mm; wing width 3.0-4.8 mm, average 3.6 mm.

**Material Examined.** 32 ♀, 25 ♂ and 1 (gen. miss.). ACONCAGUA: 1 ♀ Piscicultura, Nov. 16-30, 1958, G. García (INCO); 2♂ Rio Blanco, Dec. 5-8, 1961, Pena (INCO); 1♀ Rio Blanco, Dec. 21, 1917, P. Herbst (INCO). ARAUCO: 1♂ Contulmo, Sept. 9, 1903, Schonemann (BERL).

SANTIAGO: 1 ♀ Aculeo, Santiago, Nov. 3-7, 1959, Pena (INCO); 1♂♂21793
El Canelo, Dec., 1948, Gutierrez (INCO); 4 ♀ El Canelo, Santiago, Nov.
10, 1962, Millan, (INCO); 2 ♂ 1 ♀ (gen. prep.) El Peumo, Rio Maipo, San-
tiago, Nov. 1949, L. E. Pena (INCO); 1 ♀ Renca, Feb. 17, 1950 (CEE);
1♂♀111.186 San Bernardo, Oct., 1944 (INCO); 2♂♂1 ♀ 34 km. W. of San-
tiago, Dec. 19, 1950, R. & M. (CAS); 1♂♀12 Santiago (USNM); 1♂♂7672
14, 1936, F. Ruiz (INCO); 1 ♀ 22 mi. N. of Talca, Dec. 22, 1950, R. &
M. (CAS). VALPARAISO: 1 ♀ Caleu, Jan. 4, 1964, L. E. Pena (INCO); 1♂
Quilpue, Feb., 1957, Etcheverry (CEE); 1♂ Valparaiso, A. Faz (CORN);
2 ♂♀ Valparaiso, A. Faz (USNM); 1 ♀ Zorras, Jan. 17, 1887, E. C. Reed
(INCO). No locality or date: 1(gen. miss.) #62216, Chile, Aug., 1923
(BRAS); 1♂(type D. chalybeiventris) #434, Chile, Scholtz (BERL); 1♂
Chile, Scholtz (BERL); 1 ♀ #4586, Chile, Schultz S. (BERL); 1 ♀ #19,
Chile, Dr. Reed (USNM); 1 ♀ ♀ Chile, E. C. Reed (USNM); 1♂(type S.
hyacinthinum) #61 in Bigot Coll, Type Dip. 177 (OXF); 1 (gen. miss.)

Geographic Distribution. As shown in Fig.

Discussion. The hair color of the beard and proboscis varies
from black to white; the color of the tibiae is usually uniformly
reddish, but several specimens have the tibiae black on the base and
on the apex, especially the front and middle tibiae; a few specimens
have the front and middle tibiae dark brown; the wings are dark brown
in most specimens, but a few have the wings light brown but always darker
basally; some specimens have a hyaline spot on the M fork; the hairs on
the coxae, beard, and the base of the costa are often white.
**Araioptogon perniger** (Schiner) n. Comb.

*Sarophogon perniger* Schiner, 1868, p. 166, Chile; Stuardo, 1946, p. 82; Hull, 1962, p. 278.

Type: ♂, Chile, Novara, in Naturhistorisches Museum, Wien, Austria (seen).

**Diagnosis.** Body, femora, and tarsi black, tibiae dark brown; wings uniformly colored dark brown; face and front black, with sparse silver micropubescence; antennae black; thoracic pleura and abdomen with bluish highlights; hairs and bristles black.

Redescription of Type (♂). Head in front view: face and front black, with sparse gray micropubescence mostly along eyes border and on oral border; frontal hairs long, black; ocellarium similar in color and coverture to frons, ocelli light brown; ocellar bristles black, similar in length to frontal hairs. Head in lateral view: mystax of 4 pairs of strong long black bristles, 4 bristles on each side of oral border, no bristles in center; antennae black (third antennal segments missing), first and second segments with black hairs; beard of sparse black hairs; postocular area similar in color to frons, with short strong black hairs; occipital bristles abundant, black; proboscis shiny black with long black hairs sparse on basoventral half, with short yellowish hairs at tip; maxillary palp black with long strong black hairs. Prothorax black, with black hairs, which are more abundant on prothoracic lobe; collar bristles long, strong, black, intermingled with sparse fine black hairs of similar length. Thoracic
pleura shiny black; mesepimeral bristles black, of different length and thickness. Mesonotum black, humeral calli with indistinct grayish micropubescence, a grayish spot over base of wings; short black vestiture arranged in 3 double or triple parallel rows on dorsum, posterior to humeral calli, and along borders of notum, a few stronger black hairs on humeral calli; scutellum black; 3 pairs of black dorso-central bristles located behind transverse suture; 2 long strong black notopleural bristles; 2 long strong black intraalar bristles; 2 long black postalar bristles; 1 pair of long black scutellar bristles. Slopes of postmesonotum black, glabrous. Wings dark brown, darker near costal area, veins dark brown. Coxae, trochanters, and femora black with black hairs, short on dorsal side and longer on ventral side, stronger and more abundant on anterior side of front coxae, no bristles on femora; tibiae and tarsi dark brown, almost black, short hairs and bristles black; front tibial apur black. Claws black. Abdomen black with bluish highlights, covered by sparse short, appressed black hairs, which are longer on sides of first tergite, sternites, and genitalia. Genitalia same color as abdomen, rotated 75°; epandria and gonopods of similar length, hypandrium much shorter.

Female. Unknown

Measurements of Type. Total length 13.2 mm; wing length 10.9 mm; wing width 3.4 mm.

Material Examined: 1♂ (type) Chile, Alte Sammlung, Novara, in Naturhistorisches Museum, Wien, Austria.

Geographic Distribution: Unknown
Discussion. Only the type specimen is known.

**Creolestes Hull**

*Creolestes* Hull, 1962, p. 150 (as a subgenus of *Bathypogon* Loew)

Type of the genus: *Clavator nigribarbis* Philippi 1865, designated by Hull 1962 as *Bathypogon hirtuosus* Schiner 1868, type of subgenus *Creolestes*.

*Creolestes* is hereby elevated from subgenus to genus.

Head in front view one-third wider than high; vertex moderately sunken; ocellarium of moderate size. Head in lateral view: postocular area one-seventh width of eye; facial gibbosity moderate to strong, occupying one-half of face; occipital bristles weak, hairlike, pile abundant. Antennae with third segment fusiform, bearing a slightly tapered microsegment with a terminal spine. Mystax of abundant long bristles arising from all over facial gibbosity except on sides. Mesonotum with black central stripes and lateral spots distinct. Mesonotal coverture variable from moderate to short scattered hairs; dorsocentral hairs; 2-4 pairs of long scutellar bristles. Slopes of the postmesonotum with appressed micropubescence, no pile. Marginal cell open; fourth posterior cell closed and stalked; \( R_4 \) ending before wing apex; \( R_5 \) ending behind wing apex; anal cell slightly open, often almost closed at wing border, never stalked; \( M_3 \) and \( M_4 \) usually forming a 180° angle, rarely 170°. Front tibial spur absent. Abdomen long, mostly cylindrical in males, tapered in females. Wings short, usually not reaching tip of abdomen. Male genitalia variable in size, rotated
from $90^\circ$ to $180^\circ$. Hypandrium forcepslike, usually curved at apex and directed dorsally. Gonopods slightly elongated. Female genitalia truncated, acanthophorites with 5-6 pairs of spines.

**Distribution.** Neotropical (Chile), 5 species.

This genus is closely related to *Bathypogon* Loew, from which it can be separated by the gentle sigmoid shape of $R_4$, which reaches the wing border near the apex, the absence of strong bristles on the occiput, the presence of strong bristles on the first and second antennal segments, and the $90^\circ$ to $180^\circ$ rotation of the male genitalia. In *Bathypogon* $R_4$ bends strongly upward and reaches the wing border far before the wing apex, the anal cell is closed and stalked, there are strong occipital bristles, no strong bristles on the first and second antennal segments, and the male genitalia are never rotated. The degree of genitalia rotation in *Creolestes* varies with the age of the specimen; in a fresh emerged specimen, rotation is near $90^\circ$ while older specimens have a rotation near $180^\circ$.

**Key to the species of *Creolestes***

1. Mystax and frontal hairs yellow or white . . . . . . . . . . . . . 2
   1'. Mystax hairs black or intermingled black and white, frontal hairs mostly black . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
2(1). Femora black; bristles on femora and tibiae black; front and middle tibiae with one or two brownish bristles ............................................................... C. parvum (Bigot)

2'. Femora black externally, reddish internally; bristles on femora and tibiae white ........................................ 3

3(2'). Total length less than 16 mm; facial gibbosity from side view black with white micropubescence; hypandrium ending in a short pointed terminal process (Fig. 50).

................. C. rubricornis (Phil)

3'. Total length more than 15 mm; facial gibbosity from side view reddish with white micropubescence; hypandrium almost triangular (Fig. 51) ........................................ C. rugescens (Phil.)

4(1'). No spines on the basal ventral fourth of the hind femora (Fig. 58); males with the basal half or third of the wing white ........................................ C. keisseri (C. & P)

4'. Basal ventral fourth of hind femora with spines (Fig. 56); males wings uniformly colored ........................................ C. nigribarbis (Philippi)

Creolestes keisseri (Carrera & Papavero) n. comb.
(Figs. 58, 470)

Alyssomyia keisseri Carrera & Papavero, 1965, p. 52. Panguipulli; Las Trancas, Nuble, Chile.
**Type:** ♀, Panguipulli, Chile, deposited in Departamento de Zoologia, Secretaria de Agricultura, Sao Paulo, Brasil (seen).

**Diagnosis.** Black with reddish areas; mystax with black and white hairs intermingled; third antennal segment reddish; femora black externally, reddish brown internally; wings with basal half or third white in males, uniformly brownish in females; genitalia reddish; hind femora without bristles on basal third of the outside lateroventral area.

**Male.** Head in front view; face covered by dense golden micropubescence; frons black with black frontal hairs; ocellarium black, ocelli dark; ocellar bristles black. Head in lateral view: facial gibbosity reddish with golden micropubescence on eye border; mystax with black and white hairs intermingled; antennae reddish, first segment usually reddish brown, sometimes dark brown with abundant black hairs, some specimens with a few black hairs intermingled with white hairs (including Type); second segment usually reddish with black hairs; third segment always reddish with the basal fifth dark, with a dark, more or less cylindrical microsegment bearing a short spine at tip; beard white; occipital hairs black, strongly proclineate and continued in a single row of weak black hairs along posterior border of eyes; postocular coverture of white hairs; proboscis shiny black with long white hairs on ventral basal half and short white hairs at tip; maxillary palpi dark brown with black hairs. Prothorax black with sparse silver micropubescence and sparse weak white hairs which are more dense on prothoracic lobe; collar covered by wooly, mostly black
hairs. Thoracic pleura mostly reddish with large black areas, with dense silver micropubescence and sparse weak woolly hairs; mesepimeral bristles yellowish, 1-7 black bristles can be present among them (7 on Type). Mesonotum reddish with silver micropubescence and sparse black hairs; central stripes and lateral spots black, central stripes usually close together forming a broad black band; humeral and posterior calli reddish with few weak white hairs; scutellar disc black with silver micropubescence on anterior border; 6-9 black dorsocentral bristles; 1-2 black intraalar bristles; 3-4 black postalar bristles; 2-3 black scutellar bristles; scutellar disc with a few sparse weak black hairs. Slopes of postmesonotum reddish with silver micropubescence. Wings brownish with basal half white, the white more dense toward anal area. Coxae reddish with large black areas and a few white hairs, front coxae mostly shiny black with abundant long white hairs on anterior side; femora black externally, reddish internally, with sparse long white hairs; front femora with black hairs on dorsal side; 1-2 black bristles on front femora, 4-5 bristles on middle femora, and 12-16 black bristles on hind femora, a row of 2-4 bristles on the lateroventral border but not extending over the basal fourth of the femora (Fig. 58); tibiae and tarsi reddish brown, darker externally, covered by sparse white hairs and black bristles; claws black with basal fifth reddish. Abdominal tergites black, lateral border of first 4 tergites reddish, covered by short mostly appressed black and white intermingled hairs; sternites reddish, posterior border shiny dark brown or black interrupted by a silver spot on midline. Genitalia reddish, dark brown or black (Type reddish), covered by black or black and white intermingled hairs.
Female. Similar to male; ovipositor dark brown or black, covered by sparse white hairs, 5 pairs of black spines on the acanthophorites; wings brownish, uniformly colored.

Measurements. Total length 9.0-14.0 mm, average 12.0 mm (type 9.5 mm); wing length 6.2-8.2 mm, average 8.0 mm (type 6.2 mm); wing width 1.8-2.7 mm, average 2.2 mm (type 2.0 mm).


Geographic Distribution. As shown in Fig. 470.

Discussion. The female of this species, described here for the first time, lacks the most relevant characteristic of the males, which is the base of the wings white, more intense on the anal portion. Females of C. keisseri are similar to females of C. nigribarbis, and they can only be separated by the distribution of the bristles on the hind femora (See discussion on C. nigribarbis).

Creolestes nigribarbis (Philippi) n. comb.

(Figs. 54, 55, 56, 57, 59, 60, 62, 497)

Clavator nigribarbis Philippi, 1865, p. 699-700, fig. 2, Illapel.


Alyssomyia nigribarbis (Philippi). Carrera & Papavero, 1965, p. 51-52, Las Trancas, Nuble, Chile; El Canelo, Santiago; Pangui-pulli, Coquimbo.

Bathyponon hirtuosus Schiner, 1868, p. 160, Chile; Stuardo, 1946, p. 81; Hull, 1962, p. 150-151, figs. 512, 1019 and 1028 (subgenus Creolestes), Chile

Type: ?, no locality or date, deposited in Museo Nacional de Historia Natural, Santiago, Chile (seen); cotypes (1♂ 1♀) of Bathypogon hirtuosus Schiner, in Naturhistorisches Museum, Wien, Austria (seen).

Diagnosis. A black species with reddish areas; mystax of white and black hairs intermingled; third antennal segment reddish; femora black externally and reddish internally; tibiae mostly reddish; abdominal tergites black with fine grayish micropubescence; sternites mostly reddish; hind femora with abundant strong black bristles, a complete row of about 10 bristles on the outside lateroventral part of the femora; wings uniformly brownish in both sexes.

Redescription of Type (?). Head in front view: face covered by dense golden micropubescence, except under antennae; frons black with black hairs; ocellarium black, ocelli dark; ocellar bristles black. Head in lateral view (Fig. 54): facial gibbosity reddish with golden micropubescence on upper part of sides, front part, and oral border; mystax mostly black, with a few white hairs intermingled and a group of white bristles on oral border. Antennae reddish, first segment with
sparse white hairs, second segment with 3-4 short black bristles on dorsal side and 1 long strong and 2 long weaker black bristles on ventral side, third segment reddish, basal fourth black, with a cylindrical black microsegment at apex bearing a short spine at tip; beard white; occipital hairs strongly prolinate, black, continued in a row along posterior border of eyes; postocular area with long scarce white hairs; proboscis shiny black with long white hairs on basal ventral half, a group of medium sized black hairs on center of ventral half and short white hairs at tip; maxillary palpi dark brown with long black hairs. Prothorax black with sparse silver micropubescence and sparse weak white hairs, collar with long white hairs which are mixed with black hairs on dorsal part, prothoracic lobe with long weak white hairs. Thoracic pleura mostly black with red areas, covered by sparse silver micropubescence and few weak long white hairs; mesepimeral bristles yellowish and 4 strong black bristles intermingled. Mesonotum mostly reddish brown with silver and golden micropubescence, except over the dark central stripes and lateral spots; humeral calli reddish with silver micropubescence and sparse weak white hairs, on the left callus there is 1 black bristle; mesonotal coverture of short sparse black hairs; posterior calli similar to humeral calli but with 2 long black postalar bristles; 6 black dorsocentral bristles; 3 long black notopleural bristles; 1 strong and 1 weak black intraalar bristle; scutellar bristles lost in type specimen (from other specimens; 4 pairs of strong black bristles with few black hairs in between the bristles); scutellar disc with weak sparse white hairs. Slopes of postmesonotum reddish and black, covered by silver micropubescence.
Wings (Fig. 59) slightly brownish, veins in costal area reddish brown, other veins black. Coxae reddish and black with a few white hairs, front coxae with abundant white hairs on anterior side; femora black externally, reddish internally, covered by long sparse white hairs, in front femora some black hairs on dorsal part; front femora with 2 black bristles near apex; middle femora with 6 black bristles around apex; hind femora with 20-23 black bristles, a row of 8 bristles along lateroventral outside part for the whole length of femora (Fig. 56); tibiae and tarsi reddish, covered with sparse white hairs and with strong black bristles; claws (Fig. 62) black, reddish at base. Abdomen mostly black; tergites black with silver micropubescence and short intermingled white and black hairs; first abdominal tergite with 2 strong black bristles on each side; first sternite reddish, others mostly black; sternites with sparse silver micropubescence and sparse black hairs. Ovipositor shiny reddish brown with sparse weak white hairs; 5 pairs of black spines on acanthophorites (Fig. 60).

**Male.** Similar to female, genitalia (Fig. 57) rotated from 90° to 180°, covered by sparse white hairs which are intermingled with black hairs on dorsal side of hypandrium (Fig. 55), gonopods and posterior part of epandrium.

**Measurements.** Total length 14.0-23.0 mm, average 17.0 mm (Type 15.0 mm); wing length 8.5-12.0 mm, average 9.2 mm (Type 8.6 mm); wing width 2.2-3.5 mm, average 2.6 mm (Type 2.3 mm).
Material Examined. 16♂ and 24♀. COQUIMBO: 1♀ Coquimbo, Nov. 2-3, 1961, L. E. Pena (INCO); 1♂ Hda. Illapel, Coquimbo, 600m, Nov. 1-7, 1954, L. E. Pena (BRAS); 1♀ La Serena, Nov. 26, 1962, Archer (INCO); 1♂ Rio Chuapa, Coquimbo, Nov. 16, 1963, L. E. Pena (INCO); 1♂ Tongoy, Coquimbo, Oct. 27, 1961, L. E. Pena (OTT); 1♂ 3♀ Vicuna, Jan., 1937, E. P. Reed (CAS); 1♀ 5 mi. N. of Ovalle, Dec. 1, 1950, R. & M. (CAS); 1♀ 5 mi. S.W. of Ovalle, Dec. 12, 1950, R. & M. (CAS); 1♀ 5 mi. N. of Illapel, Nov. 30, 1950, R. & M. (CAS); 1♀ 5 mi. N. of Los Vilos, Dec. 13, 1950, R. & M. (CAS); 1♂ 12 mi. N. of Los Vilos, Dec. 13, 1950, R & M. (CAS); 1♀ Los Maquis, Quilimari, March 11, 1964, L. E. Pena (INCO). CURICO: 1♂ Los Quenes, Estero La Jaula, Cordillera Curico, Jan. 4-18, 1964, L. E. Pena (INCO); 1♀ Rio Teno, Cordillera Curico, Feb. 1-14, 1965, L. E. Pena (INCO). MAULE: 1♀ #28.676, Cauquenes, Maule, Jan. 25, 1955, L. E. Pena (BRAS). NUBLE: 2♀ Bulnes, April 8, 1962, Mendez (INCO); 1♀ Chillan, April 6, 1961, Artigas (INCO); 1♂ 1♀ Chillan, Jan. 31, 1962, Alister (INCO). O'HIGGINS: 1♂ 2♀ La Leonera, O'Higgins, Feb. 24, 1962. L. E. Pena (OTT); 1♀ La Rosa, March 15, 1954, L. E. Pena (BRAS). SANTIAGO: 1♂ El Canelo, Santiago, Dec. 29, 1950, L. E. Pena (INCO); 1♂ #20.602, El Canelo, Santiago, Jan., 1949 (BRAS); 2♂ Lampa, Zapata (CEE); 1♀ Penalolen, Toro (CEE). VALPARAISO: 1♀ Valparaiso, Dr. Reed (INCO); 1♀ Claera, Feb., 1930, Dr. Reed (CAS); 1♂ 1♀ (types of Bathypogon hirtuosus Schiner) Valparaiso Novara R., Alte Sammlung (WIEN). No locality or date: 1 ♀ (JTH); 1♂ Chile, E. P. Reed (CAS); 1♂ E. P. Reed (CAS); 1♂ #58, Chile, Dr. Reed (CAS); 1♂ 2 ♀ Chile, E. P. Reed (CAS); 1 ♀ (type) (JTH).
Geographic Distribution. As shown in Fig. 497.

Discussion. This species shows important variation in size, as shown in the measurements. The color of the hairs on the sternite and tergites varies from black to white, being usually black and white intermingled. The coverture of the scutellar disc varies from few short sparse black hairs to more or less abundant long woolly white hairs. The number of scutellar bristles varies from 3 to 6 pairs.

The distribution of the bristles on the hind femora varies; the arrangement shown in Fig. 56 is somewhat generalized, but will be helpful to separate females of C. nigribarbis from females of C. keisseri. These two species are closely related and they show several similarities, but males can easily be separated by the color of the wings, which in *keisseri* are white basally, and in *nigribarbis* are uniformly light brownish.

*Creolestes parvum* Bigot

*(Fig. 61)*

*Bathypogon parvum* Bigot, 1878, p. 432, Chile; Stuardo, 1946, p. 81; Hull, 1962, p. 150.

**Type:** ♀, Chile, deposited in Hope Department of Entomology, Oxford University, England. (seen).

**Diagnosis.** Body black with silver micropubescence; third antennal segment mostly reddish brown; femora uniformly black with sparse white hairs and black bristles; tibiae and tarsi reddish brown with white
hairs and most of the bristles black, hind tibiae and tarsi darker than front and middles tibiae; wings hyaline.

Redescription of Type (♂). Head in front view; face covered by silver micropubescence, except below antennae; frons black with sparse white hairs; ocellarium black with a few short white hairs and black ocellar bristles; ocelli light brown. Head in lateral view: facial gibbosity black with sparse silver micropubescence, mystax white; antennal segments mostly reddish brown, first segment with white hairs, second segment with white hairs and bristles, except 1 black bristle on dorsal side, third segment dark on basal quarter, with a dark cylindrical microsegment with a short spine at tip; beard white; occipital hairs black and gently curved forward, hairs along posterior border of eyes white, postocular coverture of woolly white hairs; proboscis shiny black with long white hairs on ventral basal half and short white hairs at tip; maxillary palpi black with long black bristlelike hairs. Prothorax shiny black with sparse silver micropubescence, covered by sparse, uniformly distributed woolly white hairs; collar with similar hairs plus a few black bristles mainly on dorsal area. Thoracic pleura black with dense silver micropubescence and a few weak long white hairs mainly on mesopleura and sternopleura; mesepimeral bristles white with 4-5 black bristles intermingled. Mesonotum, humeral calli, and posterior calli black with silver micropubescence and short sparse black and white intermingled hairs, white hairs more abundant on central area of posterior third of mesonotum; humeral silver micropubescence
and a few short black hairs; 7 black dorsocentral bristles; 3 black notopleural bristles; 2-4 black intraalar bristles; 2-4 black postalar bristles; 3 pairs of black scutellar bristles with few black hairs in between. Slopes of postmesonotum black with dense silver micropubescence. Wings hyaline, veins reddish brown. Coxae, trochanters, and femora uniformly black with sparse white hairs, bristles black, front coxae with abundant white hairs on anterior side, coxae with silver micropubescence; tibiae and tarsi reddish brown, hind tibiae darker, covered with sparse white hairs, bristles black, a few white bristles on dorsum of front and middle tarsal segments. Claws black, basal third reddish. Abdominal tergites and sternites black with silver micropubescence which is more dense on sides of tergites and on sternites; abdominal tergites and sternites black with silver micropubescence which is more dense on sides of tergites and on sternites; abdominal coverture of short black and white intermingled hairs, white hairs longer on side of first 3 abdominal segments. Genitalia black, covered with short white hairs intermingled with some longer black hairs, rotated 180°; hypandrium as in Fig. 61.

**Female.** Unknown.

**Measurements of Type.** Total length 12.3 mm; wing length not measured (both wings incomplete); wing width 2.2 mm.

**Material Examined.** 1 ♂ (type); label information reads:
Bigot abt. 1845-93. Pres 1913 by J. E. Collin"; Bathypogon parvum
21 in Coll. Bigot & Chile" (3 labels).

**Geographic Distribution.** Unknown.

**Discussion.** The Type is the only specimen available. The uniform black color of the femora and leg bristles separate this species from the closely related C. rubricornis and C. rufescens. The Type specimen has both wings incomplete and some of the mesonotal bristles are missing. The shape of the hypandrium from a dorsal view is different from the hypandrium of the other two species indicated. The only indication of locality is Chile; since no other specimens of this species have been found in the Chilean region, it is possible that this is not a Chilean species and the locality given by Bigot is a mistake.

**Creolestes rufescens** (Philippi) n. comb.

(Figs. 51, 52, 53, 498)

**Clavator rufescens** Philippi, 1865 p. 700.


**Pritchardia rufescens** (Philippi). Stuardo, 1946, p. 80.

**Bathypogon claripennis** Schiner, 1868, p. 160, Chile (Type seen);

Stuardo, 1946, p. 81; Hull, 1962, p. 150.
Type: lost. A neotype is hereby designated as a ♂ from manquehue, Chile, Jan. 20, 1935, F. Ruiz; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile; the types (1♂ 1♀) of Bathypogon claripennis Schiner are in Naturhistorisches Museum, Wienne, Austria (seen).

Diagnosis. A black and reddish species; femora black externally, reddish internally; most hairs and bristles white or yellow, mesonotal bristles usually black; wings usually hyaline, sometimes slightly fumose; hypandrium triangular.

Description of Neotype (♂). Head in front view: face covered by dense yellowish micropubescence; frons black with sparse whitish micropubescence giving a gray appearance, frons with white hairs; ocellarium same color as frons, ocelli brownish; ocellar bristles white. Head in lateral view (Fig. 52): facial gibbosity reddish, with yellowish micropubescence on eye border, lateral portion or oral border black; mystax yellowish; antennae reddish brown, first and second segments with white hairs and bristles; beard of woolly hairs; occipital hairs yellowish; postocular coverture of white hairs; proboscis shiny black with white hairs on basal ventral part and short yellowish hairs at tip; maxillary palpi reddish brown with white hairs. Prothorax black with golden micropubescence and white hairs; collar with no distinct bristles, only white hairs similar to those on side, 2-3 black hairs on dorsal area. Thoracic pleura black with reddish areas, covered with silver and golden micropubescence; mesepimeral bristles
yellow, with white and a few black hairs intermingled; mesopleura, sternopleura, and metepisterna with yellow bristles, and some white and a few black hairs intermingled. Mesonotum black, central stripes and lateral spots covered with dense brown micropubescence; central stripes fused in a broad band, golden micropubescence present along borders of central stripes and lateral spots; mesonotal coverture of sparse short black and white hairs intermingled, the white hairs longer and more abundant posteriorly; humeral and posterior calli reddish with silver micropubescence, hairs white; scutellar disc uniformly covered with dense micropubescence and a few white hairs; 2 black and 1 brown notopleural bristles; 10 black dorsocentral bristles, located behind transverse suture; 3 black and 1 brown intraalar bristles; 6 black and 1 brown postalar bristles; 3 pairs of brown and 2 pairs of black scutellar bristles with a few white hairs in between. Slopes of postmesonotum covered with dense silver micropubescence. Wings hyaline, veins dark brown. Coxae black, slightly reddish along ventral border, mostly covered by silver micropubescence, coxael hairs white, front and middle coxae with abundant hairs on anterior side; femora black externally and reddish internally, with sparse white hairs which are longer on ventral side of front femora, bristles white, a few short black bristles on dorsal side of front and hind femora; tibiae and tarsi reddish, posterior tibiae darker, hairs sparse, white, bristles mostly white, a few black bristles on dorsum of hind tibiae and tarsi, black bristles more abundant on ventral part of tarsi. Claws black, basal fourth reddish. Abdomen black with posterior and lateral borders of tergites reddish; sternites reddish; spots of silver
micropubescence on sides and dorsum of tergites and more or less uniform over the sternites; abdomen covered with short sparse white hairs which are longer on sides of first 2 segments, in addition, a few yellowish and black bristles intermingled on sides of first tergite. Genitalia (Fig. 51) mostly black, with some areas reddish, covered by short white hairs; hypandrium triangular, with longer white hairs on tip; a few black hairs on posterior end of epandria.

Female. Similar to male; ovipositor (Fig. 53) dark reddish with white hairs; 5 pairs of blackish spines on acanthophorites.

Measurements. Total length 16.0-21.0 mm, average 19.0 mm. (Neotype 21.0 mm); wing length 9.5-12.0 mm, average 10.1 mm (Neotype 12.0 mm); wing width 2.8-3.4 mm, average 3.0 mm (Neotype 3.4 mm).

Material Examined. 7♂, 5♀, and 2 with genitalia missing.

SANTIAGO: 1♂ 1♀ Santiago, #7666, #7676, Puelma (BER); 1♂ Santiago (JTM); 1♂ (neotype) Manquehue #38, Jan. 20, 1935, F. Ruiz (INCO); 1♀ Manquehue, Feb. 25, 1934, F. Ruiz (INCO); 1 (gen. miss.) Santiago. Jan. 5, 1957, J. Garcia (MICH); 1♂ 1♀ Santiago, B. P. Clark (USNM).

VALPARAISO: 1♂ 1♀ (types of B claripennis Schiner) Valparaiso, Novara R. Alte Sammlung (WEIN). No locality or date: 1♂ (INCO); 1♂, 1♀, and 1 (gen. miss.) (JTM).

Geographic Distribution. As shown in Fig. 498

Discussion. The color of the mesonotum changes with the age of the specimen, turning blackish; the bristles of the mesonotum are
usually black but in 2 of the specimens studies these bristles are all yellow. The scutellar bristles are variable from all yellow to 3 pairs yellow and 2 pairs black as indicated in the description of Neotype. From the material of J. T. Medina collection, 4 specimens have identification labels in Philippi's handwriting: "Clavator leuco-

copogon Ph. n. sp."; "Clavator leucopogon Ph."; "Clavator ? pyrrhoneu-

rus Ph. n. sp."; "Asilus ? nuevo". These names are nomina nuda since they were never published. C. rufescens and C. rubricornis are closely related species, the body color, bristle and hair color, and wing color are similar in both species. The most constant differences in both sexes are the color of the facial gibbosity from a lateral view and the size; C. rufescens has the facial gibbosity reddish and the total length is more than 15 mm, while C. rubricornis has the facial gibbosity black and the total length is less than 14 mm. Males can easily be separated by the shape of the hypandrium (Figs. 50, 51).

**Creolestes rubricornis** (Philippi) n. comb.

(Figs. 50, 448)

**Clavator rubricornis** Philippi, 1865, p. 700.


**Pritchardia rubricornis** (Philippi). Stuardo, 1946, p. 80.

Type. lost. A neotype is hereby designated as a ♂ from Cerros de Nahuelbuta, Angol, Chile, Jan. 1, 1937, D. S. Bullock; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

Diagnosis. Body mostly black with abundant reddish areas; femora black externally, reddish internally; hairs on head and body white, most of bristles yellow, a few black bristles on mesonotum and tarsi; wings hyaline; facial gibbosity from lateral view black; hypandrium short with a short pointed distal process.

Description of Neotype (♂). Head in front view: face covered by abundant yellow micropubescence, which is less dense along midline and under the antennae; frons black with sparse silver micropubescence, frontal hairs white; ocellarium same color as frons, ocelli dark brown; ocellar bristles white. Head in lateral view: facial gibbosity black, with sparse silver micropubescence which is more dense along upper portion on eye border; mystax yellow; antennae dark reddish brown, first segment with yellow hairs and bristles; beard of woolly white hairs; occipital hairs and bristles white; postocular bristles white; postocular coverture of sparse white hairs; proboscis shiny black with reddish highlights, sparse long white hairs on basal ventral part, short yellow hairs at tip; maxillary palpi black with white hairs. Prothorax black with silver and golden micropubescence and sparse long white hairs which are more dense on sides and on prothoracic lobe; collar with long white hairs, no distinct bristles present. Thoracic pleura black with large reddish areas, dense silver
and golden micropubescence, a few weak hairs on mesopleura and sternopleura; mesepimeral bristles yellow. Mesonotum black, central stripes and lateral spots brown, surrounded by silver micropubescence; humeral and posterior calli reddish with sparse golden micropubescence and white hairs; mesonotal coverture of sparse short black and white intermingled hairs, the white hairs more abundant posteriorly and along sides; scutellar disc black covered with dense silver micropubescence and sparse weak white hairs; 8 black and white intermingled dorsocentral bristles; 3 yellow notopleural bristles; 2 yellow intralaralar bristles; 3 yellow postalar bristles; 3 pairs of scutellar bristles (missing on Neotype, mostly yellow in other specimens). Slopes of postmesonotum black with dense silver micropubescence. Wings hyaline, veins light brown. Coxae shiny black with reddish areas, partially covered by silver micropubescence, hairs white, more abundant on anterior side of middle and front coxae; torchanters mostly reddish; femora black externally, reddish internally, covered by sparse short white hairs, bristles white; tibiae and tarsi dark reddish brown with white hairs and bristles, some short black bristles on ventral side of tarsi. Claws black, basal quarter reddish. Abdominal tergites black with large reddish areas on sides, sternites reddish; abdominal coverture of short white hairs which are longer on sides of first 2 segments, 4 yellow bristles on each side of first tergite. Genitalia (Fig. 50) reddish with white hairs; hypandrium short, with a short distal process; gonopods pointed at apex.

Female. Similar to male; ovipositor shiny black with sparse
short weak white hairs; 5 pairs of black spines on acanthophorites.

**Measurements.** Total length 11.0-14.0 mm, average 12.5 mm (neotype 13.0 mm); wing length 7.2-8.5 mm, average 8.0 mm (neotype 8.1 mm); wing width 2.2-2.9 mm, average 2.6 mm (neotype 2.7 mm).


**Geographic Distribution.** As shown in Fig. 448.

**Discussion.** This species is closely related to *C. rufescens*; for differentiation see discussion on *C. rufescens*.

**Dasypucus Philippi**

Dasypucus Philippi, 1865, p. 692; Hull, 1962, p. 139.

Type of the genus, Dasypucus heteroneurus Philippi, 1865, designated by Hull, 1962.

Head in front view twice as wide as high, vertex moderately sunken, ocellarium large. Head in lateral view; postocular area one-sixth the eye width; eyes globose; face flat; no facial gibbosity. Antennae with third segment compressed, slightly longer than the two
preceding combined and as wide as second segment; two microsegments, first short, second 4-6 times the length of first and one-half the length of third antennal segment. Mystax of abundant, fine, rather woolly hairs, occupying all of face, directed mainly anteriorly. Mesonotum shiny black, no patterns distinct. Mesonotal coverture of uniformly distributed, scattered, rather short woolly hairs. Scutel-lum with a few long fine hairs; scutellar bristles fine, long, usually 12-18 pairs directed dorsally. Slopes of the postmesonotum bare. Marginal cell open; fourth posterior cell closed far from wing border, no stalk connecting it with wing border; $M_2$ absent between discal cell and wing border; $R_4$ reaching wing border before apex, $R_3$ reaching wing border behind apex; anal cell closed before wing border, a short stalk continuing beyond cell but not reaching wing border; $M_3$ and $m$ forming a $140^\circ$ angle (Fig. 66). Front tibial spur absent. Abdomen wide and depressed. Wings extending beyond tip of abdomen. Male genitalia rotated $30^\circ$; hypandrium small, platelike; epandria forcepslike; gonopods shorter than epandria. Female genitalia truncate, slightly telescoped, acanthophorites with spines.

**Distribution.** Neotropical (Chile), 1 species, *Dasypecus heteroneurus* Philippi.

**Discussion.** Two species have been placed in this genus: *Dasypecus heteroneurus* Philippi and *Dasypogon latus* Philippi. *D. heteroneurus* without doubt belongs to the genus *Dasypecus*, as the characteristics of wing venation indicated by Philippi in the original description
agree with the generic characters of Dasypogon. This species was the only one described by Philippi in the genus.

Bigot (1878:280) stated that Dasypogon micans Philippi and Dasypogon latus Philippi "do not belong to the true Dasypogons" and suggested placing them in "Dasypecus (Philippi, Schiner)" because of the lack of a front tibial spur, the general shape of the body, and "the first posterior cell closed far from the wing border". Since then, Stuardo (1946) and Hull, (1962) placed Dasypogon latus Philippi in the genus Dasypecus and Dasypogon micans Philippi in the genus Hexameritia Speiser.

Philippi's description of D. latus is so general that it can fit several species of Dasypogon, Hexameritia, and possibly also Holopogon. The type specimen of D. latus is lost, and I have not been able to recognize this species among the material studied.

Dasypogon micans has been kept in the genus Hexameritia in this paper.

Dasypecus heteroneurus Philippi

(Figs. 63, 64, 66, 463)

Dasypecus heteroneurus Philippi, 1865, p. 692, fig. 54, 54a and 54b; Bormley, 1932, p. 266; Stuardo, 1946, p. 81; Hull, 1962, p. 139, figs. 2525 and 2526.

Type: lost. A Neotype is hereby designated as a ♀ from Vicuna, Chile, Dec. 3, 1950, Ross & Michelbacher; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.
Diagnosis. A black species with reddish brown bands on posterior border of last 5 segments; abundant long white and yellowish hairs on the head, sides of thorax, and sides of abdomen; legs mostly light brown with white hairs; wings hyaline, veins light brown; mesonotum shiny black with a golden spot on side of each humeral calli and a silver line on posterior border.

Description of Neotype (♀). Head in front view (Fig. 64): face and front covered by silver micropubescence; ocellarium large, black, ocelli light brown; ocellar bristles not distinct, white hairs over and on each side of ocellarium; vertex black. Head in lateral view (Fig. 63): facial gibbosity small, rounded, reddish; mystax white; antennae arising immediately above facial gibbosity, first and second segments black with long white hairs, third segment attenuated toward apex, reddish, dark on basal third, with 2 microsegments, first microsegment short, one-sixth length of second, second microsegment half the length of third segment, reddish black with a short spine at tip; beard white; vertex and postocular area with abundant white hairs, no distinct occipital bristles; proboscis short, broad, light brown with white hairs on basal ventral half and short yellow hairs at tip; maxillary palpi same color as proboscis, hairs yellow. Prothorax shiny black, prothoracic lobe reddish, with abundant white hairs uniformly distributed, no collar bristles. Thoracic pleura reddish and black, mesopleura inflated, reddish, other sclerites black and reddish, covered by silver micropubescence; abundant long yellowish hairs on
mesopleura, other sclerites with long sparse white hairs; no mesepimeral bristles, instead a patch of dense long yellow hairs. Mesonotum shiny black, no central stripes or lateral spots distinct, covered by sparse medium-sized fine yellow hairs; a spot of golden micropubescence on dorsum near each humeral callus, and a band of silver micropubescence on posterior borders, under posterior calli and on notopleura; scutellum shiny black with sparse long yellow hairs, similar to hairs on mesonotum; dorsocentral bristles absent; notopleural, intraalar and postalar bristles not distinct, instead abundant long strong yellow hairs; scutellar bristles absent, instead a row of fine long yellow hairs. Slopes of postmesonotum black with sparse white micropubescence. Wings (Fig. 66) shiny, hyaline, slightly brownish on basal half, veins light brown. Coxae reddish brown with a few black spots, covered with sparse silver micropubescence and sparse long white hairs which are more abundant on anterior side of front coxae; trochanters same color as coxae; femora light brown with black areas near apex, on dorsal side, and on both sides of articulation with tibiae, covered with sparse long white hairs, no bristles present; tibiae and tarsi light brown, last tarsal segment dark on dorsum near the apex, coverage of long white hairs, bristles weak, long, yellow. Claws black with basal quarter reddish, pulvilli white with a fringe along margins. Abdomen black with broad reddish brown bands on posterior borders of tergites and sternites 2-8, covered with yellow hairs which are longer and more dense along sides. Ovipositor telescoped, spines of acanthophorites light brown.
Male. Similar to female; genitalia rotated $90^\circ$, slightly constricted at base and bent ventrally, hypandrium small, rectangular.

Measurements. Total length 7.5-10.5 mm, average 9.2 mm (Neotype 10.5 mm); wing length 5.0-7.2 mm, average 5.6 mm (Neotype 7.2 mm); wing width 1.7-2.6 mm, average 2.0 mm (Neotype 2.6 mm).


Geographic Distribution. As shown in Fig. 463.

Discussion. Philippi, 1865, Pl. 28, fig. 54a, shows an antenna without hairs on the first and second segments; the specimens studied have hairs on those segments. One $^\sigma$ from Santiago has no reddish band on the posterior border of the second abdominal tergite. There is no indication of type locality in Philippi's description. Two localities are here recorded: Vicuna and Santiago, and in the distribution map the space between the two localities has been filled in spite of no known records from that area.
Deromyia Philippi

Deromyia Philippi, 1865, p. 705; Williston 1901, p. 310; Artigas 1961, pp. 5-9, fig 2, 4 and 6; Hull 1962, p. 249.

Type of the genus: Deromyia gracilis Philippi, 1865, designated by Williston, 1901.

Head in front view two-fifths wider than high; vertex deeply excavated; ocellarium large, ocelli large. Head in lateral view: postocular area one-sixth the eye width; face flat, no facial gibbosity. Antennae with third segment dilated at middle, compressed, with a short microsegment bearing an apical spine. Mystax of 4 long stout bristles on oral border, the 2 central more stout. Mesonotum with central stripes and lateral spots. Mesonotum covered by sparse micropubescence, appearing bare; dorsocentral bristles minute but distinct. Scutellum with micropubescence; no scutellar bristles. Slopes of postmesonotum with micropubescence. Marginal cell open; fourth posterior cell pointed, closed and stalked; R₄ strongly curved at proximal end, sometimes with a spur vein at base, and reaching wing border at apex; R₅ reaching wing border far behind apex; anal cell closed, with a short stalk; M₃ and m forming a 90° angle. Front tibial spur present. Abdomen narrow, long, slender. Wings slightly shorter than abdomen. Male genitalia small, rotated 150°-180°; hypandrium short triangular, connected laterally with epandrium forming a complete ring; epandrium not divided, globose; gonopods large, globose; cerci large. Female genitalia truncated, with 5 pairs of spines on acanthophorites.
Distribution. Neotropical (Chile), 2 species.

This genus is closely related to *Mirolestes* Curran, *Neolaparus* Williston, and *Senobasis* Macquart. It can be separated from *Mirolestes* by the presence of a microsegment with and apical spine, in *Mirolestes* the apical spine is located in a pit on the apex of the third segment, and there is no microsegment (Fig. 248); it can be separated from *Neolaparus* by the closed and stalked fourth posterior cell, which is open in *Neolaparus*; it can be separated from *Senobasis* by the presence of a microsegment and spine on the third antennal segment, and spines on the ovipositor, in *Senobasis* there is no microsegment and no spines on the ovipositor. *Deromyia* can also sometimes be confused with *Dioqmites* Loew, but it has 1 pair of strong scutellar bristles, which are always lacking in *Deromyia*. *Deromyia* and *Senobasis* have similar male genitalia; the epandrium is undivided and fused laterally with the hypandrium, forming a complete ring; the female genitalia are different, as indicated above.

There is no record of Chilean specimens of *Dioqmites*, *Senobasis*, or *Neolaparus*.

Key to the Species of *Deromyia*

1. Face silver; wings hyaline; some bristles on middle tibiae as long as the first tarsal segment; male and female abdomen black . . . . *D. nigriventris* (Bigot)
1'. Face yellow or brown; wings fumose in females, dark brown in males; bristles on middle tibiae no longer than second tarsal segment; females with abdomen mostly reddish with a shiny black spot on second tergite, male abdomen mostly black ...........

........... D. fuscipennis Blanchard

Deromyia fuscipennis Blanchard
(Figs. 173, 174, 175, 176, 177, 178, 441)

Deromyia fuscipennis Blanchard, 1852, p. 371; 1854, Pl. I fig. 6, 6a, b. Santiago; Wlaker, 1885, p. 771; Kertesz, 1909, p. 116; Bromley, 1932, p. 267, Concepcion; Stuardo, 1946, p. 82; Hull, 1962, p. 250; Carrera & Papavero, 1962, p. 61, Caramavida and Peillem-Pilli.

Leptogaster fascipennis (Blanchard). Philippi, 1865, p. 705.

Deromyia fascipennis (Blanchard). Philippi, 1865, p. 706.

Deromyia gracilis Philippi, 1865, p. 706, Pl. 26, fig. 29 and 29a, Santiago; Williston, 1901, p. 311; Stuardo, 1946, p. 82; Carrera, 1949, p. 122; Artigas, 1961, pp. 5-9, figs. 2, 4 and 6; Hull, 1962, p. 250, figs. 532, 1089, and 1098.

Type: lost. A neotype is hereby designated as a ♂ from Estero La Jaula, Curico, Jan. 1964, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile. Type of gracilis lost.
**Diagnosis.** Body and legs slender (Fig. 173), dark brown, tarsi mostly blackish, bristles black, no longer than second tarsal segment; face golden; thoracic pleura with silver micropubescence; wings dark brown, almost black in males; mystax of 4 strong brown bristles; abdomen in females reddish with a black elevation on dorsal basal part of second tergite; notum with distinct dark brown central stripes and lateral spots; lateral spots usually forming a complete line.

**Description of Neotype.** Head in front view: face covered by dense golden micropubescence, a brown inverted V-shaped line on center; frons mostly shiny black; a few sparse fine brown frontla hairs; ocellarum shiny black, ocelli light brown; ocellar bristles fine, short, brown; mystax brown. Head in lateral view (Fig. 173); a few black hairs near oral border along sides; antennae (Figs. 177, 178) dark brown, first and second segments darker on distal part, hairs dark brown; third segment broad at center, compressed, slightly longer than first two combined, with 2 short hairs on dorsal side and a conical microsegment with a short spine at tip; beard of a few sparse fine brown hairs similar to the ones on postocular area; 2 strong brown occipital bristles and a few other shorter bristles on occiput and posterior border of eyes; postocular area shiny black, partially covered by dark golden micropubescence; proboscis long, shiny black on apical three-fourths, light brown on basal fourth with a few fine brown hairs on ventral side and short brown hairs at tip; maxillary palpi light brown with black hairs on apical half and lighter hairs basally. Prothorax shiny black, with golden and silver micropubescence on sides,
a few brownish hairs on prothoracic lobe; 6 fine brown collar bristles. Thoracic pleura dark brown with silver and golden micropubescence, silver micropubescence more abundant ventrally, extending over front and middle coxae; metepisterna bare on posterior half; 5 fine brownish mesepimeral bristles. Mesonotum covered by dark golden micropubescence; central stripes fused together forming a broad brown band extending along mesonotum, lateral spots brown, fused forming a broad band on each side from humeral calli to posterior border, a few fine brown hairs scattered over mesonotum; 1 dark brown notopleural bristle; 1 dark brown intraalar bristle; 1 dark brown postalar bristle; no scutellar bristles; scutellum slightly pointed posteriorly, dark brown, partially covered by dark golden micropubescence. Slopes of postmesonotum brown, covered by silver micropubescence. Wings (Figs. 173, 174) uniformly dark brown, veins dark brown, almost black. Front and middle coxae densely covered by silver micropubescence and sparse fine yellowish hairs, hind coxae dark brown partially covered by golden brown micropubescence. Trochanters, femora, tibiae, and tarsi dark brown, hairs on femora sparse, whitish, on tibiae and tarsi black; bristles of legs mostly brown, no longer than second tarsal segment (Fig. 173), some bristles on tarsi black. Claws black. Abdomen slender; tergites dark brown, almost black on dorsum, lateral borders light brown; sternites mostly light brown with dark areas; abdomen covered by short sparse black hairs which are more distinct on segments 5-8. Genitalia small, black, rotated 160°, with short black hairs; epan- drium not divided, forming a complete ring with epandrium, which is trian-gular; gonopods large, globose; cerci large (Fig. 175); penis
sheath with 2 lateral processes, shorter than median process (Fig. 176).

**Female.** Similar to male but abdomen red with a shiny black elevation on base of second tergite; wings slightly brownish; legs reddish brown. Ovipositor truncate with reddish spines on acanthophorites.

**Measurements.** Total length 9.5-14.5 mm, average 12.5 mm (neotype 11.5 mm); wing length 6.6-9.1 mm, average 2.6 mm (neotype 2.8 mm).


CAUTIN: 1♂ 20 km. E. of Temuco, Jan. 8, 1951 R. & M. (CAS). CONCEPCION: 1♂ Concepcion, Schonemann (BERL); 5♂ 2♀ Concepcion, Jan., 1904, P. Herbst (3♂ 2♀ CAS, 2♀ USNM); 1♀ Concepcion, 1903, P. Herbst (INCO).

Geographic Distribution. As shown in Fig. 441.

Discussion. All males studied agree with the description of _fuscipennis_ Macquart, and all the females with the description of
gracilis Philippi. These two species have been separated mainly by
the color of the wings and the abdomen, which I found to be only sexual
differences; this material represents only one species, which by priori-
ty should be named fuscipennis. A ♂ and a ♀ from the E. P. Reed Col-
lection are pinned together, which may signify that they were collected
in copula; these two specimens show sexual dichromatism. Two ♀, one
from Rio Negro, Argentina and one from Concepcion, Chile, have the
abdomen black and the wings darker than other females. A female
from J. T. M. Collection has a label in Philippi's hand writing:
"deromyia rubriventris Ph. n. sp."; this is a nomen nudum.

Deromyia nigriventris (Bigot)
(Figs. 179, 180, 446)

Lochites nigriventris Bigot, 1878, nec nigriventris Philippi 1865,
Lochitomyia nigriventris (Bigot). Brethes, 1924, p. 105.
Senobasis nigriventris (Bigot). Williston, 1891, p. 75; Stuardo,
1946, p. 82; Hull, 1962, p. 422.

Type: ♂ Chile, #107 in Bigot Coll. Type Dip: 199 in Hope Depart-
ment of Entomology, Oxford University, England (seen).

Diagnosis. Small, slender, face silver; mystax of 4 fine white
bristles; thorax with silver micropubescence, 3 dark brown lines on
dorsum; legs dark brown dorsally, light brown ventrally, some bristles
on middle tibiae as long as first tarsal segment; abdomen with tergites
shiny black; wings hyaline.
Male. Head in front view: face and most of frons covered by dense silver micropubescence; ocellarium and areas on both sides and a line descending to antennae, shiny black devoid of micropubescence; ocelli dark brown; frontal hairs short, fine, white; ocellar bristles minute, usually brownish; mystax white. Head in lateral view: antennae brown, first and second segments lighter and with short black hairs, third segment compressed, petiolate, as long as first two segments combined, with a short conical microsegment bearing a terminal spine; beard, hairs of proboscis, and postocular coverture of fine, mostly short, white hairs; postocular area with silver micropubescence; 2 distinct brown occipital bristles; proboscis long, shiny black, usually light brown on basal ventral part; maxillary palpi reddish brown with fine white hairs near tip. Prothorax black on dorsum, sides with silver micropubescence, a few fine white hairs on prothoracic lobe; 6-8 weak brownish collar bristles. Thoracic pleura covered by silver micropubescence which is less dense on metepisterna and on metepimera; 2-4 fine white mesepimeral bristles. Mesonotum covered by silver micropubescence and few fine short white hairs; central stripes dark brown, fused in one broad band reaching pronotum; lateral spots dark brown, sometimes with some golden micropubescence, usually fused and forming a broad band, notum appearing 3 banded; coverture of calli and scutellum similar to that of notum; 4 fine brown dorsocentral bristles; 1 brown notopleural bristle; 1 brown intraalar bristle; 1 brown postalar bristle; scutellum slightly pointed posteriorly. Slopes of postmesonotum covered by dense silver micropubescence, similar to thoracic pleura. Wings hyaline, veins dark brown. Coxae light brown
covered by silver micropubescence which is less dense on hind coxae; a few white hairs on front and external sides of coxae, being slightly more abundant on anterior side of front coxae; trochanters, femora, tibiae, and tarsi brown, darker dorsally, femora almost black, apex of tibiae and tarsi; middle femora with a long yellow bristle on basal ventral side; middle tibiae with long bristles, almost as long as first tarsal segment; bristles of legs brown to black; front tibial spur shiny black. Abdomen long, slender; tergites shiny black, lateral borders light brown; sternites mostly dark brown; abdominal vestiture of short black sparse hairs, more abundant on tergites 6-8, abdomen appearing glabrous. Genitalia small, black, rotated 160°, covered by short black hairs; epandrium not divided, fused laterally with hypandrium, forming a complete ring; hypandrium triangular; gonopods large globose; cerci large (Fig. 179); penis sheath with two lateral processes shorter than medial process (Fig. 180).

Female. Similar to male; ovipositor with reddish spines on acanthophorites.

Measurements. Total length 7.8-10.6 mm, average 8.8 mm (type 10.0 mm); wing length 5.2-7.4 mm, average 6.2 mm (type 7.7 mm); wing width 1.4-2.1 mm, average 1.7 mm (type 1.9 mm).

Las Trancas, Jan. 17-23, 1958, L. E. Pena (OTT); 5° 7' 40 km. E. of San Carlos, Dec. 23-24, 1950, R. & M. (3° 2' INCO, 2° 5' CAS). No locality or date: 1♂ (type) #107 Bigot Coll., Type Dip: 199 (OXF).

**Geographic Distribution.** As shown in Fig. 446.

**Discussion.** This is a uniform species, showing no sexual dichromatism.

*Graptostylus Hull*

Graptostylus Hull, 1962, p. 207.

Type of genus: *Graptostylus dolosus* Hull, 1962, by original designation.

Head in front view one-fourth wider than high; vertex moderately sunken; ocellarium well developed with 4 conspicuous bristles, 2 directed dorsally and 2 directed frontward. Head in lateral view: postocular area one-fifth of eye width; facial gibbosity poorly developed or absent. Antennae with third segment slightly longer than first 2 combined and with a minute beadlike microsegment and a well developed tapered style of one-third the length of third segment. Mystax arising from all over facial gibbosity and directed downward after middle of its length. Mesonotum with central stripes and lateral spots; mesonotal coverture of fine, medium-sized hairs, which are longer on anterior part; 5-8 pairs of distinct dorsocentral bristles. Scutellum with scattered medium-sized weak hairs; 2-3 pairs of long
strong scutellar bristles. Slopes of postmesonotum covered by micro-
pubescence; no pile. Marginal cell open; fourth posterior cell open;
$R_4$ curved down and reaching the wing border at or behind wing apex;
$R_5$ reaching wing border far behind wing apex; anal cell closed at wing
border or slightly open; $M_3$ and $m$ forming a $90^\circ$-$100^\circ$ angle. Front
tibial spur absent. Abdomen tapered near end, sometimes with a weak
constriction between second and third segments. Wings extending
beyond tip of abdomen. Male genitalia small, rotated $90^\circ$; hypandrium
short, wide, platelike with posterior border gently bent and notched at
apex; epandrium divided in 2 arms, not forcepslike; gonopods globose,
elliptical; genital cavity exposed. Female genitalia tapered and
truncated, with 4 pairs of spines on acanthophorites.

**Distribution.** Neotropical (Chile), 1 species, *Graptostylus
dolosus* Hull.

*Graptostylus dolosus* Hull

(Figs. 65, 67, 68, 69, 41, 74, 457)


**Type.** $\delta$, Valparaiso, Jan. 25, A. Faz, in the United States
National Museum (not seen).

**Diagnosis.** Body slender, gray, bristles fine, long, white;
mystax white; legs black, tibiae with long fine white bristles,
in middle tibiae some bristles one-half length of tibia; wings hyaline, veins brown; male genitalia small.

Male. Head in front view: face and frons broad, uniformly covered by dense silver micropubescence; frontal bristles white; ocellarium similar in coverture to frons, ocelli light brown surrounded by a line devoid of micropubescence; ocellar bristles fine, long, white. Head in lateral view (Fig. 65); face convex, but no facial gibbosity distinct, uniformly covered by silver micropubescence; mystax white, central hairs stronger and longer; antennae dark, antennal segments and microsegment covered by sparse silver micropubescence which is more dense on first segment; first 2 segments with long fine white hairs; third segment slightly broader in center, compressed with a minute microsegment at tip and a conical style about one-third the length of third segment with a blunt spine at tip; antennae appearing six segmented (Fig. 74); beard white; occipital hairs white; postocular area covered by dense silver micropubescence and fine white hairs; proboscis black, with fine long white hairs on ventral basal part and short white hairs at tip. Prothorax uniformly covered by silver micropubescence and sparse fine white hairs; collar bristles hairlike, white. Thoracic pleura uniformly covered by silver micropubescence, sparse fine hairs uniformly distributed on mesopleura; mesepimeral bristles white. Mesonotum and calli uniformly covered by silver micropubescence and sparse short fine white hairs; central stripes and lateral spots slightly darker; scutellar disc similar in coverture to mesonotum; 7-8 long fine white dorsocentral
bristles, distributed all along mesonotum; 2 long white notopleural bristles; 1 long white intraalar bristle; 2 long white postalar bristles; 2 pairs of long white scutellar bristles. Slopes of postmesonotum uniformly covered by dense silver micropubescence. Wings (Fig. 69) hyaline, veins dark brown. Coxae and trochanters densely covered by silver micropubescence, hairs fine, white, more abundant on anterior side of middle and front coxae; femora, tibiae, and tarsi black, covered with sparse fine white hairs, which are longer on ventral side; bristles long and white, some bristles on middle tibiae longer than others, half as long as tibiae (Fig. 68); some tarsal bristles dark brown (Fig. 71). Claws black, basal fourth dark reddish. Abdomen uniformly covered by silver micropubescence and fine white hairs which are longer on sides of first 4 tergites and on sternites; 4 long white bristles on each side of first tergite. Genitalia small, black, covered with white hairs; hypandrium short; epandria ventrally bent at apex; gonopods globose (Fig. 67).

**Female.** Similar to male; tergite 8 shiny black; ovipositor truncate with light brown or reddish spines on acanthophorites.

**Measurements.** Total length 10.1-13.5 mm, average 12.2 mm; wing length 8.7-11.0 mm, average 9.4 mm; wings width 2.5-3.1 mm, average 2.8 mm.

**Material Examined.** 4♂ and 14♀. COQUIMBO: 4♀ El Pangue, Las Trancas, Feb. 15, 1953 (2 MNHN, 2 INCO); 3♂ 2♀ Lagunillas, Coquimbo, March, 1956, L. E. Pena (1♂ 2♀ BRAS, 2♂ INCO); 2♀ Penuelas, March 22,

**Geographic Distribution.** As shown in Fig. 457.

**Discussion.** A constant species. Greased specimens have the mesonotum black and tergites dark reddish. A few specimens have the femora, tibiae, and tarsi dark brown.

**Hexameritia Speiser**


*_Hexameritia* Speiser 1920, p. 447 (change of name); Hull, 1962, p. 82.

Type of the genus: *Dasypocon micans* Philippi, 1865, by original designation.

Head in front view two-fifths wider than high; vertex widely open. Head in lateral view: postocular area one-half width of eyes; facial gibbosity four-fifths of the face. Antennae long; third antennal segment plus microsegment one and one-half times length of first two segments combined. Mystax abundant, hairs mostly directed frontward. Mesonotum covered by uniform appressed hairs which are more dense before transverse suture. Dorsum of mesonotum shiny black, without distinct patterns. Scutellum with scarce fine long hairs; 10-15 pairs of fine long bristles. Slopes of postmesonotum covered by dense micropubescence. Marginal cell open. Fourth posterior cell closed, stalked.
R₄ vein reaching wing margin before apex; R₅ vein reaching wing margin
behind apex. Anal cell closed, stalked. M₃ and m veins forming a 95°-
120° angle. Front tibia spur absent. Abdomen dorsoventrally depressed,
broad. Wings reaching wing tip, or slightly beyond. Male genitalia
small, often minute; slightly rotated usually 90°; genital structures
hidden by seventh tergite, which apparently is sixth from a dorsal
view; eighth abdominal segment rotated 90° together with genitalia;
epandrium formed by the ninth tergite, epandria fused basally along
the central line; gonopods short, globose, with a long dististylus;
apparently no hypandrium.

Distribution. Neotropical (Chile), 1 species, Hexameritia micans
(Philippi).

Hexameritia micans (Philippi)
(Figs. 34, 35, 36, 37, 38, 39, 40, 41, 474)

Dasypogon micans Philippi, 1865, p. 690, Santiago.


Hexameritia micans (Philippi). Hull, 1962, p. 82.

Dasypucus micans (Philippi). Bigot, 1878, p. 220; Stuardo, 1946,
p. 81.

Dasypogon splendens Philippi, 1865, p. 690, Illapel; Stuardo, 1946,
p. 82.


Triclis tricolor Schiner, 1868, p. 162, Chile; Willison, 1891, p. 72;
Stuardo, 1946, p. 81.
**Hexameritia tricolor** (Schiner). Hull, 1962, p. 83, figs. 32, 420, 862 and 871.

**Type**: lost. A neotype is hereby designated as a ♂ from Cordillera Parral, Nov. 11-25, 1960, L. E. Pena; this specimen is deposited in the Departamento de Zoologia, Universidad de Concepcion, Chile. Type of *Triclis tricolor* Schiner, is in Naturhistorischen Museum, Wien, Austria (seen). Type of *Dasypogon splendens* Philippi, lost.

**Diagnosis**: Head wider than long; abdomen dorsoventrally depressed, broad; body and legs black covered by white and golden hairs; wings dark brown.

**Description of the Neotype (♂)**. Head in front view wider than long; vertex widely open; frons black, covered with abundant white hairs; ocellarium shiny black, ocelli reddish brown; frons silver, center of facial gibbosity black with sparse silver micropubescence. Head in lateral view (Fig. 34): facial gibbosity moderate, rounded; mystax black, directed frontward, slightly curved downwards; antennae black; first segment with long white hairs; second segment with 5 black bristles. Proboscis short, black, with few short white hairs at tip, and long white hairs on ventral side along basal half. Occiput with long white hairs directed upward; postocular areas with abundant black curved hairs; beard white, intermingled with a few black hairs on upper part; maxillary palpi shiny black, cylindrical and slightly pointed, with white hairs on ventral part of basal half. Prothorax black; collar with black woolly hairs; pronotum with black hairs;
prothoracic lobe with abundant black bristles. Mesothorax shiny black; mesopleuron with areas covered by silver micropubescence; anterior areas of the sternopleuron with a tuft of white hairs; mesepimeral bristles white. Mesonotum shiny black with bluish highlights; central stripes and lateral spots absent; dorsal area covered by uniform white tellowish hairs; humeral callus with a dense tuft of white hairs; posterior callus with 2-3 long and 5-7 shorter white bristles; scutellum same color as mesonotum; dorsocentral, notopleural, intralaeral and postalar bristles not distinct; scutellar disc with scattered long yellow hairs, which are shorter and more abundant along anterior margin; scutellar bristles abundant, long, yellow, similar to hairs of scutellar disc; slopes of postmesonotum covered by very fine white micropubescence. Wings (Fig. 35) uniformly dark brown; stalk closing anal cell much shorter than stalk closing fourth posterior cell. Coxae covered with fine silver micropubescence; front part of anterior and middle coxae with white hairs, which are more abundant on anterior coxae; front femora with abundant long golden-white hairs intermingled with black hairs which are more abundant on dorsal side, not bristles present; middle femora similar to anterior femora, but black hairs on dorsal side less abundant; posterior femora with golden-white hairs; front bitiae with golden-white hairs intermingled with several longer thin bristles; middle and posterior tibiae with similar coverture; tarsi black with scattered short white hairs and long black bristles; golden short appressed hairs covering ventral side of tarsi and ventral side of anterior and hind tibiae, less dense on hind tibiae; claws black. Abdomen broad, dorsoventrally depreseed,
shiny black; dorsal and lateral sides of tergites covered with white hairs which are longer along sides; last three abdominal segments with golden hairs, longer on the sides (Fig. 38); last abdominal tergite with a few hairs on dorsal side; sternites with long yellow or golden hairs similar to those along sides of tergites. Genitalia and last segments hidden by sixth tergite; genital structures in Figs. 36, 37, 39.

**Female.** Similar to the male, dorsal coverture of the abdomen sparse. Ovipositor as in Figs. 40, 41.

**Measurements.** Total length 8.5-9.5 mm, average 9.0 mm (Neotype 9 mm); wing length 5.2-6.1 mm, average 5.6 mm (Neotype 5.7 mm); wing width 1.5-2.2 mm, average 1.8 mm (Neotype 1.7 mm).


C. O. O. (INCO). SANTIAGO: 1♀ Santiago #8320, Dr. Puelma (BERL).

VALPARAISO: 1♂ Valparaiso, R. Novara (type of Triclis tricolor Schiner) (Wien). No locality or date: 1♂ 4♀ Chile, E. P. Reed (CAS); 1♂ (JTM).

Discussion. *H. micans* is constant in color and coverture; small variations in size are recorded in the measurements. After studying a long series of 27 ♂ and 25 ♀ from Cordillera Parral, Dec. 1-8, 1960, I found that all males agree with the description of *H. micans* (Philippi) and all females with the description of *H. splendens* (Philippi), when studying the rest of the material, I found this to be constant, therefore I decided that both were synonymous. Since *H. micans* was described by Philippi in a previous paragraph in the same page, I use *H. micans* as the valid name for the species.

Males and females are difficult to separate by means of the genitalia, which in both sexes are small and usually retracted and hidden by the seventh (apparently the sixth) abdominal tergite. Both sexes can be separated easily by the abdominal tergite coverture, which is abundant, golden and white in males and sparse and whitish in females. Both sexes have longer hairs along the borders of tergites.

Geographic Distribution. As shown in Fig. 474.
Holopogon Loew

Podoctria Negerle, 1820, p. 279 (nomen nudum).
Holopogon Loew, 1847, p. 473; Hull, 1962, p. 176
Ceraturgus Rondani, 1856, p. 156 (not Widemann)

Type of the genus: Dasypogon nigripennis Meigen 1820, designated by Coquillet 1910.

Head in front view one-third wider than high; vertex moderately sunken; median ocellus at base of ocellarium. Head in lateral view: postocular area narrow, one-sixth of eye width; facial gibbosity absent or very reduced; antennae with third segment carrying a short microsegment and a terminal style with a short spine at tip; mystax variable, some species with abundant fine long hairs from base of antennae to oral border, others with mystax reduced to two or three rows of medium-sized bristles on oral margin. Mesonotum inflated with a hump-backed appearance; notum with pollinose areas forming distinct patterns; mesonotal vestiture variable, with medium-sized sparse hairs and bristles to abundant long hairs; scutellum covered by micropubescence; 1-6 pairs of scutellar bristles; slopes of mesonotum without hairs, only micropubescence. Marginal cell open; 4th posterior cell open; R₄ vein reaching wing margin almost at wing apex; R₅ vein reaching wing margin behind apex; anal cell narrower toward wing border, but open; M₃ and m veins forming a 120° angle. Front tibial spur absent. Abdomen as wide as mesonotum, depressed. Wings extending beyond tip of abdomen. Male genitalia short, partially rotated, usually 60° to
90°; hypandrium small and triangular; epandrium moderate, not forceps-like; gonopods with a characteristic apical, inwardly curved, slender arm with bristles at tip. Female genitalia hidden under seventh tergite, ovipositor with spines on acanthophorites.

**Distribution.** Neartic, Neotropical, Ethiopian, 61 species; 10 species in Chile.

The Chilean species *Holopogon tener* Bigot and the nine new species described in this paper differ from the north Mexican species of the genus in having the hind tibiae not distinctly dilated; when the apical portion of the hind tibiae is slightly dilated, it is never thicker than the corresponding femora. The first tarsal segment of the hind legs is never strongly dilated, but as in the north Mexican species is larger and longer than the next four segments, which are beadlike.

Dr. C. H. Martin in personal communication (Feb. 15, 1965), said: "*Holopogon* seems to be restricted to northern Mexico; I do not believe the genus is in Chile. I did not find Bigot's specimens either at Oxford or in Paris. Williston's *Biologia* report of *Holopogon* from central Mexico is an error. I have seen his types."

Besides the differences in structure of the hind legs, which are only in degree of enlargement, I could find no other good characters to separate the Chilean species from the genus *Holopogon*. I agree about the strange situation presented now by the distribution of the genus. The study of Asilid fauna along the Pacific coast would give the answer of the problem.
Key to the Chilean Species of Holopogon

1. Mystax uniformly white, white and black, or yellow and black
   ................................................................. 2

1'. Mystax uniformly black ....................................... 6

2(1). Mystax white or yellow and black ........................... 3

2'. Mystax uniformly white ......................................... 4

3(2). Mystax dense, upper half of black hairs, lower half
   of white hairs; body with long white hairs; central
   line of mesonotum with abundant, manelike, long hairs,
   which are black before and white behind the trans­
   verse suture ........................................... H. hippopilosus n. sp.

3'. Mystax sparse, yellow and black hairs uniformly
   intermingled; no abundant hairs on central line
   of mesonotum; females ................................... H. notocinereatus n. sp.

4(2'). Body and legs, except tergites, with abundant distinct
   long hairs; mystax dense, long, occupying all
   of face .................................................. H. lanosus n. sp.

4'. Body and legs not as above; mystax occupying the basal
   half of the facial gibbosity or reduced to the
   oral border ............................................... 5

5(4'). Length less than 3.5 mm, head globose, vertex almost
   not sunken; mesonotum black ........................... H. minusculus n. sp.
5'. Length over 8 mm; not globose, vertex distinctly
sunken; mesonotum grey with 2 black central stripes
and lateral spots, sometimes represented by black
C-shaped lines ...................... _H. arrayanensis_ n. sp.

6(1'). Face, mesopleura, and presutural portion of mesonotum
distinctly gray; males ................ _H. notocinereatum_ n. sp.

6'. Not as above .................................................. 7

7(6'). Basal two-thirds of femora black, apical one-third
reddish; tibiae and tarsi reddish; sides of
tergites with whitish and brownish areas ...........
................................. _H. sucinopedis_ n. sp.

7'. Femora, tibiae, and tarsi uniformly shiny black;
sides of tergites with white areas .................... 8

8(7'). Hairs and bristles on legs mostly white or yellow,
weak; no strong bristles on hind femora ............ 9

8'. Hairs and bristles on legs black, strong; hind femora
with strong bristles ........................................ 10

9(8). Mystax sparse, occupying two-thirds to three-fourths
of facial gibbosity and directed forward; wings
fumose ..................................................... _H. tener_ Bigot.

9'. Mystax reduced to two groups of black hairs near
oral border and directed downward; wings
brownish ........................................ _H. coquimbensis_ n. sp.
10(8'). Face golden, mystax sparse, occupying basal half
of facial gibbosity, directed forward. *H. papaveroi* n. sp.

10'. Face silver; mystax reduced to two groups of
black hairs near oral border, directed down-
ward . . . . . . . . . . . . . . . . . . . *H. medinae* n. sp.
Holopogon arrayanensis n. sp.
(Figs. 70, 83, 478)

Type. ♀ from Arrayan, Jan. 2, 1964, Herrera; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

Diagnosis. Body covered by silver micropubescence; mesonotum with 2 narrow black central stripes and black C-shaped lines on each side before the suture, regular black spots behind the suture; dorsum of tergites black, silver on sides; tibiae brownish; mystax white, mostly on oral border; wings hyaline; ovipositor with black spines.

Description of the Type (♀). Head in front view: frons and face covered by dense silver micropubescence; a black V-shaped depression below ocellarium; dorsum of ocellarium shiny black, ocelli light yellow; median ocellus surrounded by silver micropubescence; face with weak white hairs; ocellar bristles white. Head in lateral view (Fig. 70): facial gibbosity absent, face slightly curved; mystax of white bristles located mostly near oral border, forming a row but few in middle of face; antennae (Fig. 83) black, first and second segments with stout brown bristles, longer on ventral side; beard sparse, of weak short white hairs; occipital area with a small pointed tubercle (a posterior extension of the ocellarium); occipital bristles short, brownish, arranged in two groups, one on each side of vertex, each group consisting of two rows of 5 bristles; posterior border of eyes covered by silver micropubescence, postocular bristles.
short, brownish, arranged in a single line along eye borders; proboscis black, a few long white hairs on ventral side, short white hairs at tip; maxillary palpi black with a few white hairs. Prothorax black with silver micropubescence, except on center of pronotum which is shiny black; 10 strong brown collar bristles. Thoracic pleura covered by dense silver micropubescence; 2 strong yellow mesopleural bristles; mesepimeral bristles long, yellow. Mesonotum covered by silver micropubescence, except over the black patterns; 2 black narrow central stripes; a black spot immediately behind humeral calli; presutural lateral spots C-shaped, postsutural lateral spots reduced to 2-3 small spots; mesonotum with very short golden hairs, some arranged in rows, mainly between and on both sides of central stripes; humeral calli black, partially covered by sparse silver micropubescence and a few black microhairs; posterior calli similar; scutellar disc shiny black, bordered by silver micropubescence except on center of posterior border; dorsocentral bristles not distinct; 2 strong yellow metapleural bristles; 1 strong yellow intraalar bristle; no postalar bristles; scutellar disc without hairs; 1 pair of yellow scutellar bristles; slopes of post-mesonotum with silver micropubescence, no hairs. Wings hyaline, veins black. Coxae black with silver micropubescence, hairs yellowish, more abundant on anterior area of front coxae; trochanters, femora, and tibiae dark brown, almost black in center of femora, hairs and bristles black; claws shiny black. Tergites shiny black, a silver L-shaped band on sides; tergites covered by short, uniformly distributed yellow hairs, a small black spot at base of each hair on lateral silver bands; first tergite with 3 strong yellow bristles and a group of weak white
hairs on each side; sternites with short, weak, sparse hairs. Genitalia telescoped, black; ovipositor with 3 visible pairs of black spines.

**Male.** Similar to female; genitalia brown, telescoped, hidden by sixth segment; wings slightly yellowish; color of abdomen, femora and wings slightly different from female.

The name *arrayanensis* refers to the type locality.

**Measurements.** Total length 7.6-8.6 mm, average 8.1 mm (type 8.6 mm); wing length 5.7-6.5 mm, average 6.1 mm (type 6.5); wing width 1.8-2.1 mm, average 1.9 mm (type 2.1 mm).

**Material Examined:** 1♂ and 1♀. BIO-BIO: 1♂ Bio-Bio, Feb., 1925 Dr. Reed (INCO). SANTIAGO: 1♀ (type) Arrayan, Jan. 2, 1964, Herrera (INCO).

**Geographic Distribution.** As shown in Fig. 478.

**Discussion.** The male differs from the type in having distinct black lateral spots, the femora light brown, and the wings slightly yellowish with the veins light brown.

*Holopogon coquimbensis* n. sp.

(Figs. 78, 477)

**Type.** ♀, from Illapel, Coquimbo, Nov. 1-7, 1954, L. E. Pena; this specimen is deposited in Departamento de Zoología, Universidad de Conception, Chile.
Diagnosis. Body black; abdomen with silver lateral borders; hairs and bristles of legs and mesonotum weak, yellow; wings uniformly brownish.

Description of Type (♀). Head in front view: frons black with V-shaped depression below ocellarium and a triangular spot of silver micropubescence below frontal ocellus, hairs black; face densely covered by yellowish micropubescence; ocellarium black, extended posteriorly, with black hairs; ocelli reddish; ocellar bristles strong, black. Head in lateral view: facial gibbosity absent, face slightly concave; mystax of strong black bristles, in two groups near oral border; antennae (Fig. 78) black, first and second segment with black hairs, longer on ventral side and mixed with a few brownish bristles; beard of sparse weak white hairs; occipital hairs and bristles short, yellow, arranged in rows along posterior borders of eyes; postocular area silver, with sparse weak white hairs; proboscis black with sparse weak white hairs on ventral side, short white hairs at tip; maxillary palpi black, with sparse weak white hairs. Prothorax black, covered by sparse silver micropubescence, hairs weak, sparse, long, white; no collar bristles distinct, instead hairs similar to those on sides. Mesopleural sclerites shiny black, with silver and golden areas of micropubescence on almost every sclerite; mesepimeral bristles and other scarce hairs on mesopleura yellow. Mesonotum with a broad undivided black central stripe and large black lateral spots; a dark golden area of dense micropubescence between central stripe and humeral calli; borders of central stripe and lateral spots limited by a golden
line of micropubescence; posterior third of central stripe with golden micropubescence and long yellow hairs; mesonotum with short weak yellow hairs, except over central stripe and lateral spots; humeral calli black with sparse golden micropubescence on dorsal side; posterior calli black; scutellar disc black; 3 yellow notopleural bristles; 3 yellow intraalar bristles; no postalar bristles; scutellar disc bare, shiny black; 2 (?) pairs of long yellow weak scutellar bristles.

Wings brownish, veins light brown. Coxae shiny black with large areas of silver micropubescence; trochanters, femora, tibiae, and tarsi shiny black, hairs and bristles yellow (black on tarsi). Abdomen shiny black; tergites with a broad silver band on lateral borders; dorsum of tergites with scarce short yellow hairs, first tergite with long yellow hairs and strong bristles on sides; sternites black with transverse silver bands, hairs yellow, sparse, uniformly distributed. Genitalia telescoped, hidden under the seventh segment; spines on the ovipositor, black.

Male. Unknown.

The name coquimbensis refers to the type locality.

Measurements of Type. Total length 7.2 mm; wing length 5.2 mm; wing width 2 mm.


Geographic Distribution. As shown in Fig. 477.
Discussion: *H. coquimbensis* is close to *H. medinae*, but can be separated by the color of wings, hairs, and bristles; *H. coquimbensis* has the hairs and bristles yellow and the wings brownish; *H. medinae* has the hairs and bristles black and the wings hyaline.

*Holopogon hippopilosus* n. sp.

(Figs. 82, 492)

**Type.** $\delta$ from Cerro Caguis, Atacama, Dec. 14, 1938. E. P. Reed; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Small black species; legs black; mystax black in upper half and white in lower half; mesonotum with abundant manelike hairs on midline, which are black before and white behind the transverse suture; body and legs with white hairs; wings hyaline.

**Description of Type (♂).** Head in front view: frons shiny black; face black, with silver micropubescence below antennae and along border of eyes; ocellarium shiny black, ocelli yellowish; ocellar bristles not distinct, instead abundant long white hairs, similar to hairs of frons. Head in lateral view: facial gibbosity slightly developed, rounded; mystax dense, upper half of strong dense black hairs, lower half of longer weaker white hairs; antennae black, second segment beadlike, wider than first, third segment as shown in Fig. 84, first and second segment with white hairs, longer on ventral side; beard white; occipital hairs short, abundant, white; postocular area white hairs; probosics shiny
black with sparse white hairs on ventral basal half, short whitish
hairs at tip; palpi black, with sparse whitish hairs. Prothorax shiny
black, with abundant long white hairs; collar bristles not distinct.
Mesopleura shiny black, with long white hairs; a few white hairs on
other lateral sclerites of thorax; mesepimeral bristles white. Meso-
notum shiny black, strongly developed, giving a distinct hump-backed
appearance, no central stripes or lateral spots, sparse long white
hairs on lateral areas; abundant reclinate dense long hairs along the
central line, black before and white behind transverse suture, giving
a manelike appearance; notopleural, intraalar, and frontal bristles
not distinct; scutellum shiny black with bluish highlights, no hairs on
scutellar disc, which is hidden by the long hair in the posterior
part of the mane; 9 pairs of weak long white scutellar bristles; slopes
of postmesonotum shiny black. Wings hyaline; veins reddish brown in
basal costal area, darker elsewhere. Legs shiny black, hairs and brist-
les white; ventral bristles of tarsi black (the type lacks the first and
second pair of legs); claws shiny black. Abdomen shiny black, without
pattern, dorsal vestiture of short whitish sparse hairs; ventral vesti-
ture of short whitish sparse hairs; ventral vestiture of long dense
white hairs. Genitalia not rotated, small, shiny black; lateral sides
of gonopods with white hairs.

**Female.** Similar to male; genitalia short, truncated; 4 pairs of
black spines on acanthophorites.

The name *hippopilosus* refers to the long manlike row of hairs on the
midline of the mesonotum.
Measurements. Total length 5.5-6.3 mm, average 5.8 mm (type 5.7 mm); wing length 4.2-5.0 mm, average 4.5 mm (type 4.8); wing width 1.6-1.8 mm, average 1.7 (type 1.8 mm).


Geographic Distribution. As shown in Fig. 492.

Discussion. H. hippopilosus is easily recognizable by the long manelike hairs on the mesonotum. The type locality, Cerro Caquis, is questionable; there are other Cerro Caquis (Caquis hill) in Chile besides the one in the province of Coquimbo, but since the other 2 specimens are from Coquimbo, I gave that locality in the distribution map.

Holopogon lanosus n. sp.

(Figs. 79, 490)

Type. ♀, from Palos Negros, Curico, March 8-9, 1962, L. E. Pena, this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Dark; femora black, tibiae and tarsi reddish brown; head, legs, thorax, sides and ventral part of abdomen with abundant very long and distinct silky hairs, giving the specimen a woolly appearance; wings hyaline.
Description of Type (♂). Head in front view: face and frons black, with long white hairs along border of eyes; ocellarium black, ocelli dark brown; ocellar bristles not distinct, ocellarium with abundant long silky white hairs. Head in lateral view: facial gibbosity not distinct; mystax of abundant silky white hairs; first antennal segment brown, remaining segments black, third segment attenuated, style long, first and second segment with long silky white hairs, which are longer on ventral side (Fig. 79); beard white; occipita with white hairs, but no distinct bristles; postocular area with fine silky white hairs; proboscis shiny black, with long white hairs on posterior half of ventral side, and short white hairs at tip; maxillary palpi black with sparse white hairs. Prothorax black with dense silver areas, and long white silky hairs; no distinct collar bristles. Mesopleura black with silver areas; mesepimeral bristles long and white. Mesonotum black with sparse dark golden micropubescence; central stripes and lateral spots not distinct; notal disc with sparse white hairs; humeral calli black with white hairs; posterior calli black; scutellar disc shiny black; dorsocentral bristles not distinct; notopleural, intraalar, and postalar bristles not distinct; scutellar bristles hairlike, abundant, similar to hairs on mesonotum, slopes of postmesonotum covered by abundant silver micropubescence, no hairs. Wings hyaline, veins black. Coxae black, with abundant micropubescence and white hairs; femora shiny black with abundant erect long white hairs, no distinct bristles; tibiae and tarsi reddish brown, with long white hairs similar to those on femora, bristles weak, white; claws black. Abdomen black, sides of tergites with a silver spot on posterior
half, sternites uniformly silvery; dorsum of tergites with sparse, short, fine, white hairs, the dorsum of the abdomen appearing shiny black with bluish highlights; sides of tergites and sternites with abundant long silky white hairs. Genitalia rotated in 90°, black, with long white hairs, always hidden by seventh tergite.

**Female.** Unknown.

The name *lanosus* refers to the long white hairs that cover most of the body, and give it a woolly appearance.

**Measurements.** Total length 6.1-6.3 mm, average 6.2 mm (type 6.1 mm); wing length 4.7-5.3 mm, average 5.0 mm (type 4.7 mm) wing width 1.5-1.7 mm, average 1.6 mm. (type 1.5 mm).

**Material Examined.** 2♂ CURICO: 1♂(type) Palos Negros, 1300 m., Curico, March 8-9, 1962, L. E. Pena (INCO). No locality. 1♂ Chile, E. P. Reed (CAS).

**Geographic Distribution.** As shown in Fig. 490.

**Holopogon medinae** n. sp.

(Fig. 86)

**Type.** ♀, no locality or data; this specimen is deposited in Colección Jose T. Medina, Museo Nacional de Historia Natural, Chile.

**Diagnosis.** Body black; frons with a V-shaped depression below ocellarium; mystax black, reduced to oral border; mesonotum black with
silver marks and a dark golden spot of dense micropubescence between humeral calli and central stripe; abdomen shiny black with silver bands posterolaterally. Legs black. Wings slightly fumose.

Description of Type. (♀). Head in front view: frons black, with a V-shaped depression below ocellarium and a silver spot in center; face with abundant silver micropubescence; ocellarium shiny black, ocelli yellow; ocellar bristles black. Head in lateral view: face slightly concave or flat; mystax reduced to two groups of black bristles on oral border; antenna black, first and second segments with black bristles, longer on ventral side, third antennal segment attenuated, style long with a terminal spine; beard sparse, yellow; occipital area silvery; a tubercle behind ocellarium, which is a continuation of it, with sparse black hairs; occipital bristles short, black, arranged in a group of about 10 bristles on each side of the sunken vertex, and continued by a single line of very short black bristles along posterior border of eyes; proboscis black with a few white hairs on ventral side; maxillary palpi black with white hairs. Prothorax black, sides covered by silver micropubescence, collar with golden micropubescence, hairs long, sparse, yellow; collar bristles not distinct, instead short yellow hairs intermingled with a few black hairs of the same length. Mesopleura shiny black with large areas of silver micropubescence on each mesopleural sclerite; mesopleura and sternopleura with a few yellow hairs; mesepimeral bristles long, black. Mesonotum with a black central stripe, anterior border of anterior lateral spot, and the humeral calli with dense dark golden micropubescence and short reclinate black
hairs; anterior and lateral borders of lateral spots with golden micro-pubescence; humeral calli black, with golden micropubescence on dorsum; posterior calli shiny black on dorsum, surrounded by silver micropubescence, similar to that covering area between posterior lateral spots and scutellum; abundant strong black hairs between posterior lateral spots; 2-3 black notopleural bristles; 1 intraalar bristle; no postalar bristles; scutellar disc without hairs; 5 pairs of long black scutellar bristles; no dorsocentral bristles distinct; slopes of postmesonotum with sparse silver micropubescence, no hairs. Wings hyaline, veins reddish brown. Coxae shiny black with small silver areas, hairs mostly brownish, abundant on anterior part of front coxae; trochanters, femora, tibiae, and tarsi shiny black, hairs and bristles black; ventral side of hind femora with two rows of 9-11 long bristles; claws shiny black, base reddish brown. Abdomen shiny black, tergites with silver bands on sides, along posterior borders; tergites with short sparse black hairs; last three tergites with yellowish hairs; sides of first tergite with abundant black hairs and bristles; sternites shiny black with silver transverse bands, hairs brownish; sternites 5 and 6 with short white hairs. Genitalia telescoped, hidden by tergite seventh; 4 pairs of black spines on the ovipositor.

**Male.** Unknown.

The name *medinae* is on Philippi's handwritten label on the type: "*Dasypogon medinae* Ph. n. sp."; as far as I know this name has never been published.
Measurements of Type. Total length 8.2 mm; wing length 7.0 mm; wing width 2.5 mm.

Material examined. 1♀. No locality or date: 1♀ (type) Coll. J.T.M. (JTM).

Discussion. This species is closely related to *H. coquimbensis* from which it can be separated by the brownish color of the wings and the weak yellow hairs and bristles of the mesonotum: *H. medinae* has the hairs and bristles black and the wings hyaline.

**Holopogon minusculus** n. sp.

*(Fig. 77, 425)*

Type. ♀, from El Raddl, Linares, Nov. 23-30, 1957, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Minute; body shiny black, with white hairs; third antennal segment broad; wings slightly fumose; vertex well developed, almost not sunk, the head globose.

Description of Type. (♀). Head in frontal view: frons and face partially covered by white micropubescence; frons with two black bands running from ocellarium to base of antennae, in between white; frontal hairs weak, white; ocellarium shiny black, low; vertex almost not sunken, globose; ocelli black; ocellar bristles white. Head in lateral view; facial gibbosity not distinct, but face produced beyond front borders of eyes; mystax reduced to a few weak yellowish hairs, mostly near oral
border; antennae black, first and second segments with short brownish hairs, third segment large, ventrally attenuated in apical half (Fig. 77); beard of sparse weak short hairs; occiput and postocular regions black, with sparse weak white hairs over most of the areas; proboscis shiny black, long, thin, a few white hairs at base; maxillary palpi black, with a few weak white hairs. Prothorax black with white hairs; collar bristles yellow. Mesopleura black with sparse greyish micropubescence; approximately 4 yellowish bristles. Mesepimeral bristles yellow. Mesonotum black, central stripe and lateral spots shiny black, noticeable because of the lack of micropubescence and hairs; gray micropubescence behind humeral calli, between central stripe and presutural lateral spots; rest of mesonotum with sparse weak white hairs; humeral and posterior calli shiny black with white hairs; posterior third of central stripes bordered on both sides by a line of yellowish micropubescence and 5–6 yellow dorsocentral bristles; scutellar disc shiny black in center, bordered by sparse white micropubescence; 4 yellow notopleural bristles; 3 yellow intraalar bristles; 2 yellow postalar bristles; bristles on mesonotum similar to hairs; 5 pairs of weak yellow scutellar bristles; slopes of postmesonotum black with sparse white micropubescence, no hairs. Coxae black with white micropubescence and hairs on anterior sides, more conspicuous in front coxae; trochanters, femora, tibiae, and tarsi shiny black, hairs and bristles yellow; claws shiny black. Abdomen shiny black, silver patterns on lateroposterior borders of tergites and on sternites; sparse weak yellow hair uniformly distributed on abdomen; first tergite with a few yellow bristles and hairs
on sides. Genitalia black, covered by short white sparse hairs; ovi­
positor with spines.

The name minusculus refers to the very small size of this species.

Measurements. Total length 2.8-3.6 mm, average 2.7 mm (type) 3.6
mm); wing length 2.7-3.2 mm, average 2.9 mm (type 3.2 mm); wing width
1.0-1.3 mm, average 1.1 mm (type 1.3 mm).

Material Examined. 1♂ and 1♀. LINARES: 1♀ (Type) El Radal,
1100 m., Linares, Nov. 23-30, 1957, L. E. Pena (INCO). VALDIVIA: 1♂

Geographic Distribution. As shown in Fig. 425.

Holopogon notocinereatum n. sp.
(Figs. 85, 494)

Type. ♀ from Angol, Jan. 1954, L. E. Pena; this specimen is
deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Dark, male with abundant gray micropubescence anterior
to transverse suture, and dark golden micropubescence posterior to the
suture, female with dark golden micropubescence on presutural area and
with distinct black central stripes and lateral spots. Abdomen with
short yellow hairs scattered over the tergites, and long yellow hairs
on sternites. Legs black with yellow hairs mixed with a few black hairs.
Wings fumose.
Description of Type. (♂). Head in front view: frons and face covered by dense silver micropubescence; ocellarium black, ocelli yellowish; ocellar bristles strong, long and black. Head in lateral view: facial gibbosity low, silvery; mystax of rather short black sparse hairs; antennae (Fig. 85) black, first and second segment with black hairs which are longer on ventral side; beard sparse, yellow; occipital bristles black, strong, arranged in 3-4 rows intermingled with hairs of the same color and length; proboscis black with long yellow hairs on ventral basal part, white long hairs on middle part, and short white hairs at tip; maxillary palpi black, with sparse yellow hairs. Prothorax covered by dense silver micropubescence and sparse yellow hairs; no collar bristles distinct. Mesopleura densely covered by silver micropubescence, mesopleura with 7 black bristles along posterior border; mesepimeral bristles abundant, dark yellow. Mesonotum covered by abundant micropubescence, which is silver before and dark golden behind transverse suture; central stripe and lateral spots not distinct; sparse black hairs over mesonotum, longer near posterior end; scutellum, humeral and posterior calli covered like mesonotum, hairs black; 6 black notopleural bristles; 3 black intraalar bristles; 4 black postalar bristles; scutellar disc without hairs; 5 pairs of long black scutellar bristles; slopes of postmesonotum with dense silver micropubescence, no hairs. Wings fumose, darker basally; wing venation like all Holopogon, but R₄ vein with a stump vein at base. Coxae black covered like mesopleura, with white yellow hairs, which are more abundant on anterior part of front coxae; trochanters, femora, tibiae, and tarsi
shiny black with yellow hairs and yellow, reddish, and black bristles. Tergites shiny black with bluish highlights, and a more or less triangular silver area on each side, close to posterior border; dorsum of tergites with short sparse yellow hairs; sternites with abundant silver micropubescence and abundant long yellow hairs. Genitalia black with short black hairs, hidden under seventh tergite.

**Female.** Differs from male in lacking the gray color on presutural area, having instead dark golden micropubescence which leaves uncovered the distinct black central stripe and lateral spots; mesopleural, intralaral, supraalar, postalar and scutellar bristles yellow; mystax of yellow and black hairs mixed; genitalia small, light brown, telescoped, with short yellow hairs; R\(_4\) vein lacking the stump vein; wings almost hyaline.

The name *notocinereatus* refers to the gray color of the presutural area of the mesonotum in the male.

**Measurements.** Identical in the two specimens. Total length 9.2 mm; wing length 7 mm; wing width 2.1 mm.

**Material Examined.** 1\(\delta\) and 1\(\varphi\). MALLECO: 1\(\delta\) (Type) Angol, Jan., 1954, L. E. Pena (INCO); 1\(\varphi\), Jan. 1, 1951, R. & M. (INCO).

**Geographic Distribution.** As shown in Fig. 494.
Holopogon papaveroi n. sp.
(Figs. 81, 491)

Type. ♂, from Longuimay, Dec. 17, 1959, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Closely related to H. tener Bigot; body black; face golden, mystax black; hairs and bristles on the front coxae, abdomen, prothorax and mesepimeron black; lateroposterior borders of tergites with a silver band; wings uniformly fumose.

Description of Type. (♂). Head in front view: front and face covered by dense golden micropubescence; ocellarium black with sparse golden micropubescence, ocelli reddish brown; ocellar bristles strong, long, black. Head in lateral view: almost no facial gibbosity; mystax of sparse black hairs occupying basal half of the face; antennae (Fig. 81) black, first two segments with sparse golden micropubescence, long black hairs on ventral side, shorter and weaker black hairs on dorsal side; beard black, sparse and short; occipital area with strong black bristles and hairs arranged in rows; postocular vestiture black; proboscis black, with a few weak black hairs basally on ventral side and short white hairs at tip; maxillary palpi black, with a few whitish hairs. Prothorax black with areas covered by silvery micropubescence; hairs and collar bristles black. Mesopleura mostly silvery, with 7-8 black bristles; mesepimeral bristles long, strong, black; mesonotum with
a broad black central stripe, lateral spots dark golden, bordered by a light golden line; humeral calli and lateral borders light golden; posterior calli black, ocerved by silver micropubescence; notal vestiture of sparse black hairs, which are longer on posterior border; no distinct dorsocentral bristles; scutellar disc with same vestiture as posterior calli without hairs; 3 strong black notopleural bristles; 4 strong black intraalar bristles; 3 strong black postalar bristles; 6 pairs of long black scutellar bristles; slopes of postmesonotum with silver micropubescence; halters light yellow. Wings uniformly fumose, veins black. Coxae black with silver micropubescence, hairs and bristles black; femora, tibiae, and tarsi shiny black, hairs and bristles black; femora, tibiae, and tarsi shiny black, hairs and bristles black, only the tibial and tarsal cushion golden; claws shiny black. Abdomen shiny black, covered by sparse short black hairs; sides of tergites with a silver band on posterior border; 5-6 strong black bristles along sides of tergites, contrasting strongly with the silver band; sternites with black hairs. Genitalia hidden by seventh tergite; last two abdominal segments and genitalia strongly telescoped.

Female. Unknown.

This species is dedicated to Dr. Nelson Papavero, Curator of Diptera, Departamento de Zoologia, Secretaria de Agricultura, Sao Paulo, Brasil.
Measurements. Total length 6.1-6.3 mm, average 6.2 mm (type 6.3 mm); wing length 4.6-5.1 mm, average 4.8 mm (Type 5.1); wing width 1.4-1.6 mm, average 1.5 mm (Type 1.6 mm).


Geographic Distribution. The type presents a uniform black coloration in all hairs and bristles; the other specimen has some hairs and bristles yellow on the legs, as in H. tener Bigot. Both species are constant in the color of the mesepimeral, abdominal, and prothoracic bristles and hairs, which are black in H. papaveroi and yellow in H. tener.

Holopogon sasinopedis n. sp.
(Figs. 80, 480)

Type. ♂️, from Valparaiso, Dr. Reed; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body black; abdomen with golden and gray bands on lateroposterior borders of tergites; mystax black; femora flack, apical third reddish brown; tibiae and tarsi reddish brown; wings slightly brownish.

Description of Type (♂️). Head in front view: frons and face covered by dense light golden micropubescence; vertex dark, micropubescence sparse; a small round shiny black spot above antennae; ocellarium
black, ocelli dark red; ocellar bristles dark brown. Head in lateral view: face flat, no facial gibbosity; mystax of strong black bristles, mostly arranged in two groups near oral border; antennae (Fig. 80) black, first and second segments with black bristles, longer on ventral side; beard of sparse yellowish brown hairs; occipital bristles light brown, arranged in two groups on each side of vertex; ocellarium continued posteriorly, covered by sparse golden micropubescence and a few light brown hairs; postocular area with similar vestiture and short brown postocular bristles arranged in one or two rows; proboscis short, shiny black, with sparse white hairs at base and short white hairs at tip; maxillary palpi black with brownish hairs. Prothorax black with sparse golden micropubescence, hairs golden; collar bristles dark brown. Mesopleura black with a few areas of golden micropubescence; mesepimeral and mesopleural bristles dark yellow. Mesonotum covered by dense golden micropubescence, except for the two central stripes and lateral spots, which appear shiny black; micropubescence between humeral calli dark brown; humeral and posterior calli with light golden micropubescence; hairs of mesonotum sparse, golden, longer on posterior third; scutellar disc partially covered by micropubescence similar to that on face, no hairs; dorsocentral bristles distinct behind transverse suture (damaged in type); 3 golden notopleural bristles; 1 or 2 golden intraalar bristles; 1 golden postalar bristle; 1 (?) pair golden scutellar bristles; slopes of postmesonotum black with sparse, mainly silver micropubescence. Wings light brown, veins brown. Coxae black, with some areas of golden micropubescence, hairs yellow, more abundant on anterior
part of front tibiae; trochanters and basal two-thirds of femora shiny black; apical third of femora, tibiae, and tarsi, reddish amber; hairs on femora and tibiae yellow; bristles on black portion of femora yellow, on reddish portion, balck; tibial and tarsal bristles black; claws shiny black. Abdomen black; lateroposterior borders of tergites whitish, brownish toward lateral border; tergites with sparse short yellow hairs, longer on first tergite, plus 2-3 yellow bristles; sternites shiny black with sparse dark brown micropubescence, hairs similar to those on tergites; last abdominal segment and genitalia with longer yellow hairs. Genitalia small, mostly light brown; gonopods black, hairs short, yellow.

**Female.** Unknown.

The name *sucinopedis* refers to the dark amber color of the tibiae, tarsi, and apical part of femora.

**Measurement of Type.** Total length 7.8 mm; wing length 5.6 mm; wing width 2.1 mm.

**Material Examined.** 1♂. VALPARAISO: 1♂(Type) Valparaiso, Dr. Reed (INCO).

**Geographic Distribution.** As shown in Fig. 480.
Holopogon tener Bigot

(Figs. 72, 73, 75, 76, 84, 487)

Holopogon tenerum Bigot, 1878, p. 437, Chile; Stuardo, 1946, p. 80.

Type. Lost. A neotype is hereby designated as a ♀ from Peillem-Pilli, Cordillera de Nahuelbuta, Arauco, Jan. 14, 1954, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Black, pleura silvery; lateral posterior borders of abdomen silvery; legs black with sparse yellow hairs and bristles, some black bristles mainly on anterior middle tibiae; frons and face with abundant golden micropubescence; antennae black; mystax sparse, black; wings uniformly slightly fumose.

Description of Neotype. (♂). Head in front view: frons and face uniformly covered by dense golden micropubescence, slightly less abundant between base of antennae and ocellarium; ocellarium black with sparse golden micropubescence, ocelli yellowish; ocellar bristles long, black, four of them strong. Head in lateral view: facial gibbosity very low, golden; mystax sparse, black, a few weak white hairs intermingled; upper third of face without mystax, middle third with sparse hair, and lower third with more abundant hair; antennae black, first and second segments with long, strong black hairs on ventral side, dorsal side with shorter and weaker black hairs; occipital area with a row of
strong, equidistant, long black bristles, curved at tip, a second row of shorter and weaker black hairs behind the bristles; postocular vesti­ture of sparse white hairs, the upper part mixed with occipital elements; beard sparse white; proboscis short, shiny black, with sparse long white hairs on basal ventral part, a few short white hairs around tip; maxil­lary palpi black, with sparse white hairs. Prothorax shiny black with some silvery areas with white hairs which are longer and more abundant on sides, prothoracic lobes, and collar; no collar bristles distinguish­able. Mesopleura black, mostly covered by silvery micropubescence, 3 black mesopleural bristles; mesepimeral bristles abundant, long, yellow; mesonotum black with golden, sparse micropubescence on sides and around lateral spots; mesonotal vestiture sparse, black, longer and slightly more abundant on posterior third; central stripes not distinct; humeral calli silvery, with short black hairs; posterior calli with silvery and golden areas intermingled, same condition over scutellar disc; 4 long black notopleural bristles; 2 long black intraalar bristles; 2 long black postalar bristles; no hairs on scutellar disc; 5 pairs of long black scutellar bristles. Slopes of postmesonotum silvery, without hairs. Wings (Fig. 76) fumose, veins black. Coxae black, covered by silvery micropubescence, hairs white, more abundant and longer on front part of front coxae; trochanters black; femora, tibiae, and tarsi black, with white hairs and bristles; front and middle tibiae with black bristles on front border; hind tibiae slightly dilated at apex; first tarsal segment of hind legs long, enlarged, remaining segments beadlike (Fig. 75). Claws shiny black. Abdomen black, tergites with
short scarce white hairs, the hairs are longer and more abundant on
sides, tergites with a silvery area on lateroposterior border; tergites
6-8 with black hairs; sternites black with sparse silvery micropubes-
cence and long sparse white hairs. Genitalia (Figs. 72, 73) hidden under
seventh tergite.

**Female.** Similar to male; genitalia hidden by seventh tergite,
4 pairs of black spines on acanthophorites.

**Measurements.** Total length 5.7-7.0 mm, average 6.2 mm (neotype
6.5 mm); wing length 5.0-5.2 mm, average 5.1 mm (neotype 5.0 mm);
wing width 1.5-1.7 mm, average 1.6 mm (neotype 1.6 mm).

**Material Examined.** 19♂ and 7♀. ARAUCO: 2♂ Caramavida, 1200-
1400 m., Jan. 1-6, 1954, L. E. Pena (INCO); 5♀ (OTT); 6♂ (BRAS); 4♂
Peillem-Pilli, Cordillera Nahuelbuta, Arauco, Jan. 17, 1954 (OTT);
1♂ (gen. prep.) Caramavida, Arauco, Jan. 1-6, 1954, L. E. Pena (INCO);
1♂ (Neotype) Peillem-Pilli, Cordillera Nahuelbuta, Arauco, 600-800 m.,
NUBLE: 1♂ 50 Km. E. San Carlos, Dec. 26, 1950, R. & M. (CAS); 1♂ (INCO);
1♂ Los Cipreses, 1000 m., Jan 19, 1955, L. E. Pena (BARS). SANTIAGO:
1♀ Cerro El Roble, Santiago, Dec. 28-31, 1963, L. E. Pena (INCO); 1♀ San-
tiago, Jul., 1945, L. E. Pena (INCO).

**Geographic Distribution.** As shown in Fig. 487.

**Discussion.** *H. tener* Bigot is constant in shape, color and vestiture.
Differences in total length are due mostly to the degree of telescoping of the last three abdominal segments.

**Hypenetes Loew**

_Hypenetes Loew, 1858, p. 349; Hull, 1962, p. 152._

_Clavator Philippi, 1865, p. 699._

Type of the genus: **Hypenetes stigmatias** Loew, 1858, by monotype.

Head in front view one-fourth wider than high; vertex moderately sunken; ocellarium low. Head in lateral view: postocular area one-half the width of eye; facial gibbosity strong, usually prominent, occupying from one-half to three-fourths of face; third antennal segment clublike at apex, basal one-fourth to one-half stalklike, microsegment short and cylindrical with a short terminal spine; mystax of strong abundant long hairs or with short strong bristles on upper part and fine hairs on lower part (asiliformis). Mesonotum with distinct central stripes and lateral spots; vestiture of sparse medium-sized to long hairs; dorsocentral bristles usually indistinct from the vestiture. Scutellum with fine hairs and 3-7 pairs of scutellar bristles. Slopes of postmesonotum with micropubescence, no pile. Marginal and fourth posterior cells open; $R_4$ reaching wing border before apex, $R_5$ reaching wing border behind apex; anal cell open, usually narrow toward wing border; $M_3$ and $m$ forming a 95°-115° angle. Front tibial spur absent. Abdomen cylindrical. Wings usually reaching tip of abdomen. Male genitalia rotated 150°-180°; hypandrium large, pointed
posteriorly, with or without spines at tip; epandrium large, completely divided, forcepslike; female abdomen slightly tapered, truncate at apex, with 6 pairs of spines on acantophorites.

**Distribution.** Ethiopian, Neotropical, 11 species; 9 species in Chile.

Hull (1962:154) created the subgenus *Tillobroma* for the South American species of *Hypenetes* and designated *Hypenetes punctipennis* (*Clavator punctipennis* Philippi) as the type of the subgenus. From the 8 species listed by Hull for the Neotropical region, only *asiliformis* Wulp, *obtusus* Engel, and *punctipennis* Philippi actually belong to the genus *Hypenetes* (*Tillobroma*); *nigribarbis* Philippi, *rubricornis* Philippi and *rufescens* Philippi belong to the genus *Creolestes* Hull; I have not studied *fulvicornis* Macquart 1846 (not *fulvicornis* Macquart 1849) (see discussion under *Hypenetes schiner* n. sp.)

The 3 known species and the 6 new species presented here are similar; variations in vestiture are seldom useful to separate them; color of antennae, shape of third antennal segment, and color of tibiae and distribution of bristles are characters usually useful for both sexes; the definitive characters to separate species are the genital structures of the males, mainly the tip of the hypandrium, the distal process of the gonopods, and the shape of the penis sheath.

The species *Hypenetes obtusus*, which is easy to distinguish because the basal third of the wings is milky white and the remaining brown-spotted, has not been recorded from the Chilean region; it is found in Argentina, Brazil, and Peru.
A key is presented here to separate the Chilean species of *Hypenetes*; the females of *H. davidsoni* n. sp. and *H. digitatus* n. sp. are impossible to separate by external characteristics, and have been separated by association with the males.

Key to the Chilean Species of *Hypenetes*

1. Mystax of strong short black bristles on upper part and fine white hairs on lower part; legs covered with distinct strong appressed white hairs; male genitalia as in Figs. 88-91 .... *H. asiliformis* (Wulp)

1'. Mystax mostly of uniform long black hairs; legs covered with fine, usually erect black or black and white intermingled hairs ............... 2

2(1'). Hind femora with 8 or more strong black bristles on ventral side near apex; male genitalia as in Figs. 113, 114, 116, 117. ... *H. punctipennis* (Philippi).

2'. Hind femora with less than 3 strong bristles on ventral side ................. 3

3(2'). Tibiae reddish; antennae black; abdomen shiny bluish black with white areas on side, and a distinct line on posterior border of tergites; male genitalia as in Figs. 102, 106, 107, 109 ....... *H. fucosus* n. sp.

3'. Without the above combination of characters ............ 4
4(3'). Third antennal segment with basal half stalklike, distal half clublike (Figs. 101, 115) ....... 5

4'. Third antennal segment with basal third or less stalk-like (Fig. 87) ....................... 8

5(4). Third antennal segment black; front and middle tibiae with almost all bristles black; male genitalia as in Figs. 108, 110-112. H. magellanicus n. sp.

5'. Third antennal segment (at least the clublike part) reddish; front and middle tibiae with abundant long reddish bristles intermingled with black bristles ............. 6

6(5'). Body light brown, with abundant areas of golden micropubescence; front tibiae reddish; male genitalia as in Figs. 119-122; hypandrium with 2-4 strong brown spines at tip .... H. schineri n. sp.

6'. Body blackish, with areas of gray micropubescence; front gibiae usually black, sometimes brownish; hypandrium with or without 2 strong black spines at tip .... 7

7(6'). Male genitalia as in Figs. 94, 96, 98, 99 ............. 

............... H. davidsoni n. sp.

7'. Male genitalia as in Figs. 100, 103-105 ............. 

............... H. digitatus n. sp.
8(4'). Bristles on hind tibiae usually mostly reddish; tip of hypandrium pointed; male genitalia as in Figs. 92, 93, 95, 97 . . . . . . . . H. critesi n. sp.

8'. Bristles on hind tibiae usually mostly black; tip of hypandrium spatulate, with a notch on posterior border; male genitalia as in Figs. 124, 126, 127, 129 . . . . . . . . . . . . . . H. valentinei n. sp.

Hypenetes asiliformis Wulp
(Figs. 87-91, 504)


Type. ♂ from Argentina (Weyenbergh), location unknown (not seen).

Diagnosis. Head and body with abundant gray and light golden micropubescence; mystax of strong short bristles on upper part, dense fine white hairs on lower part; legs covered with abundant strong appressed white hairs.

Male. Head in front view: face and frons covered with dense silver micropubescence, slightly yellowish on face; frontal hairs mostly or all white; ocellar bristles blackish. Head in lateral view (Fig. 87): facial gibbosity dark gray; mystax of strong black bristles on upper part, and fine dense white hairs on lower part; antennae all black, antennal hairs white; beard white; occipital and postocular vestiture
white; proboscis and maxillary palpi black with white hairs. Pro-
alar pleura with dark golden micropubescence and scattered white hairs.
Thoracic pleura with large areas of dense golden micropubescence and
sparse white hairs; mesepimeral bristles white. Mesonotum uniformly
covered with light golden micropubescence, on central stripes and lateral
spots mostly brownish, the vestiture of sparse thick white hairs;
scutellum similar in color and vestiture to mesonotum; 6-7 strong black
dorsocentral bristles; 2 dark brown or black notopleural bristles; 1-2
black intraalar bristles; 2 black postalar bristles; 3 pairs of strong
black scutellar bristles. Slopes of postmesonotum with yellowish
micropubescence. Wings hyaline, veins blackish. Coxae similar in
coverture to thoracic pleura, with white hairs, more abundant on ant-
terior side of front coxae; femora black, tibiae and tarsi dark reddish;
legs densely covered with thick, appressed, white hairs; bristles white,
slightly brownish on tarsi and a few of them on hind tibiae. Abdomen
with gray micropubescence; sides of tergites black in part with sparse
dark golden micropubescence; vestiture of fine sparse white hairs.
Genitalia (Figs. 83-91) black, with abundant appressed white hairs; 2
spines on tip of hypandrium; penis sheath as in Figs. 90 and 91.

Female. Similar to male; spines on ovipositor black.

Measurements. Total length 8.7 mm; wing length 5.9 mm; wing width
1.6 mm (Paratypes similar in size).

Material Examined. 2♂ and 1♀. MAGALLANES: 2♂ (1 gen. prep.)
Laguna Amarga, Natales, E. of Mt. Payne, 200 m., Dec. 14-20, 1960, Pena
(INCO); 1 ♀ Bahia Municiones, Magallanes Strait, T. del Fuego, Dec. 10, 1960, L. Pena (INCO).

**Geographic Distribution.** As shown in Fig. 504.

**Discussion.** This species differs from all other species of Hypenetes in the character of the mystax.

**Hypenetes critesi** n. sp.

(Figs. 92, 93, 95, 97, 428)

**Type.** ♀, from Balmaceda, Aysen. Jan. 6, 1961, L. Pena; this specimen is deposited in Departamento de Zoología, Universidad de Concepcion, Chile.

**Diagnosis.** Basal third of third antennal segment stalklike; tibiae black; abdomen shiny black with large white triangular areas on sides of tergites, continued as a line on posterior border of tergites; male genitalia as in Fig. 92.

**Description of Type (♀).** Head in front view: face and frons with dark gray micropubescence; frontal hairs black; ocellar bristles long, black. Head in lateral view: facial gibbosity blackish; mystax black; antennae all black, hairs on first and second segments black on dorsal side, white on ventral side; basal third of third antennal segment stalklike; beard white; hairs on ventral side of proboscis and on maxillary palpi fine, white; postocular area with gray micropubescence and black hairs. Prothorax with golden and silver micropubescence and fine white
hairs, more abundant on prothoracic lobe. Thoracic pleura with sparse micropubescence, golden on upper half and silver on lower half; mesepimeral bristles black. Mesonotum with scattered areas of golden micropubescence; silver micropubescence on postero-central area, scutellum, between central stripes and lateral spots, and on transverse suture; central stripes and lateral slopes dark brown; vestiture black; 7-9 black medium-sized dorsocentral bristles; 2 black notopleural bristles; 2 black intraalar bristles; 3-5 black postalar bristles; vestiture of scutellum of fine black hairs, 3-4 pairs of black scutellar bristles. Slopes of postmesonotum with silver micropubescence. Wings hyaline, veins black. Coxae with silver micropubescence and fine white hairs, more abundant on anterior side of front coxae, femora, tibiae and tarsi black with fine hairs, somewhat appressed on tibiae and tarsi, erect on femora; hind femora with 2 bristles on lateral side and 1 on ventral side near apex; bristles on tibiae abundant; bristles of legs mostly reddish, a few whitish, darker on tarsi. Abdomen shiny black, a white triangular area on each side of tergites 2-6, continued as a line along posterior border of each tergite; an indistinct band of dark golden micropubescence along middorsal line of abdomen; vestiture of fine white hairs, longer on ventral sides; 3 weak black bristles on sides of first tergite. Genitalia (Figs. 92, 93) reddish, vestiture of short white hairs over hypandrium, and longer, mostly black hairs on gonopods and epandria; penis sheath as in Figs. 95 and 97.

Female. Similar to male; ovipositor with black spines.
This species is dedicated to Dr. John L. Crites, Department of Zoology and Entomology, The Ohio State University.

**Measurements.** Total length 9.5-10.9 mm, average 8.8 mm (type 8.9 mm); wing length 6.5-8.0 mm, average 6.9 mm (type 6.5 mm); wing width 2.1-2.4 mm, average 2.2 mm (type 2.1 mm).


**Geographic Distribution.** As shown in Fig. 428.
Discussion. Females of this species are difficult to separate from the females of *H. valentinei* n. sp. In *H. critesi* the leg bristles are usually mostly reddish or whitish, while in *valentinei* they are mostly black. Specimens from northern localities (province of Linares) have the vestiture on the dorsum of the abdomen almost as long as that vestiture on the ventral side, while specimens from southern localities (province of Aysen [type]) have the hairs on the dorsum distinctly shorter. Some specimens have the tibiae slightly reddish. The golden micropubescence on the dorsum of the abdomen is indistinct in several specimens; in some specimens the abdomen is less shiny black than in the type. The distal process of the gonopods may sometimes be more pointed distally than that shown in Fig. 92.

*Hyphenetes davidsoni* n. sp.

(Figs. 94, 96, 98, 99, 420)

*Type. ♂*, Cauquenes, April, 22, 1900, Schonemann S.; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

*Diagnosis.* Body with abundant gray micropubescence; third antennal segment with basal half stalklike and black, apical half clublike and red; hypandrium with 2 short spines on apex; front tibiae usually black; front and middle tibiae with abundant long reddish bristles.

*Description of Type (♂).* Head in front view: face and frons dark
gray, almost blackish; frontal hairs mostly white, 1-2 black hairs intermingled on each side. Head in lateral view: facial gibbosity blackish; antennae dark brown, apical half of third antennal segment reddish, basal half black and stalklike; hairs on first and second segments white; ocellar bristles fine, long, black; mystax mostly black, dense and long, with several fine white hairs intermingled on lower part; beard white; hairs on ventral side of proboscis fine, white, short yellow hairs at tip; maxillary palpi black, hairs white; postocular area blackish with sparse gray micropubescence, vestiture of abundant fine white hairs, longer on each side of vertex. Prothorax with silver micropubescence and fine white hairs, more dense on prothoracic lobe. Thoracic pleura with large areas of silver micropubescence and small areas of golden micropubescence on pleura and mesepimera, hairs sparse, fine, white; mesepimeral bristles white. Mesonotum and scutellum unevenly covered by silver micropubescence, golden on sides of central stripes; central stripes and lateral spots dark brown; vestiture black; fine white hairs on humeral and posterior calli, and on scutellum; 12-14 indistinct long black dorsocentral bristles; 3 black notopleural bristles; 2 black intraalar bristles; a group of 9-12 fine black postalar bristles; 4 pairs of scutellar bristles. Slopes of postmesonotum with silver micropubescence. Wings hyaline; veins light brown, darker toward posterior border. Coxae with dense silver micropubescence and white hairs, the hairs more abundant on anterior side of front sixae; femora and tibiae black, tarsi brownish; vestiture of legs of fine white hairs, mostly of medium size, erect; hind femora with 2 reddish bristles on outer side;
bristles on front and middle tibiae mostly reddish, on hind tibiae mostly black. Abdomen covered with silver micropubescence, a blackish area on posterior half of dorsal side of tergites and a blackish band close to lateral borders; vestiture of fine erect white hairs; 3 fine black bristles on sides of first tergite. Genitalia (Figs. 93, 99) brown, with white hairs, longer on epandria; penis sheath as in Figs. 94 and 96.

**Female.** Similar to male; vestiture of mesonotum and abdomen shorter and more sparse; ovipositor shiny black with black spines.

This species is dedicated to Dr. Ralph H. Davidson, Department of Zoology and Entomology, The Ohio State University.

**Measurements.** Total length 11.1-13.5 mm, average 12.9 mm (type 12.9 mm); wing length 7.5-9.1 mm, average 8.9 mm (type 9.1 mm); wing width 2.2-2.8 mm, average 2.6 mm (type 2.8 mm).

**Material Examined.** 18♂, 15♀ and 1(gen. miss.). 1♀ Tiltl, Sept. 18, 1952, Oehrens (INCO). CONCEPCION: 1♂ 1♀ Bellavista, Concepcion, April 4, 1961, Artigas (INCO); 1♂ 1♀ (copula) Concepcion, April, 1961, Orellana (INCO); 1♀ Concepcion, March 9, 1962, Mendez (INCO); 1 Concepcion, 1904, P. Herbst (CAS); 1 (gen. miss.) Chiguayante, April 22, 1956, R. M. V. (INCO); 1♂ (gen. prep) 1♀ (gen. prep.) Lota-Coelemu, April 9, 1961, Orellana (INCO); 1♀ San Pedro, Jan. 29, 1957, J. R. (INCO). CURICO; 1♀ Cubillos, Cord. Curico, Oct. 22-27, 1959, Pena (INCO). LINARES: 1♀ Fdo. Malcho, Cord. Parral, Jan., 1957, Pena (INCO).
MAULE: 4♂ (type) Cauquenes, April 22, 1900, Schonemann S. (1 INCO; 3 BERL); 1♀ Cauquenes, March 27, 1900, Schonemann S. (INCO); 1♀ Cauquenes, March 22-27, 1898, Schonemann S. (BERL). NUBLE: 3♀ (1 gen. prep.) 2♂ (1 gen. prep.) Bulnes, April 8, 1962, Mendez (INCO); 3♂ 3♀ Quillon, April 13, 1962, Mendez (INCO); 1♂ Quillon, April 6, 1963, Mendez (INCO). O'HIGGINS: 1♂ Cord. Rengo, Schonemann S. (BERL). SANTIAGO: 1♂ Melocoton, Santiago, Nov. 14, 1954, L. E. Pena (BRAS). VALPARAISO: 1♀ Olmue, April 4, 1920, P. Herbst (CAS). No locality or date: 3♂ Chile, E. P. Reed (1 USNM; 2 CAS).

Geographic Distribution. As shown in Fig. 420.

Discussion. A ♂ and a ♀ from Concepcion, collected in copula, facilitated the recognition of the females of this species; females of H. davidsoni are apparently impossible to separate from females of H. digitatus. The distal process of the gonopods is constantly different in these two species, and permits the separation of males without difficulty.

Hypenetes digitatus n. sp.
(Figs. 100, 101, 103-105, 484)

Type. ♂, from Lota-Coelemu, April 9, 1961, Orellana; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Third antennal segment with basal half black, and stalk-like, distal half reddish and clublike; tibiae blackish; abdomen gray
on sides, shiny black on dorsum; gonopods with a long distal fingerlike process.

**Description of Type.** (♂). Head in front view: face and frons with gray micropubescence, more dense in face; frontal hairs long, black; ocellar bristles long, black. Head in lateral view (Fig. 101): facial gibbosity blackish; mystax long, totally black; first and second antennal segments black, with white hairs on first segment and black hairs on second segment; third antennal segment with basal half black and stalklike, distal half reddish and clublike; microsegments blackish; beard white; hairs on venter of proboscis fine, long, white, short yellow hairs at tip; mixillary palpi black with fine white hairs; postocular area blackish, with vestiture long, black on upper part and behind vertex, and shorter, finer white on lower part. Prothorax with sparse gray micropubescence, vestiture fine, white, more dense on prothoracic lobe. Thoracic pleura black with faint light purple highlights and unevenly covered with dark golden micropubescence; vestiture of a few long hairs; mesepimeral bristles black. Mesonotum with micropubescence except on central stripes and lateral spots, light golden on humeral calli, dark golden in center and gray on posterior calli, posterocentral area, and scutellum; stripes and spots appearing dark brown; vestiture of mesonotum and scutellum black, with a few fine short white hairs intermingled on humeral calli; 10-14 indistinct black dorso-central bristles; 2-3 black notopleural bristles; 3-4 black intraalar bristles; 5-8 black postalar bristles; 5-6 pairs of black scutellar bristles. Slopes of postmesonotum with silver micropubescence. Wings
hyaline, with a brown halo on fork of Rs, r-m, fork of R₄₊₅, and base of M₂; veins dark brown. Coxae similar in color and coveture to thoracic pleura, hairs fine, white, more abundant on anterior side of front coxae; femora black, tibiae and tarsi brown; vestiture on legs of fine white hairs, mostly erect; hind femora with 2 bristles on outer side; bristles on tibiae black and reddish intermingled, on hind tibiae and tarsi mostly black. Abdomen with gray micropubescence, tergites 2-4 bluish black on dorsum; tergites 5-6 with dark brown micropubescence dorsally, more distinct in lateral view; vestiture of short black hairs on dorsum and longer white hairs on sides and venter; 4 weak black bristles on sides of first tergite. Genitalia (Figs. 103, 104) mostly dark reddish; vestiture mostly black, white hairs intermingled on epandria; gonopods with a distinct long fingerlike distal process; penis sheath as in Figs. 100 and 105.

**Female.** Similar to male; ovipositor tapered, dark reddish and black, spines black.

The name *digitatus* refers to the fingerlike process of the gonopods.

**Measurements.** Total length 9.5-13.5 mm, average 12.5 mm (type 13.5 mm); wing length 6.8-8.4 mm, average 7.6 mm (type 8.4 mm); wings width 1.8-2.4 mm, average 2.1 mm (type 2.4 mm).

**Material Examined.** 18♂ and 15♀. ARAUCO: 1♂ Contulmo, March 23, 1905, Schonemann S. (INCO); 1♂ 1♀ Contulmo, March 20, 1902, Schonemann S. (♀ INCO; ♂ BERL); 1♂ Contulmo, April 10, 1902, Schonemann S. (INCO);
It is Contulmo, Aug. 12, 1903, Schonemann (BERL); 1♂ Contulmo, April 28, 1903, Schonemann S. (BERL); 2♂ Contulmo, March 27, 1903, Schonemann S. (BERL); 1♂ 1♀ Contulmo, April 5, 1902, Schonemann S. (BERL); 1 Contulmo, March 20, 1902, Schonemann S. (BERL); 1♀ Contulmo, April 25, 1903, Schonemann S. (BERL); 1♀ Contulmo, Feb., 1903, Schonemann S. (BERL); 1♀ Tres Pinos, Nahuelbuta, Feb. 16, 1965, O. Fetis (INCO). CAUTIN: 1♀ Temuco, March 8, 1965, O. Fetis (INCO). CONCEPCION: 1♂ Coelemu, May 1, 1956, L. Longeri (INCO); 1♂ (type) Lota–Coelemu, April 9, 1961, Orellana (INCO). MALLECO: 1♀ Angol, Feb. 9, 1941. P. A. Berry (♂ INCO; ♀ USNM); 3 3 (1 gen. prep.) Angol, March 20–25, 1957, Parada (INCO); 1♀ Angol, 1200 m., March 10, 1929 (INCO); 1♀ Angol, March 6, 1941, P. A. Berry (INCO); 1♀ Angol, April 10, 1927 (USNM); 1♂ Angol, 1200 m., March 10, 1929 (USNM). SANTIAGO: 1♂ 1♀ Naipu, Santiago, April 13, 1959, Pena (INCO). VALPARAISO: 1♂ Alhue, Jan., 1823 (INCO).

Geographic Distribution. As shown in Fig. 484.

Discussion. The females of this species are difficult to separate from females of H. dividsoni; females of H. digitatus usually have the ovipositor more tapered than females of H. davidsoni.

I have studied 2 specimens from Naturhistorisches Museum, Wien: 1♀ Concepcion, Chile, 3–1908 and 1♂ Concepcion, 24 III, 1907; the ♀ is labeled type and the ♂ cotype of Hypenetes princeps Hermann. There is apparently an error in the labeling because Hermann did not describe any species princeps from Chile. Macquart, 1847(2):19, described
Dasypogon princeps from "Nouvelle-Hollande" and Brazil, not from Chile, therefore, those 2 specimens are not Macquart's original material; they are Hypenetes digitatus n. sp.

Hypenetes fucosus n. sp.

(Figs. 102, 106, 107, 109, 468)

Type. ♂, from Pichinahuel, Cord. Nahuelbuta, 1100-1400 m., Arauco, Jan. 31, 1954, L. Penn; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Antennae black, basal third of third antennal segment stalklike; abdomen shiny bluish black, with a white triangular mark on side of each tergite, continued as a line along posterior border; male genitalia reddish brown.

Description of Type (♀). Head in front view: face and frons with silver micropubescence with abundant dark golden micropubescence in central area of front and over ocellarium; frontal hairs and ocellar bristles black. Head in lateral view: facial gibbosity mostly blackish, silver on dorsal part; mystax black; antennae black, third antennal segment with basal third stalklike; first and second segments with black hairs; beard white; hairs on ventral side of proboscis and on maxillary palpi white; postocular area with sparse golden micropubescence in center, silver along borders; postocular vestiture of medium-sized black hairs near vertex, shorter near center and finer and white on basal part. Prothorax with silver micropubescence, hairs white, more abundant
on prothoracic lobe. Thoracic pleura with large areas of micropubes-
cence, mostly silver on sternopleura, dark golden on remaining sclerites,
a few fine white hairs; mesepimeral bristles black. Mesonotum dark
brown, with dense golden micropubescence along borders of central stripes
and lateral spots, slightly silver on humeral calli and near posterior
calli; scutellum dark brown with a small area of silver micropubescence
on each side; vestiture of mesonotum and scutellum black; 7 black
distinct dorsocentral bristles; 3 black notopleural bristles; 3 black
intraalar bristles; 3 black postalar bristles; 3 pairs of black scutellar
bristles. Coxae shiny black, unevenly covered with silver micropubes-
cence, hairs white, more abundant on anterior side of front tibiae;
femora black; tibiae and tarsi brown, lighter on base of tibiae; vesti-
ture of legs black; hind femora with 4 short black bristles on outer side
and 1 short black bristle on ventral side near apex; bristles on bitiae
and tarsi black. Slopes of postmesonotum with silver micropubescence.
Wings hyaline, brownish around forks and cross veins, except on R1-Rs
fork. Abdomen bluish black, shiny, with distinct white triangular
marks on sides of tergites that are continued as a line along posterior
border; indistinct brownish micropubescence on middorsal line of abdomen;
vestiture of uniform short black hairs. Genitalia (Figs. 102, 106)
reddish brown, covered with sparse black hairs; penis sheath as in Figs.
107, 109).

Female. Similar to male; dorsal side of tergites 5-8 reddish with
indistinct brownish micropubescence; spines on ovipositor black.
The name *fucosus* refers to the colorful abdomen and genitalia on both sexes.

**Measurements of Type.** Total length 11.5 mm; wing length 7.5 mm; wing width 2.4 mm. Paratypes similar in size.


**Geographic Distribution.** As shown in Fig. 468.

**Discussion.** This is a distinct species because of the color of the abdomen; *H. critesi* has similar marks on the abdomen but the bluish highlights are indistinct, and the females do not have reddish on the dorsal side of tergites 5-8. The definitive character to separate the two species is the genital structures of the males; the penis sheath is in *H. fucosus* completely different from that of all other species studies.

*Hypenetes magellanicus* n. sp.

(Figs. 108, 110-112, 418)

Type. ♂, Cerro Guido, Magallanes, Feb. 11, 1957, Cekalovic; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.
**Diagnosis.** Body and legs black, with sparse gray micropubescence on thorax and abdomen; antennae black, basal half of third segment stalklike; hypandrium with 2 long curved spines at tip.

**Description of Type (♂).** Head in front view: face and frons with sparse gray micropubescence; frontal hairs black, a few finer whitish hairs of similar length intermingled; ocellar bristles long, black. Head in lateral view: facial gibbosity blackish with sparse gray micropubescence; mystax black; antennae black; hairs on first and second antennal segments white; beard white; hairs on ventral side of proboscis and on maxillary palpi white; postocular area similar in coverture to vertex and frons, vestiture black on upper part and white on lower part. Prothorax with white hairs. Thoracic pleura blackish, with sparse gray micropubescence along borders of central stripes and lateral spots; vestiture black, a few fine white hairs intermingled on humeral calli; scutellum similar in coverture to mesonotum, hairs fine, black; 6-7 black dorsocentral bristles; 2 black notopleural bristles; 2 black intralaral bristles; 4 black postalar bristles; 3-4 pairs of scutellar bristles. Slopes of postmesonotum with gray micropubescence. Wings hyaline, totally transparent, veins brown. Coxae similar in coverture to thoracic pleura, hairs white, more abundant on anterior side of front coxae; femora, tibiae, and tarsi black, with fine white hairs; bristles on legs brown, darker on tarsi; hind femora with 3 short bristles on outer side, 2 near apex, 1 near base, and 2 bristles on apical half of ventral side. Abdomen uniformly covered with sparse gray micropubescence; vestiture of fine white hairs, longer on sides of tergites 1-3 and on
Sternites. Genitalia (Figs. 10S, 110) dark brown, hairs mostly white with a few black hairs intermingled; hypandrium with 2 long curved blackish spines at tip; penis sheath as in Figs. 111 and 112.

**Female.** Similar to male; ovipositor black, spines black.

The name *magellanicus* refers to the type locality.

**Measurements of Type.** Total length 9.8 mm; wing length 6.8 mm; wing width 2.1 mm. Paratypes similar in size.

**Material Examined.** 4♂ and 2♀. MAGALLANES: 4♂ (type) (1 gen. prep.) 1♀ (gen. prep.) Cerro Guido, Magallanes, Feb. 11, 1957, Cekalovic (INCO).

**Geographic Distribution.** As shown in Fig. 418.

**Discussion.** The long spines on the tip of the hypandrium are a distinctive characteristic of this species. The series studied is somewhat greased, and the full color of the micropubescence has not been fully observed.

**Hypenetes punctipennis** (Philippi)

(Figs. 113, 114, 116, 117, 417)

*Clavator punctipennis* Philippi, 1865, p. 699, Pl. 26, figs. 31 and 31a-b, San Fernando; Schiner, 1868, p. 159, Chile.

Type. Lost. A neotype is hereby designated as a from Pichina-huel, Arauco, 1100 m. March 26-28, 1954, L. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body black with abundant areas of silver micropubescence; antennae black, basal half of third segment stalklike; tibiae black; 8-10 strong medium-sized black bristles on apical half of ventral side of hind femora.

Description of Neotype (♂). Head in front view: face and frons with abundant silver micropubescence; frontal hairs and ocellar bristles long, black. Head in lateral view: facial gibbosity blackish and silvery; mystax long, abundant, black; antennae black, first and second segments with white hairs, a few black hairs at tip of second segment; third antennal segment stalklike in basal half; beard, hairs of ventral side of proboscis and of maxillary palpi, fine, white; postocular area with silver micropubescence, vestiture black, hairs on occipital area long. Prothorax with gray micropubescence and a few fine, scattered white hairs. Thoracic pleura with light purple highlights, micropubescence mostly dark gray and dark golden, a few fine white hairs; mes-epimeral bristles black. Mesonotum with dense golden micropubescence along borders of central stripes and lateral spots, dark gray micropubescence on humeral and posterior calli and on scutellum; central stripes, lateral spots, and posteroentral area dark brown; vestiture black, a few fine white hairs intermingled on humeral calli; scutellum with fine white hairs intermingled on humeral calli; scutellum with
fine medium-sized black hairs; 10-14 indistinct fine black dorso-central bristles; 2 black notopleural bristles; 2 black intraalar bristles; 8-10 black postalar bristles; 4-5 pairs of scutellar bristles. Coxae similar in coverture to thoracic pleura, hairs white, more abundant on anterior side of front coxae; femora, tibiae, and tarsi black, hairs black and white intermingled, mostly black on hind femora, mostly white on front and middle femora; hairs shorter on hind tibiae; hind femora with a group of 10 medium-sized black bristles on apical half of ventral side; bristles on legs black and reddish intermingled, all black on hind tibiae. Slopes of postmesonotum with silver micropubescence. Wings hyaline, a brownish area around forks and cross veins (except on R₁-Rs fork); veins black. Abdomen shiny black with gray micropubescence on sides, posterior border of tergites, and sternites; micropubescence more abundant on last 3 tergites; vestiture of short black hairs on dorsal side and finer medium-sized white hairs on lateral and ventral sides. Genitalia (Figs. 113, 114) dark reddish, hairs mostly black with a few finer white hairs intermingled; 2 short black spines on tip of hypandrium; penis sheath as in Figs. 116, 117.

Female. Similar to male; ovipositor black, slightly tapered, black spines.

Measurements. Total length 9.5-11.5 mm, average 10.6 mm (neotype 10.8 mm); wing length 7.1-8.6 mm, average 7.7 mm (neotype 7.5 mm); wing width 2.1-2.3 mm, average 2.2 mm. (neotype 2.1 mm).

Material Examined. 13♂, 7♀ and 3 (gen. miss.). ARAUCO: 3 (gen.

**Geographic Distribution.** As shown in Fig. 417.

**Discussion.** The presence of 8-10 black bristles on the ventral side of the hind femora is a distinctive character of this species.

**Hypenetes schineri** n. sp. 
(Figs. 118-123, 125, 493)

**Hypenetes fulvicornis** (Macquart), Schiner, 1868, p. 159.

**Type.** ♂, from Lagunillas, April, 1942, S. Ramon; this specimen is deposited on Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Body with large areas of golden micropubescence, the body appearing light brown; third antennal segment reddish, the basal half stalklike; mystax black, with a few white hairs on basal part; tibiae light brown or reddish.
Description of Type (♂). Head in front view: face with dense silver micropubescence; frons with sparse golden micropubescence; frontal hairs fine, medium-sized, white, 4 long black bristlelike hairs intermingled on each side; ocellar bristles long, black. Head in lateral view: vachial gibbosity dark gray; mystax long, black, a few white hairs on basal part; first and second antennal segments with white hairs, a few long black hairs at apex of second segment; third segment reddish, basal half stalklike, microsegment black; beard, hairs on ventral side of proboscis and on maxillary palpi, white; postocular area with silver and golden micropubescence; vestiture mostly white, a group of black hairs intermingled on each side of vertex. Prothorax with dark golden micropubescence and fine white hairs, more abundant on prothoracic lobe. Thoracic pleura shiny black, unevenly covered with large areas of dark golden micropubescence and a few fine white hairs; mesopimeral bristles intermingled black and white. Mesonotum and scutellum covered with dense golden micropubescence, dark brown on central stripes and lateral spots, and silver on posterior calli and on transverse suture; vestiture black, fine and white on humeral calli; 10-11 black dorsocentral bristles; 4 black notopleural bristles; 2 black intraalar bristles; 7-8 black postalar bristles; 5 pairs of black scutellar bristles. Slopes of postmesonotum with golden micropubescence. Wings (Fig. 118) hyaline, slightly brownish, a brown area around forks and cross veins. Coxae similar in coverture to thoracic pleura, hairs white, more abundant on anterior side of front coxae; femora black with long white hairs; hind femora with 2 reddish and 1 black bristle on
external side; tibiae and tarsi reddish brown with short white hairs, bristles reddish and black intermingled, black on hind tibiae and tarsi. Abdomen mostly black on dorsum, a triangular golden area on anterodorsal corner of each tergite, and silver micropubescence on sides, leaving a long darker band parallel to lateral borders; golden areas larger on tergites 5-7; vestiture of short hairs, black on dorsum, white on lateral and ventral sides. Genitalia (Figs. 120, 121) reddish brown; gonopods black; vestiture mostly of white hairs, a few black hairs intermingled; hypandrium with 3 black spines at tip; penis sheath as in Figs. 119 and 122.

Female. Similar to male; ovipositor black with short white hairs; spines black (Figs. 123, 125).

This species is dedicated to Ignaz R. Schiner who gave a description of the species in 1868 (see discussion).

Measurements. Total length 13.5-16.5 mm, average 15.3 mm (type 15.5 mm); wing length 9.6-11.1 mm, average 10.2 mm (type 10.6 mm); wing width 2.7-3.2 mm, average 3.0 mm (type 3.1 mm).

Material Examined. 16♂ and 10♀. O'HIGGINS: 1♂ Cord. Rengo, Schonemann S. (BERL); 2♂ Rancagua, April, 1897, Schonemann (INCO); BERL). VALPARAISO: 7♂ [type] 2♀ Lagunillas, April, 1942, S. Ramon, E. P. Reed (5♂ 2♀ CAS; 2♂ INCO); 1♂ Olmue, March 27, 1920, P. Herbst (INCO); 1♂ Olmue, March 23, 1920, P. Herbst (INCO); 1♂ Valparaiso, E. P. Reed (CAS); 3♀ (1 gen. prep.) 1♂ 1♀ (copula) Lagunillas, April, 12, 1942, E. P. Reed (2♂ CAS; 2♀ 1♂ INCO). Locality uncertain: 1♂ 2♀,
Geographic Distribution. As shown in Fig. 493.

Discussion. The spines on the tip of the hypandrium vary from 2-4; in some specimens the posterior tibiae are dark brown; greased specimens appear darker, some almost blackish.

Macquart apparently described two different species under the name *Dasypogon fulvicornis*, (1) specimens from Brasil (1846:67, Pl. 7, fig. 1), and (2) specimens from Coquimbo, Chile (1850:68, Pl. 6, fig. 12); the two species differ in several characters. The 1846 species: thorax gray; 3 long black thoracic stripes (which does not agree with his fig. 1 in Pl. 7 mystax black, mixed with white hairs; femora black; first and second antennal segments black with white hairs; third antennal segment attenuated at base. The 1850 species: thorax brownish, with scapular spots, 2 yellowish brown lines, and a band above wing insertions; mystax reduced, white; femora reddish; first antennal segment with black hairs, second segment with reddish hairs; third antannal segment enlarged at base; Macquart's figure (1850, fig. 12 shows the reduced mystax, the flat face, and the shape of the antennae.

Schiner (1868:159) described what he thought was *Dasypogon fulvicornis* Macquart 1846 and placed it in the genus *Hypenetes*, but what he described was not *fulvicornis* Macquart 1846. *D. fulvicornis* Macquart 1846 is probably a valid species from Brazil, and probably belongs to the genus *Hypenetes*, but Schiner's species is different and is here described as *Hypenetes Schineri*, n. sp. Schiner (op.cit.) placed *D. fulvicornis*
Macquart 1850 in the genus Scylaticus; in this paper it is placed in the genus Oberon. Blanchard (1852:366) described a $\delta$ and $\Phi$ of D. fulvicornis Macquart from Coquimbo (Chile); his description agrees with Macquart's description of 1850, confirming the locality of Macquart's material. Macquart's material for his two species has not been found.

A $\Phi$ of H. schineri from Valparaiso, R. Novara, in Naturhistorisches Museum, Wien, is identified as Hypenetes fulvicornis by Hermann, and labeled as the type of flavicornis; flavicornis is a nomen nudum.

Hypenetes valentinei n. sp.

(Figs. 124, 126, 127, 129, 419)

Type. $\delta$, from Coquimbo, Nov. 7-10, 1961, Pena; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

Diagnosis. Body with abundant gray micropubescence; third antennal segment black, basal third stalklike; tibiae black; hind femora with 2 bristles on outer side, one near base and the other near apex; tip of hypandrium spatulate, with a notch on distal border.

Description of Type ($\delta$). Head in front view: face covered with light gray micropubescence, frons with dark gray micropubescence; frontal hairs and ocellar bristles long, black. Head in lateral view: facial gibbosity blackish; mystax black; third antennal segment black, basal third stalklike, first and second segments mostly with black hairs, some finer white hairs intermingled; beard, hairs on ventral side of proboscis and on maxillary palpi, white; postocular area with dark gray
micropubescence, vestiture black on upper half, white on basal half. Prothorax with gray micropubescence and fine white hairs, more dense on prothoracic lobe. Thoracic pleura uniformly covered with gray micropubescence, a few long hairs on sternopleura; mesepimeral bristles black. Mesonotum and scutellum with dense gray micropubescence except on central stripes, lateral spots, and on a line behind humeral calli; vestiture black; 10-14 weak medium-sized black indistinct dorsocentral bristles; 2-3 black notopleural bristles; 1-2 black intraalar bristles; 7-9 black postalar bristles; 6 pairs of weak long scutellar bristles. Slopes of postmesonotum with gray micropubescence. Wings hyaline, veins dark brown. Coxae similar in vestiture to thoracic pleura, hairs white, more dense on anterior side of front coxae; femora, tibiae, and tarsi black; vestiture of front and middle femora mostly white, on hind femora mostly black; hind femora with 2 black bristles, one near apex and one near base; bristles on front and middle tibiae black and reddish intermingled, on hind tibiae and tarsi black. Abdomen shiny black on dorsum; sides and posterior border of tergites with dense gray micropubescence, indistinct areas of sparse gray micropubescence on middorsal line mostly near anterior border of each tergite; vestiture of abundant, erect hairs, black on dorsum and white on sides and venter, longer on segments 1-3; 6-7 black bristles on sides of first tergite. Genitalia (Figs. 127 and 129) reddish; vestiture black with a few white hairs intermingled; hypandrium spatulate at tip, with a notch on distal border, and bent at a 90° angle, the tip usually hidden between epandria and cerci; penis sheath as in Figs. 124 and 126.
Female. Similar to male; ovipositor shiny black, with black spines.

This species is dedicated to Dr. Barry D. Valentine, Department of Zoology and Entomology, The Ohio State University.

Measurements. Total length 10.6-14.3 mm, average 11.7 mm. (type 11.8 mm); wing length 7.6-9.4 mm, average 8.0 mm (type 8.1 mm); wing width 2.2-2.8 mm, average 2.5 mm (type 2.4 mm).


Geographic Distribution. As shown in Fig. 419.

Discussion. The color of the male genitalia varies from reddish to black.

A ♀ from Cordillera Rancagua, Chile, 12, 1903, P. Herbst, labeled as the type of Hypenetes rubrisetosus Hermann in Naturhistorisches Museum, Wien, Austria, is Hypenetes valentinei; H. rubrisetosus is a
nomen nudum. A from J. T. Medina Collection has a label in Philippi's handwriting: "Clavator ? hirsutus Ph."; this is a nomen nudum.

Leptochela n. gen.

Type of the genus; Leptochela jaujensis n. sp.

Head in front view one-sixth higher than wide; vertex moderately sunken; median ocellus at base of ocellarium. Head in lateral view: postocular area two-thirds eye width; facial gibbosity well developed, occupying four-fifths of face; mystax abundant, occupying all frontal area of facial gibbosity; first antennal segment cylindrical, two times the length of second which is nearly spherical, third segment long, one and one-half times the length of the two first combined, slightly pedicelated with a short cylindrical microsegment which has a minute spine at tip. Collar with a complete row of strong sharply pointed bristles. Mesonotum with distinct central stripes and lateral spots; mesonotal coverture of sparse short hairs, bristles strong and long; 5 long strong dorsocentral bristles; 4 long notopleural bristles; 5 long intraalar bristles; 4 long postalar bristles; 3 pairs of long scutellar bristles; scutellum with a patch of hairs on each side. Slopes of post-mesonotum with micropubescence, no distinct pile present. Marginal cell open; fourth posterior cell closed and stalked; \( R \) reaching border before wing apex, \( R_5 \) reaching wing margin behind wing apex; anal cell closed with a short stalk; \( M \) and \( m \) forming a 50° angle. Front tibial spur absent. Abdomen tapered, first segment as wide as mesonotum, with a row of about 16 strong bristles on each side, the tow rows leaving
a small free space on dorsal line. Wing not reaching tip of abdomen. Legs with abundant long bristles; claws long, slightly curved, pulvilli minute, one-fifth the length of claws. Ovipositor with 9th tergite slightly flattened on dorsal side; 5 pairs of spines on acanthophorites.

Males. Unknown.

Distribution. Neotropical (Chile), 1 species, Leptochela jaujensis n. sp.

This genus is closely related to Creolestes Hull and to Bathypogon Loew, and can be separated from them by the characteristic long slender, slightly curved claws and the minute pulvilli, which are no longer than one-fifty the total length of the claws; in Creolestes and Bathypogon the claws are strongly curved and the pulvilli almost reach the tip of the claws. Leptochela has a row of about 16 bristles on each side of the posterior border of the first tergite; these bristles are reduced to a group on each side in Creolestes and Bathypogon, and never forming an almost complete row along the posterior border of the tergite.

The name Leptochela refers to the long claws (λεπτός = long; χελαι = claw).

Leptochela jaujensis n. sp.

(Figs. 128, 130-132, 426)

Type. ♀, from Jauja, Mamina, Iquique, Chile, Nov. 16, 1951, L. E.
Diagnosis. Body, head, and legs black; bristles on legs long and brownish; body and legs covered with white hairs; mystax white with black hairs along sides; antennae black; claws long, slender, sharp, slightly curved; pulvilli reduced to one-fifth the length of claws; collar bristles long, black; notal bristles long, black.

Description of Type (♀). Head in front view: face black, with sparse white micropubescence; frons same color as face, with sparse white hairs and few black hairs intermingled; ocellarium with same color and coverture as frons; ocellar bristles not distinct, hairs white; ocelli reddish. Head in lateral view (Fig. 128): facial gibbosity shiny black with sparse white micropubescence; mystax of white hairs in center and dark brownish hairs along sides; antennae black, first and second segment with short black bristles and hairs on dorsal side and long white hairs and bristles on ventral side, longer bristles reaching middle of third segment; third segment long, slightly dilated near middle part, with a cylindrical microsegment which has a minute spine at tip (Fig. 132); beard white; occipital bristles black, arranged in a row along posterior border of eyes; postocular coverture reduced to a few white hairs; proboscis shiny black with long white hairs on ventral basal part and short white hairs at tip; maxillary palpi black with white hairs. Prothorax black with sparse long white hairs; collar bristles long, strong, black, sharply pointed,
a few white hairs in between bristles. Thoracic pleura black with sparse inconspicuous silver and golden micropubescence, a few white hairs present on sclerites; mesepimeral bristles white. Mesonotum, humeral calli, and posterior calli black with dark gray micropubescence; central stripes and lateral spots indistinct, slightly brownish; mesonotal coverture of sparse white hairs, bristles long black; scutellum black, with a group of long white hairs on each side; 5 long black dorsocentral bristles; 4 long black notopleural bristles, 3 on posterior border of notopleura and 1 near humeral callus; 5 long black intraalar bristles arranged in a single line; 4 long black postalar bristles; 3 pairs of long black scutellar bristles. Slopes of the postmesonotum black with sparse gray micropubescence. Wings (Fig. 130) hyaline, veins dark brown. Legs shiny black covered with sparse white hairs and long light brown bristles, front coxae with abundant white hairlike bristles. Claws (Fig. 131) long, slightly curved, sharp pointed, basal half reddish, distal half black; pulvilli minute, one-fifth the length of claws. Abdomen black, covered with sparse white hairs, posterior border of tergites brownish, lateral border of first 3 tergites reddish; sternites black, posterior border reddish; posterior border of first tergite with a row of 16 strong black bristles on each side, forming an almost complete line along posterior border of tergite, interrupted for a short distance on dorsum; ovipositor black, last 3 segments with sparse short white hairs; 5 pairs of black spines on acanthophorites.

Male. Unknown.
The name *jaujensis* refers to the type locality.

**Measurements of Type.** Total length 12.0 mm, wing length 7.5 mm; wing width 2.1 mm. Paratype similar in size.

**Material Examined.** TARAPACA: 2♂ [Type] Jauja, Mamina, 3500 m., Iquique, Nov. 15, 1951, L. E. Pena (INCO).

**Geographic Distribution.** As shown in Fig. 426.

**Discussion.** This species can easily be recognized by the long slightly curved claws and the short pulvilli, the long black bristles on the mesonotum, and the almost complete row of strong black bristles on the posterior border of the first abdominal tergite.

*Obelophorus Schiner*

*Obelophorus* Shiner, 1866, p. 672; Hull, 1962, p. 45.

Type of the genus, *Dasypogon terebratus* Macquart 1849, by original designation.

Head in front view: slightly higher than wide; head in lateral view: with postocular area one-third eye width, facial gibbosity well developed, and occupying five-sixths of face. Antennae long, third segment about 3 times length of first two segments, with a terminal microsegment bearing a short terminal spine. Mystax abundant, the hairs in upper part shorter than that on basal half. Mesonotum covered by short hair; the hairs longer and more dense near the posterior border.
Mesonotum shiny black with no special pattern discernible. Scutellum with abundant long hairs; 10-13 pairs of long thick bristles, intermingled with hairs of same length. Slopes of postmesonotum covered by dense micropubescence, no hairs. Marginal cell open; fourth posterior cell closed and stalked; \( R_4 \) vein reaching wing margin before apex; \( R_5 \) vein reaching wing margin behind apex; anal cell closed and stalked; \( M_3 \) and \( m \) veins forming a 170° angle or forming a nearly straight line. Front tibial spur absent. Abdomen tapered. Wings reaching tip of abdomen. Male genitalia small, not rotated; hypandrium well developed, with two posterolateral processes; epandrium forcepslike, small, not cleft; gonopods globose, fused on ventral margin; hypandrium rectangular. Female genitalia long, ovipositor formed by segments 7-9, seventh segment cylindrical, long, expanded on posterior border; tip of ovipositor with a group of strong bristles intermingled with hairs; total length of ovipositor, approximately 7 mm.

**Distribution.** Neotropical (Chile), 2 species.

**Key to the Species of Obelophorus**

1. Mystax yellow; hind tibiae hair black, with a broad ring of yellow hair in the middle part; first antennal segment with yellow hair. *O. terebratus* (Macquart)
1'. Mystax black; hind tibiae hair black, or with a small patch of yellow hairs in the middle part; first antennal segment with black hairs . . . . . .

..................................... O. landbecki (Philippi)

Obelophorus landbecki (Philippi)

(Fig. 476)

Dasypogon landbecki Philippi, 1865, p. 686, Valdivia, Colchagua.

Obelophorus landbecki (Philippi). Schiner, 1866, p. 672; Bromley, 1932, p. 263; Stuardo, 1946, p. 83; Hull, 1962, p. 46, figs. 28, 805, 814, 1654, and 1877.

Type. Lost. A neotype is hereby designated as a (no locality or date); this specimen is deposited in Museo Nacional de Historia Natural, Santiago, Chile.

Description of Neotype (♀). Body black, covered by abundant long, yellow and black hairs arranged in distinct patterns. Notum covered by very short black hairs; mystax uniformly black; hind tibiae with uniformly dense long black hairs.

Head in front view: face covered by yellow micropubescence along borders, central area black; frons black with black hairs; ocellarium black, ocelli red; ocellar bristles black. Head in lateral view: facial gibbosity black with sparse silver micropubescence; mystax black, hairs of upper side shorter than those on basal half; antennae uniformly black, first antennal segment with abundant black hairs on
lateral side; beard black; occipital hairs black; postocular hairs black on upper side, yellow on middle areas; proboscis shiny black, with black hairs on ventral side and short yellow hairs at tip; maxillary palpi black, with abundant black hairs. Prothorax black, covered by long black hairs on dorsal area, and yellow hairs on sides; collar bristles not distinct. Mesopleuron shiny black, with black and yellow hairs intermingled; mesepimeral bristles abundant, yellow. Mesonotum shiny black, central area with sparse micro-hairs, anterior and lateral borders with black hairs, posterior border with abundant yellow hairs; central stripes and lateral spots absent; humeral callus black, with black hairs; posterior callus black with abundant yellow and black hairs, and yellow bristles intermingled; scutellum shiny black; no dorso-central bristles; 4-5 black notopleural bristles; no distinct intralaral bristles; more than 10 postalar bristles, as described for the posterior callus; scutellar disc with abundant long yellow hairs; 13-15 pairs of long yellow scutellar bristles, arranged in 2-3 rows on posterior border. Slopes of postmesonotum shiny black, without hairs. Wings hyaline, veins black with a brownish halo. Legs black; coxae and trochanters with abundant black hairs; femora covered by abundant black hairs, basal three-fourths of dorsal side with yellow hairs of same length; femoral bristles black; tarsal hairs and bristles black; claws shiny black. Abdomen covered by abundant hairs; tergites 1, 2, 4 and 5 with long yellow hairs, 3 and 6 with long black hairs, dorsal area of 3 with yellow hairs intermingled with a few black ones; sternites with long, dense black hairs, sternites 4 and 5 with a transverse band
of yellow hairs. Ovipositor long, cylindrical, narrow, including the seventh abdominal segment, with sparse black hairs.

**Male.** Similar to female; genitalia black.

**Measurements.** Total length 30.0–45.0 mm, average 34.0 mm (neotype 45.0 mm); wing length 21.0–28.0 mm, average 24.0 mm (neotype 45.0 mm); wing width 6.0–8.5 mm, average 7.0 mm. (neotype 8.5 mm).


**Discussion.** *O. landbecki* (Philippi) is easily recognized by its large stout body, densely covered by black and yellow hairs, and the black mystax. Hairs on the hind tibiae are black in the Chilean specimens studies, but one female from Argentina has a few yellow hairs in the center of the hind tibiae, this could be confusing when separating this species from *O. terebratus* (Macquart), but in *O. terebratus* there is a complete broad ring of yellow hairs on the hind tibiae, not just a few hairs as in *O. landbecki* (Philippi).
Geographic Distribution. As shown in Fig. 476.

**Obelophorus terebratus** (Macquart)

(Figs. 28-33, 467)

*Dasypogon terebratus* Macquart, 1850. p. 66, fig. 11, Chile; Blanchard in Gay, 1852, Coquimbo.

*Obelophorus terebratus* (Macquart). Schiner, 1866, p. 672; Bromley, 1932, p. 263; Stuardo, 1946, p. 83; Hull, 1962, p. 46, fig. 401.

**Type.** 2♂ cotypes, in Museum National d'Histoire Naturelle, Paris (no seen).

**Diagnosis.** Body black covered by abundant long yellow and black hair; mystax yellow; hind tibiae covered with black hairs, with a broad ring of yellow hair on middle part.

**Female.** Head in front view: face with yellow micropubescence on lateral borders, center black; fons black, with black hairs; ocellarium black, ocelli yellow; ocellar bristles black. Head in lateral view (Fig. 29): facial gibbosity black, with sparse, banded, yellow micropubescence; mystax yellow, a line of black hairs on lateral borders, hairs of upper half shorter than those on basal half; antennae black, first segment with yellow hairs laterally and a few black hairs dorsally; beard black, upper hairs yellow; occipital hairs black; postocular hairs yellow; proboscis shiny black with black hairs on ventral side; maxillary palpi black with abundant black hairs.
Mesopleuron black, with abundant yellow hairs intermingled in some areas with black hairs; mesepimeral bristles hairlike, abundant, yellow. Mesonotum shiny black, with sparse black hairs which are longer along frontal and lateral sides, posterior third with abundant yellow hairs; central stripes and lateral spots not distinct; humeral callus black with short black hairs; posterior callus black with black hairs and abundant postalar yellow bristles; dorsocentral bristles absent; 4 notopleural bristles; no distinct intraalar bristles; scutellar disc with abundant long, dense yellow hairs; 15-16 pairs of long yellow scutellar bristles. Slopes of postmesonotum shiny black, partially covered by yellow micropubescence. Wings (Fig. 28) hyaline, veins dark brown surrounded by brown halo. Coxae and trochanters black with black hairs; femora black with long yellow hairs, hairs in extreme base and apex black, bristles black; front tibiae black covered by abundant black hairs, middle and hind tibiae black covered by abundant black hairs with a broad ring of yellow hairs on central part; tarsi black, hairs and bristles black; claws black. Abdominal tergites 1, 2, 4 and 5, with abundant long yellow hairs, tergites 3 and 6 with black hairs; sternites 1-3 and 6 with abundant black hairs, sternites 4 and 5 with long yellow hairs. Female ovipositor black (Fig. 33).

Male. Similar to female; genitalia black (Figs. 30, 31); penis sheath as in Fig. 32.

Measurements. Total length 28-41 mm, average 37 mm; wing length 21-24 mm, average 23 mm; wing width 6.0-7.3 mm, average 7 mm.
Material Examined. 8♂ and 12♀. O'HIGGINS: 1♂ Rancagua, 1906, P. Herbst (CAS). SANTIAGO: 1♀ Las Condes, Dec. 24, 1959, L. E. Pena (INCO); 1♀ Penalolen, Dec. 17, 1949, L. E. Pena (INCO); 1♀ Rio Maipo, El Peumo, Nov., 1949, L. E. Pena (INCO); 1♂ Santiago, #1976, Puelma (BER); 1♂ Santiago (INCO). VALPARAISO: 1♀ Casablanca, Jan., 1937, E. P. Reed (CAS); 1♂ Limache, Jan., 1920 (CORN), 1♀ Nov. 14, 1924 (USNM); 1♂ 1♀ Valparaiso, A. Faz (USNM), 4♀ 1♂ (gen.prep.) A. Faz (CORN). No locality: 1♀ Chile, E. P. Reed (CAS); 1♀ Chile, S. Meyen (BER); 1♂ Central Chile, A. Faz (USNM); 1♀ Chile, E. C. Reed (USNM).

Discussion. O. terebratus is constant in color, though a few specimens show less dense pilosity due to age. Some variations in size are indicated in the measurements.

Geographic Distribution. As shown in Fig. 467. The material studied is from Valparaiso to O'Higgins; only the type specimens are recorded by Macquart from Coquimbo, a rather northern locality compared with the locality of the material studies; type locality is not shown in the distribution map.

Oberon Carrera & Papavero

Oberon Carrera & Papavero, 1962, p. 57.

Type of the genus: Oberon velutinus Carrera & Papavero, 1962, by original designation.

Head in front view one-fourth wider than high; vertex gently sunken;
ocellarium well developed; ocelli large. Head in lateral view: post-ocular area one-fifth the width of eye; face flat, no facial gibbosity. Antennae long; third antennal segment long, tapered, one and one-half times the length of first 2 combined; microsegment minute with a terminal spine. Mystax reduced to one or two rows of hairs on oral border directed anteriorly and downwards. Mesonotum with variable patterns, covered by short erect pile; dorsocentral bristles absent in genotype, but 1 to 3 pairs near posterior border in Chilean species. Scutellum covered by micropubescence; no scutellar bristles. Slopes of postmesonotum with micropubescence. Marginal cell open; fourth posterior cell open; $R_4$ reaching wing border before apex; $R_5$ reaching wing border behind wing apex; anal cell open in genotype, narrowly open or closed in Chilean specimens; $M_3$ and m forming a 140° angle. Front tibial spur present. Abdomen variable but elongated. Wings reaching end of abdomen or slightly beyond. Male genitalia small, rotated 30°-90°; hypandrium short and broad; epandrium not divided, with a deep V-shaped notch on center of posterior border; gonopods globose, short. Female genitalia truncate with 5-6 pairs of spines on the acanthophorites.

**Distribution.** Neotropical, 3 species; 2 species in Chile.

This genus is close to Deromyia Philippi, but differs in having the fourth posterior cell open and the third antennal segment narrow; in Deromyia the fourth posterior cell is closed and the third antennal segment dilated in the center.
Key to the Chilean Species of Oberon

1. Body reddish brown; wings hyaline; abdomen narrower than thorax; some bristles on middle tibiae longer than first tarsal segment . . . . . . . . O. fulvipes (Phil.)

1'. Body black; wings brownish; abdomen as wide as thorax; bristles on tibiae shorter than first tarsal segment . . .

. . . . . . . . . . . . . . . . O. fulvicornis (Macq.)

Oberon fulvicornis (Macquart)
(Figs. 133, 134, 138, 460)

Dasypogon fulvicornis Macquart, 1850, (nec Dasypogon fulvicornis Macq. 1846) p. 68, Coquimbo; Blanchard, 1852, p. 366, Coquimbo.

Scylaticus fulvicornis (Macquart). Schiner, 1868, p. 163.

Triclis fulvicornis (Macquart). Bigot, 1878, p. 221.

Pritchardia fulvicornis (Macquart). Stuardo, 1946, p. 80


Cotypes. 1♂ and 2♀ from Coquimbo, in Museum National d'Histoire Naturelle, Paris, France (not seen).

Diagnosis. Body black; legs red with bristles no longer than second tarsal segment; tergites 2-4 or 2-5 in and 2-4 in with a white line on posterior border; humeral calli golden; face golden; antennae red;
mystax of 4-5 pairs of black hairs in and golden hairs in, forming a single row on oral border; front tibiae spur black.

**Male.** Head in front view: frons uniformly covered by dense golden micropubescence; basal half of frons with silver micropubescence, upper half shiny black; frontal hairs white; ocellarium shiny black, ocelli reddish brown; ocellar bristles fine, white. Head in lateral view (Fig. 133): mystax of 4-5 pairs of black hairs forming a single row on oral border; antennae red, first segment with black hairs; third segment compressed, attenuated ventrally from second third of the segment, with a concave microsegment with a short white spine in the cavity; beard of scarce fine white hairs; occipital bristles reddish; postocular are with a broad line of golden micropubescence along posterior border of eyes and around foramen magnum, vestiture of reddish and black bristlelike hairs; proboscis shiny black with sparse fine white hairs on basal ventral half, short sparse white hairs at tip; maxillary palpi black with strong black bristlelike hairs. Prothorax shiny black with bluish highlights and sparse fine white hairs, which are more abundant and intermingled with black hairs on prothoracic lobe; 8-12 golden collar bristles. Thoracic pleura shiny black with bluish highlights, few sparse golden or silver lines of micropubescence sometimes present on borders of sclerites, more distinct on metepisternum; mesepimeral bristles fine, sparse, golden, hairlike. Mesonotum black with sparse short golden hairs; no central stripes or lateral spots; humeral calli covered by dense golden micropubescence, forming a golden band extending
over pronotum; 2 golden spots in front of each notopleuron; posterior
calli black, with golden micropubescence on posterior side; area posterior
to transverse suture with silver micropubescence; scutellar disc
with dense golden micropubescence, 2–3 reddish dorsocentral bristles;
2 reddish notopleural bristles; 2 reddish intraalar bristles; 2 reddish
postalar bristles. Coxae and trochanters black with silver micropubescence and white hairs which are longer and more dense on front side
of middle and anterior coxae; femora, tibiae, and tarsi reddish, tarsi
darker, with short yellow hairs and reddish bristles. Claws black.
Abdomen shiny black with bluish highlights, tergites swollen in center,
covered by short appressed yellow hairs; tergites 2–4 or 2–5 with a
white line on posterior border, usually interrupted on dorsum;
sternites black with sparse long fine white hairs; 3 white bristles
on each side of first tergite. Genitalia rotated 45°–90°, black,
covered with black hairs with a few yellow hairs intermingled on epandria; epandria short leaving cerci exposed; gonopods short globose;
hypandrium globose, triangular, shorter than gonopods (Fig. 134); penis sheath as in Fig. 138.

Female. Similar to male but with yellow mystax, a white line on
posterior border of tergites 2–4, and first antennal segment usually
black from side view; ovipositor truncate, telescoped, with yellow spines
on acanthophorites.

Measurements. Total length 11.2–13.5 mm, average 12.5 mm; wing
length 7.4–10.3 mm, average 8.8 mm; wing width 2.3–3.2 mm, average 2.6 mm.
Material Examined. 7♂ and 2♀. COQUIMBO: 2♂ 1♀ El Pangue, Las Trancas, Feb. 15, 1953 (1♂ gen. prep. MNHN, 1♂ 1♀ INCO); 1♂ Fray Jorge, Rancho Coquimbo, Dec. 10, 1950, R. & M. (CAS); 1♀ Las Trancas, Elqui, Jan. 20, 1940, E. P. Reed (INCO); 1♂ Las Cardas, Ovalle, Feb. 13, 1953 (MNHN); 2♂ 30 km. N. Illapel 5000 ft., Nov. 30, 1950 (CAS, INCO). SANTIAGO: 1♂ #21797, El Canelo, Santiago, Jan., 1949 (BRAS).

Geographic Distribution. As shown in Fig. 460.

Discussion. For a taxonomic discussion on the name *Dasypogon fulvicornis* see discussion of *Hypenetes schineri*, p. 193.

**Oberon fulvipes** n. comb.

(Figs. 135-137, 139-141, 435)

*Deromyia fulvipes* Philippi, 1865, p. 706, Santiago; Stuardo, 1946, p. 82; Hull, 1962, p. 250.

Type. Lost. A neotype is hereby designated as a♂ from Penalolen, Dec. 8, 1955, H. Toro; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body and legs light brown, some bristles of tibiae longer than first tarsal segment; mesonotum with 2 black central stripes and 2 pairs of red and black lateral spots; abdomen slender, long, appearing almost bare; wings hyaline; mystax a single row of 8 yellow bristles on oral border.
Description of Neotype (♂). Head in frontal view: face, frons and ocellarium covered by dense golden micropubescence; a few short fine white frontal hairs; ocelli whitish; 2 reddish ocellar bristles; mystax of 8 long yellowish bristles arranged in a row on oral border. Head in lateral view: antennae with first 2 segments light brown, first with a few fine white hairs, second with a strong black bristle on ventral side and a few fine short hairs around apex; third segment reddish, slightly compressed on basal three-fourths, and slightly attenuated on ventral apical third, with a short concave microsegment, darker than the segment, bearing a short spine in the cavity (Fig. 137). Prothorax reddish brown, covered with golden micropubescence, a few sparse fine white hairs which are more abundant on prothoracic lobe; dorsum of pronotum free of micropubescence and with 2 black spots; 8 yellow collar bristles. Thoracic pleura reddish brown covered by golden micropubescence; 2 fine yellow mesepimeral bristles. Mesonotum densely covered by golden micropubescence, except 2 black central stripes and 2 pairs of lateral spots which are reddish brown with a black spot on inner border; central stripes cuneiform with pointed end directed posteriorly; humeral and posterior calli, scutellar disc, and slopes of postmesonotum covered like mesonotum; 2 long strong reddish dorsocentral bristles, located behind transverse suture; 2 long strong reddish notopleural bristles; 1 intraalar and 1 postalar bristle similar to notopleural bristles; wings (Fig. 139) hyaline, veins dark brown. Coxae similar in color and vestiture to thoracic pleura, with a few bristle-like hairs on lateral and ventral border of front and hind coxae, and on
posterior side of hind coxae; a black spot on distal border of trochanters; trochanters, femora, tibia, and tarsi reddish brown with short sparse fine white hairs and reddish bristles; bristles on tibiae longer than bristles on femora, some bristles longer than first tarsal segment; front tibial spur red (Fig. 140). Claws black. Abdomen long, slender, light brown, with minute sparse white hairs; a black line on lateral borders of tergites except on first tergite; sternites similar to tergites. Genitalia light brown, rotated 40°, broader than abdomen; epandrium not completely divided, longer, slightly bent ventrally at tip; gonopods globose, shorter than epandrium; hypandrium short, triangular globose; cerci projected distally beyond epandrium (Fig. 135); epandrium undivided, with a V-shaped notch on posterior border; penis sheath as in Fig. 141.

Female. Similar to male; abdomen usually slightly expanded in middle; ovipositor attenuated, spines on acanthophorites light brown (Fig. 136).

Measurements. Total length 12.2-16.5 mm, average 14.5 mm [neotype 14.2 mm]; wing length 8.2-11.3 mm, average 10.6 mm [neotype 9.9 mm]; wing width 2.4-2.9 mm, average 2.7 mm [neotype 2.6 mm].

Material Examined. 9♂, 1♀ and 1 (gen. miss.). BIO-BIO: 1♂ Curtidurua, 1933, C. Porter (USNM). SANTIAGO: 1♂ Arrayan, Santiago, Jan., 1964, Etcheverry (CEE); 1♀ 34 km. W. of Santiago, Dec. 19, 1950 (CAS); 1♂ 1♀ El
Canelo, Santiago, Nov. 29, 1954, L. E. Pena (OTT); 1♀ Huilquen, Santiago, March 29, 1942, L. E. Pena (MA); 1♀ Las Condes, Santiago, Ramirez (CEE); 1♂ Pudahuel, Oct., 1952 (MNHN); 1♂ [neotype] Penalolen, Dec. 8, 1965, H. Toro (INCO). VALPARAISO: 1♂ Parque del Salitre, Nov., 1951 (INCO); 1♂ Perales, Jan., 1926 (INCO); 1♀ Quillota, Feb., 1894 (INCO); 1♀ Renaca, Nov., 1932, Dr. Reed (INCO); 1 (gen. miss.) Renaca, Nov., 1940, Dr. Reed (CAS); 1♀ #20 Perales, Jan. 1926, F. Ruiz (USNM). Locality uncertain: 1♂ Cortaderal, Feb., 1899, Schonemann S. (BERL). No locality or date: 1♀ #156 (INCO); 1♀ (INCO); 1♂ (JTM); 1♀ Chile (BERL).

Geographic Distribution. As shown in Fig. 435.

Discussion. Specimens of this species can easily be confused with females of Deromyia fuscipennis Blanch., from which they can be separated by the fourth posterior cell closed, the second tergite with a shiny black spot on dorsum and the mystax with only 4 bristles on oral border; O. fulvipes has the fourth posterior cell open, second tergite uniformly reddish brown, and mystax of 8 bristles. A (head missing) from J. T. M. Coll. has a single identification label in Philippi's handwriting: "Deromyia flava Ph. n. sp.", this is a nomen nudum since it has not been published.

Pritchardia Stuardo

Strobilopygius Hull, 1956, p. 70. Genotype: Dasypogon hirtipes (Macq. 1838) original designation.

Type of the genus. Dasypogon hirtipes Macquart, 1838, by original designation.

Head in frontal view one-sixth wider than high, vertex moderately sunken; head in lateral view with postocular area about one-fourth of basal part of face. Antenna with third antennal segment pyriform, not stalked; microsegment short, conical, with a terminal spine. Mystax of long sparse hair. Mesonotum covered by fine scattered short hair, dorsocentral bristles only discernible on posterior third. Scutellum with 2 to 4 pairs of scutellar bristles. Slopes of the postmesonotum without hairs. Marginal cell open; fourth posterior cell closed and stalked; R₄ vein reaching wing margin before apex; R₅ vein reaching wing margin behind apex; anal cell closed and stalked; M₃ and m aligned, almost in a straight line. Front tibial spur absent. Abdomen slightly tapered. Wings reaching tip of abdomen. Male genitalia moderate in size, not rotated; hypandrium triangular, fused with base of gonopods; epandrium forceps-like; gonopods globose at base, pointed distally, cleft at tip. Female genitalia short, pointed, slightly compressed, no spines on the ovipositor.

Distribution: Neotropical (Chile), 4 species.
Key to Species of Pritchardia

1. Femora uniformly black .................................... 2

1'. Femora reddish-brown and black ........................... 3

2(1'). Third antennal segment red; grayish-white micropubescence covering scutellar disc and a large area in center of posterior part of mesonotum, giving these areas a pruinose appearance .............

P. hirtipes (Macq.)

2'. Third antennal segment black; mesonotum without the pruinose areas described above. P. curicoensis n. sp.

3(1'). Mesonotum with central portion black, and a broad lateral and posterior area reddish brown covered with silvery micropubescence . . . P. tertialis (Bromley)

3'. Mesonotum uniformly black, covered in the central area by a golden dark micropubescence. P. puella (Bromley)

Pritchardia curicoensis n. sp.

(Fig. 464)

Type. ♀, Estero La Jaula, Curico, Jan. 1954, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Similar to P. puella (Brom.), but body black; mesonotum black, covered by yellowish micropubescence; abdominal tergites
black with reddish brown area near posterior lateral border, anterior and posterior lateral borders of tergites with white micropubescence; femora, tibiae, and tarsi uniformly black; third antennal segment black.

Description of Type (♀). Head in front view: face covered by silver micropubescence that is less abundant below antennae and absent on front part of facial gibbosity; frons black with black hairs; ocellarium black, ocelli dark brown; ocellar bristles black. Head in lateral view: facial gibbosity shiny black on sides, anteriorly with some white micropubescence which is not noticeable from a frontal view; mystax black; antennae uniformly black, first and second segments with short black hair; beard white; occipital hairs and bristles black; postocular area with black bristles and shorter white hairs; proboscis black with long white hairs ventrally; maxillary palpi black. Prothorax black with large areas covered by silver micropubescence, and long white hairs on sides; collar bristles black with a few white hairs intermingled. Mesopleuron reddish brown, mostly covered by silver micropubescence; mesepimeral bristles mostly black, with a few white bristles intermingled, other weak and sparse hairs on mesopleuron white. Mesonotum black covered by dark yellowish micropubescence; an inverted U-shaped band on anterior end; part of humeral callus and a central posterior callus and scutellar disc covered by silver micropubescence; dorsocentral bristles black, longer toward posterior third of mesonotum; 3 black notopleural bristles; 1 black intraalar bristle; 2 black postalar bristles; 4 black scutellar bristles; scutellar disc almost bare, a few short black hairs intermingled with the scutellar bristles only.
along posterior border. Slopes of postmesonotum covered by silver micropubescence. Wings uniformly dark. Coxae black, slightly brownish on posterior side; coxal hairs white, more abundant on front part of front coxae; trochanters dark reddish brown; femora uniformly black, covered by short appressed white hairs, bristles black, a few long hairs on ventral side; tibiae uniformly black, covered by short appressed white hairs intermingled with black hairs of same length mainly on middle and hind tibiae; tibial bristles black; tarsi black, covered like tibiae, bristles black; claws shiny black. Abdominal tergites black dorsally, sides reddish brown toward posterior border; anterior, posterior, and lateral borders with distinct silver micropubescence, which is more distinct from a lateral view; tergites covered by short appressed black hairs on dorsal area, and by similar but white hairs on sides; sides of first tergite with a tuft of white hairs and longer black bristles, second and third tergites with a few black bristles along sides; sternites reddish brown, covered by scarce white micropubescence which does not hide color of sternite; sternites 1-6 with a shiny brown band along posterior border, this band interrupted along central line of sternite; sternites 6 and 7 with a few strong black hairs. Ovipositor short, black, with few short black hairs; cerci black with short white hairs.

Male. Unknown.

The name *curicoensis* refers to the type locality.
Measurements of the Type. Total length 9.5 mm; wing length 6.0 mm; wing width 1.7 mm.

Material Examined. 1♀ [Type] Estero La Jaula, Cirico, Jan., 1954, L. E. Pena, ex Nothophagus sp. (OTT).

Geographic Distribution. As shown in Fig. 464.

Pritchardia hirtipes (Macquart)
(Figs. 16-23, 412)

Dasypogon hirtipes Macquart, 1838, p. 46, Chile;
Blanchard in Gay, 1852, p. 368, Santiago; Philippi, 1865, p. 686, Santiago.


Type. ♀, in Museum National d'Histoire Naturelle, Paris, France (not seen).

Diagnosis. Head and body black, scutellar disc covered by grayish white micropubescence of pruinose appearance; a large area of the same color and condition in the posterior central part of the mesonotum. Legs uniformly black. Wings dark. Third antennal segment reddish.
Male. Head in front view: frons black, with black hair, ocellarium black, with black hairs; face covered by yellowish micropubescence, leaving a dark area under the antennae. Head in lateral view (Fig. 16): facial gibbosity shiny black; mystax of abundant black bristles arising from the anterior part of the facial gibbosity; first and second antennal segments black with black hairs, third antennal segment red; lower part of the face and base of the facial gibbosity with abundant white micro-hairs; proboscis black, with white hairs on the ventral side; beard of long, abundant, white hairs; occiput and upper half of the postocular region with abundant black hairs; maxillary palpi black with scattered long white hair. Prothorax black, with long white hairs intermingled with a few black hairs of the same length; collar bristles long, black; sides of the prothorax with abundant long white hair. Mesopleuron black, with small yellowish and silver areas of micropubescence mesepimeral bristles black and white intermingled; mesopleura with a group of weak white hairs located near the posterior border. Mesonotum black, covered by short scattered black hairs, which are longer in the posterior third; central stripes indicated by two short, golden brownish lines in the central area, and two white, elongated marks, bordered anteriorly by a golden brown line; these two last lines appear connected with a large white area in the central part of the posterior third of the mesonotum; lateral spots not clearly discernible; humeral callus slightly marked with golden brown in the upper part; humeral hair black; posterior callus black, with a whitish area toward the scutellum; scutellum whitish-gray, similar to the color of the area in the central
third of the mesonotum; three black notopleural bristles; two black intraalar bristles; two strong and one weak black postalar bristles; scutellar disc with no more than ten weak black hairs, located mainly near the posterior border; ten long black scutellar bristles; slopes of the postmesonotum with brownish micropubesence. Wings (Fig. 18) deep dark brown, almost blackish, slightly lighter in the center of few cells. Coxae and trochanters dark reddish, with white hair, which is more abundant in the anterior part of the front and middle coxae, the hind coxae has in addition few black hairs; femora, tibiae and tarsi black, covered by abundant long black hairs, at the base of the femora some white hairs appear intermingled; all tibial, femoral and tarsal bristles black; claws black, slightly reddish at base. Abdomen black, tergites 2 to 5 with distinct white borders along the sides; dorsal part of the tergites covered by short black hairs; first 5 sternites with long white hairs, the last two abdominal segments and the genitalia with stronger black hairs; tergites 2 to 5 with few bristle-like, long, white hairs on the sides, mainly close to the posterior border. Male genitalia (Figs. 17, 20) dark, epandrium black; gonopods black at base, reddish-brown toward the apex; hypandrium light brown, slightly darker along the fusion with the gonopods; penis sheath as in Fig. 19.

Female. Similar to male; ovipositor (Figs. 21, 22) short, black, covered with scattered short white and black hairs intermingled; hairs of the cerci short, whitish.
Measurements: Total length 10.0-14.0 mm, average 13.0 mm; wing length 6.5-9.5 mm, average 9.0 mm; wing width 1.6-2.5 mm, average 2.2 mm.

Geographic Distribution. As shown in Fig. 412.

Discussion. *P. hirtipes* can easily be distinguished by the white spots on the posterior end of the mesonotum and on the scutellar disc. In some specimens this character can be hidden by the greasy condition of the body. Some variation in size is found in large series, as indicated in the measurements.

Ten eggs were found in the genitalia of a female from Caramavida, Jan. 1-6, 1954, when the genitalia were cleared. The size and shape of the eggs are shown in Fig. 23.

*Pritchardia tertialis* (Bromley)

*(Figs. 24-27, 481)*


_Type:* ♀, Casa Pangue, Llanquihue, Chile, in British Museum (not seen).

_Diagnosis._ A dark species, central and anterior area of mesonotum black, and a broad lateral and posterior area reddish brown covered with silvery micropubescence which extends over the scutellar disc; third
antennal segment red; femora black to reddish brown; wings uniformly dark brown.

**Male.** Head in front view: face silver, black below antennae and over facial gibbosity; front black with black hairs; ocellarium black, ocelli light brown, ocellar bristles black. Head in lateral view: facial gibbosity shiny black; mystax uniformly black; first and second antennal segment black, with abundant black hair; third antennal segment red, blackish at base; style blackish; beard white; occipital hair black; postocular hairs black; proboscis shiny black with long white hair on ventral side; mixillary palpi black with black hairs. Prothorax black, large silver areas on sides; pronotum covered with white hair; collar bristles black. Mesopleuron reddish brown with abundant silver areas and a few scattered weak hairs; mesepimeral bristles black. Mesonotum black, with a broad lateral and posterior area reddish brown covered by silvery micropubescence which extends over scutellar disc; central stripes and lateral spots not clearly distinct; hair of mesonotum short and black, becoming longer toward posterior end; humeral callus reddish brown, silver dorsally, humeral hair black; posterior callus similar in color to humeral callus; scutellar disc reddish, covered by silver micropubescence; dorsocentral bristles black, distinguishable only on posterior third of mesonotum; 2 strong black notopleural bristles; 2 long black intraalar bristles; 2 long black postalar bristles; discocutellar hair, weak, sparse, black; 6-7 long scutellar bristles, intermingled with long black hair in about equal numbers; slopes of postmesonotum reddish with fine silver micropubescence.
Wings uniformly dark brown, slightly lighter along some basal veins. Coxae reddish brown, with a small black area on front basal border, coxal hair white, abundant in front part of front coxae; trochanters black; femora black with a broad reddish brown band along dorsal part, hairs and bristles of femora black; tibiae dark brown, almost black, front tibiae with black hairs and bristles; middle tibiae with black bristles and short white hairs intermingled; hind tibiae covered by abundant short appressed white hair, bristles black; tarsi black with hair and bristles black; claws shiny black. Abdomen reddish brown, dorsal area of tergites black, covered by abundant short, appressed black hairs; sternites 1-5 with long, sparse white hair; tergites and sternites 5-8 with black hair; posterior border of tergites with longer white hair along sides. Male genitalia (Fig. 24) reddish brown, covered by black hairs, not rotated; epandrium forcepslike, darker toward apex; gonopods reddish brown, black at apex; hypandrium brown; penis sheath as in Fig. 25.

Female. Similar to male, ovipositor (Figs. 26, 27) black, short, pointed, covered by sparse black hair; cerci shiny black with sparse short white hair.

Measurements. Total length 7.5-11.0 mm, average 10.5 mm; wing length 5.5-7.0 mm, average 6.5 mm; wing width 1.4-1.8 mm, average 1.6 mm.

Material Examined. 6♂ and 6♀ ARAUCO: 1♀ Alto de Caicupil, 1300 m., Jan. 8, 1954 (OTT); 1♀ Caramavida, Jan. 1-6, 1954, L. E. Pena (OTT); 1♂ Pichinahuel, Cordillera Nahuelbuta, 1100-1400 m., Jan. 31, 1954,

Geographic Distribution. As shown in Fig. 481.

Discussion. P. tertialis can easily be distinguished by the coloration of the mesonotum. This species is constant in color, but some variations in size can be noted, as indicated in the measurements.

Eight eggs were found in the genitalia of a female from Caramavida, Jan. 1-6, 1954, when the genitalia were cleared. The size and shape of the eggs are shown in Fig. 23.

Pritchardia puella (Bromley)
(Fig. 472)

Hypenetes puella Bromley, 1932, p. 264, Peulla.


Type. ♀ Peulla, Chile, in British Museum (not seen).
**Diagnosis.** A blackish species, with reddish brown pleura and uniformly black mesonotum and scutellum; femora black with a dark brown band on the dorsal side; tibiae dark reddish brown; third antennal segment black; abdominal tergites black; male genitalia reddish brown; wings dark.

**Male.** Head in frontal view: face black, with silver micropubescence along eye borders and in lower part of facial gibbosity; frons black with black hairs; ocellarium black; ocelli reddish brown, ocellar bristles black. Head in lateral view: facial gibbosity black; mystax black; antennae black, hairs of first and second antennal segments black; beard white; occipital bristles and hairs black; postocular bristles black; proboscis shiny black with scarce long white hair on ventral side; maxillary palpi black with scarce black hairs. Prothorax brown, collar black, sides with long white hairs; collar bristles black. Mesopleuron dark brown with irregular patterns of silver micropubescence; mesepimeral bristles black with few white intermingled. Mesonotum black with some indistinct patterns of dark golden micropubescence; hairs of mesonotum short, sparse and black; humeral and posterior calli black or dark reddish brown; central stripes and lateral spots not distinct; hairs of humeral callus black; scutellar disc black; 3 dorsocentral bristles on posterior third of mesonotum, 3 black notopleural bristles; 2 black intraalar bristles; 2 long and 1 short black postalar bristles; scutellar disc with a few short black hairs; 6-8 scutellar bristles, some shorter and weaker, at least 6 long
and strong. Slopes of postmesonotum with some silver micropubes-
cence. Wings uniformly dark. Front coxae reddish brown with abundant
white hair on anterior side; middle and hind coxae reddish brown with
a large black area in anteroventral part, hairs white; trochanters red-
dish and black; front femora black on ventral side and reddish brown
on dorsal side, covered by white hairs which are longer on dorsal
side, covered by white hairs which are longer on dorsal side; middle
and hind femora black, with a broad reddish brown band on dorsal side,
hairs white, bristles black; tibiae dark reddish brown, usually darker
on dorsal or external side, covered by abundant short, black hairs,
bristles black; tarsi same color and coverture as tibiae; claws shiny
black. Abdominal tergites shiny black dorsally, covered by appressed,
short black and white intermingled hairs; sides of tergites reddish
brown, in some specimens with distinct silver pubescence; sternites
reddish brown with sparse long, black hairs; sides of tergites with
a row of 3-5 black bristles along posterior border, these bristles
longer and stronger on first two abdominal segments. Male genitalia
shiny reddish brown, covered by strong bristlelike hairs, similar
to those on last 3 abdominal sternites; epandrium forcepslike, darker
toward apex; gonopods dark at base and apex; hypandrium reddish brown.

Female. Similar to male; ventral side of abdomen less pilose than
male at least on first four sternites; ovipositor short, mostly conical,
covered by short sparse black hairs; cerci shiny black with short whitish
hairs.
Measurements. Total length 7.5-9.0 mm, average 8.5 mm; wing length 4.5-5.2 mm, average 4.8 mm; wing width 1.3-1.6 mm, average 1.5 mm.

Material Examined. 2♂ and 1♀. COQUIMBO: 1♂ 50 km. south La Serena, Dec. 1, 1950, R. & M. (CAS). VALPARAISO: 1♂ Olmue, Dec., 1929, Dr. Reed (INCO); 1♀ Valparaiso, P. Herbst (CAS).

Geographic Distribution. As shown in Fig. 472.

Discussion. Five known specimens, 3 of them seen; their coloration and structures are constant, the coloration of the sides of abdomen varies, but it is due to the greasy condition that hides the micro-pubescence.

Prolepsis Walker


Type of the genus, Dasypogon lucifer Wiedemann, 1828, by monotype (as Prolepsis fumiflava Walker, 1851).

Head in front view over one-third wider than high, vertex slightly sunken; ocellarium low and flattened. Head in lateral view: postocular area one-eighth the width of the eye; facial gibbosity present, occupying four-fifths of the face, frontal part of facial gibbosity nearly
flattened. Antennae long, first segment cylindrical, three times the second which is spherical; third segment large, long, three times the two preceding combined, with a small cup-like microsegment with a short terminal spine. Mystax of scattered bristles arising from all over the facial gibbosity. Mesonotum with variable patterns, coverture poor, central area almost bare, with medium-sized hairs and bristles along the borders; dorsocentral bristles present. Scutellum with micropubescence and a few short hairs; 1-4 pairs of scutellar bristles. Slopes of postmesonotum with micropubescence; no pile. Marginal cell open; costal cell with 2 or more cross veins in apical third; fourth posterior cell closed and stalked; $R_4$ reaching wing border before apex; $R_5$ reaching wing border behind apex; anal cell closed at wing border or narrowly open; $M_3$ and $m$ forming a 150° angle. Front tibial spur absent; middle femora with a large multispinous area on ventral side (Fig. 142). Abdomen tapered. Wings projected beyond tip of abdomen. Male genitalia small, rotated 180°; hypandrium triangular, minute; gonopods globose, with a recurved hook; gonopods and hypandrium leaving the genital cavity open; epandria divided, moderately bent upward at apex. Female genitalia truncated; 5-6 pairs of sharp, basally triangular spines on the acanthophorites.

**Distribution.** Neotropical, 3 species; 1 species in Chile, *Prolepsis quadrinotata* (Bigot)
**Prolepsis quadrinotata** (Bigot)  
(Figs. 142-147, 412)

Cacodaemon quadrinotatum Bigot, 1878, p. 431, Chile.  
Prolepsis quadrinotatus (Bigot), Stuardo, 1946, p. 83.  
Prolepsis quadrinotata (Bigot). Hull, 1962, p. 139.

**Type.** ♂, Chile, no date or locality, coll. Bigot #190, type Dip. 163 in Hope Department of Entomology, Oxford University, England (seen).

**Diagnosis.** Body black, legs dark brown, abdomen dark brown with bluish highlights; wings dark brown with a long orange band occupying more than half of costal, subcostal and marginal cells; notum with 2 convergent broad short white lines on anterior part, and 2 white spots on transverse suture.

**Male.** Head in front view: face covered with short silver micropubescence, except on facial gibbosity which appears reddish brown; front black, silver micropubescence along eye borders; frontal hairs mostly white, a few black hairs intermingled near base of antennae; ocellarium black, ocelli reddish; ocellar bristles white. Head in lateral view (Fig. 143): face with silver micropubescence between base of antennae and mystax and along eye border; facial gibbosity dark brown; mystax white, sometimes with few black hairs intermingled; first and second antennal segment light brown, with black hairs, third segment dark brown, short white spine directed forward (Fig. 144); beard short, scarce, white or black, occipital hairs mostly white; no
occipital bristles distinct; postocular coverture and vestiture of posterior border of eyes black; proboscis long, shiny dark brown, distinctly depressed on apical quarter, basal ventral half with few long white hairs intermingled with fine black hairs, short yellow hairs at tip; maxillary palpi dark brown with black hairs. Prothorax black, with black hairs, collar with abundant erect black hairs, bristles similar to hairs; dorsum of pronotum with sparse golden brown micropubescence. Thoracic pleura dark brown, almost black with sparse fine black hairs; mesepimeral bristles black. Mesonotum black, central stripes and lateral spots not distinct; notal vestiture of short sparse fine hairs, mostly white on anterior half and mostly black after transverse suture; 2 broad oblique lines of silver micropubescence near anterior border and 2 similar white spots on transverse suture; scutellar disc, humeral calli, and posterior calli dark brown, almost black; scutellum with sparse silver micropubescence near posterior border; 5 black dorso-central bristles near posterior border; 3-5 black notopleural bristles, intermingled with hairs of same length and color; 3-4 black intralar bristles; 2 long black and 1-3 short black postalar bristles; 1 pair (missing in both specimens) of scutellar bristles. Slopes of post-mesonotum dark brown, partially covered by golden brown micropubescence. Wings (Fig. 145) dark brown, lighter toward posterior border; costal cell beyond humeral vein orange, three-fourths of subcostal and marginal cells also orange; 2-6 cross veins in subcostal cell; veins dark brown. Coxae dark brown, with sparse golden micropubescence and white hairs with a few black hairs intermingled, hairs more abundant on anterior
side of front and middle coxae; trochanters similar in color to coxae, front trochanters with a few short stout bristles on ventral side; femora, tibiae, and tarsi dark brown with black hairs and short black bristles; middle femora with a large number of short stout spikelike bristles on ventral side, 6 of them longer (Fig. 142). Claws black, dark reddish brown on basal third. Abdomen dark brown with bluish highlights, covered by sparse short black hairs, hairs on posterior border of tergites white; sides of first and second tergite with abundant black hairs intermingled with a few white hairs; tergite 7 with longer yellowish hairs on posterior border; sternites similar to tergites but with longer hair. Genitalia black with abundant long black hairs; hypandrium minute, pointed at apex; gonopods half the length of epandria (Figs. 146, 147).

Female. Unknown.

Measurements of Type. Total length 16.0 mm; wing length 12.5 mm; wing width 3.9 mm; both specimens studied similar in size.

Material Examined. 2♂. Argentina: 1♂ Cordoba, Davis, Bromley Coll. (INCO). No locality or date: 1♂ [type] #190 in Bigot Coll. Dip. type #163 (OXF).

Geographic Distribution. As shown in Fig. 412.

Discussion. Only 2 specimens of this species are known and both have been examined in this study. The type is described by Bigot as from Chile, but it has only one original label, "D-3", and there is no
indication of locality. I suspect that this is an error since no other specimens have been collected since then in Chile. The specimen from Argentina is a young specimen with the abdomen and thorax incompletely hardened; this specimen differs from the type in having some black hairs intermingled with the white mystax; the large orange mark on the costal area of the wing is missing, it has only 2 cross veins at the tip of costal cell, and the hairs of the beard are black.

**Saropogon Loew**


*Sarapogon* Williston, 1891, p. 74 (lapsus).

Type of the genus: *Dasypogon luctuosus* Wiedemann, designated by Coquillet 1910.

Head in front view one-third wider than high; vertex moderately sunken; ocellarium low. Head in lateral view: postocular area one-fourth the eye width; face flat, more produced on lower part; antennae with third segment more than twice the length of first 2 combined, with a short apical microsegment; mystax long, usually near oral border. Mesonotum uniformly colored, bare in appearance, minute pile in center. Scutellum with micropubescence, 1-4 pairs of scutellar bristles. Slopes of postmesonotum without hairs. Marginal cell open; fourth posterior cell open; $R_4$ reaching wing margin before apex; $R_5$ reaching wing margin behind apex; anal cell widely open or narrowly closed; $M_3$ and $m$ forming a $100^\circ$-$120^\circ$ angle. Front tibial spur present. Abdomen generally
cylindrical, occasionally flattened across middle of tergites. Male genitalia tapered; epandrium undivided, apically cleft, sometimes fully cleft and overlapping, never forcepslike. Female with spines on acanthophorites.

**Distribution.** Neartic, Neotropical, Paleartic, Ethiopian, Oriental, Australian, 90 species; 1 in Chile.

*Saropogon nigronasutus* (Bigot)

(Figs. 181, 182)

*Saropogon nigronasutum* Bigot, 1878, p. 414, Chile; Stuardo, 1946, p. 82.


**Type.** Probably a ♂ labeled *S. nigrotarsatum* Bigot, Chile, 101 in Coll. Bigot; this specimen is in Hope Department of Entomology, Oxford University, England (seen).

**Diagnosis.** Body, coxae, and trochanters black, humeral and posterior calli reddish; posterior border of tergites 2-4 reddish; mystax white, dense; antennae black; femora, tibiae, and tarsi reddish brown; wings mostly hyaline, dark brown from costal border to second basal cell.

**Redescription of Type (♂).** (*S. nigrotarsatum*). Head in front view: face and front covered by dense silver micropubescence except a V-shaped area enclosing ocellarium which is glabrous; frontal hairs
white; ocellarium black; ocelli light brown; ocellar bristles missing on the specimen. Head in lateral view (Fig. 182): face silver, black on ventral side; mystax of 5-6 lines of dense white hairs, last two hairs on each side black; antennae black, first 2 segments brownish black with black hairs; third segment black; with sparse black micro-pubescence, slightly wider than apex of second segment and almost twice as long as first 2 segments combined, microsegment missing on the specimen; beard of short sparse black hairs similar to the ones on lower part of postocular area; postocular area black with silver micro-pubescence along posterior borders of eyes, vestiture of black hairs, occipital bristles short, strong, black. Prothorax shiny black, hairs black, more abundant on prothoracic lobe; collar bristles strong, black, with fine black hairs intermingled; 2 spots of silver micropubescence on dorsum. Thoracic pleura shiny black, glabrous; mesepimeral bristles black intermingled with fine black hairs. Mesonotum black covered with sparse short black hairs; no central stripes or lateral spots; humeral and posterior calli reddish with sparse silver micropubescence extending toward pronotum and contacting pronotal silver spots and posteriorly reaching posterior calli; scutellum black with sparse silver micropubescence; 3 pairs of strong black dorsocentral bristles, posterior to transverse suture; 3 black notopleural bristles; 3 black intraalar bristles; 2 strong black postalar bristles; 2 pairs of long black scutellar bristles. Slopes of postmesonotum with dense yellowish micropubescence. Wings mostly hyaline, dark brown from costal border to second basal cell, veins dark brown. Coxae and trochanters glabrous,
black, with black hairs, more abundant on anterior side of front coxae; femora, tibiae, and tarsi reddish with minute sparse black hairs; no bristles on front femora; middle femora with black bristles near apex on outer side; posterior femora with 1 black bristle on outer basal third; tibiae and tarsi with several short black bristles; claws black, basal fourth reddish. Abdomen black, with minute black hairs over tergites and sternites; posterior border of tergites 2-4 whitish, less distinct on dorsum; a distinct dark red band on dorsum of tergite 4. Genitalia (Fig. 181) black, rotated 45°, with black bristlelike hairs; epandrium with a V-shaped cleft on posterior border; gonopods globose with a reddish terminal hook; hypandrium short, triangular, leaving genital cavity exposed.

Female. Unknown.

Measurements of Type. Total length 15.0 mm; wing length 12.2 mm; wing width 3.4 mm.

Material Examined. 1♂ [type] Chile, #101 Bigot Coll., labeled: "S. nigrotarsatum ♂ J. Bigot, CHILI" (OXF).

Geographic Distribution. Unknown.

Discussion. The specimen studies is labeled as follows: "Saropogon nigrotarsatum is nomen nudum. This specimen is possibly the type of S. nigronasutum Bigot, 1875. Ann. Soc. Ent. France (S) 8:414 [K.G.V. Smith and E. Taylor 1965]". I agree that Bigot's description fits the specimen. Since there is no other specimen known I propose this as the type specimen of Saropogon nigronasutus (Bigot).
The specimen has the epandrium undivided (Fig. 181) and the face produced beyond eye limits, therefore, it is *Saropogon* and not *Araiopogon*. Since this is the only record of this species for Chile, and no other species of *Saropogon* are known from Chile, I believe that this specimen could have a mislabeled locality.

**Scylaticus** Loew


*Euthrix* Philippi 1865, p. 690. (Preoccupied *Lepidoptera*, 1830).

Type of the genus: *Scylaticus zonatus* Loew 1858, by monotypy.

Head in front view two-fifth wider than high; vertex moderately sunken; ocellarium moderate. Head in lateral view: postocular area one-fourth the eye width; facial gibbosity well developed, occupying one-half to three-fourths of face, or flat, sometimes slightly produced on oral border. Antennae long, third segment long, compressed, slightly attenuated in ventral apical third; microsegment short, usually excavated at tip, with a short spine in center of cavity. Mystax variable, abundant on species with well developed facial gibbosity or reduced to 2-4 lines of sparse or close-together hairs on oral border in species with poorly developed facial gibbosity. Mesonotum with distinct patterns or black in center and silver lines surrounding it. Mesonotal coverture of short hairs, usually longer hairs behind transverse suture. Scutellum covered with short micropubescence, some species with a few short hairs; 3-8 pairs of scutellar bristles. Slopes of postmesonotum with micro-
pubescence, no pile. Marginal cell open; fourth posterior cell open; $R_4$ reaching wing border before apex; $R_5$ reaching wing border behind apex; anal cell open; $M_3$ and $m$ forming a 120°-140° angle. Front tibial spur absent. Abdomen cylindrical or tapered. Wings extending to or slightly beyond tip of abdomen. Male genitalia moderate to small, rotated 90°; hypandrium moderate or small, rectangular or triangular; epandria variable, usually bent downward at tip; gonopods large, globose, with variable distal processes and a curved hook; penis sheath with or without 2 long apical processes. Female genitalia truncated, 5 pairs of spines on acanthophorites.

**Distribution.** Neotropical, Palearctic, Ethiopian, Oriental, 31 species; 5 species in Chile.

**Discussion.** _S. rufipes_ and _S. venustus_ have 2 long apical processes on the penis sheath; these processes are absent in _S. chilensis_ and _S. lugens_; no internal structures of the male genitalia were studied in _S. cuneigaster_. The species with apical processes on the penis sheath also have the facial gibbosity reduced and the mystax confined to the oral border, while the species without these processes have a well developed facial gibbosity.

_Scytaticus nitidigaster_ (Macquart) has not been recognized among the material studied. Since it is described as having the fourth posterior cell closed, it should belong to another genus.
Key to the Species Chilean of *Scylaticus*

1. Mystax occupying half or more of the face ........... 2
1'. Mystax reduced to few rows on the oral border .......... 4

2(1). Tibiae and most of femora red .................. *S. chilensis* (Macq.)
2'. Tibiae and femora black ................................ 3

3(2'). Wings hyaline; abdomen gray, strongly
      tapered .............................................. *S. cuneigaster* n. sp.
3'. Wings with the basal third dark brown, at least
      in costal area; abdomen mostly cylindrical,
      black, with white bands on tergites 2-5 *S. lugens* (Phil.)

4(1'). Mystax of 1-2 rows of sparse black bristlelike
      hairs on oral margin ................................ *S. rufipes* (Phil.)
4'. Mystax of about 4 rows of close-set hairs
      on oral margin, white on center, black
      on sides ............................................ *S. venustus* (Phil.)

*Scylaticus chilensis* (Macquart)

(Figs. 148, 152, 154, 155, 465)

*Dasypogon chilensis* Macquart, 1850, p. 48, Chile; Blanchard, 1852, p. 367, Santa Rosa; Stuardo, 1946, p. 84; Hull, 1962, p. 228.

*Dasypogon tricolor* Philippi, 1865, p. 688, Colchagua; Bigot, 1878, p. 221, Chile.

Type. ♂, not seen, in Museum National d'Histoire Naturelle, Paris, France. Type of D. tricolor Philippi in coll. JTM Museo Nacional de Historia Natural, Santiago, Chile (seen).

Diagnosis. A black species with antennae, legs, humeral calli and posterior calli red; abdomen with a white band on posterior border of tergites 2-5; male genitalia red or black; wings hyaline, brownish in costal basal area.

Male. Head in front view: face covered by dense silver micropubescence, except a line below antennae and over facial gibbosity where the pubescence is sparse, and scarcely distinguishable; frons mostly black, sparse silver micropubescence present mainly along border and near antennae; frontal hairs white; ocellarium black, ocelli dark; ocellar bristles weak, white. Head in lateral view: facial gibbosity appearing dark gray; mystax of sparse strong white hairs; antennae (Fig. 143) red, first and second segments with white hairs, third segment slightly darker distally, with a cylindrical dark red microsegment with a dorsal spine at tip; beard scarce, white; occipital hairs white, proclinate; postocular coverture of white hairs, a line of short strong white hairs along posterior border of eyes; proboscis shiny black, reddish near tip, a few long sparse white hairs on basal ventral border, short yellow hairs at tip; maxillary palpi black, hairs white. Prothorax shiny black with long white hairs, more dense on sides, collar with abundant
strong white bristles and fine hairs. Thoracic pleura shiny black with sparse weak white hairs and a line of silver micropubescence on dorsal border of mesopleura and on posterolateral border of metepisterna; a small spot of silver micropubescence on pteropleura and on lypopleura; mesepimeral bristles long, white. Mesonotum reddish, in dorsal view appearing surrounded by a silver line of shiny micropubescence, interrupted on notopleura and sometimes on humeral calli; humeral and posterior calli red, covered by silver or golden micropubescence mainly on dorsal area; central strips and lateral spots black, ventral stripes and lateral spots black, ventral stripes fused together forming a broad black band almost fused with lateral spots; space not covered by central stripes and lateral spots, reddish, with sparse silver micropubescence; scutellar disc black with silver micropubescence; mesonotum, humeral calli, and posterior calli with sparse weak short white hairs, which are longer and bristlelike on center of posterior third of mesonotum; 2 long yellowish notopleural bristles; 6-8 yellowish intraalar bristles; 4-6 white postalar bristles, 4 strong, others weak; 3 pairs of white scutellar bristles. Slopes of postmesonotum black with silver micropubescence. Wings (Fig. 154) hyaline, slightly brownish on costal area, veins on costal area light brown, other veins dark brown. Coxae and trochanters black with a few areas of silver micropubescence and long white hairs, which are more abundant on anterior side of front and middle coxae; femora reddish, black basally; tibiae and tarsi reddish; legs covered with short, mostly appressed fine white hairs and few longer hairs on ventral side of femora; bristles white; claws black, basal
quarter reddish. Abdomen gradually attenuated toward the apex, shiny black, covered by short sparse appressed white hairs, longer hairs on sides of first and second tergites; a group of 6-8 weak white bristles on each side of first tergite; tergites 2-5 with a white line on posterior border; sternites black with white hairs. Genitalia (Fig. 155) reddish, hypandrium short, mostly rectangular, dark along borders, with abundant dark brown hairs on distal border; epandria ending in a narrow plate bent ventrally; gonopods globose, with two distal processes and a sharp hook projected beyond the processes and bent ventrally; penis sheath simple, no apical distal processes (Fig. 152).

**Female.** Similar to male; ovipositor with black spines on acanthophorites.

**Measurements.** Total length 14.0-20.0 mm, average 16.2 mm; wing length 10.5-12.2 mm, average 11.3 mm; wing width 3.1-3.8 mm, average 3.3 mm.

**Material Examined.** 17♂ and 16♀. COQUIMBO: 4♂ 1♀ Coquimbo, Nov. 2-3, 1961, L. E. Pena (INCO); 1♀ Cuesta del Almendro, Vicuna-Hurtado, Oct. 13, 1940, E. P. Reed (CAS); 1♂ El Pangue, Oct. 30, 1936, E. P. Reed (CAS); 1♀ Estero Canela, Pto. Oscuro, Oct. 24, 1961, L. E. Pena (OTT); 1♂ 1♀ El Pangue, Vicuna, Coquimbo, Nov. 3-4, 1961, L. E. Pena (OTT); 1♀ El Tangue, Coquimbo, Oct. 27, 1961, L. E. Pena (INCO); 1♀ Los Molles, Ovalle, Nov. 8-11, 1961, L. E. Pena (OTT); 1♀ Tongoy, coast of Coquimbo, Oct. 27, 1961, L. E. Pena (INCO); 1♂ Rivadavia, Coquimbo, 950 m., Oct. 29, 1957, L. E. Pena (INCO); 1♀ Socos, Coquimbo, Oct. 15, 1957, L. E.
Pena (INCO); 1♂ Hda. Illapel, Coquimbo, 600 m., Nov. 1-6, 1954, L. E. Pena (INCO). O'HIGGINS: 1♂ Las Cuevas, Nov., 1947, L. E. Pena (INCO); 1♂ Las Nieves, Cordillera Rengo, No. 12-26, 1947, L. E. Pena (INCO); 1♂ El Peumo, Nov., 1949 (♀♀♀♀); 1♂ Pangal, Jan. 3, 1964, Toro (CEE).

SANTIAGO: 1♂ Colina, 1898 (JTM); 1♂ 4♀ Aculeo, Santiago, Nov. 3-7, 1959, L. E. Pena (INCO); 2♀ #s 16 and 17 El Canelo, Dec. 27, 1936, F. Ruiz (INCO); 1♂ Penalolen, Jan. 27, 1953 (♀♀♀♀). Locality uncertain: 1♀ Los Chiches, Oct. 17, 1937, E. P. Reed (CAS). No locality or date: 1♂ [type of D. tricolor Phil.] (JTM).

Geographic Distribution. As shown in Fig. 465.

Discussion. The males from Santiago and O'Higgins have the genitalia black and the last 3 tergites with black hairs; this coloration is shown by the type specimen of D. tricolor Phil. The males from Coquimbo have the genitalia reddish and all hairs on the tergites white. Macquart's description of D. chilensis and Philippi's description of D. tricolor do not indicate the color of male genitalia and its coverture. The internal structure of the black genitalia and red genitalia do not show substantial difference.

Scylaticus cuneigaster n. sp.

(Figs. 150, 153, 156, 429)

Type. ♂ from Quebrada Algodones, Carrizal Bajo, Atacama, Oct. 18, 1957, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.
Diagnosis. Different from other Chilean species of the genus because of its gray general color and the absence of white lines on the tergites; mystax white; antennæ black; bristles and hairs of body, legs, and head white; wings hyaline; male abdomen strongly tapered, genitalia small.

Description of Type (♂). Head in front view: face covered by dense silver micropubescence, which is more sparse over facial gibbosity; frons black with sparse silver micropubescence, appearing grayish, frontal hairs white; ocellarium with same coverture as frons, ocelli whitish; ocellar bristles white. Head in lateral view: facial gibbosity low but distinct, occupying basal half of face, covered by fairly sparse micropubescence which over the black surface of sclerite appears gray; mystax of strong bristlelike white hairs; antennæ (Fig. 150) black with sparse micropubescence, appearing gray in parts; first segment with several white hairs, mainly on basal part; second segment with 1-2 short white hairs on basal part; third segment slightly more than twice the length of first two segments combined, with a short microsegment at apex; microsegment with a short black spine at tip; beard of abundant white hairs; occipital hairs and bristles white; post-ocular area with sparse silver micropubescence and sparse find white hairs; proboscis shiny black with long fine hairs on ventral basal half and short white hairs at tip; maxillary palpi black, first segment with fine white hairs, second segment with strong black hairs. Prothorax appearing grayish with sparse fine hairs; prothoracic lobe with abundant fine woolly white hairs; collar bristles white intermingled
with fine long white hairs. Thoracic pleura black, uniformly covered by silver micropubescence, which is slightly golden on dorsal border of mesopleura; a few fine hairs over the sclerites, a distinct group of fine white hairs on dorsal part of sternopleura; mesepimeral bristles white. Mesonotum black, central stripes and lateral spots indistinct, evident because of the presence of sparse micropubescence on surrounding areas; humeral calli reddish; posterior calli black with silver micropubescence; mesonotal coverture of minute sparse white hairs, 2 patches of long white hairs on central part of postsutural area of mesonotum; scutellar disc black with silver micropubescence and a few short white hairs; 6 white dorsocentral bristles; 3 strong, white, notopleural bristles plus 1-2 shorter extra bristles; 4-5 white intra-alar bristles; 6 long white postalar bristles; 6 pairs of white scutellar bristles. Slopes of postmesonotum black with silver and golden micropubescence. Wings hyaline, veins dark brown. Coxae black with silver micropubescence and white hairs which are more abundant on middle and front coxae; femora black with short white hairs, a few longer hairs on ventral side, bristles white; front and middle tibiae light brown on basal distal half, covered by white hairs, bristles white; hind tibiae black with similar coverture and bristles; tarsi dark brown to black with short white hairs and white bristles. Claws black, basal third reddish. Abdomen cuneiform, black, appearing gray, uniformly covered by white micropubescence and short appressed white
hairs; first abdominal tergite with 6-7 strong white bristles on each side. Genitalia small, epandria black, gonopods dark reddish brown, hypandrium small; genitalia covered with white hairs, longer than the ones on tergites (Figs. 153, 156).

**Female. Unknown.**

The name *cuneigaster* refers to the cuneiform shape of the abdomen.

**Measurements.** Total length 14.0-18.5 mm [type 18.5 mm]; sing length 3.5-11.0 mm [type 11.0 mm]; wing width 2.3-3.2 [type 3.2 mm].


**Geographic Distribution.** As shown in Fig. 429.

**Discussion.** The two specimens studied are similar, but the ocelli are brownish, the notopleural, intraalar, and postalar bristles are yellow, and the genitalia are black in the paratype specimen.
Scylaticus lugens (Philippi) n. comb.

(Figs. 149, 157, 158, 450)

Dasypogon lugens Philippi, 1865, p. 689, Colchagua; stuardo, 1946, p. 82; Hull, 1962, p. 228.

Type: lost. A neotype is hereby designated as a from 22 mi. N. of Talca, Dec. 22, 1950, R. & M.; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body black, legs black, antennae mostly dark, bristles mostly white; mystax white; tergites 2-6 with a white line on posterior border; wings mostly brownish, darker on basal half and costal areas.

Description of Neotype (♀). Head in front view: face black with silver micropubescence along eye borders, central area bare; frons black, frontal hairs white; ocellarium black, ocelli dark; ocellar bristles black. Head in lateral view: facial gibbosity black with sparse silver micropubescence; mystax white; antennae (Fig. 149) mostly black with some reddish areas, a large reddish area on external side of third segment; first and second segments with sparse black and white hairs; third segment with a short, dark, cylindrical microsegment with a short spine at tip; beard white; occipital hairs and bristles white, continued in a line along eye borders; postocular coverture of fine sparse white hairs;
proboscis shiny black with a few small reddish areas, basal ventral half with long sparse white hairs, short yellowish hairs at tip; maxillary palpi black, first segment with white hairs, second segment with longer and stronger black hairs. Prothorax black; pronotum and collar with white hairs; collar bristles black; a few white bristles on sides of pronotum; abundant strong white bristlelike hairs on propleura; prothoracic lobe with abundant fine black hairs intermingled with a few white hairs. Thoracic pleura black, with a broad line of silver micropubescence on dorsal margin of mesopleura; a round spot of silver micropubescence on posterior margin of sternopleura and on posterior border of metepisterna; mesepimeral bristles white. Mesonotum black; humeral and posterior calli, scutellum, and areas between central stripes and lateral spots with silver micropubescence; central stripes fused in a broad black band; lateral spots and central stripes connected; notal coverture of short, strong, sparse, black hairs, longer brownish hairs on posterior central area of mesonotum; humeral calli with white hairs and bristles; 4-5 white dorsocentral bristles located behind transverse suture; 3 white notopleural bristles; 6 white intraalar bristles, intermingled with a few brownish bristlelike hairs; 7 white postalar bristles intermingled with a few dark brown bristlelike hairs; 3 pairs of white scutellar bristles. Slopes of postmesonotum black, covered with silver micropubescence. Wings brownish with bluish highlights on basal half and on costal border, apical half hyaline, veins dark brown. Coxae black
with white hairs which are more abundant on anterior side of front and middle coxae; femora, tibiae, and tarsi black with sparse short fine white hairs, bristles mostly white, some dark brown bristles on front tibiae and tarsi; articulation between femora and tibiae reddish. Claws black, basal fourth reddish. Abdomen black; tergites covered by short appressed black and white intermingled hairs, the white hairs more abundant on dorsum; tergites 2-6 with a white line on posterior border, on tergites 2-3 and 6 the line is almost interrupted on dorsocentral area; sides of first and second tergites with strong bristlelike hairs, most of them white on first tergite and dark brown on second tergite; sternites black with black and white hairs which are longer than the ones on tergites, white hairs more abundant along central line. Genitalia (Fig. 158) black, hairs mostly black, short yellowish hairs on dorsal apical half of epandria; epandria ending in a narrow plate bent ventrally; hypandrium with abundant hairs on distal border; penis sheath simple, no apical processes (Fig. 157).

**Female.** Similar to male; ovipositor shiny black with short fine yellowish hairs, spines on acanthophorites black.

**Measurements.** Total length 15.1-17.2 mm., average 16.0 mm. (neotype 15.1 mm.); wing length 11.3-11.5 mm., average 11.4 mm. (neotype 11.5 mm.); wing width 3.7-3.8 mm., average 3.7 mm. (neotype 3.7 mm.).

Geographic Distribution. As shown in Fig. 450.

Discussion. There are variations in the color of some hairs and bristles; frontal hairs, occipital hairs, ocellar bristles, beard, hairs of proboscis, and bristles, vary from white to black; the white line on the posterior border of tergite 6 is absent in 3 of the 5 specimens studied.

*Scylaticus rufipes* (Philippi) n. comb.

(Figs. 159, 161-163, 451)

*Dasypogon rufipes* Philippi, 1865, p. 691; Stuardo, 1946, p. 82; Hull, 1962, p. 228.

*Scylaticus philippi* Schiner, 1868, p. 163, Chile; Stuardo, 1946, p. 81; Hull, 1962, p. 145.

Type: lost. A neotype is hereby designated as a ♀ from Estero La Jaula, Curico, Chile, Jan., 1964, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile. The types (1♂, 1♀) of S. philippii Schiner are in Naturhistorisches Museum, Wienne, Austria (seen); the types (1♂, 1♀) of S. rubripes Bigot are in Hope Department of Entomology, Oxford University, England (seen).

Diagnosis. Body black; legs red base of femora, trochanters, and coxae black; mystax black, reduced to oral margin; antennae red; mesonotum black with silver bands on sides and front borders; scutellar disc silver; wings reddish, more intense on costal area; tergites uniformly shiny black; bristles on legs red.

Description of Neotype (♀). Head in front view: face uniformly covered by dense white micropubescence; frons black with black bristles; ocellarium black, ocelli brown; ocellar bristles black. Head in lateral view (Fig. 159): face flat but inclined, appearing dark in part according to the direction of light; mystax reduced to 2 rows of black bristles on oral border, no bristles on sides of oral border; antennae red, first and second segments with black hairs, third segment with a short red microsegment with a minute spine at tip; beard of scarce long black hairs; occipital hairs and bristles and postocular coverture black; proboscis shiny black, with sparse long black hairs on basal ventral half, short yellow hairs at tip; maxillary palpi black with abundant strong black hairs. Prothorax black, hairs and collar bristles black, 2 spots
of dense yellowish micropubescence on dorsal side, connected with the silver bands on side of mesonotum. Thoracic pleura black, a few black hairs sparse on sclerites; mesepimeral bristles black, mesonotum black, no central stripes and lateral spots distinguishable, a band of dense silver-yellowish micropubescence along sides and over and around humeral calli, connected frontally with the two spots on pronotum; posterior calli black; scutellum uniformly covered by dense silver yellowish micropubescence; mesonotum covered by sparse short fine black hairs; no distinct dorsocentral bristles; 3 black notopleural bristles; 1 black intraalar bristle; 3 black postalar bristles; 5 pairs of fine black scutellar bristles. Slopes of postmesonotum black, with silver micropubescence. Wings hyaline, reddish brown on costal area, veins reddish brown near costal area, other veins dark brown. Coxae, trochanters, and base of femora black; coxae with black hairs which are more abundant on anterior side of front and middle coxae; femora with black hairs and bristles on basal part, hairs white and bristles red on distal half; tibiae and tarsi red with sparse short whitish hairs and shiny red bristles, which are more abundant on middle tibiae. Claws black, basal quarter red. Abdomen tapered, shiny black; tergites with a few short white or black hairs, the hairs longer and more abundant along sides; first tergite with a patch of black hairs on each side; sternites shiny black with longer black hairs with some white hairs intermingled. Ovipositor truncated, spines on acanthophorites dark brown.
Male. Similar to female; genitalia (Figs. 161-163) rotated 90°; epandria broad, curved ventrally on distal border; gonopods globose, shorter than epandria; hypandrium short, globose, triangular, ending in a short distal process; penis sheath with 2 long apical processes.

Measurements. Total length 13.1-18.3 mm, average 15.0 mm [neotype 16.5 mm]; wing length 11.1-13.4 mm, average 12.3 mm [neotype 13.4 mm]; wing width 3.2-3.8 mm, average 3.5 mm [neotype 3.8 mm].


Geographic Distribution. As shown in Fig. 451.

Discussion. This species presents some variations. The frons and postocular area are densely covered by silver micropubescence in some specimens and devoid of coverture in others; some old greased specimens show the scutellar disc black, while in others it looks silvery due to the vestiture; dorsocentral bristles (usually 4 fine black bristles) are absent in the neotype, but are present in other specimens, located behind the transverse suture; in the neotype the silver band on the sides of the mesonotum maintains almost the same width, but in 3 specimens, 2♂ and 1♀, this band is expanded in front of the humeral calli, reaching the borders of the central stripe, which in those specimens appear
distinct on the anterior part of mesonotum; this is shown by the types of S. philippi; in 2 specimens the band is indistinct.

**Scylaticus venustus** (Philippi)

*Dasypogon venustus* Philippi, 1865, p. 689, possibly near Santiago.  

**Type.** Lost. A neotype is hereby designated as a from El Canelo, Santiago, Nov.-Dec., 1952, Ramirez; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Body black, legs red usually with large black areas on middle and posterior femora; mystax reduced to a series of dense rows of hairs on oral border, white on center and black on sides; mesonotum surrounded by a white line on front and lateral borders; scutellar disc white; female abdomen with white on posterior borders of tergites 2-4; males with a white line on tergites 2-5; antennae red; wings light brown on costal area, dark brown in center, and hyaline on posterior border.

**Description of Neotype (♂).** Head in front view: face covered by dense yellowish micropubescence; frons black, frontal hairs black; ocellarrium black, ocelli reddish brown; ocellar bristles black. Head in lateral view (Fig. 151): face flat, slightly produced on oral border,
with 4-5 rows of dense hairs, white on central area, black on sides; antennae red, first and second segments, with black hairs, second segment with a few white bristles on ventral side near apex; third segment red with a short red microsegment with a short apical spine at tip; occipital hairs, postocular coverture, and beard black; proboscis black, with long black hairs on ventral basal half, short white hairs on tip; maxillary palpi dark brown with strong black hairs. Prothorax black with black hairs, collar bristles black; 2 spots of silver micropubescence on dorsum, appearing as a prolongation of the white lines of mesonotum. Thoracic pleura black, with small spots and lines of golden brown micropubescence, a few sparse black hairs; mesepimeral bristles black with a few white hairs intermingled. Mesonotum black, no central stripes of lateral spots distinct, covered by short fine sparse black hairs, a band of white micropubescence along sides and over humeral calli; scutellar disc covered by similar white micropubescence; posterior calli black; dorsocentral bristles not distinct; 3 white notopleural bristles; 2 white intraalar bristles; 3 white postalar bristles; 4-6 pairs of fine black scutellar bristles. Slopes of postmesonotum black with short golden brown micropubescence. Wings light brown along costal area and on basal cells; dark brown on discal, marginal, and submarginal cells; hyaline posteriorly. Coxae and trochanters black, front and middle coxae with strong black hairs; hind coxae mainly with fine white hairs; femora, tibiae, and tarsi red, dorsal side of tarsi slightly dark; legs covered by sparse short white and yellow hairs, bristles shiny red. Abdomen black; tergites covered by short appressed
black hairs, posterior border of tergites 2-5 with a white line of micropubescence; sternites with long black hairs; 5 white bristles on each side of first tergite. Genitalia (Fig. 164) rotated 90°, black with abundant black hairs; epandria globose, broad; gonopods short, globose; hypandrium globose; hypandrium globose, triangular; penis sheath with 2 long apical processes (Fig. 160).

**Female.** Similar to male, but with white lines on posterior border of tergites 2-4 only; ovipositor truncated, usually telescoped, spines on acanthophorites dark red.

**Measurements.** Total length 15.3-18.0 mm, average 15.6 mm [neotype 16.2 mm]; wing length 11.8-13.0 mm, average 12.4 mm [neotype 12.5 mm]; wing width 3.0-4.9 mm, average 3.9 mm [neotype 3.6 mm].

**Material Examined.** 7♂ and 8♀. COQUIMBO: 1♂ Pto. Oscuro, coast of Coquimbo, Oct. 23-26, 1961, L. E. Pena (OTT); 1♂ 30 Km. S. of Combarbala, Nov. 30, 1950, R & M (CAS); 1♂ Los Maitenes, 1200-1400 m., Coquimbo, Oct. 15-17, 1954, L. E. Pena (BRAS). SANTIAGO: 1♂ [neotype] El Canelo, Santiago, Nov.-Dec. 1952, Ramirez (INCO); 2♀ El Canelo, Santiago, M. Etcheverry (CEE, INCO); 1♂ El Canelo, Santiago, No.-Dec., 1954, L. E. Pena (BRAS); 2♀ El Clarillo, 800-1500 m., Nov. 19, 1953, L. E. Pena (BRAS, INCO); 1♀ San Ramon, Nov., L. E. Pena (INCO); 1♀ Santiago (JTM); 1♀ #7674, Santiago, Puelua (BER). VALPARAISO: 1♂ (gen. prep.) Limache, Dec. 9, A. Faz (INCO); 1♂ Valparaíso, A. Faz (USNM). Locality uncertain. 1♀ Candelaria (JTM)
Geographic Distribution. As shown in Fig. 427.

Discussion. This species varies in the color of the legs; some specimens, including the neotype, have the legs almost completely red, while other specimens have black areas mainly on the middle femora and posterior legs; some specimens have the middle and hind femora black on the basal half and the base of hind tibiae and tarsi also black; other specimens show dark areas of different shape and size in several areas of the leg segments.

*Theromyia* Williston

*Cylindrophora* Philippi, 1865, p. 704 (preoccupied *Coleoptera*, 1851).

Type of the genus: *Cylindrophora murina* Philippi, 1865, by monotypy.

Head in front view two-fifths wider than high; vertex gently sunken; ocellarium low but large, ocelli large. Head in lateral view: postocular area one-fourth the width of eyes; face flat, no facial gibbosity. Antennae with third antennal segment tapered, narrower than preceding segments with a spherical microsegment excavated below, microsegment carrying a tapered style about one-third the length of third segment, with a short spine at apex; mystax composed of 2 contiguous circular patches of hairs directed downward, located near oral border. Mesonotum
with variable patterns or uniform in color; mesonotal coverture of short sparse hairs which are longer and more bristlelike posteriorly; dorsocentral bristles distinct behind transverse suture. Scutellum with few medium-sized weak hairs or none; 4-6 pairs of strong scutellar bristles. Slopes of postmesonotum with micropubescence, no pile. Marginal cell open; fourth posterior cell narrowly open at border; \( R_4 \) reaching wing border before apex; \( R_5 \) ending behind wing apex; anal cell slightly open or closed at wing margin; \( M_3 \) and \( m \) forming a 145° angle. Front tibial spur present; pulvilli one-fourth the length of claws. Abdomen strongly tapered, short, last 3 segments usually telescoped in males. Wings slightly longer than abdomen. Male genitalia extremely large, elongated dorsoventrally; hypandrium large, globose, elevated dorsally, epandrium small, divided in 2 platelike, elongated sclerites directed ventrally, forming almost a straight angle with abdomen; epiproct armed with 2 sharp processes; gonopods large, globose, leaving the genitalia open posteriorly. Female genitalia strongly tapered and truncated; 4 pairs of spines on acanthophorites.

**Distribution.** Neotropical, 3 species; 2 in Chile.

The genus *Theromyia* can easily be separated from *Aphamartania* Schiner by the reduced pulvilli which in *Aphamartania* are normally developed, usually reaching the tip of the claws.

Three species have been described in this genus or in the *Aphamartania murina* group: *murina* Philippi, *calopyga* Schiner, and *nana* Pritchard. The Chilean species *murina* and *calopyga* are synonymous;
nana is from Peru and a new species pegnai is presented here.

Key to the Species of Theromyia

1. Front femora without bristles on dorsal apical portion (Peru) ....... T. nana (Pritchard).

1'. Front femora with 2-4 yellowish bristles on dorsal apical portion .......................................... 2

2(1'). Males with 4-6 distinct sharp, compressed, black bristles on anterodistal part of hind tibiae (Fig. 186); hind femora with a distinct patch of hairs on basoventral part (Fig. 186) ............ T. murina (Philippi).

2'. Males without distinct bristles as described above; ventral part of femora with hairs more or less uniformly distributed (Fig. 193) .. T. pegnai n. sp.

Females of murina and pegnai cannot be separated by morphological characters; the material studied was separated by the collection of the males.

Theromyia murina (Philippi)
(Figs. 184-191, 462)

Cylindrophora murina Philippi, 1865, p. 704, Santiago.
Theromyia murina (Philippi). Williston, 1891, p. 73; Carrera, 1949. p. 130, fig. 98, 135 and 136; 1953, p. 276; Hull, 1962, p. 262, fig. 170, 1142, 1151, 1874, and 1908.

Aphamartania murina (Philippi). Kertesz, 1909, p. 144; Bromley, 1932, p. 266; Pritchard, 1941, p. 135, fig. 3, Santiago, Angol, Valparaiso; Stuardo, 1946, p. 83.

Cylindrophora calopyga Schiner, 1868, p. 166, Chile.

Theromyia calopyga (Schiner). Williston, 1891, p. 73.

Aphamartania calopyga (Schiner). Kertesz, 1909, p. 144.

**Type.** Lost. A neotype is hereby designated as a ♀ from Algarrobo, Valparaiso, March 26, 1945, L. E. Pena. Type of C. calopyga possibly lost; it is not in Naturhistorisches Museum, Wien, Austria, or in Zoologisches Museum, Humboldt Universitat, Berlin, Germany, where most of Schiner material has been deposited.

**Diagnosis.** Short brown stout species, variable in size; femora black, tibiae and tarsi reddish brown; mystax white; male genitalia large, rotated 180°; hypandrium globose, dorsally elevated, posterior border with a rounded process in center (Fig. 190); epandria directed ventrally (Fig. 187). Males with 4-6 strong sharp black bristles on anterior dorsal basal part of hind tibiae (Fig. 186). Females without distinct bristles on hind tibiae, and hairs on ventral part of hind femora uniformly distributed.

**Description of Neotype (♂).** Head in front view (Fig. 188): face, front, and ocellarium covered by dense white micropubescence; ocelli
distinctly globose, dark brown; ocellar bristles white; mystax white.

Head in lateral view: antennae black, first segment shiny black with white hairs, second segment with white micropubescence and white hairs, third segment more or less cylindrical, with short sparse white micropubescence, slightly attenuated at top; microsegment minute, ventrally attenuated with a conical style about one-third the length of third segment, with a short stout spine at tip (Fig. 185); beard white, short, similar in color and length to hairs of postocular area and occiput; occipital hairs thicker, no occipital bristles distinct; proboscis short, shiny black with sparse fine white hairs on basal ventral part and short white hairs at tip; maxillary palpi black with sparse fine white hairs. Prothorax black with sparse white micropubescence and abundant yellowish hairs; no collar bristles distinct. Thoracic pleura shiny black with silver and golden micropubescence covering most of pleurites; fine white hairs on posterior border of mesopleura; few fine white hairs on other pleurites; mesepimeral bristles long, yellowish. Mesonotum dark brown, covered by golden micropubescence along sides and silver micropubescence in center; central stripes and lateral spots showing brown color of dorsum; short white hairs sparse over mesonotum, more abundant between humeral calli and on notopleura; humeral calli covered by yellowish micropubescence but appearing reddish from side view; scutellar disc dark brown, with sparse white and golden micropubescence, a short golden line in middle; 2-3 yellow dorsocentral bristles on posterior part of mesonotum; 5-7 yellow notopleural bristles; 5 yellow intraalar bristles; 3 yellow postalar bristles; 6 pairs of
yellow scutellar bristles. Slopes of postmesonotum dark brown. Wings hyaline, veins brown; a brown spot on r-m, M fork, and on Cu. Coxae shiny black with sparse white micropubescence and fine white hairs; femora black, with short sparse white hairs; front femora with 3 short yellow bristles on dorsocentral part; hind femora with a patch of long whitish hairs on basal central part; tibiae reddish brown, darker ventrally, covered by sparse short white hairs and yellow bristles; hind tibiae (Fig. 136) with a line of 4 strong sharp compressed black bristles along side of distal half; hind femora with hairs concentrated on basoventral third; tarsi reddish brown with sparse fine white hairs which are more abundant on dorsum, bristles on dorsum and sides white, on ventral part black. Claws long, gently curved, black, basal half reddish, pulvilli minute, one-fourth the length of claws. Abdomen short, stout, with 5 segments distinct, segments 6-8 telescoped under segment 5; tergites 1 and 2 black, 3-5 reddish brown with white hairs on sides, mostly near anterior margin; on tergites 1, 2, and 5 the hairs are longer and more abundant; sternites dark brown, more reddish toward apex, with sparse fine white hairs which are more abundant on sternite 5. Genitalia large, reddish, rotated 180°; hypandrium large, globose, light brown, dorsally elevated, posterior border with a rounded projection in middle (Figs 187, 190); epandria separated, directed ventrally; gonopods globose, dististyly directed inward and bifurcate at tip; penis sheath with 2 large lateral processes, bent at a 90° angle, tip of penis sheath not dentate (Figs. 184, 189); hairs of genitalia yellow.
Female. Similar to male; abdomen tapered; ovipositor (Fig. 191) with brown spines on acanthophorites; no distinct sharp spines on hind tibiae; hairs on ventral part of hind femora more or less uniformly distributed.

Measurements. Total length 9.1-17.0 mm, average 11.5 mm [neotype 12.0 mm]; wing length 6.7-10.8 mm, average 8.0 mm [neotype 9.2 mm]; wing width 2.1-3.2 mm, average 2.5 mm [neotype 2.8 mm].

Material Examined. 60♂ and 71♀. ACONCAGUA: 1♀ Los Maquis, Quillimari, March 11, 1964, L. E. Pena (INCO). ARAUCO: 1♂ Alto Nahuelbuta, 1400 m., Arauco, Jan. 16, 1954 (OTT); 1♂ 1♀ Butamalal, 1100-1400 m., Cord. Nahuelbuta, Jan 23-31, 1954, L. E. Pena (INCO); 2♂ Contulmo, Feb. 4, 1904, Schoenemann S. (BERL); 3♂ 6♀ Contulmo, Feb. 11, 1962, Herrera (1♂ 2♀ INCO, 2♂ 4♀ CEE); 4♂ 3♀ Peillem-Pilli, 600-800 m., Cord. Nahuelbuta, Jan. 13, 1954, L. E. Pena (9♂ 1♀ INCO, 2♀ OTT); 5♂ 10♀ Pichinahuel, 1100-1400 m., Cord. Nahuelbuta, Jan 13, 1954, L. E. Pena (3♂ 7♀ OTT: 2♂ 3♀ INCO); 2♂ Pillim-Pilli, Arauco, Jan. 13, 1954, L. E. Pena (2♂ 2♀ INCO, 1♀ 4♀ CAS); 5♀ Mulchen, Bellavista, E. P. Reed (CAS); 1♂ #26 1♀ #27 Mulchen, Jan., 1926, F. Ruiz (INCO); CAUTIN: 1♀ 20 km. E. of Temuco, Jan. 7, 1951, R. & M. (CAS); 1♂ 3♀ Villarica, Feb. 30, 1963, Fetis (INCO). CONCEPCION: 3♂ 2♀ Concepcion, 1903, E. P. Reed (2♂ 1♀ CAS, 1♂ 1♀ INCO); 1♂ Concepcion, Feb. 11, 1962, Mendez (INCO); 1♂ Copiulemu, Feb. 30, 1964, Artigas (INCO). COQUIMBO: 1♂ Cerrillos pobres, March 7, 1956, L. E. Pena (BRAS); 1♂ Cuesta Buenos
Aires, 38 km. N. La Serena, March 17, 1958, Wagenk (INCO); 2♀ Hda.
Illapel, 600 m., Coquimbo, Nov. 1-6, 1954, L. E. Pena (INCO); 4♀ 35 mi.
S. of Ovalle, Dec. 1, 1950, N. & R. (1 INCO, 3 CAS); 1♂ Variante
Diaguitas, Feb. 24, 1941 (MNHN). CURICO: 1♀ Estero La Jaula, Los
Quenes, Curico, Jan. 4-18, 1966 (INCO). LINARES: 1♀ Bullileo, Feb.
3, 1957, A. Montero (CEE); 1♂ Bader von (baños de) Longavi, Parral,
Schonemann (BERL). MALLECO: 1♂ Angol, Nov. 31, 1954, B. Carvallo
(INCO); 1♀ Angol, Jan., 1954, L. E. Pena (BRAS); 1♂ 1♀ #381 Angol,
Dec. 27, 1929 (USNM); 1♂ Jauja, Feb. 11, 1962, Charlin (INCO); 1♂ W.
MAULE: 1♀ Pelluhue, Maule, Dec. 2, 1953, L. E. Pena (INCO). NUBLE:
1♀ Laguna Laja, 1420 m., Feb., 1956, L. E. Pena (INCO); 1♀ Las Cabras,
1480 m., Jan. 16-29, 1955, L. E. Pena (BRAS); 1♂ Las Trancas, Cord.
Nuble, Jan. 17-23, 1953, L. E. Pena (INCO). SANTIAGO: 1♀ Talagante,
Feb., 1960, J. Herrera (INCO); 1♀ Santiago, Puelma (BERL). VALPARAISO:
1♂ [neotype] 1♀ Algarrobo, Valparaiso, March 26, 1945, L. E. Pena (INCO);
1♂ Curacavi, March 10, 1951, Instituto Pedagogico (CEE); 1♀ La Campana,
Quillota, March 3, 1951, J. Herrera (CEE); 1♂ Laguna Verde, March 1927,
Dr. Reed (CAS); 1♂ 1♀ Olmue, March 23, 1920, P. Herbst (INCO); 2♂ 4♀
Quilpue, March 1929, Dr. Reed (2♂ 1♀ INCO, 3♀ CAS); 1♂ Quillota, March
23, 1951, J. Herrera (CEE); 1♂ Quinteros, Feb., 1957, Etcheverry (CEE);
1♂ Valparaiso, Dr. Reed (USNM); 1♂ Valparaiso, 1947 (BERL); 1♀ Val-
paraiso, March 22, 1911, P. Herbst (CAS); 1♂ 1♀ Valparaiso, Dr. Reed
(CAS); 1♂ 3♀ Valparaiso, March, 1927, Dr. Reed (1♀ INCO, 1♂ 2♀ CAS);
1♂ Vina, March, 1927, Dr. Reed (INCO). Locality uncertain: 1♀ La Rosa,
March 15, 1954, L. E. Pena (BRAS). No locality or date: 1♂ 1♀ Chile (CAS); 1♂ 1♀ Chile, 1922, A. Faz (USNM); 2♂ 1♀ (JTM).

Geographic Distribution. As shown in Fig. 462.

Discussion. This species varies greatly in size and color. Specimens from Colchagua and northern provinces are usually larger; of 47 specimens studied, only 1 was small, similar in size to the specimens from Malleco to Cautin. A series of 9 specimens from El Abanico, Bio-Bio, were the smallest among the material studied. Larger specimens appear to be more dull and grayish than the smaller ones, which usually are shinier, mainly over the abdomen. Other characters like color of femora and tibiae, coverture of abdomen, color of tergites, color of male genitalia, mesonotal patterns, vestiture of notum and vestiture of thoracic pleura, present variation from black to reddish, more commonly brown; the coverture varies in density and sometimes in length.

The abdomen of males is usually telescoped, tergites 5 or 6 appearing to be the last one; after clearing, segments 6-8 appear, showing important reduction in size.

Among the material from JTM Coll., 2 specimens have labels in Philippi's handwriting: 1 "Dasyporon ? acanthocnemis Ph." and 1 "Dasyporon ? n. genus? apiformis", these are nomina nuda.

Prey. Hym. Apis mellifera; Bradynobaenus gayi.
Theromyia pegnai n. sp.

(Figs. 192-196, 443)

Type. ♂, from Lolol, Colchagua, March 30, 1955, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Concepcion, Chile.

Diagnosis. Close to T. murina, from which males can be separated by the absence of distinct compressed black sharp spines on hind tibiae; body short, stout, dark brown; femora black, tibiae and tarsi mostly yellowish; mystax white; male genitalia large, rotated 180°; hypandrium large, dorsally elevated, posterior border with a rectangular process in center (Fig. 192); epandria directed ventrally, and often slightly anteriorly; tip of penis sheath dentate on borders (Fig. 194, 195).

Description of Type (♂). Head in front view: face and front covered by dense silver micropubescence; frontal hairs yellow; ocellarium covered by sparse silver micropubescence; ocelli reddish; ocellar bristles white; mystax white. Head in lateral view: antennae black, first segment shiny black with white hairs, second segment with sparse white micropubescence and white hairs; third segment mostly conical with sparse white micropubescence, microsegment conical with a stout bristle at tip; beard of sparse fine white hairs; postocular coverture of long yellowish hairs; occipital hairs yellowish, no occipital bristles distinct; proboscis short, shiny black, with long fine white hairs on basal ventral part and short yellow hairs at tip. Prothorax black, covered by sparse white micropubescence and abundant long fine white
hairs; collar bristles not distinct. Thoracic pleura black, with areas of sparse golden or silver micropubescence and a few sparse fine white hairs which are more abundant on posterior border of mesopleura; mesepimeral bristles yellowish. Mesonotum brown, with golden micropubescence in center and silver micropubescence on sides and posterior borders; central stripes and lateral spots brown; lateral spots forming 3 short broad aligned bands; mesonotal coverture of short sparse white hairs, more or less uniformly distributed over dorsum; humeral calli covered by silver pubescence, from side view appearing reddish; posterior calli black, covered with silver micropubescence; scutellum dark brown with golden and silver micropubescence; 4 brownish dorsocentral bristles located behind transverse suture; 4-6 brownish notopleural bristles; 3 brownish intraalar bristles, 1 located apart, more dorsal; 3 yellowish postalar bristles; 5 pairs of yellowish scutellar bristles. Slopes of postmesonotum black with sparse silver micropubescence.

Wings (Fig. 196) hyaline, veins brown, a brown spot on r-m R_{4+5}. Coxae, trochanters, and femora black, with sparse white hairs, more abundant and longer on coxae and ventral side of femora, bristles yellowish; front femora with 3 yellow bristles on dorsal side near apex; hind femora with hair uniformly distributed on ventral side (Fig. 193); tibiae yellowish on anterior side, reddish brown on ventral side and blackish apically, covered by sparse white hairs and white bristles; tarsi reddish brown, darker dorsally, with sparse short white hairs and white bristles, bristles on ventral side mostly brown. Claws gently curved, black, basal fifth reddish; pulvilli minute, one-fourth the length of claws. Abdomen
reddish brown, first 2 tergites black; tergites with large areas covered with silver micropubescence and yellow hairs on sides, pilosity more abundant and extended more dorsally on tergites 1, 6, and 7; sternites dark brown with sparse long yellow hairs. Genitalia brown with yellow hairs; hypandrium large, elevated dorsally, posterior border with a rectangular process in middle (Fig. 192); epandria directed ventrally; gonopods globose, with dististylus bifurcate at tip and bent inward; penis sheath with apical borders dentate (Figs. 194, 195).

Female. Similar to male; ovipositor with reddish spines on acanthophorites.

This species is dedicated to L. E. Pena, the Chilean Entomologist who collected most of the material used in this study.

Measurements. Total length 9.5-14.2 mm, average 11.5 mm [type 10.5 mm]; wing length 7.1-10.5 mm, average 9.5 mm [type 8.0 mm]; wing width 2.1-3.5 mm, average 2.8 mm [type 2.1 mm].


Geographic Distribution. As shown in Fig. 443.
Discussion. The color of the head hairs varies from white to brownish yellow; the brown spots on the wings are in some specimens poorly developed or absent; the color of the tibiae in some specimens is uniformly reddish brown. I cannot separate females of this species from females of *T. murina*. The females included in the material examined were collected together with their males. Males of *murina* and *pepna* can be separated by the genitalia, as shown in Figs.

The uncertain locality Las Breas, recorded in material examined, may be from northern Coquimbo, which would give the species a rather northern distribution.


20. *P*., genitalia (after clearing), in dorsal view; no hairs shown.


22. *Pritchardia hirtipes*, ovipositor (after clearing), in lateral view, extended.


<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>0</td>
<td>cercus</td>
</tr>
<tr>
<td>dist</td>
<td>dististylus</td>
</tr>
<tr>
<td>ep</td>
<td>epandrium</td>
</tr>
<tr>
<td>gp</td>
<td>gonopod</td>
</tr>
<tr>
<td>hyp</td>
<td>hypandrium</td>
</tr>
<tr>
<td>psh</td>
<td>penis sheath</td>
</tr>
<tr>
<td>stg</td>
<td>sternite eighth</td>
</tr>
<tr>
<td>stng</td>
<td>eighth sternite</td>
</tr>
<tr>
<td>tgg</td>
<td>tergite eighth</td>
</tr>
<tr>
<td>tggg</td>
<td>tergite ninth</td>
</tr>
<tr>
<td>sur</td>
<td>surstylus</td>
</tr>
</tbody>
</table>

25. Pe, *penis sheath in lateral view.*

26. Pe, *ovipositor (after clearing), in dorsal view; no hairs shown.*

27. *Pritchardia tertialis*, ovipositor (after clearing) in lateral view; no hairs shown.


ep  epandrium
sp  gonopod
29. *Obelophorus terebratus*, head in lateral view.

30. *O.* genitalia in lateral view.

31. *O.* genitalia (after clearing), in dorsal view, no hairs shown.

32. *Obelophorus terebratus*, penis sheath in lateral view.

33. *O.* ovipositor in dorsal view.

34. *Hexamerita micans*, head in lateral view.

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c cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
tg5 tergite fifth
tg7 tergite seventh
tg8 tergite eighth
tg9 tergite ninth

36. *He* " o' genitalia (after clearing), in dorsal view.

37. *He* " o' genitalia (after clearing), in lateral view, extended.

38. *Hexameritia micans*, tip of abdomen (o' or q) in dorsal view.

39. *He* " o' genitalia (after clearing) in ventral view; no hairs shown.


41. *He* " ovipositor telescoped.

o cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
psh penis sheath
sap subanal plate
st₈ sternite eighth
st₉ sternite eighth
sur surstylus
st₉₈ sternite ninth
t₇₇ tergite seventh
t₇₈ tergite eight
t₉₉ tergite ninth
42. *Alyssomyia brevicornis*, head in lateral view.

43. *A*  
   ovipositor (after clearing), in ventral view; no hairs shown.

44. *A*  
   genitalia in lateral view.

45. *Alyssomyia bulbosa*, genitalia in lateral view.

46. *A*  
   penis sheath in lateral view.

47. *A*  
   ovipositor (after clearing), in ventral view; no hairs shown.


- cercus
- ejap: ejaculatory apodeme
- ejp: ejaculatory pore
- ep: epiandrium
- hyp: hypandrium
- stng: sternite eighth
- tg7: tergite seventh
49. Alyssomyia pampina, antoma.

60. Creolestes rubricornis, ♂ genitalia in lateral view.

61. C. rufescens, ♂ genitalia in lateral view.

62. C. " head in lateral view.

63. C. " ovipositor in lateral view.

ep epandrium
gp gonopod
hyp hypandrium
tgg tergite eighth
54. Creolestes nigribarbis, head in lateral view.
55. C.  
   a. hypandrium in dorsal view.
56. C.  
   b. hind femur; hairs not shown.
57. C.  
   c. o'genitalia in lateral view.
58. C.  
   keisserti, hind femur, hairs not shown.
59. C.  
   nigribarbis, wings.
60. C.  
   d. ovipositor in dorsal view.

ep  epandrium
hqg  hind femur
gp  gonopod
hyp  hypandrium
tg7  tergite seventh
63. *Dasypocus heteromesurus*, head in lateral view.
64. *D. n.*, head in front view.
65. *Graptostylus dolosus*, head in lateral view.
67. *Graptostylus dolosus*, 7 \textit{genitalia} in lateral view.

D discal cell
ep epandrium
gp gonopod
hyp hypandrium
M\textsubscript{1} first medial vein
4P fourth posterior cell
tg\textsubscript{7} tergite seventh
tg\textsubscript{8} tergite eighth
68. **Graptoctyulus dolosus**, middle tibia and tarsi; no hairs shown.

69. G, " wing.

70. **Holopogon arrayanensis**, head in lateral view.

71. **Graptoctyulus dolosus**, hind tarsi; no hairs shown.

72. **Holopogon tener**, c' genitalia in dorsal view.

73. He " c' genitalia in ventral view.

74. **Graptoctyulus dolosus**, antenna.

75. **Holopogon tener**, hind tarsus.

76. He " wing.

c: cercus

dist: dististylus

ep: epandrium

fmg: middle femur

gp: gonopod

hyp: hypandrium

MC: marginal cell

stm8: sternite eighth

4th P: fourth posterior cell

t3: hind tarsus

tb2: middle tibia

tg8: tergite eighth
77. **Holopogon minusculus**, antenna.

78. **Heoquimbensis**, antenna.

79. **HeLANOSUS**, antenna.

80. **HeSUCINOPEDIS**, antenna.

81. **HePAPAYEROI**, antenna.

82. **HeHIPPOPOLOSUS**, antenna.

83. **HeARRAYANENESIS**, antenna.

84. **HeTENOR**, antenna.

85. **HEnotocineratus**.

86. **HeMEDINES**, antenna.

87. **Hypenetes asiliformis**, head in lateral view.

88. **He**

89. **He**

90. **He**

91. **He**

- *cereus*
- *ejap* ejaculatory apodeme
- *ejd* ejaculatory duct
- *ejp* ejaculatory pore
- *ep* epandrium
- *gp* gonopod
- *hyp* hypandrium
- *psh* penis sheath
92. *Hypanesthes critesii*, o genitalia in lateral view.

93. *He* "tip of hypandrium in dorsal view.

94. *He* daviaonsi, penis sheath in lateral view.

95. *He* critesi, penis sheath in lateral view.

96. *He* daviaonsi, penis sheath in dorsal view.

97. *He* critesi, penis sheath in dorsal view.

98. *He* daviaonsi, tip of hypandrium in dorsal view.

99. *He* "o genitalia in lateral view.

c cercus
ep epandrium
gp gonopod
hyp hypandrium
t7g7 tergite seventh
100. *Hypenastes digitatus*, penis sheath in lateral view.

101. *H* ♀  "n", head in lateral view.

102. *H* ♂  fuscosus, tip of hypandrium.

103. *H* ♂  *digitatus*, ♂ genitalia in lateral view.

104. *H* ♀  "n", tip of hypandrium in dorsal view.

105. *H* ♀  "n", penis sheath in dorsal view.

106. *H* ♂  fuscosus, ♂ genitalia in lateral view.

---

gp  gonopod
hyp  hypandrium
107. **Hypenetes fuscus**, penis sheath in lateral view.

108. **H. magellanicus**, σ' genitalia in lateral view.


110. **H. magellanicus**, tip of hypandrium in dorsal view.

111. **H.**, penis sheath in lateral view.


113. **H. punctipennis**, σ' genitalia in lateral view.

114. **H.**, tip of hypandrium in dorsal view.

dpr  dorsal process of the penis sheath

ejp  ejaculatory pore

hyp  hypandrium


117. $H_e$ , penis sheath in lateral view.

118. $H_e$ *shineri*, wing.

119. $H_e$ , penis sheath in dorsal view.

120. $H_e$ , tip of hypandrium in dorsal view.

121. $H_e$ , *genitalia in lateral view.

- o = cercus
- gp = gonopod
- hyp = hypandrium
- Rg = fifth radial vein
122. *Hypereneta schineri*, penis sheath in lateral view.

123. *H. * ovipositor (after clearing) in ventral view; 
hairs not shown.


125. *H. * ovipositor in lateral view.

126. *H. * penis sheath in lateral view.

127. *H. * tip of hypandrium in dorsal view.


129. *Hypereneta valentinei*, c° genitalia in lateral view.

act  acanthophorite
c  cercus
ep  epandrium
gp  gonopod
hyp hypandrium
stng  sternite eighth
teg  tergite eighth
130. *Leptochelea jaujensis*, wing.

131. *L* , claws.


133. *Oberon fulvicornis*, head in lateral view.

134. *O* , genitalia in lateral view.

135. *O* , genitalia (after clearing), in lateral view, extended.

136. *O* , ovipositor in dorsal view.

137. *O* , antenna.

138. *O* , penis sheath in lateral view.

c cercus
c1 claw
emp empodium
ep epandrium
dist dististylus
gp gonopod
hyp hypandrium
psh penis sheath
pul pulvillus
tg7 tergite seventh
tg8 tergite eighth
139. *Gberom fulvipes*, wings.

140. o  " apex of front tibia with front tibial spur.

141. o  " penis sheath in lateral view.

142. *Prolepsis quadrinotata*, middle femur.

143. P  " head in lateral view.

144. P  " tip of third antennal segment.

145. P  " wings.

146. P  " o'genitalia, ventral view.

147. P  " o'genitalia, ventral view.

O  cercus
dist  dististylus
ep  epandrium
fmq  middle femur
ftbs  front tibial spur
gp  gonopod
hyp  hypandrium
psh  penis sheath
stn7  sternite seventh
sur  surstylus
\( t_1 \)  front tarsus
\( tb_1 \)  front tibia
\( ts6 \)  tergite sixth
\( ts7 \)  tergite seventh
148. Scylaticus chilensis, antenna.
149. S. lugens, antenna.
150. S. cuneigaster, antenna.
151. S. venustus, antenna.
152. S. chilensis, penis sheath in lateral view.
153. S. cuneigaster, ♀ genitalia in lateral view.
154. S. cuneigaster, ♀ genitalia in dorsal view.
155. S. chilensis, wing.
156. S. cuneigaster, ♀ genitalia in dorsal view.

o cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
stn6 sternite sixth
tg7 tergite seventh
tgg8 tergite eighth
sur surstylus
157. *Soylatus* lugens, penis sheath in lateral view.
158. *S.* 
159. *S.* rufipes, head in lateral view.
160. *S.* venustus, penis sheath in lateral view.
161. *S.* rufipes, o' genitalia (after clearing) in ventral view; no hairs shown.
162. *S.* rufipes, o' genitalia in dorsal view.
163. *S.* 

\[ \begin{align*}
\text{c} & \quad \text{cereus} \\
\text{dist} & \quad \text{dististylus} \\
\text{ep} & \quad \text{epandrium} \\
\text{gp} & \quad \text{gonopod} \\
\text{hyp} & \quad \text{hypandrium} \\
\text{psh} & \quad \text{penis sheath} \\
\text{stn}_7 & \quad \text{sternite seventh} \\
\text{stn}_8 & \quad \text{sternite eighth} \\
\text{tg}_7 & \quad \text{tergite seventh} \\
\text{tg}_8 & \quad \text{tergite eighth}
\end{align*} \]
164. *Scylaticus venustus*, ♀ genitalia in lateral view.

165. *Aralopogon gayi*, ♀ genitalia (after cleaning) in dorsal view; hairs not shown.

166. *Aralopogon fratermus*, penis sheath in lateral view.


169. *A* gayi, penis sheath in lateral view.

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c cercus

dist dististylus

ep epandrium

GP gonopod

hyp hypandrium

tg8 tergite eighth
170. *Araiopogon cyanogaster*, penis sheath in lateral view.

171. *A. gayi*, genitalia in dorsal view.

172. *A. gayi*, wings.

173. *Dermomyia fuscipennis*, ♂


c cercus
sp epandrium
♂P gonopod
t♂8 tergite eighth
175. *Deromyia fuscipennis*, ♀ genitalia in lateral view.
176. *D* ♀ penis sheath in lateral view.
177. *D* ♀ ♀ antenna.
178. *D* ♀ ♀ antenna.
179. *D* ♀ *nigriventris*, ♀ genitalia in lateral view.
180. *D* ♀ ♀ penis sheath in lateral view.
182. *S* ♀ ♀ head in lateral view; third antennal segment incomplete.

c cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
tgg tergite sixth
tg7 tergite seventh
tg8 tergite eighth
183. Saropogon nigromaculis, wing.

184. Theromyia murina, tip of penis sheath in dorsal view.

185. T. n, antenna.

186. T. n, c, hind leg.

187. T. n, c genitalia in lateral view.

188. T. n, head in lateral view.

189. T. n, penis sheath in lateral view.

A1 anal cell
c cercus
dist distastylus
ep ejaculatory pore
ep ependrium
fmg hind femur
gp gonopod
hyp hypandrium
pah penis sheath
tg 6 tergite sixth
190. **Theromyia murina**, **♂** genitalia in ventral view.

191. **T.** " ovipositor (after clearing) in ventral view.

192. **T.** pegma, tip of hypandrium in ventral view.

193. **T.** " ♂, hind leg.

194. **T.** " ♀, penis sheath in lateral view.

195. **T.** " ♀, tip of penis sheath in dorsal view.

196. **T.** " ♀, wing.

**Abbreviations:**

- Al: anal cell
- ac: acanthophorite
- c: cercus
- dist: dististylus
- ejp: ejaculatory pore
- ep: epandrium
- hmp: hind horn
- gp: gonopod
- hyp: hypandrium
- psh: penis sheath
- sap: subanal plate
- stn8: sternite eighth
- tgg: tergite eighth
THE ASILIDAE (DIPTERA) OF CHILE

VOLUME II

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By


* * * * * * *

The Ohio State University
1967

Approved by

[Signature]

Donald J. Brown

Adviser

Department of Zoology and Entomology
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Subfamily LAPHRIINAЕ

The Chilean species of Laphriinae can be characterized by the following combination of characters: Marginal and fourth posterior cells closed; third antennal segment with a pit at apex, bearing a short spine on center, no microsegment or style; palpi two segmented; epandrium and hypandrium not fused; ovipositor without spines on the acanthophorites; front tibial spur absent.

The subfamily is represented by 2 genera and 3 species.

**Andrenosoma Rondani**

Andrenosoma Rondani, 1856, p. 160; Hull, 1962, p. 349; Martin, 1966, p. 323. \[
\text{Elaetomn Costa, 1863, p. 49.}
\]

Type of genus: *Asilus atra* Linné, 1758, by original designation.

Head in front view twice as wide as high; vertex strongly sunken; ocellarium low; ocelli small. Head in lateral view: postocular area one-half the eye width; facial gibbosity rounded, strongly produced, occupying one-half of fact; palpi depressed in apical three-fourths; antennae large; third antennal segment oval, pedunculate; no microsegment; mystax of stout long bristles arising from all over facial gibbosity. No mesonotal patterns; mesonotal vestiture of medium-sized hairs, usually longer on posterior part; scutellum with pile similar to mesonotal vestiture; 4-6 pairs of scutellar bristles, usually directed dorsally.
Slopes of post-mesonotum without hairs. Marginal cell closed and stalked; fourth posterior cell closed and stalked; R₄ ending before wing apex, R₅ ending behind wing apex; anal cell closed with a short stalk; M₃ and m forming a 90° to 110° angle. Front tibial spur absent. Abdomen depressed, wide, wider in middle, slightly tapered posteriorly. Wings longer than abdomen. Male genitalia small, rotated near 90°; hypandrium minute (Fig. 201); epandrium not completely divided; gonopods prominent, longer than epandrium with different processes at apex. Female genitalia small, tergite 8 cone-shaped, no spines on ovipositor.

Distribution. Nearctic, Neotropical, Palaeartic, Ethiopian, Oriental, Australian, 43 species; 1 species in Chile, Andrenosoma rufiventris (Blanchard).

This genus is close to Laphria Meigen from which it can be separated by the leaf-shaped palpal segment, which in Laphria is cylindrical. In the Chilean species rufiventris the maxillary palpi has one distinct segment, which is leaf-shaped; Hull (1962; 349) indicates 2 palpal segments for this genus.

Martin (1966:324) recognized Pagonosoma Rondani and Pilica Curran as subgenera of Andrenosoma.

Andrenosoma rufiventris (Blanchard)
(Figs. 197-202, 466)

Laphria rufiventris Blanchard, 1864, p. 364, Pl. 1, fig. 5, Concepción;
Philippi, 1865, p. 684.


Nusa calogastra (Philippi). Hermann, 1912, p. 262

Andrenosoma calogastra (Philippi). Bromley, 1932, p. 268; Stuardo, 1946, p. 83.

Type: ♂, in Museum National d'Histoire Naturelle, Paris, France (not seen). Type of L. calogastra lost.

Diagnosis. Head, thorax, femora, and first abdominal segment black, remaining abdominal segments and often basal part of tibiae reddish; wings mostly fumose; third antennal segment clublike; facial gibbosity strongly produced, mystax black; proboscis depressed; a white line on eye border except on dorsal part.

Male. (Description mostly based in a ♂ compared with type by L. Tsacas in 1966). Head in front view: face and front shiny black with sparse indistinct silver micropubescence; frontal hairs black; ocellarium black, ocelli light brown; ocellar bristles black, 2 long strong bristles at center; a white line on eye borders except on dorsal part. Head in lateral view (Fig. 198): mystax of abundant, strong, usually black bristles, remainder of face with similar vestiture but shorter; antennae black, first and second segments with black hairs, more abundant and stronger on first segment; third segment with a groove on external side extending along one-third of one-half of apical part; beard of abundant long black or white hairs, sometimes black and white intermingled; postocular area shiny black, covered with fine black hairs; occipital bristles strong, black, arranged in a single line, usually 7-12 behind
each eye; proboscis depressed, pointed distally, stronger toward base, with white or black hairs on ventral side and yellow, fine short hairs at tip; maxillary palpi with black hairs. Thoracic pleura shiny black with indistinct silver micropubescence and sparse fine black hairs, similar to hairs on prothorax but always longer than hairs on mesonotum; mesepimeral bristles abundant, long, black. Prothorax shiny black with indistinct silver micropubescence, more distinct from dorsal view, with sparse fine long black hairs, which are slightly more dense on prothoracic lobe and on collar; collar bristles black, intermingled with abundant fine black hairs. Mesonotum black, some indistinct silver micropubescence on borders and behind posterior calli, mesonotal coverture black; scutellar vestiture black; no distinct dorsocentral bristles; 3 black notopleural bristles, 2 weaker; 4-6 black intralar bristles; 6 black postalar bristles, 2 weaker; 6-8 pairs of long black scutellar bristles. Slopes of post-mesonotum shiny black, poorly covered with silver micropubescence. Wings (Fig. 199) mostly fumose, sometimes brownish, darker along veins; basal one-third usually lighter, sometimes almost hyaline. Coxae, trochanters, femore, and tarsi black, with abundant black and white intermingled hairs; a few short black bristles on apex of femora and abundant strong black bristles on tarsi; tibiae variable in color from uniformly black to basal three-fourths reddish and apex black; coverture of tibiae similar to that of femora; front tibiae with a few black bristles at apex; middle and hind tibiae with long fine black bristles, mainly along posterior border; hind tibiae distinctly curved. Claws black. First abdominal segment shiny
black with bluish highlights, covered with minute black hairs on dorsum and longer hairs on sides and on sternites; 2 black bristles on each side of first segment; segments 2-8 reddish, covered by short reddish hairs on dorsum, longer and more sparse on sternites; 2 reddish bristles on sides of tergites 2-4, usually indistinct on tergite 4. Genitalia reddish, small, rotated 90°, usually curved ventrally (Fig. 197, 201); hypandrium concealed under sternite 8 (Fig. 201); epandria shorter than gonopods; penis sheath as shown in Fig. 200.

**Female.** Similar to male; ovipositor pointed, formed by tergite and sternite 9, segment 8 forming the base of ovipositor, (Fig. 202).

**Measurements.** Total length 15.5-24.1 mm., average 17.2 mm.; wing length 10.8-17.8 mm., average 14.2 mm.; wing width 2.8-4.8 mm., average 4.5 mm.

**Geographic Distribution.** As shown in Fig. 466.


Discussion. This is a very variable species, but I did not find constant variations to separate it into subspecies.

The color of the mystax, beard, mesonotal vestiture, and the long hairs of the legs varies from white to black. The color of the tibiae and tarsi varies from totally black to one-half black and one-half reddish; some specimens have the tibiae dark brown. The mesonotum is dull black or shiny black with bluish highlights.
Using color arrangements on the tibiae, mystax, and beard which are the characters used by Philippi, Blanchard, Hermann, and Bromley to separate Chilean species, I find that it is possible to make seven groups: (1) all tibiae black, mystax black, and beard white (3♂ and 10♀); (2) all tibiae black, mystax and beard black (1♂ and 5♀), this combination corresponds to *Laphria calogastra* Philippi; (3) all tibiae bicolored (base reddish, apex black), mystax and beard white (1♂); (4) all tibiae black, mystax and beard white (1♂); (5) all tibiae bicolored, mystax black and beard white (3♂ and 7♀), this combination corresponds to *Laphria rufiventris* Blanchard; (6) all tibiae bicolored, mystax and beard black (1♀); (7) front and middle tibiae bicolored, hind tibiae black, mystax and beard black (2♂ and 6♀).

Male genitalia show no differences among these groups; the penis sheath (Fig. 200) is identical in all males studied. The R₄ vein sometimes has a stump vein at the base, but I find no correlation with this character and the 7 groups. Geographic distribution shows also no correlation with the groups.

Blanchard's description of *L. rufiventris* indicates in reference with the legs: "Patas muy pestañadas, negras, con la mitad de los muslos de un bermejo vivo" (legs with abundant eyelashes, black, with half of thighs bright reddish). I do not know if when referring to thighs, he is referring to femora or tibiae; it seems that it should be femora, but on his figure on Pl.1 fig. 5, the femora appear totally black and the tibiae have the
basal half reddish. No subsequent authors found specimens with apically reddish femore; all of them possibly used Blanchard's description. Bromley (1932; 268) gives a key to separate A. *rufiventris* from A. *calogastera* but does not state if he saw specimens of both species; since he does not indicate sex for the material, I believe he did not see specimens because he indicates sex for all the material he studied when working other genera in the same paper.

There are 2 specimens from JTM Collection with Philipp's handwritten labels: "Laphria? anthracina Ph." which is a *nomen nudum*, and "Santiago 1864 Hamerter"; in both specimens the head, abdomen, and some legs are missing.

**Lamprozona Loew**


Type of the genus: *Lamprozona auricincta* Loew, 1851, by monotypy.

Head in front view one-fourth wider than high; vertex deeply sunken; ocellarium dorsally produced. Head in lateral view: postocular region one-fourth the width of eyes; facial gibbosity not prominent, reduced to basal one-third of face; antennae long, third antennal segment one and one-half times the 2 preceding combined, slender in basal one-fourth, slightly expanded distally, compressed, at apex with a scooplile cavity opening toward outer side, with a minute spine in center, no microsegment; mystax of long scattered bristles arising all over facial gibbosity and directed in all directions but dorsally. No mesonotal
patterns; mesonotal vestiture of fine short appressed hairs and a few scattered longer hairs; dorsocentral bristles usually not distinct; scutellum similar in vestiture to mesonotum; 2-5 pairs of scutellar bristles. Slopes of postmesonotum with a tuft of short hairs. Marginal cell closed with a long stalk; fourth posterior cell closed and stalked; R₄ ending almost at wing apex; R₅ vein ending far behind wing apex; anal cell closed with a short stalk; M₃ and m forming a 90° angle; m sometimes very short, almost indistinct. Front tibial spur absent. Abdomen depressed, wider than thorax. Wings reaching beyond tip of abdomen. Tergite 8 narrow, hidden under tergite 7 (Fig. 211). Male genitalia rotated near 180°; epandrium not completely divided. No spines on ovipositor.

**Distribution:** neotropical, 3 species; 2 species in Chile.

**Key to the Chilean Species of Lamprozona**

1. Trochanters, base of femora, and tibiae riddish; slopes of postmesonotum with fine white hairs ..............
   
   .......................  L. chilensis (Hermann) n. comb.

1'. Legs black; slopes of postmesonotum with short stout spinelike black hairs .............................. L. auricincta Loew

**Lamprozona auricincta Loew**

(Figs. 203-205, 207, 208, 440)

Dasypogon sericeus Philippi Philippi, 1865, p. 691; Stuardo, 1946, p. 82; Hull, 1962, p. 402.

Dasypogon atratus Philippi, 1865, p. 687.


Cormansis cyanescens Bigot, 1878 (nec cyanescens Rondani, 1848), p. 235 Chile.

Lamprozona cyanescens (Bigot). Hermann, 1912, p. 100.

Atomosia cyanescens (Bigot). Brethes, 1924, p. 105.

Atomosia chilensis Brethes, 1924 (nec chilensis Hermann, 1912), p. 105; Stuardo, 1924, p. 83.


Type: location unknown. Type ♂ of D. sericeus and type ♀ of D. atratus in Museo Nacional de Historia Natural, Santiago, Chile (seen).

Cotypes (2♂) of C. cyanescens in Hope Department of Entomology, Oxford University, England (seen). Location of other types unknown.

Diagnosis. Body (Fig. 203) and legs shiny black; antennae black, mystax black; proboscis short; abdomen broad, broader apically, depressed, glabrous in ♀, with short appressed golden hairs in ♂; wings slightly fumose.

Male. Head in front view: face narrow, shiny black with silver micropubescence which is more distinct along eye borders, long black hairs
all over face; front black, frontal hairs strong, black, abundant near eye
border; ocellarium black, ocelli light brown; ocellar bristles long, black.
Head in lateral view (Fig. 204): face silver, slightly produced beyond
eye border; facial gibbosity round, low; mystax black, similar to hairs
on upper part of face; antennae black, first and second segments with
abundant long black hairs, third segment one and one-third the length of
first two segments combined (Fig. 204); beard of abundant medium-sized
black hairs; postocular area shiny black with silver micropubescence on
basal sides and behind ocellarium; postocular vestiture similar to beard
but slightly less dense; occipital bristles black; proboscis short, no
longer than third antennal segment, black, blunt, with a distinct constriction
in apical one-third, fine sparse white hairs on basoventral one-half,
short yellow hairs on apex; maxillary palpi short, with black hairs.
Thoracic pleura shiny black, with silver micropubescence mainly along
borders of sclerites; mesepimeral bristles fine, long, black, with fine
sparse medium-sized black hairs; scutellum shiny black; dorsocentral bristles
not distinct; 1-2 black notopleural bristles; 2-3 black intraalar bristles;
1 black postalar bristle; 5 pairs of fine long black scutellar bristles.
Slope of postmesonotum shiny black with a dense patch of strong short black
hairs. Wings (Fig. 205) slightly fumose with purple highlights, veins
dark brown. Coxae shiny black with silver micropubescence and fine white
hairs; femora shiny black with appressed black hairs on dorsum and erect
fine mostly white hairs on ventral side, posterior femora with a few fine
black bristles near apex; tibiae shiny black, with black hairs of different sizes, on ventral side mostly white longer hairs; front and hind tibiae with dense short golden hairs along ventral side; bristles on front and middle tibiae long, abundant, black, some bristles as long as or longer than first two tarsal segments; tarsi similar in color and coverture to tibiae. Claws black. Abdomen broad, depressed, shiny black, tergites covered by dense appressed yellow hairs, sternites with sparse fine whitish hairs, sides of first 2 tergites with medium-sized black or white hairs and 3-4 black or white bristles. Genitalia (Fig. 208) rotated 170° to 180°, small, usually hidden by tergite 7; epandria with a fingerlike process on ventral side; gonopods globose, less than one-half the length of epandrium; hypandrium flat; penis sheath as in Fig. 207.

Female. Similar to male but abdomen broader and lacking the dense yellow vestiture, appearing mostly glabrous; genitalia hidden under tergite 7, usually bent ventrally (Fig. 203); ovipositor short.

Measurements. Total length 5.5-8.1 mm., average 6.2 mm.; wings length 4.8-6.9 mm., average 5.1 mm.; wing width 1.4-2.2 mm., average 1.9 mm.


ARAUCO: 1♀ Caramavida, 1000 m., Nuble, Jan. 1-9, 1954, L. E. Pena (BRAS).

CAUTIN: 2♀ 12 km. N. E. of Pucon, 380 mi., Jan. 12, R. & M. (CAS, INCO);
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UNIVERSITY MICROFILMS
$1\varphi$ 10 mi. E. of Pucon, Jan., 1951, R. & M. (CAS); $1\varphi$ 20 km. E. of Temuco, Jan. 8, 1951, R. & M. (INCO); $1\varphi$ (gen. prep.) Tolten, Jan. 17, 1955, H. Toro (CEE). LINARES: $1\varphi$ Cienaguilla, Parral, Jan., 1899, Schonemann (BERL). MAULE: $1\delta$ Baños de caugenes, Dec., 1904, P. Herbst (CAS). SANTIAGO: $1\delta$ Aculeo, Santiago, Nov. 3-7, 1959, L. E. Pena (OTT); $1\varphi$ Las Condes, Santiago, Dec., 1960, Centro Entomol. (CAS). VALDIVIA: $2\delta$ Valdivia, P. Herbs (CAS). VALPARAISO: $1\varphi$ 10 mi. N. of Concon, Dec. 16, 1950, R. & M. (INCO); $1\varphi$ #158 Perales, Feb. 23, 1923, A. Faz (l\varphi CAS; l\delta INCO); $1\varphi$ #28 Perales, Jan., 1935, F. Ruiz (CAS); $1\varphi$ #14 Salto, Valparaiso, Dec., 1928, Dr. Reed (USNM). Locality uncertain: $1\delta$ Chiridangue (JTM); $1\varphi$ #29 Rofuca, Jan. 22, 1930, F. Ruiz (CAS); $1\varphi$ Tonlemo, Nuble, Feb. 15, 1951, L. E. Pena (BRAS). No locality or date: $1\varphi$ Chile, E. P. Reed (INCO); $1\delta$ $1\varphi$ Chile, E. C. Reed, (CAS); $1\varphi$ [type of D. atratus] (JTM); $1\varphi$ [type of D. sericeus] (JTM); $1\delta$ #2265, Chile, Scholz S. (BERL); 2$\varphi$ [cotypes of C. cyanescens] #208, Bigot Coll, type Dip. 222-1/4 (OXF).

**Geographic Distribution.** As shown in Fig. 440.

**Discussion.** Females of this species are usually larger than males, also young females have a narrower abdomen and purple highlights over the tergites and mesonotum; some variations in the color of the leg hairs have been found, mostly related to the predominance of one color over the other. A $\varphi$ from Valle Los Piuquenes, Rio Blanco, Aconcagua,
Feb. 7-12, 1964, L. E. Pena, has 23 mature eggs inside the abdomen (cleared specimen).

*Lamprozona chilensis* (Hermann) n. comb.

(Fig. 206, 209-212, 437).

*Autumolina chilensis* Hermann, 1912, p. 103, Concepcion; Bromley, 1932, p. 268; Stuardo, 1946, p. 83; Hull, 1962, p. 20, 271, and 409, figs. 262, 667, 1327, and 1335.

**Type**: ♀ Concepcion, March 30, 1908, P. Herbst, in Zoologische Sammlung des Bayerischen Staates, Munchen, Germany (seen).

**Diagnosis.** Body black; antennae and mystax black; abdomen broad, depressed, with dense short gray hairs, more abundant in trochanters, base of femora and tibiae reddish; apical three-fourths of femora and all tarsi black; wings hyaline or slightly brownish.

**Redescription of Type** (♀). Head in front view (Fig. 209): face covered by dense silver micropubescence, slightly less dense below antennae; frons with sparse silver micropubescence; frontal hairs long black, located along eye borders; ocellarium black, similar in coverture to fronts, ocelli light brown; ocellar bristles long, black. Head in lateral view: face silver; mystax of sparse long black bristles
intermingled with sparse shorter fine black hairs; a few long black
hairs between facial gibbosity and base of antennae; antennae black,
first and second segments with a few strong black hairs; second segment
globose, wider than first; third segment as shown in Fig. 206; beard of
fine white hairs; postocular area black, uniformly covered by sparse
silver micropubescence; postocular vestiture of fine short white hairs;
occipital bristles strong, medium-sized, white, arranged in a row of
8 bristles behind each eye; proboscis short, blunt, black with a
constriction on apical ventral one-third, fine long white hairs on baso-
ventral one-half, short yellow hairs at tip; maxillary palpi small, black,
with white hairs. Prothorax black, uniformly covered by silver micro-
pubescence and sparse fine white hairs; collar bristles fine, white.
Thoracic pleura covered by dense silver micropubescence except in center
of mesopleura and sternopleura, a few weak white hairs on dorsal part
of mesopleura and sternopleura; mesepimeral bristles long, fine, white.
Mesonotum and scutellum black, unevenly covered by abundant short
appressed fine yellow hairs; 3-4 fine longer white hairs behind humeral
calli; 3 fine black, indistinct dorsocentral bristles, located near
posterior border; 1 fine black notopleural bristle; 1 fine black intra-
alar bristle; 1 fine black postalar bristle; 2 pairs of fine black
scutellar bristles. Slopes of postmesonotum black, covered by dense silver
micropubescence and with a patch of fine short white hairs. Wings hyaline,
slightly fumose, with unevenly distributed micropubescence, more uniform
toward apex, veins black. Coxae black, covered by silver micropubescence
and fine sparse white hairs; trochanters reddish brown with fine sparse white hairs; femora black, reddish at base and on distal border, covered by short fine white hairs, longer on ventral side; front and middle femora with 3 black bristles on dorsal side near apex; hind femora with 3 black bristles in a row on laterodorsal and lateroventral sides; tibiae reddish brown, covered by short fine white hairs, intermingled with a few longer white hairs mostly on posterior side, and long black bristles which are more abundant on front and middle tibiae; tarsi darker than tibiae but with similar vestiture; ventral border on hind tibiae with dense short white hairs on distal three-fourths. Claws black. Abdomen shiny black, tergites covered with sparse short whitish appressed hairs, slightly longer along borders of tergites 1-4 and distinctly longer on first tergites; sternites dark brown, darker on anterior border, with sparse short fine erect hairs. Ovipositor (Fig. 212) short, hidden by tergite 7.

Male. Similar to ♀; abdomen slightly narrower, tergite 8 very narrow (Fig. 211); hairs on tergites more dense, abdomen appearing dull or grayish. Genitalia small, reddish brown (Fig. 210).

Measurements. Total length 6.6-8.6 mm., average 8.2 mm. [type 6.6 mm.]; wing length 5.2-7.8 mm., average 7.2 mm. [type 5.2 mm.]; wing width 1.6-2.4 mm., average 2.1 mm. [type 1.6 mm.].
Material Examined: 3♂ and 5♀. ARAUCO: 1♂ Contulmo, May 6, 1903, Schonemann S. (INCO); 1♀ Contulmo, May 7, 1903 (BERL); 1♂ Contulmo, May 11, 1903, Schonemann S. (INCO); 1♀ Contulmo, May 13, 1903, Schonemann S. (BERL); 1♀ Contulmo, May 14, 1903, Schonemann S. (INCO); 1♀ Contulmo, May 19, 1903, Schonemann S. (BERL). CONCEPCION: 1♀ [type] Concepcion, March 30, 1908, P. Herbst (BERL). MALLECO: 1♂ Angol, 1200 m., March 10, 1929 (INCO).

Geographic Distribution. As shown in Fig. 437.

Discussion. The amount of reddish color on the femora varies from one-seventh to one-fourth of the basal part; the wings of the type show a distinct pubescence, more abundant toward the apical one-third; the other specimens studied have less pubescence, and in 3 of them the pubescence is indistinct.
197. **Andrenosoma rufiventris**, *♂* genitalia in dorsal view.

198. **A.** "", head in lateral view.

199. **A.** "", wing.

200. **A.** "", penis sheath in lateral view.

201. **A.** "", *♂* genitalia (after clearing), in lateral view, extended.


203. **Lamprozona auricincta**, dorsal view.

c cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
psh penis sheath
sap subanal plate
stn7 sternite seventh
t96 tergite sixth
t97 tergite seventh
t98 tergite eighth
t99 tergite ninth
204. Lamprozona auricincta, head in lateral view.

205. L. " , wing.

206. L. chilensis, antenna.

207. L. auricincta, penis sheath in lateral view.

208. L. " , σ genitalia in lateral view.

209. L. chilensis, head in front view.

210. L. " , σ genitalia (after clearing), in lateral view.

211. L. chilensis, posterior view of abdomen after removing the genitalia, σ.

ant  antenna
b  beard
c  cercus
e  eye
ep  epandrium
f  face
fr  frons
frh  frontal hairs
gp  gonopod
hyp  hypandrium
my  mystax
oc  ocellus
ocb  ocellar bristles
occb  occipital bristles
ocl  ocellarium
prb  proboscis
sap  subanal plate
stn7  sternite seventh
stn8  sternite eighth
tg6  tergite sixth
tg7  tergite seventh
tg8  tergite eighth
v  vertex
Subfamily MEGAPODINAE

The Chilean species of Megapodinae can be recognized by the following combination of characters: palpi one segmented; marginal and fourth posterior cell closed; proboscis exceptionally long; third antennal segment with a short excavated microsegment with a short spine on center; front tibial spur present; epandrium and hypandrium fused, forming a complete ring; ovipositor without spines on the acanthophorites.

The subfamily is represented by 1 genus and 2 species.

Pronomopsis Hermann

Pronomopsis Hermann 1912, p. 18; Carrera, 1949, p. 5, 6, and 8; Hull, 1962, p. 422; Artigas, 1964, p. 3.

Type of the genus: Pronomopsis chalybea Hermann, 1912, by original designation.

Head in front view about one-third wider than high; vertex moderately sunken; ocellarium low, ocelli large. Head in lateral view: postocular area one-tenth the width of eyes; facial gibbosity greatly
enlarged with a very distinctive shape, prolonged into a beaklike extension, the total length of basal border equaling eye width, facial gibbosity occupying all face. Antennae large, third segment extrongly dilated beyond basal third, apical two-thirds almost circular, compressed, with a minute spine at tip. Mystax reduced to sides and oral border of facial gibbosity, leaving dorsal area bare. Mesonotum shiny black, not patterned. Mesonotal coverture of short scattered uniform hairs; dorsocentral bristles not distinct. Scutellum covered by hairs similar to those on mesonotum; scutellar bristles absent or indistinct. Slopes of postmesonotum with hairs similar to those of scutellum and mesonotum. Marginal cell closed and stalked; fourth posterior cell closed and stalked; R₄ reaching wing border before wing apex, after a strong curvature forming almost a 90° angle; R₅ reaching wing border behind apex and extending parallel to M; anal cell closed at wing border; M₃ and m forming a 110° angle. Front tibial spur long, strong. Abdomen depressed, tapered from fifth segment, first 4 segments as wide as mesonotum; first tergite appearing divided on dorsocentral line by a membranose area (Fig. 215). Wings extending beyond tip of abdomen. Male genitalia rotated 180°, epandrium one-pieceed with base forming a narrow ring around genitalia; cerci large; gonopods with a deep rounded notch in posterior border; dististylus hooklike at apex (Fig. 216); penis sheath as in Fig. 214.

**Distribution.** Neotropical, 3 species; 2 in Chile.
Key to the Species of *Pronomopsis*

1. Legs uniformly dark brown, almost black; antennae black
   (Argentina) ........................................... P. *chalybea* Hermann

1'. Legs totally or in part red or yellow; third antennal segment red
   .................................................... 2

2(1'). Tibiae and tarsi red 1 .......................... P. *rubripes* Hermann

2'. Front tibiae and basitarsi yellow, remaining of legs black
   ..................................................... P. *talabrensis* Artigas

*Pronomopsis chalybea* Hermann

(Fig. 411).


*Type.* ♀, Argentina, Sammlung, F. Hermann; in Zoologische Sammlung des Bayerischen Staates, Munchen, Germany (seen).

*Diagnosis.* Body shiny black with bluish highlights, dorsal side of facial gibbosity yellow, mystax black; antennae black; legs uniformly dark brown, almost black.

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1 See discussion of *P. rubripes* p. 350
Measurement of Type. Total length 23.1 mm.; wing length 15.2 mm.; wing width 5.0 mm.

Material Examined. 1 ♀ [type] labeled: "Nova Acta 1912 XCVI; Argentina; Pronomopsis chalybea Herm. Type; Sammlung F. Hermann" (MUNCH).

Geographic Distribution. As shown in Fig. 411.

Discussion. This species was described from Argentina, and has not been recorded from Chile.

Pronomopsis rubripes Hermann
(Fig. 213, 215-219, 412).

Pronomopsis rubripes Hermann, 1912, p. 20, Chile, Peru and Bolivia;
Hull, 1962, p. 423, figs. 240, 660, 1238, 1247, 2105 and 2144;
Artigas, 1964, p. 4-6, figs. 2, 4, 5, 6, 9, 10, 11, 13 and 14.

Type. ♀, Juliaca, Peru, June 15, 1903, in Zoologische Sammlung des Bayerischen Staates, Munchen, Germany (seen).

Diagnosis. Body shiny black; second and third antennal segments reddish; femora black; tibiae and tarsi reddish; male genitalia black (Fig. 216); penis sheath as in Fig. 219.
Male. Head in front view: dorsal side of facial gibbosity yellow, sides black with fine black hairs; face black; frontal hairs fine, black, located mainly along eye border and behind antennae; ocellarium black, ocelli light brown; ocellar bristles fine, black. Head in lateral view (Fig. 213); facial gibbosity yellow on dorsum, black on sides; first antennal segment black with black hairs; second segment reddish brown with black hairs on ventral side and 2-4 long black bristles on dorsal side; third segment and microsegment reddish, third segment covered with fine sparse silver micropubescence, giving a silky appearance; beard of sparse medium-sized black hairs; postocular area black with black vestiture; occipital hairs not distinct behind ocellarium, 3 long black bristles on dorsal eye border; proboscis shiny black, reddish brown at apex, black hairs on posteroventral part and fine white hairs at tip; maxillary palpi black with strong black bristles. Prothorax black with fine black hairs; collar bristles long, hairlike, uniformly distributed; mesepimeral bristles black. Mesonotum and scutellum black, similar in coverture to thoracic pleura; humeral calli with 4-7 short bristles; 1 fine black notopleural bristle, often absent or indistinct; no intraalar or postalar bristles. Fine black sparse hairs all over postmesonotum. Wings (Fig. 217) reddish brown on basal one-half of costal area, elsewhere dark brown, some specimens with light brown, almost hyaline in center of marginal, first basal, and first submarginal cells. Coxae, trochanters, and femora shiny black with sparse short black hairs, a few longer hairs on ventral side; bristles scarce, black; tibiae and tarsi
shiny red, short yellow hairs on ventral side, bristles short, shiny black; front tibial spur red on basal three-fourths, apical one-fourth black. Abdomen shiny black with bluish or purple highlights, covered with short black hairs, slightly longer on sides of tergites 1-3 and on sternites. Male genitalia black with black hairs (Fig. 216, 218); penis sheath as in Fig. 219.

**Female.** Similar to male; ovipositor depressed, wide; segment 8 mostly conical with a depression on each side, segment 9 short.

**Measurements.** Total length 14.9-19.0 mm., average 17.0 mm.; wing length 8.9-16.1 mm., average 15.0 mm.; wing width 2.6-3.4 mm., average 2.8 mm.

**Material Examined.** 16♂ and 9♀. ANTOFAGASTA: 2♂ 2♀ Catarape, Antofagasta, Dec. 6, 1961, Pena (INCO); 2♂ 1♀ Encrucijada, Antofagasta, Dec. 2, 1961, Pena (INCO); 3♂ 1♀ Inacaliri, Antofagasta, Feb. 1-14, 1960, Pena (INCO); 2♂ Potor, Dec., 1961, L. E. Pena (INCO); 3♂ 1♀ Q. Hekar, N. Volcano Laskar, Antof., Dec. 4, 1961, L. E. Pena (INCO); 1♂ Q. Mucar, 4150 m., Antof., Dec. 17, 1952, L. E. Pena (INCO); 2♂ Siloli, Antofagasta, Dec. 6, 1959 (CEE); 1♂ 1♀ Tumbre, Colchagua [?], Feb. 1, 1953, L. E. Pena (BRAS); 1♀ Tumbre, 2500 m. W. Volcano Laskar, Jan., 1953, F. Soza (INCO). **Locality uncertain:** 2♀ Corral Blanco, Dec. 5, 1961, L. E. Pena (INCO). **Peru:** 1♀ [type], Juliaca, June 15, 1903 (MUNCH).
Geographic Distribution. As shown in Fig. 412. The locality "Tumbre, Colchagua," is an error and is not shown on the map; it is recorded as Tumbre, Antofagasta, (the correct location of Tumbre).

Discussion. The dististylus is shown in Fig. 216 through the notch of the gonopods; this is after clearing the genitalia, as in uncleared specimens this structure is hidden under the gonopods and only the tip of the penis sheath is distinct.

The 16♂ and 9♀ listed under material examined all have the femora black and the tibiae and tarsi red.

I have studied 6♂ and 3♀ which are slightly different from the typical rubripes in the color of the legs; 3♂ and 2♀: 1♀ Putre, Arica, 3650 m. Feb. 23, 1948 (INCO), 1♂ Tocara, Arica, Jul. 10, 1962, L. E. Pena (INCO) and 2♂ and 1♀ Huanta, PERU, 2400 m., March 16, 1941, F. Woytkosky (INCO), have the apex of the tibiae and tarsi black; 2♂ and 1♀ from Putre, Arica, 3650 m. Feb. 23, 1948 (INCO), have the center of the femora red and the base and apex black, the tibiae red with black apex, and the tarsi black; 1♂ from Huanta, PERU, 2400 m. March 15, 1941, F. Woytkosky (INCO) has the legs black, except the basal three-fourths of the hind tibiae which are red. All these specimens have the black color of the tarsi which could separate them from the red-tarsi rubripes, but this difference in color will be considered in this paper as variations of rubripes until more specimens are available. Most of these specimens are from localities more northern than the specimens with tibiae and tarsi red; these localities are not shown in the distribution map.
Pronomopsis talabrensis Artigas (Fig. 486).

Pronomopsis talabrensis Artigas, 1964, p. 6-8, figs. 1, 3, 7, 8, 12 and 14.

Type. ♀, Talabre, Antofagasta, Feb. 26, 1960, Peña, in Departamento de Zoología, Universidad de Concepcion, Chile (seen).

Diagnosis. Body shiny black; wings dark brown, darker on costal border; front tibiae and basitarsi yellow, remaining front tarsal segments black; middle and hind tibiae and tarsi black.

Female. Head in front view: facial gibbosity yellow dorsally, the sides black with fine black hairs; face black; frontal hairs fine, black, located mainly along eye borders and behind antennae; ocellarium black, ocelli light brown; ocellar bristles black. Head in lateral view: facial gibbosity yellow on dorsum, black on sides; first antennal segment black with black hairs, second segment reddish brown with black hairs on ventral side and 3-4 long black bristles on dorsum; third antennal segment reddish yellow, microsegment reddish brown; beard of sparse black hairs; postocular area black, vestiture black; occipital bristles indistinct, a row of 10-12 long strong black hairs along eye border; proboscis shiny black with long black hairs at base, short yellow hairs at apex; maxillary palpi black with long black bristlelike hairs. Prothorax black with fine
black hairs; collar bristles fine, black. Thoracic pleura shiny black with fine sparse black hairs; mesepimeral bristles black. Mesonotum black with fine short black hairs; no bristles on mesonotum. Post-mesonotum with fine short black hairs. Wings dark brown, darker in costal area. Coxae, trochanters, and femora shiny black with short black hairs, a few longer hairs on ventral side; front tibiae and front basitarsi yellow, remaining tarsal segments black; middle and hind tibiae and tarsi black; front tibial spur yellow on basal three-fourths, black on apical one-fourth. Claws shiny black, slightly brown on basal one-fourth. Abdomen shiny black with purple highlights, covered by short black hairs on dorsum, longer hairs on sides and on sternites. Ovipositor black, conical, depressed, tergite 8 with a depression on each side, tergite 9 minute; hairs of ovipositor black.

**Male. Unknown.**

**Measurements.** Total length 21.0–25.0 mm., average 22.6 mm. [type 21.0 mm.]; wing length 17.0–19.0 mm., average 17.4 mm. [type 17.0 mm.]; wing width 5.0–6.5 mm., average 5.6 mm. [type 5.0 mm.].


**Geographic Distribution.** As shown in Fig. 486.
212. Lamprozona chilensis, ovipositor (after clearing), ventral view.

213. Pronomopsis rubripes, head in lateral view.

214. Lamprozona chilensis, penis sheath in lateral view.

215. Pronomopsis rubripes, thoracic abdominal junction.

216. P. " c* genitalia in lateral view.

217. P. " wing.

c cercus
dist dististylus
ep epandrium
gp gonopod
ha halter
hyp hypandrium
n2 mesonotum
n3 metanotum
pn2 postmesonotum
psh penis sheath
ptpl pteropleuron
tg1 tergite one
tg2 second tergite
tg7 seventh tergite
tg8 eighth tergite
sap subanal plate.
scl2 mesoscutellum (scutellum)
stm7 seventh sternite
w wing
Subfamily ASILINAE

The Chilean species of Asilinae can be recognized by the following combination of characteristics: palpi one segmented; marginal and fourth posterior cells closed; third antennal segment with a long slender style and a short intermediate microsegment, the two combined are at least half the length of the segment, except Lyconyia (Fig. 292); epandrium and hypandrium not fused; no front tibial spur; ovipositor without spines on the acanthophorites, if some spines are present (Protacanthus rubriventris (Fig. 373) and Cratolestes chiliensis (Figs. 230 and 231), they are located on the cerci.

The subfamily is represented by 20 genera and 40 species.

Atractocoma n. gen.

Type of the genus: Atractocoma nivosa n. sp., by present designation.

Head in front view one-sixth wider than high; vertex deeply sunken; ocellarium moderate in size, ocelli large. Head in lateral view: postocular area one-fifth the eye width; facial gibbosity not distinct, face slightly produced; antennae with first segment 2 times as long as the second, third segment compressed, attenuated distally, with a short microsegment; style slightly longer than third segment, expanded on distal fifth and with a short apical spine; mystax moderately dense, occupying almost all of face, leaving genae hairless, of long strong bristles intermingled with shorter spindle-shaped hairs. Mesonotum with indistinct
patterns; covered by short sparse normal hairs on anterior and lateral edges. Most of body and legs with abundant spindle-shaped hairs which at least on abdominal tergites are intermingled with short normal hairs. Scutellum with medium-sized spindle-shaped hairs; 5-7 pairs of scutellar bristles. Slopes of postmesonotum with micropubescence only. Marginal and fourth posterior cells closed and stalked; $R_4$ angulated at base and reaching wing border before apex; $R_5$ aligned with $R_{4+5}$ and reaching wing border behind apex; anal cell closed with a short stalk; $M_3$ and $m$ forming a 90° angle. Front tibial spur absent. Abdomen of males slightly tapered, gently depressed. Wings not reaching tip of abdomen. Male genitalia moderate in size, not rotated; hypandrium large, slightly bent at center; epandria of moderate length, pointed distally, ventral borders with a conspicuous semimenbranous border; gonopods short, in lateral view partly hidden by hypandrium and epandria. Females unknown.

**Distribution.** Neotropical (Chile), 1 species, *Atractocoma nivosa* n. sp.

This genus is similar to *Zoticu*, from which it can be separated by the distinct spindle-shaped hairs of the body.

The name *Atractocoma* refers to the spindle-shaped hairs covering most of the body (ατρίκτος = spindle; κομή = hair).

*Atractocoma nivosa* n. sp.  
(Pigs. 220-222, 488)

**Type.** ♀, Laguna Buenos Aires, Chile Chico, Aysen, Dec. 24-31, 1960, Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.
Diagnosis. Body brownish, covered by dark golden micropubescence; legs dark reddish brown; mystax white; mesonotal bristles black; bristles on legs and abdomen white, a few black bristles on ventral side of tarsi; wing hyaline; genitalia black.

Description of Type (♀). Head in frontal view: face and frons unevenly covered by silver micropubescence, less dense on frons; ocellarium and posterior part of vertex with sparse dark golden micropubescence; frontal hairs white, forming a row which extends below level of antennae; ocellar bristles black. Head in lateral view (Fig. 221): face gray and blackish; mystax of white hairs, 7 pairs of strong long white bristles on oral border; antennae black, first and second segments with short black hairs, white hairs intermingled on ventral side of first segment; beard white; postocular area unevenly covered with dark golden micropubescence, vestiture of short sparse hairs; postocular bristles white; 7 black occipital bristles on each side of vertex; proboscis shiny black with a few fine, long white hairs on ventral side, short yellow hairs at tip. Prothorax black, unevenly covered with golden micropubescence, hairs white, finer on prothoracic lobe; collar bristles white. Thoracic pleura with dark golden micropubescence, hairs white; a group of fine long, not spindle-shaped hairs on sternopleura and on hypopleura; 8 white mesepimeral bristles in a row. Mesonotum unevenly covered with dark golden micropubescence, no central stripes or lateral spots distinct but black areas more or less arranged in a pattern; vestiture of short sparse fine black hairs, white spindle-shaped hairs along borders and on anterior 1/4; scutellum unevenly covered with dark golden micropubescence and with uniformly distributed but scattered long thick white hairs;
5 medium-sized black dorsocentral bristles; 2 black intraalar bristles; 2 long black postalar bristles; 6 pairs of scutellar bristles, 2 central pairs dark brown, remaining bristles white. Wings (Fig. 222) hyaline. Coxae similar in coverture to thoracic pleura, hairs and bristles white; legs dark reddish brown with appressed short white hairs and white bristles; dark brown bristles on ventral side of tarsi and on distal ventral side of middle and hind tibiae. Claws black, basal 1/3 reddish brown. Abdomen dark brown with sparse dark golden micropubescence; vestiture of short fine sparse black hairs and white appressed spindle-shaped white hairs, the white hairs forming a wide band near anterior border except on dorsocentral line and on sides of tergites where they are closer to posterior border; lateral bristles of tergites white. Genitalia (Fig. 220) mostly blackish, hairs white; hypandrium reddish brown; expanded ventral border of epandria light brown.

**Female.** Unknown.

The name _nivosa_ refers to the snowy appearance given by the flat, spindle-shaped, white, appressed hairs.

**Measurements of Type.** Total length 9.8 mm; wing length 6.6 mm; wing width 1.6 mm.

**Material Examined.** 1* (type) AYSEN: 1♀ Laguna Buenos Aires, Chile Chico, Aysen, Dec. 24-31, 1960, Pena (INCO).

**Geographic Distribution.** As shown in Fig. 488.

**Discussion.** This species differs from other species studied in the characteristic spindle-shaped hairs, and the large membranous expansion of the ventral border of the epandria.
Chilesus Bromley


Type of the genus: Chilesus geminatus Bromley 1932, by original designation.

Head in front view 1/4 wider than high; vertex deeply sunken; ocellarium large with large ocelli. Head in lateral view: postocular area 1/4 the eye width; face flat, slightly produced on oral border; antennae long, first segment two times the length of second; third segment as long as first two combined, compressed; microsegment short, bearing a style which is 3-4 times longer and of the same width; length of style 1/3 the length of third antennal segment; mystax reduced to oral border. Mesonotum with central stripes and lateral spots; vestiture of short separated hairs which are longer behind transverse suture; 5-6 dorsocentral bristles. Scutellum with sparse medium-sized hairs; 3-4 pairs of scutellar bristles. Slopes of postmesonotum with a tuft of long hairs. Marginal and fourth posterior cells closed and stalked; R₄ and R₅ forming a nearly symmetric fork at base; R₄ ending before wing apex and R₅ behind wing apex; anal cell closed with a short stalk; M₃ and m forming a 120° angle. Front tibial spur absent. Abdomen long, gently tapered, slightly depressed; 1-4 distinct bristles on sides of tergites. Wings not reaching tip of abdomen. Male genitalia small, not rotated; hypandrium short; epandria pointed distally, with a fingerlike process on dorsal border, tip of epandria directed posteriorly; gonopods more than 1/2 the length of epandria. Female genitalia short, slightly compressed; no spines on ovipositor.
Distribution. Neotropical (Chile), 1 species, *Chilesus geminatus* Bromley.

This genus is closely related to *Lycomyia* Bigot, from which it can be separated by the relative length of the antennal segments, microsegment, and style, the face width, which in *Lycomyia* is 1/6 the head width and only 1/4 in *Chilesus*, and the epandria, which are directed posteriorly in *Chilesus* and bent in right angle in *Lycomyia*.

*Chilesus geminatus* Bromley

(Figs. 223-226, 495)

*Chilesus geminatus* Bromley, 1932, p. 272, Magallanes; Lago Blanco, Chubut, N. W. Patagonia (Argentina); Stuardo, 1946, p. 84; Hull, 1962, p. 538, Fig. 210, 755, 1404, 1413, 2194, 2298, and 2438.

*Type.* ♀, S. Chile, Magallanes Terr., Z. H. Gaudie, in British Museum, London, England (not seen); a ♀ paratype seen.

*Diagnosis.* Thorax and abdomen brownish with gray micropubescence; legs brown; mystax yellowish; mesonotal bristles white; genitalia black; wings hyaline.

*Male.* Head in front view: face and fron covered by dense yellow micropubescence, more dense on face; frontal hairs black and yellow intermingled; ocelli yellow; ocellar bristles black and yellow intermingled, strong, proclinate. Head in lateral view (Fig 223): face golden; mystax of long strong yellow hairs located on oral border, forming 1-3 rows, finer hairs on central lower area of face; antennae dark brown, first and second segments with short black hairs, a few white hairs intermingled on first segment; beard yellow; postocular area unevenly covered...
with yellow and silver micropubescence, vestiture of fine yellow hairs mostly concentrated near eye borders; postocular bristles yellow, 2 or 3 black bristles intermingled on basal part; 7-10 strong yellow occipital bristles; proboscis shiny black, slightly depressed at tip with fine long hairs on basoventral half, and short yellow hairs at tip; maxillary palpi black, hairs white, slightly yellowish at tip. Prothorax black with sparse gray micropubescence, hairs fine, white, a few black intermingled; collar bristles strong, long, yellow, a few bristles on sides behind collar. Thoracic pleura unevenly covered with silver micropubescence, golden in parts, long fine hairs, sparse on pleura; 6-8 yellow mesepimeral bristles, a few whitish hairs over the bristles; 3 long strong yellow bristles on metepisterna. Mesonotum red, unevenly covered with silver micropubescence, central stripes and lateral spots black, vestiture black; scutellum mostly covered with gray micropubescence and with sparse short weak black hairs, a few white hairs intermingled; 3 yellow notopleural bristles; 5 yellow intraalar bristles, 3 together, 2 apart; 3 yellow postalar bristles; 5-6 yellow dorsocentral bristles; 3-4 pairs of yellowish scutellar bristles. Slopes of postmesonotum with silver and yellow micropubescence and fine yellowish hairs. Wings (Fig. 224) mostly hyaline, veins brown. Coxae covered with dense yellowish micropubescence, hairs and bristles yellow, more abundant on anterior side of front coxae and scarce on hind coxae; femora brown to reddish brown, lighter on ventral side and sometimes near base; tibiae and tarsi brown, hind tibiae and apical tarsal segment darker; vestiture of short appressed yellow hairs; bristles reddish brown to yellow; short black bristles on tarsi,
mainly on ventral side. Claws black, basal fourth reddish. Abdomen red covered by gray micropubescence, a black line on middorsal line of each tergite all along dorsum of abdomen; vestiture of appressed fine sparse yellow hairs; bristles on sides of tergites yellow. Genitalia (Fig. 225) small, narrower than last abdominal segments, blackish or reddish, with black hairs, borders of epandria with yellow hairs.

**Female.** Similar to male; ovipositor (Fig. 226) reddish, ninth segment and cerci black; most of the hairs directed forward, best shown on cerci where yellow hairs are more dense.

**Measurements.** Total length 22.0-25.0 mm, average 24.0 mm; wing length 13.2-15.0 mm, average 14.1 mm; wing width 2.7-3.1 mm, average 2.9 mm (measurements include data from type).

**Material Examined.** 3♂, 1♀ and 1 (gen. miss.). AYSEN: 1♂ Balmaceda, Aysen, Jan. 17-20, 1961, Pena (INCO). MAGALLANES: 1♀ Cerro Guido, Jan., 1964, M. Alvarez (INCO); 1 (gen. miss.) Magallanes, 1932, Dr. Reed (CAS) Argentina: 1♂ Valle del Lago Blanco, Chubut, Patagonia, J. Koslowsky, 1904-26 (BRIT); 1♂ N. W. Patagonia, Chubut, Dec., 1920, H. E. Box (BRIT).

**Geographic Distribution.** As shown in Fig. 495.

**Discussion.** The color of the femora varies from black and reddish brown (dorsal side darker) to light brown with a darkish area on dorsal side near the apex. The male genitalia vary from black to reddish. The abdomen apparently loses some micropubescence in older specimens, appearing reddish, similar in color to the reddish areas of the mesonotum.
Type of the genus: *Erechthia chilensis* Macquart 1850, as *Asilus spectabilis* Philippi 1865, by original designation.

Head in front view 1/5 wider than high; vertex deeply sunken; ocellarium well developed, ocelli large. Head in lateral view: postocular area 1/7 of eye width; facial gibbosity well developed, occupying 3/4 of face; antennae long, second segment 1/2 the length of first; third segment attenuated toward apex, slightly compressed, with a long style which is 1-1/2 times the length of third segment and has a short spine at tip; mystax abundant, long. Mesonotum with central stripes and lateral spots; vestiture of abundant short hairs in front of transverse suture, longer and more dense behind suture; dorsocentral bristles distinct. Slopes of postmesonotum with micropubescence, no pile. Marginal and fourth posterior cells closed and stalked; R₄ angulated at base, a vestigial stump vein sometimes present; R₄ and R₅ reaching wing border before apex; anal cell closed with a short stalk; M₃ curved, forming a 90°-100° angle with m. Front tibial spur absent. Abdomen more or less cylindrical in males, cuneiform in females. Wings slightly longer than abdomen. Male genitalia large, clublike, not rotated, sometimes forming a 90° angle with abdomen; hypandrium short, leaving genital cavity open; epandrium large, with clefts at apex; gonopods short, bulbose. Females ovipositor pointed, barely compressed, with or without minute spines on cerci.

**Distribution.** Neotropical (Chile), 2 species.
According to Hull's description of the genus, the female of the type species has "only stiff setae" on the ovipositor. I found that after clearing the ovipositor, 5 minute spines can be seen on each side of the cerci (Fig. 230). The absence of these spines on the cerci is characteristic of the females of the new species, C. wirthi.

The two deep clefts on the epandria (Fig. 227) are characteristic of only C. chilicnsis; C. wirthi has only a short cleft on the posterior border of the epandria (Fig. 234). The remaining structures are similar, including the penis sheath (Figs. 228 and 233).

Asilus spectabilis, designated as type of the genus is a synonym of Erax chilicnsis.

Key to the Species of Cratolestes

1. Epandria with 2 deep clefts on distal border, the upper cleft extending for half the length of the epandrium (Fig. 227); female with 5 minute spines on each cercus (Figs. 230, 231) ...................... C. chilicnsis (Macq.)

1'. Epandria with a short cleft on posterior border, and a hooklike process on dorsal part of apex (Fig. 234); female without spines on cerci, only short weak hairs (Fig. 235) ...................... C. wirthi n. sp.

Cratolestes chilicnsis (Macquart) n. comb. (Figs. 227, 231, 439)

Erax chilicnsis Macquart, 1850, p. 85, Pl. 8, fig. 5, Chile; Blanchard, 1852, p. 369; Philippi, 1865, p. 692.

Asilus spectabilis Philippi, 1865, p. 695, Santiago, Illapel; Stuardo, 1946, p. 85.


Erax albescens Schiner, 1868, p. 180, Chile.

Lochmorhynchus albescens (Schiner). Stuardo, 1946, p. 84.


Erax perniger Schiner, 1868, p. 180; Stuardo, 1946, p. 84, Chile.


Type: ♂, Chile, in Museum National d'Histoire Naturelle, Paris (not seen). Cotypes 1♂ and 1♀ of A. spectabilis, in Museo Nacional de Historia Natural, Santiago, no locality (seen). Type of E. albescens, 1♂, Chile, in Naturhistorisches Museum, Wien, Austria (seen). Type of E. perniger, 1♀, Chile, location unknown (not seen).

Diagnosis. Body gray, abdomen mostly whitish, tergites 2-5 with large black areas on dorsum; mystax white; legs black; epandria with 2 large notches, the upper one occupying almost 1/2 of epandrium; ovipositor with 5 minute spines on each cercus.

Male. Head in front view: face, frons, and vertex with dense gray micropubescence, less dense between ocellarium and antennae; frontal hairs white, with 1 or 2 black bristlelike hairs intermingled; ocellarium gray, ocelli yellow; ocellar bristles black and white intermingled, black hairs slightly stronger. Head in lateral view: facial gibbosity gray, mystax of uniform white hairs; antennae black, first and second segments with short fine white hairs; beard white; postocular area gray,
vestiture of fine white hairs, a series of weak black bristles on posterior eye border; occipital bristles short or moderate in size, black, located on each side of vertex; proboscis black with fine long white hairs on basoventral part, short fine white hairs at tip; maxillary palpi black with fine white hairs at base and stronger black hairs distally. Prothorax uniformly covered with gray micropubescence and fine white hairs; collar bristles sparse, fine, black, intermingled with white hairs. Thoracic pleura usually uniformly covered with gray micropubescence and sparse fine white hairs, sometimes a few black hairs on mesopleura; mesepimeral bristles black and white, intermingled with fine white hairs. Slopes of postmesonotum with gray micropubescence. Mesonotum black with sparse gray micropubescence; vestiture of sparse short black hairs, which are longer on postero-central area, a few white hairs along borders; scutellum similar in color and vestiture to postero-central area of mesonotum; 2 black notopleural bristles; 1 black intraalar bristle; 2-3 black postalar bristles; scutellar bristles not distinguishable from vestiture of mesonotum. Wings (Fig. 229) hyaline, veins dark brown. Coxae uniformly covered with gray micropubescence, vestiture of white hairs and a few bristles which are mostly white, a few are black, hairs more dense and longer on anterior part of front coxae; femora, tibiae, and tarsi black, with sparse, short white hairs, a few hairs longer on ventral side of femora; bristles black; tarsi sometimes slightly reddish black. Claws black, basal 1/4 reddish. Abdomen covered with grayish micropubescence, tergites 2-5 black on dorsum; abdominal vestiture of white hairs, which are longer on sides of tergites, and more
distinct on tergites 1-4; a few black bristles on sides of tergite 1. Genitalia black (Fig. 227), epandria large, with 2 large notches on distal border, the upper one occupying most of distal half of epandrium; gonopods short, 1/3 the length of epandria; penis sheath as in Fig. 228.

**Female.** Similar to male; ovipositor conical, slightly compressed, including segment 8, which is glabrous, reddish brown; apex of ovipositor with 5 minute spines on each cercus, sometimes only noticeable after clearing (Figs. 230, 231).

**Measurements.** Total length 15.0 - 20.5 mm, average 18.3 mm; wing length 11.2 - 15.6 mm, average 13.8 mm; wing width 2.9 - 4.4 mm, average 3.9 mm.

Angol, Dec. 22, 1929 (USNM); 1♂ Angol, Dec. 8, 1956, J. Garcia (MICH);
1♂ Angol, Dec. 3, 1956, C. Saez (MICH); 1♂ Angol, Nov. 29, 1958, H. Romero (MICH); 1♂ Angol, Nov. 28, 1962, O. Yagi (MICH); 1♀ Angol, Dec. 6, 1957, F. Vallejos (MICH); 1♀ Angol, Dec. 8, 1956, J. Ceas E. (MICH);
1♀ Angol, Nov. 25, 1962, L. Carvaste (MICH); 1♂ Angol, Nov. 1, 1959, C. Caba (MICH); 4♂ Nahuelbuta, Angol, Nov. 25, 1962, Cekalovic-Fetis (INCO); 1♀ Nahuelbuta, Dec. 5, 1962, L. Carvaste (INCO); 1♂ Angol, Dec. 8, 1956, J. Ceas (INCO).
SANTIAGO: 1♂ (gen. prep.) 1♀ Aculco, Santiago, Nov. 3-7, 1959, Pena (INCO); 1♂ Maipu, F. V. Ibarra (INCO); 2♂ Pudahuel, Dec., 1953, L. Pena (BRAS); 1♀ Penaflor, Nov. 29, A. Faz (USNM); 1♂ #25 1♀ #24 Santiago, Dec., 1933, F. Ruiz (USNM); 1♀ San Cristobal, Santiago, T. Ramirez (INCO); 1♀ Santiago, C. E. Porter (INCO); 1♂ Santiago, Oct., 1944, L. E. Pena (INCO).
VALPARAISO: 1♂ Limache, Dec. 9, A. Faz (CMNH); 1♂ Penuelas, Oct. 12, 1952 (INCO); 1♀ Penuelas, Oct. 12, 1952 (INCO); 1♀ #80 Perales, Dec. 25 (INCO); 1♂ # Valparaiso, A. Faz (CORN); 1♂ # Valparaiso, A. Faz (INCO). LOCALITY uncertain: 1♂ Queronque, Dec., 1939, Dr. Reed (CAS); 1♂ 15 mi. W. of La Junta, Dec. 7, 1950 R. & M. (CAS). NO locality or date: 1♂ Chile, E. P. Reed (INCO); 1♀ Chile Central, 1892-1938, P. Germain (INCO); 1♀ (gen. prep.) Chile, A. Faz (INCO); 1♂ #60745, Chile, 1923 (BRAS); 1♀ Chile, E. P. Reed (CAS); 1♀ (type of E. albescens) Chili (WIEN); 1♂ C. Chile, A. Faz (USNM); 1♀
Geographic Distribution. As shown in Fig. 239

Discussion. The hairs of the head, mainly the mystax, vary from white to yellow. Greased specimens appear black where gray micro-pubescence is present. The male genitalia can be aligned with the abdomen or form a 90° angle with it.

**Cratolestes wirthi** n. sp.

(Figs. 232-235, 421)

Type: ♂, Rio Azapa, Arica, Nov. 2, 1952, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Similar to *C. chilicensis*, from which it can be separated by the shape of the epandria which lack the deep apical notches and have a slender hooklike process on the posterodorsal part; females have no minute spines on the cerci.

Description of Type (♂). Head in front view: face, frons, vertex, and ocellarium covered with whitish micropubescence, more sparse between ocellarium and antennae; frontal hairs white, similar to hairs on ocellarium and upper part of mystax; ocelli yellow; ocellar bristles not distinct from the hairs. Head in lateral view (Fig. 232): facial gibbosity silvery; mystax of 7 pairs of strong long bristles on oral border, central bristles white, 1-3 on each side black, white hairs all over facial gibbosity, intermingled with a few strong black bristles on upper portion; antennae black, first and second segments with short white hairs, sparse silver micropubescence on third segment; beard of abundant
finely plumose white hairs; postocular area with gray micropubescence, white along posterior eye border, vestiture of fine, white hairs; 10 strong black occipital bristles on each side of vertex; proboscis black with long fine white hairs on basoventral part and short yellowish hairs at tip; maxillary palpi with white hairs at base and long black hairs apically. Prothorax uniformly covered with silver micropubescence and long fine sparse hairs. Collar bristles white. Thoracic pleura with silver micropubescence and sparse long fine white hairs, several stronger black hairs on upper border of mesopleura; mesepimeral bristles white, a few black bristles intermingled. Mesonotum unevenly covered with gray micropubescence, less dense on central stripes and lateral spots, and short sparse black hairs, some of them longer near posterior border, white hairs along lateral borders; 4 short black bristles on humeral calli; scutellum with long fine sparse white hairs and a few black hairs intermingled; 2 black notopleural bristles; 1 black intraalar bristle; 2 black postalar bristles; 7 pairs of long, fine, black scutellar bristles. Slopes of postmesonotum with unevenly distributed silver micropubescence. Wings hyaline, veins dark brown. Coxae similar in coverture to thoracic pleura, with white hairs and a few white bristles, hairs more abundant on anterior part of front coxae; femora black with abundant white hairs; tibiae and tarsi reddish brown, similar in vestiture to femora; leg bristles black. Claws black. Sternites, tergites 6 and 7, and posterior border of tergites 1-4 with dense silver
micropubescence; vestiture of abdomen white, long hairs on tergites 1-3 and on sternites. Genitalia black (Fig. 234), epandria with slender hook-like process on posterodorsal part, vestiture of sparse white hairs and a row of white bristles in the center; gonopods short with long, black bristles on ventral side; penis sheath as in Fig. 233.

**Female.** Similar to male; ovipositor conical (Fig. 235), slightly compressed, including segment 8 which is glabrous, shiny black; cerci with short, fine, yellow hairs; tergites 1-6 with posterior and lateral borders densely covered with silver micropubescence; hairs of tergites 1-3 less abundant and shorter than in males.

This species is dedicated to Dr. W. W. Wirth, Curator of Diptera at U. S. National Museum.

**Measurements.** Total length 16.5-22.0 mm, average 20.2 mm [type 18.5 mm]; wing length 13.2-16.1 mm, average 14.8 mm [type 13.1 mm]; wing width 3.3-4.6 mm, average 4.0 mm [type 3.9 mm].

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UNIVERSITY MICROFILMS.
2♂ Chaca, Tarapaca, Nov. 5, 1955, L. E. Pena (GTT); 1♂ Mini-Mini, Arica, 1650 m, Feb. 15, 1948 (INCO).


**Geographic Distribution.** As shown in Fig. 421.

**Discussion.** The males of this species can be separated from other species of Cratolestes only by the shape of the epandrium and by the presence of a terminal hook-like process on the postercordorsal side of the epandrium; to separate females the ovipositor must be cleared to observe the lack of minute spines which are characteristic of females of *C. chilensis*. The collar bristles vary in color from white to black; also variable is the color of the mesonotal micropubescence, which can be gray or dark gold.

**Cratopoda Hull**

*Cratopoda Hull, 1962, pp. 575-576*

Type of the genus: *asilus helix* Bromley, 1935; this is an emendation of the original designation of *Asilus gayi* Macquart by Hull (see discussion under *Cratopoda helix*).

Head in front view one-fifth wider than high; vertex moderately sunken; ocellarium large, ocelli large. Head in lateral view: postocular area one-third the eye width; facia gibbosity strongly developed, occupying five-sixths of face; antennae long, first segment one and one-half times the length of second; third segment slightly compressed, attenuated toward apex, with a short narrow apical microsegment bearing a long somewhat flattened and twisted style with a pointed apex; first antennal segment with 2-4 strong bristles arising from ventral
side and reaching middle of third segment; mystax abundant, dense, limited to front part of facial gibbosity and continued along sides of oral margin, hairs on upper half shorter than on lower half. Mesonotum with distinct central stripes and lateral spots; vestiture of medium-sized hairs which are more dense along midline; posterocentral area with bristlelike hairs intermingled with finely plumose wooly hairs; 13-16 pairs of dorsocentral bristles forming one row in front of transverse suture and 3 rows behind the suture. Scutellum covered with woolly hairs arranged in 2 dense tufts directed outward, leaving a bare space in between; 1-3 pairs of scutellar bristles. Slopes of postmesonotum with long woolly hairs similar to those on scutellum. Marginal and fourth posterior cells closed and stalked; fork of R_{4+5} nearly symmetrical; R_4 reaching wing border before apex, R_5 behind apex; anal cell closed near wing border, with a short stalk; M_3 and m forming a 120° angle. Front tibial spur absent. Abdomen nearly cylindrical in males, slightly compressed and pointed in females. Wings usually not extending beyond tip of abdomen. Male genitalia beadlike, large, not rotated; hypandrium short, pointed; epandria forcepslike, dilated, bent toward midline (Figs. 237 and 246); gonopods short, ending in a pointed process; penis sheath ending in an elaborate tridentlike structure (Figs. 239 and 243). Female genitalia short, pointed; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 2 species.
Key to the Species of *Cratopoda*

1. Mystax black on upper side, yellow on lower side; postero-ventral border of epandria with 3 small notches forming 2 small lobes in between; ventral borders of gonopods convex, with 12-12 strong yellow bristles (Fig. 246); females mostly with white or yellowish hairs on sternites 6 and 7; and sternite 8 as in Figs. 11, 12, 245 .................................... *C. helix* (Bromley)

1'. Mystax mostly black with a few yellowish bristles intermingled on center; posteroventral border of epandria with a large, low emargination; ventral surface of gonopods mostly flattened, with 3-5 strong yellow bristles (Fig. 237); female mostly with black hairs on sternites 6 and 7 and sternite 8 as in Figs. 240 and 241 ........................................ *C. emarginata* n. sp.

*Cratopoda emarginata* n. sp.

Type. ♂, from El Radal, Cordillera Talca, 900-1100 m., Nov. 23-30, 1957, L. E. Pena; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

**Diagnosis.** Similar to *C. helix*, from which can be separated by the single low, long emargination on posteroventral border of epandria and ventral side of gonopods mostly flattened with 3-5 strong yellow bristles; females with mostly black hairs on sternites 6 and 7, and sternite 8.
Description of Type (♂). Head in front view: face with dense silver micropubescence, less dense on dorsum of facial gibbosity; frons and vertex mostly black with sparse and indistinct silver micropubescence; first segment with a few short white hairs and 4 strong long black bristles on ventral side; second segment with short black and white hairs; beard white; postocular area with silver and yellowish micropubescence, vestiture of fine long white hairs that are more dense behind vertex; postocular bristles yellow; 8 black occipital bristles arranged in a row on each side of vertex; proboscis black with long fine white hairs on posteroventral side and short yellowish hairs at tip; maxillary palpi black with long black hairs at tip; maxillary palpi black, long black hairs on apical half, white hairs on basal half, intermingled in part. Prothorax black, unevenly covered by silver and golden micropubescence; hairs long, fine, white; collar bristles yellow. Thoracic pleura black, unevenly covered with golden and silver micropubescence and a few long, fine, white hairs; mesepimeral bristles long, fine, yellowish. Mesonotum with dense golden micropubescence on anterior three quarters, posterior one-quarter and humeral calli with silver micropubescence except on part of central stripes and lateral spots; vestiture of medium-sized to long black hairs on middorsal line, longer on posteroentral area, the remaining mesonotum with a few short black hairs and fine, short, white hairs near borders; scutellum with silver micropubescence and white hairs; 10 black dorsocentral bristles, a few other bristles and hairs of similar length on each side of dorsocentrals; 3 yellow notopleural bristles; 3 black
intraalar bristles; 3 black postalar bristles; 2 pairs of black scutellar bristles. Slopes of postepimasto notum with silver micropubescence and a dense tuft of fine white hairs. Wings hyaline, slightly fumose at tip. Coxae similar in coverture to thoracic pleura, hairs and bristles white with a few strong black hairs intermingled, mainly on front and middle coxae; femora black with sparse, fine, white hairs, longer on anterior femora, shorter and appressed on posterior femora; tibiae red, black near apex, vestiture of short appressed hairs, white on anterior tibiae, black on posterior tibiae and mixed on middle tibiae; tarsi black, vestiture similar to hind tibiae; bristles on legs mostly white; bristles on ventral side of front and middle tibiae and on anterior side of front tibiae, black. Abdomen with dark gray micropubescence; a broad dark brown line on dorsum of tergites, approximately the same width on all tergites; vestiture of short sparse hairs, black on dorsum of tergites and white on sides of tergites, longer on sides of tergites 1-3 and on sternites; bristles on lateral sides of tergites and on sternites light yellow. Genitalia (Figs. 236, 237), black, red in part hairs and bristles yellow; posteroventral border of epandria with a low emergination; ventral sides of gonopods mostly flat, with 3-5 strong yellow bristles; penis sheath as in Figs. 238, 239.

**Female.** Similar to male; ovipositor as in Figs. 240, 241; sternites 6 and 7 with black hairs, a few white hairs intermingled; short, yellow hairs on cerci; sternite 8 as in illustrations.

The name *emarginata* refers to the emargination of the postero-ventral side of the epandria.
Measurements. Total length 13.2-17.8 mm, average 15.1 mm [type 17.8 mm]; wing length 10.1-14.6 mm, average 13.6 mm [type 14.6 mm]; wing width 3.0-4.1 mm, average 3.6 mm [type 4.1 mm].


Argentina: 1♂ Pucará, Lago Lácar, Treuquen, Dec. 12, 1950 (INCO). No locality or date: 1♂ (JTM).

Geographic Distribution. As shown in Fig. 455.

Discussion. The females are difficult to separate from the females of _C. helix_; the color of the hairs on the mystax and on sternites 6 and 7, as indicated in the key, can be useful most of the time; the specimen must be cleared to compare sternite 8 with the figure.
A specimen from J. T. Medina Collection has a label in Phillipi's handwriting: "Asilus eriopettis Ph. n. sp."; this is a nomen nudum.

**Cratopoda helix** (Bromley) n. comb.

(Figs. 1-12, 242-247, 483)


**Type.** ♂, C. Chile, A. Faz, in United States National Museum (not seen). A ♀ paratype from Pudahuel, Nov. 9, 1921, A. Faz (seen).

**Diagnosis.** Body unevenly covered by silver and golden micropubescence; ventral border of epandrium with 3 small notches; ventral side of gonopods convex, with 12-15 yellow bristles (Fig. 246); sternites 6 and 7 of females with only white bristles.

**Male.** Head in front view: face, frons, and vertex with dense silver micropubescence, golden micropubescence on lower part of face; frontal hairs fine, black, sparse; ocelli reddish; ocellar bristles fine, black, diverging from center. Head in lateral view (Fig. 1): facial gibbosity silver, golden on lower border; mystax of strong white bristles on lower and central part and finer black hairs on upper part and upper borders; antennae shiny black with sparse silver micropubescence and black and white hairs on first and second segments, third segment with dark brown micropubescence; beard of fine white hairs; postocular area (Fig. 2) with silver and golden micropubescence and long fine white hairs, more abundant behind vertex; postocular
bristles yellow; occipital bristles arranged in a row on each side of vertex; proboscis black with fine, white, long hairs on basoventral part and short yellowish hairs at tip. Prothorax (Fig. 3) blackish with sparse silver micropubescence and fine long white hairs; collar bristles yellow. Mesonotum (Fig. 4) covered with golden micropubescence on anterior three-fourths and silver micropubescence on posterior fourth, except over central stripes and center of lateral spots and on small area behind humeral calli, which appear dark brown; vestiture of abundant medium-sized to long black hairs along midline, short sparse black hairs on sides and fine long white hairs on posterior calli and posteroventral area; scutellum with silver micropubescence and white hairs; 13-16 black dorsocentral bristles; 2-3 yellow notopleural bristles; 3 yellow intraalar bristles; 3 yellow postalar bristles; 1 pair of usually black scutellar bristles. Slopes of postmesonotum with silver micropubes-

cence and a tuft of fine, white hairs. Wings (Fig. 247) hyaline, slight-

ly fumose at tip. Coxae similar in coverture to thoracic pleura, hairs and bristles white, less abundant on hind coxae; femora black with short appressed fine hairs, some longer on basoventral side of front femora; tibiae red, black near apex, hairs similar to femora; tarsi black; bristles of legs mostly white; bristles on ventral side of front and middle femora and anterior side of front tibiae, black. Claws black, basal fourth red. Abdomen (Figs. 4, 6, & 7) with gray micropubes-
cence and a distinct longitudinal brown band in center of tergites, broader on basal tergites and narrower toward apex; vestiture of short sparse black hairs on dorsal side of tergites, the hairs on sides of tergites and on sternites yellow and usually longer; bristles on
sides of tergites and on sternites strong, yellow. Genitalia (Figs. 8-10) black, reddish in part, hairs and bristles yellow; posteroventral border of epandrium with 3 small notches forming 2 small lobes in between (Fig. 242); ventral surface of gonopods convex with 12-15 strong yellow bristles (Fig. 246); penis sheath as in Figs. 243, 244.

**Female.** Similar to male; ovipositor short, pointed (Figs. 11, 12, 245); sternite 6 and 7 with mostly white hairs; sternite 8 as in Fig. 12.

**Measurements.** Total length 14.5-19.2 mm, average 16.2 mm; wing length 9.7-15.2 mm; average 13.5 mm; wing width 2.8-4.4 mm, average 3.1 mm.

**Material Examined.** 143♂ and 145♀. ACONCAGUA: 1♀ C. Alicague, Aconcagua, Nov. 15, 1956, Pena (INCO); 3♀ Huaquen, Aconcagua, Nov. 22-24, 1961, Pena (INCO); 1♂ Pisciculatura, R. Blanco, Aconcagua, 1600 m, Jan. 1-31, 1964, L. E. Pena (INCO). ARAUCO: 4♂ 3♀ Caramavida, Arauco, Dec. 31, 1953, L. E. Pena (2♀ INCO; 1♀ 4♂ OTT); 1♂ Contulmo, Nov. 28, 1904, Schonemann S. (BERL); 3♂ Contulmo, Dec. 2, 1904, Schonemann S. (BERL); 1♂ Contulmo, Dec. 17, 1903, Schonemann S. (BERL); 1♀ Contulmo, Nov. 20, 1903, Schonemann S. (BERL); 1♀ Contulmo, Nov. 29, 1903, Schonemann S. (BERL); 1♂ 1♀ Contulmo, Feb. 8, 1904, Schonemann S. (BERL); 1♂ 1♀ Contulmo, Dec. 8, 1903, Contulmo, Dec. 8, 1903, Schonemann S. (BERL); 1♀ Contulmo, Dec. 20, 1904, Schonemann S. (BERL); 1♀ Contulmo, Nov. 7, 1904, Schonemann S. (BERL); 1♀ Contulmo, Nov. 2, 1903, Schonemann S. (BERL); 1♀ Contulmo, Nov. 2, 1903, Schonemann S. (BERL); 1♀ Contulmo, Nov. 2, 1903, Schonemann S. (BERL); 1♀ Contulmo (BERL); 1♂ L. Lanalhue, Dec. 4, 1963, Shauser, (INCO); 2♂ 2♀
Peillen Pilli, Cord. Nahuelbuta, 600 m, Arauco, Jan. 13, 1954, L. Pena (OTT). BIO BIO: 1♂ Bio Bio, E. C. Reed (USNM); 4♀ 4♂ El abanico, Bio-Bio, Dec. 30, 1950, R & M (CAS); 3♀ Santa Clara, Nov. 1, 1964, Mendez (INCO). CAUTIN: 1♀ Pucon, Nov. 20-24, 1940, P. Q. Berry (USNM); 3♀ Radal, Nov. 28-30, 1957, Pena (INCO); 1♀ Temuco, Jan. 1908, P. Herbst (CAS); 1♂ 4♀ 20 km. E. of Temuco, Jan. 7, 1951, R. & M. (CAS). CONCEPCION: 2♂ Concepcion, 1904, P. Herbs (CAS); 3♀ Concepcion, Nov. 17, 1958, Catalan (INCO); 2♀ Concepcion, Nov. 29, 1957, Brito (INCO); 1♂ #1171, Concepcion, Dec. 9, 1958, Vaccaro (INCO); 1♂ #1157, Concepcion, Dec. 30, 1955, Alister (INCO); 1♂ #1147, Desembocadura, Nov. 30, 1955, L. Aguayo (INCO); 1♀ San Pedro, Nov. 24, 1956, Cid (INCO); 1♀ San Pedro, Dec. 12, 1957, J. O. R. (INCO); 1♀ San Pedro, Nov. 24, 1956, Cid (INCO); 1♀ San Pedro, Dec. 3, 1956, Cid (INCO); 1♀ Rafael, Dec. 6, 1959, Rodrigo (INCO); 1♂ Yumbel, Nov. 26, 1956, Cid (INCO).


MALLECO: 2♂ 1♀ Angol, Nov. 14, 1961, H. M. Vegas (INCO); 1♂ Angol, Nov. 9, 1961, A. Morh (INCO); 1♂ Angol, Nov. 3, 1958, M. V. Vegas (INCO); 1♂ Angol, Dec. 10, 1961, B. Bordel (INCO); 1♂ Angol, Nov. 25, 1961, Pendoes (INCO); 1♂ Angol, Dec. 7, 1961, J. Provost (INCO); 1♂ Angol, Nov. 30, 1961, R. Coz S. (INCO); 1♂ Angol, Nov. 6, 1959, R. Soto (INCO); 1♂ Angol, Oct. 22, 1959, A. Paredes (INCO); 1♂ Angol, Oct. 25, 1960, N. Nunez (INCO); 1♀ Angol, Nov. 29, 1961, G. Rivas (INCO); 1♂ Angol, Nov. 8, 1961, A. Mohr (MNHN); 1♀ Angol, Dec. 4, 1950, Fernandez (CEE); 2♂ Angol, Nov. 17, 1933 (CORN); 1♂ Angol, Jan. 1, 1951 (CAS); 1♀ Angol, Nov. 19, 1940, R. Reiner (USNM); 1 (gen. miss.) Angol, Dec. 8, 1937 (USNM); 1♀ Angol, Nov. 4, 1959, B. Carvallo (INCO); 1♀ Angol, Oct. 20, 1956, O. Fetis (INCO); 1♀ Angol, Nov. 24, 1960, C. Bormann (INCO); 1♀ Angol, Dec. 4, 1961, 0. Provost (INCO); 1♀ Angol, Nov. 14, 1961, H. Vegas (INCO); 1♂ Angol, Dec. 2, 1960, E. Cedano (INCO); 1♀ (gen. prep.) Angol, Oct. 28, 1956, O. Fetis (INCO); 1♂ 1♀ (copula) Angol, Nov. 27,
1949, John Dardel (INCO); 1♀ Angol, Nov. 5, 1961, A. Mohr (INCO); 1♀
Angol, Nov. 11, 1936 (USNM); 2♀ Angol, Nov. 18, 1936, L. Hidalgo (USNM);
1♀ Angol, Oct. 31, 1931, D. S. Bullock (USNM); 1♀ Angol, Alto Nahuel-
buta, Jan. 7, 1930 (USNM); 1♂ Angol, Nov. 1, 1933, D. S. Bullock (USNM);
1♂ Angol, Nov. 18, 1936, Ramirez (USNM); 2♂ Angol, Nov. 11, 1933, E.
Neculhueque (USNM); 1♀ Angol, Nov. 18, 1936, Diener (USNM); 2♀ Angol,
Nov. 18, 1936 (USNM); 1♂ Angol, Oct. 31, 1935 (USNM); 1♂ Angol, Nov. 17,
1933, D. S. Bullock (USNM); 1♂ Angol, Nov. 11, 1934 (USNM); 1♂ Angol,
Nov. 27, 1936, L. Gavilar (USNM); 1♂ Angol, Nov. 10, 1936 (USNM); 1♂
Angol, Oct. 1, 1936 (USNM); 1♂ Angol, Dec. 8, 1939 (USNM); 1♂ Angol,
Oct. 29, 1940 (USNM); 1♂ Angol, Nov. 9, 1928 (USNM); 1♂ Angol, Nov.
1936, E. Brito (USNM); 1♂ Angol, Jun. 4, 1933 (USNM); 2♂ 4♀ Curacautin,
Malleco, Dec. 17, 1959, L. E. Pena (2♂ 3♀ OTT; 2♀ USNM); 1♂ Lago
Galletue, Cord. Lonquimay, Dec. 10-12, 1963, L. E. Pena (INCO); 1♂ 1♀
10 mi. N. of Perquenco, Malleco, Jan. 6, 1951, R. & M. (CAS); 1♀ Sierra
NUBLE; 1♀ Caramavida, Nuble, 1000 mi., Jan. 1-9, 1954, L. E. Pena
(BRAS); 4♂ 3♀ 50 km. E. of San Carlos, Nuble, Dec. 26, 1950, R. & M.
(CAS); 1♂ (gen. prep.) 50 km. E. of San Carlos, Nuble, Dec. 26, 1950,
R. & M. (INCO); 1♂ 2♀ Recinto, Nuble, Dec., 1954, L. E. Pena (BRAS);
3♂ Trehualemu, Maule-Nuble, Dec. 11, 1953, L. E. Pena (2♂ OTT; 1♂ INCO);
3♂ Trehualemu, Maule-Nuble, Dec. 9, 1953 (OTT); 1♂ Yungay, Nov. 15,
1954, Honhome (INCO). O'HIGGINS: 1♀ Cord. Rancagua, Dec., 1903,
P. Herbst (MUNCH); 1♂ 4♀ Peumo, Nov., 1952, E. O. B. (INCO); 1♂ 5♀
23 km. N. of Rancagua, O'Higgins, Dec., 1950, R. & M. (CAS). SANTIAGO:
5♂ 10♀ Aculeo, Santiago, Nov. 3-7, 1959 (INCO); 1♂ El Canelo, Santiago,
Nov. 29, 1954, L. E. Pena (BRAS); 3♂ 1♀ El Canelo, Nov. 25, 1963, L. Pena
(INCO); 1♂ El Canelo, Nov. 21, 1952, L. Z. R. (INCO); 1♀ El Canelillo, Santiago, Etcheverry (CEE); 1♂ El Noviciado, Santiago, Oct. 2-4, 1934, L. E. Pena (BRAS); 1♀ #20601, El Peumo, Santiago, Nov. 1949 (BRAS); 1♂ #40 1♀ #40 Lo Prado, Dec., 1931, F. Ruiz (1♀ INCO; 1♂ USNM); 5♂ 3♀ Maipu, Santiago, Oct. 31, 1959, Pena (INCO); 1♂ Pudahuel, Nov. 1, 1953, L. Pena (BRAS); 3♂ Pudahuel, Nov. 12, 1953, L. Pena (BRAS); 4♂ 6♀ Pudahuel, Santiago, Nov. 4-12, 1953, L. E. Pena (BRAS); 1♂ Pudahuel, Oct. 1, 1953, L. Pena (BRAS); 1♂ #39 Pudahuel, Nov., 1921, F. Ruiz (INCO); 2♂ 5♀ Penalolen, Santiago, Nov. 28, 1954, L. E. Pena (BRAS); 1♂ Renca, Oct., 1953, L. Pena (BRAS); 1♂ #20325 San Bernardo, Oct., 1944 (BRAS); 1♀ #8319 Santiago, Puelma (BERL); 1♂ #93 Santiago, A. Faz (USNM); 1 (gen. miss.) Santiago, B. P. Clark (USNM); 1♂ #20600 San Bernardo, Santiago, Oct., 1949 (BRAS). TALCA: 1♀ 22 mi. N. of Talca, Dec. 22, 1950, R. & M. (CAS); 2♂ (gen. prep.) 22 mi. N. of Talca, Dec. 22, 1950, R. & M. (INCO). VALPARAISO: 1♀ Colliguay, Valparaiso, Nov. 4, 1963, L. E. Pena (INCO); 1♀ Las Palmas, Quillota, Nov. 20, 1954, L. Pena (BRAS); 1♂ Valparaiso, A. Faz (CORN); 1♂ Valparaiso, Oct., 1922, R. Martin (PAR); 1♂ #45 1♀ #45 Valparaiso, A. Faz (USNM). Locality uncertain: 1 (gen. miss.) Laguna, Dec. 5, 1898, Schonemann S. (BERL). No locality or date: 1♂ 1♀ Chile, E. P. Reed (1♂ USNM; 1♀ INCO); 1♂ Chile (BERL); 1 (gen. miss.) Chile (BERL); 1♀ #2065 Scholz S. (BERL); 1 (gen. miss.) (JTM); 1♀ (JTM); 1♀ E. P. Reed (CAS); 1♀ Dec., 1939 (USNM); 2♂ 4♀ Chile, E. D. Reed (2♂ 3♀ CAS; 1♀ USNM).

Geographic Distribution. As shown in Fig. 483.
Discussion. The fine white hairs are woolly in appearance and under the microscope they appear branched; the hairs and bristles on the midline of the mesonotum are always black, but the notopleural, intraalar, postalar and scutellar bristles vary from yellow to black, sometimes intermingled but usually yellow.

Dr. L. Tsacas, of the Museum National d'Histoire Naturelle, Paris, has studied the type situation in this species, and has informed me (personal communication) that in addition to the type of gayi there are several other specimens in the Museum determined as gayi by Macquart; these latter specimens are actually helix Bromley, and were misidentified by Macquart. On the basis of Hull's description of Cratopoda gayi (Macquart), it is apparent that he saw these misidentified specimens (helix) and not Macquart's type. It is for this reason that Cratopoda helix (Bromley), rather than gayi Macquart, is here designated as the type of Cratopoda; gayi Macquart is a Stizolestes.

A specimen from J. T. Medina collection has a label in Philippi's handwriting: "Asilus insidiator Ph. n. sp."; this is a nomen nudum.
Efferia Coquillet

Erax authors, nec Scopoli 1763.
Nerax Hull, 1962, p. 476 (synonym of Efferia)

Type of the genus: Efferia candidus Coquillet, 1910, by original designation.

Head in front view one-fourth wider than high; vertex deeply excavated; ocellarium small and low. Head in lateral view: postocular area one-tenth of eye width; facial gibbosity strong, rounded, occupying three-fourths of face; antennae long, first and third segments subequal in length, second much smaller; third segment compressed, attenuated toward apex, with a long slender style, approximately one and one-half times the length of the segment and with a short spine at tip; mystax of strong long hairs directed forward and curving down, near oral border the mystax is composed of bristles. Mesonotum with central stripes and lateral spots, the coverture of short hairs in front of transverse suture; longer posteriorly; dorsocentral bristles distinct behind transverse suture. Scutellum covered with micropubes- cence and scattered medium-sized hairs; 3-5 pairs of strong scutellar bristles. Slopes of postmesonotum with micropubescence, 2 or 3 short, weak hairs are sometimes present. Marginal cell closed and stalked; fourth posterior cell closed and stalked; R₄ angulated at its origin,
usually with a stump vein; R₄ and R₅ reaching wing border at or before wing apex in Chilean specimens; anal cell closed with a short stalk; M₃ and m forming a 110°-125° angle; wing membrane faintly rippled.

Front tibial spur absent. Abdomen long, cylindrical. Wings shorter than abdomen. Male genitalia large, elongated, clublike, strongly compressed, forming a 90°-110° angle with abdomen, not rotated; hypandrium short; epandrium long, compressed, forcepslike. Female ovipositor long, compressed, without spines.

**Distribution.** Neartic, Neotropical, 189 species; 1 species in Chile, *E. patagonensis*.

*Erax* Scopoli is a Paleartic group; the *Erax* species of American authors are *Efferia*. The species with 3 complete submarginal cells were kept in *Efferia* by Hull (1962:475) and the remaining species, with or without a stump vein on the base of R₄ were placed in his new genus *Nerax*, for which he designated *Asilus aestuans* Linn. as genotype. Martin (1965:28) considered *Nerax* synonomous with *Efferia*. Martin's conclusions are followed in this paper.

*Efferia patagonensis* (Macquart) n. comb.

(Fig. 249, 251, 413)

*Erax patagonensis* Macquart, 1850, p. 83, Patagonia; Schiner, 1866, p. 713, Patagonia; Lynch, 1880, p. 113-114, Mendoza and Buenos Aires, Argentina.
**Type.** ♀, Patagonia, M. D'Orbigny, in Museum National d'Histoire Naturelle, Paris, France (not seen).

**Diagnosis.** Body blackish, femora reddish brown on dorsal side, black on ventral side; tibiae and tarsi reddish; tergites 2 and 3 white on posterior half, tergites 6 and 7 completely white; mystax of white and black hairs intermingled.

**Male.** Head in front view: face and front covered with brown micropubescence, more sparse below antennae, and silver micropubescence along eye borders on face; frontal hairs black, intermingled with white hairs, 3 strong black bristlelike hairs on eye border at level of antennae; ocellarium with brown micropubescence, ocelli light brown; ocellar bristles black, 2 longer and stronger on front. Head in lateral view (Fig. 251): facial gibbosity brownish, silver on eye border; mystax of strong black hairs on upper part of facial gibbosity, and a row of 6 strong long bristles on each side of oral border, the 4 bristles near center yellow, the 2 bristles near extremes black, short and medium-sized fine white hairs all over facial gibbosity; first 2 antennae segments black with short white hairs; third segment short, pyriform, a long style with a short spinelike element at tip, segment and style dark brown; beard of fine white hairs; vertex and postocular area with sparse brown micropubescence, silver micropubescence along posterior border of eyes; postocular vestiture of fine sparse white hairs; 6 occipital bristles on each
side of vertex, some black, other brownish; a row of bristles along posterior border of eye, black hairs on upper part and brownish on lower part; proboscis black, with sparse long white hairs on lateral and ventral sides, short, white hairs at tip; maxillary palpi black, with long fine sparse white hairs on basal part and strong, long, black hairs on distal part. Prothorax black with fine white hairs uniformly distributed; 4-5 pairs of brownish collar bristles. Thoracic pleura black with dark golden micropubescence unevenly distributed, vestiture of white and black hairs intermingled; misepimeral bristles black. Mesonotum covered with golden and silver micropubescence, less dense on lateral spots and absent on central stripes which are broad and black; vestiture of short sparse black hairs, some longer white hairs on posterocentral area and on borders; scutellum uniformly covered with sparse white hairs and few black hairs intermingled; 3-5 black dorsocentral bristles; 2 black notopleural bristles; 2-3 black intraalar bristles; 2 black postalar bristles; 2 pairs of black scutellar bristles. Slopes of postmesonotum with silver micropubescence and a few black hairs. Wings hyaline; veins brown, lighter on basocostal area. Coxae black with silver micropubescence and white hairs which are more abundant on anterior side of front coxae; femora bicolored, reddish on dorsal side and black on ventral side; tibiae and tarsi reddish brown, tarsi darker; leg vestiture of fine white hairs, bristles black. Claws black. Tergites 2-5 black with white micropubescence on posterior one-half, more distinct on tergites 2 and 3; tergites 6 and 7 uniformly covered with dense white silver
micropubescence; sternites with white micropubescence; abdominal vestiture of fine white hairs, longer on sternites; 2-3 black or brownish bristles on each side of first tergite. Male genitalia mostly reddish, vestiture of black and white hairs (Fig. 249).

**Female.** Not seen.

**Measurements.** Total length 17.0 mm.; wing length 11.0 mm.; wing width 3.1 mm.

**Material Examined.** 1♂ Chile, E. P. Reed (INCO).

**Geographic Distribution.** According to Lynch (1880:113) Mendoza, Buenos Aires, and Patagonia, Argentina. It is possible that the species is found in Chilean Patagonia (Fig. 413)-

**Discussion.** The only Chilean record does not have specific locality; it could be from Patagonia.

**Eremomyia** n. gen.

Type of the genus: **Eremomyia tumbrensis** n. sp.

Head in front view one-fifth wider than high; vertex deeply sunken; ocellarium of moderate size; ocelli large. Head in lateral view: postocular area one-seventh the eye width; facial gibbosity
well developed, rounded, occupying slightly more than half of face; second antennal segment less than one-half the length of first, third segment subequal in length to first, compressed, with a minute microsegment bearing a long slender terminal style which is two and one-half times the length of the segment, with a short terminal spine (Fig. 253); mystax of abundant hair, shorter and bent in upper one-half, long and directed mostly ventrally on lower one-half. Mesonotum with central stripes and lateral spots; vestiture of short, uniformly distributed hairs in front of transverse suture, longer behind the suture; dorso-central bristles poorly differentiated from the surrounding hairs. Scutellum with abundant long hairs directed dorsally; scutellar bristles not differentiated from the hairs. Slopes of postmesonotum with micropubescence only. Marginal and fourth posterior cells closed and stalked; \( R_4 \) and \( R_5 \) more or less parallel in central part, both reaching wing border before apex; anal cell closed and stalked; \( M_3 \) and \( m \) forming a 90° angle. Front tibial spur absent; middle and hind tibiae with a ventral protuberance at apex, more distinct in males (Fig. 257). Abdomen of males cylindrical, of females conical; sternite 8 of males large, with a notch on each side before posterior border; posterior border with a dense brushlike tuft of hairs which are shorter in center (Fig. 260). Male genitalia large, beadlike, not rotated (Fig. 260); epandrium distended, with a notch and a fingerlike process on postero-dorsal part; gonopods short, moderately swallow, in lateral view usually partly or completely hidden by epandrium and sternite 8. Female genitalia long, conical, appearing
bifurcate at tip (Fig. 259) due to the divergent apices of cerci; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 1 species, *Eremomyia tumbrensis* n. sp.

This genus is related to *Lochmorhynchus* Engel, from which it can be separated by the beadlike genitalia of the males and by the ovipositor bifurcate at tip.

The name *Eremomyia* refers to the desertic habitat of the genotype (ερήμος = desert; μύια = fly).

**Eremomyia tumbrensis** n. sp.

(Figs. 253-260,479)

**Type.** ♂, from Tumbre, Antofagasta, Feb. 26-29, 1960, Peña; this specimen is deposited in Departamento de Zoología, Universidad de Concepcion, Chile.

**Diagnosis.** Body dark brown, some vestiture of mesonotum, ventral bristles of tarsi, and sometimes ocellar bristles, black, remaining hairs and bristles white; male genitalia beadlike; ovipositor bifurcate at tip.
**Description of Type (♂).** Head in front view: face, frons and vertex with yellowish micropubescence, less dense on frons; frontal hairs white; ocellarium blackish, ocelli yellowish; ocellar bristles mostly white, 2 black. Head in lateral view (Fig. 253): facial gibbosity gray, mystax white; antennae dark brown, second segment reddish on distal border, first and second segments with short white hairs; beard white; postocular area with silver micropubescence, vestiture of yellow hairs; postocular and occipital bristles yellow; proboscis shiny black with long, sparse, white hairs on basoventral one-half, short yellow hairs at tip; maxillary palpi black with white hairs. Prothorax with silver and brownish micropubescence, hairs white; collar bristles yellow. Thoracic pleura unevenly covered with golden and silver micropubescence and long, sparse, white hairs; mesepimeral bristles yellowish. Mesonotum with silver micropubescence except on central stripes which appear glabrous dark brown, lateral spots with grayish brown micropubescence; vestiture of short sparse, black hairs on central area, on borders and on posteroentral area white, longer; scutellum shiny dark brown with uniformly distributed sparse, long yellowish hairs; 6 white dorsocentral bristles, located posterior to transverse suture; 3 white notopleural bristles; 2 white intraalar bristles, 1 stronger; 4 white postalar bristles. Wings (Fig. 258), hyaline. Coxae similar in coverture to thoracic pleura, hairs and bristles white, hairs longer and more dense on anterior side of front coxae; femora bi-colored, black on dorsum, reddish brown on venter; tibiae (Fig. 257)
and tarsi reddish brown, hind tibiae darker on dorsal side near apex; hairs and bristles of legs white except for short bristles on ventral side of tarsi and a row of 5 short bristles on anterior side of front tibiae, which are black. Claws black, reddish brown on basal one-fifth. Abdomen black, unevenly covered with dark golden micropubescence on tergites and silver micropubescence on sternites; tergite 7 reddish on sides; vestiture of long white hairs on tergites 1-3 and minute fine white hairs on tergites 4-8; sternite 8 with a dense row of shiny golden hairs on posterior border. Genitalia reddish brown with short appressed white hairs (Fig. 254); epandrium with a notch on posterodorsal side and a small fingerlike process near apex (Fig. 260); penis sheath as in Fig. 255.

Female. Similar to male; ovipositor (Fig. 256) conical, reddish brown and black; cerci diverging apically, the tip of the ovipositor appearing bifurcate (Fig. 259).

The name tumbrensis refers to the type locality.

Measurements. Total length 20.0-25.5 mm., average 23.5 mm. [type 24.0 mm.]; wing length 13.5-17.3 mm., average 15.2 mm. [type 16.9 mm.]; wing width 3.2-4.5 mm., average 4.0 mm. [type 4.1 mm.].

Material Examined. 6♂ and 12♀. ANTOFAGASTA: 1♂ Pocos, Antofagasta, April, 1954, L. Pena (BRAS); 1♂ 5♀ Talabre, Antofagasta,
Dec. 15, 1961, Pena (INCO); 2♂ [type] 2♀ Tumbre, Antofagasta, Feb. 26-29, 1960, Pena (INCO); 1♂ (gen. prep.) 2♀ Tumbre, W. Vn. Laskar, 3500 m., Antofagasta, Jan., 1953, F. Soza (INCO); 1♂ Linzor, Feb. 18, 1960, Pena (INCO); 1♀ Sobraya, 700 m., Nov., 1955, L. E. Pena (BRAS); 1♀ Toconao, 2480 m., March, 1954, L. Pena (BRAS). No locality or date: 1♂ L. E. Pena (INCO).

**Geographic Distribution.** As shown in Fig. 479.

**Discussion.** In most specimens the micropubescence on the tergites gives the abdomen a banded appearance. The protuberance on the ventral distal part of tibiae is usually less noticeable in females, sometimes one of the bristles on the protuberance is black, with the others white. The 5-6 short bristles on the anterior side of the front tibiae are usually white, sometimes intermingled white and black, seldom black as in the type.

**Lochmorhynchus** Engel


Type of the genus: *Proctacanthus senectus* Wulp, 1882, by original designation.

Head in front view one-sixth wider than high; vertex deeply sunken; ocellarium small; ocelli small. Head in lateral view: postocular
area one-fourth the width of eye; facial gibbosity strongly developed, rounded, occupying three-fourths of face; antennae with second segment one-half the length of first; third antennal segment compressed, attenuated distally, variable in length, from equal to one and one-half times the length of the second segment, at apex bearing a long slender style which is two and one-half to three times the length of the third segment, with a short spine at tip; mystax abundant, with hairs that are shorter on upper part, on lower part several long, strong bristles, longer than hairs and directed mostly ventrally. Mesonotum with stripes and lateral spots distinct; mesonotal vestiture of short uniform sparse hairs; a few long hairs posterior to the transverse suture, on posterocentral area; dorsocentral bristles distinct behind transverse suture; scutellum with long hairs directed dorsally, sometimes mixed with long bristles; scutellar bristles usually not distinguishable from hairs of scutellar disc. Slopes of postscutellum with micropubescence only, no pile. Marginal and fourth posterior cells closed and stalked; \( R_4 \) and \( R_5 \) reaching wing border before wing apex; anal cell closed and stalked; \( M_3 \) and \( m \) forming a 90° angle; costal area strongly expanded in males. Front tibial spur absent. Abdomen long and tapered in males, conical in females. Wings shorter than abdomen. Male genitalia medium-sized to large, not rotated, usually forming a 140° angle with abdomen; sternite 8 usually long, always with a central cleft at least half the length of the sternite, sternite 8 appearing to form part of genital structures; hypandrium short, hidden under sternite 8; epandrium medium-sized to large, usually with notches or processes on distal border.
Female genitalia conical or compressed forming a bladelike structure; no spines on ovipositor.

**Distribution.** Neotropical, 4 species; 3 species in Chile.

**Key to the Chilean Species of Lochmorhynchus**

1. Mystax white, yellow, or reddish yellow, rarely with a few black hairs intermingled; first and second antennal segments with hairs similar in color to mystax; female ovipositor as in Figs. 265 and 273 or 268 and 270. . 2

1'. Mystax of black and white hairs intermingled; first and second antennal segments with black hairs; ovipositor as in Figs. 271, 272 . . . . . L. puntarenensis n. sp.

2(1). Epandria with a terminal process (Fig. 263); ovipositor conical; posterior extensions of tergite 9 sharply pointed (Fig. 265) . . . . . . L. griseus (Guerin)

2'. Epandria without a terminal process (Fig. 261); ovipositor strongly compressed, bladelike (Figs. 268, 270); posterior extensions of tergite 9 narrow, not longer than cerci, and usually hidden by them (Fig. 270) . . . . . . . . . . . . . . . . . . L. borrori n. sp.
Lochmorhynchus borrori n. sp.
(Figs. 261, 264, 268, 270, 496)

Type. ♂, Chillan, Nov. 21, 1963, J. Artigas; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Similar to brownish specimens of L. griseus, from which it can be separated by the epandria without a terminal process and ovipositor strongly compressed, and lateroposterior extensions of tergite 9 not projected beyond apex of cerci.

Description of Type (♂). Head in front view: face, front, and vertex covered by dark golden micropubescence, except on center of frons; frontal hairs yellow and black intermingled, lower hairs mostly yellow; ocellarium unevenly covered by golden micropubescence, ocelli yellow; ocellar bristles black. Head in lateral view: facial gibbosity golden; mystax abundant, yellow; antennae black, first and second segments with short yellow hairs, second segment slightly reddish on sides; beard yellow; postocular area unevenly covered with golden micropubescence, vestiture of fine sparse yellow hairs; postocular bristles yellow; a group of 7-9 yellow occipital bristles located on each side of vertex behind eye borders; proboscis shiny black with long, fine yellowish hairs on posteroventral side, short fine yellow hairs at tip; maxillary palpi black with yellowish hairs. Prothorax blackish,
unevenly covered with dark golden micropubescence and sparse long fine yellow hairs; collar bristles yellow. Thoracic pleura covered with silver and golden micropubescence, silver micropubescence mostly on borders of sclerites, some fine yellow hairs on posterior half of mesopleura, sternopleura, and pteropleura; mesepimeral bristles fine, yellow. Mesonotum densely covered with dark golden micropubescence except on central stripes and interior side of lateral spots, vestiture of short sparse black hairs, longer on anterior border, humeral calli, and posteroceentral area; central stripes separated by a line of golden gray micropubescence; scutellum similar in coverture to mesonotum, with fine sparse long hairs which are black near anterior border and yellow posteriorly; 4 black dorsocentral bristles, located posteriorly, a few yellow bristles intermingled near posterior border; 2 yellow notopleural bristles; 1 yellow intraalar bristle; 2 yellow postalar bristles; 2 pairs of weak hairlike yellow scutellar bristles. Slopes of postmesonotum densely covered with golden and silver micropubescence. Wings hyaline, brownish along birders of veins, veins dark brown; marginal cell dark brown on expansion; marginal cell and first submarginal cell with corrugated membrane, remaining membrane slightly rippled. Coxae covered with golden micropubescence, fine yellow hairs, and yellow bristles, the hairs more abundant and longer on anterior part of front coxae; femora black, slightly red on both ends, covered by fine, yellow hairs which are longer on posterior and ventral sides; no bristles on front femora, middle and hind femora with yellow hairs and 2 or 3 black bristles near apex on ventral side; tibiae and tarsi red with yellow hairs, dorsal
bristles yellow, ventral bristles black. Abdomen covered with dense light golden micropubescence, except on dorsum of each tergite, these areas appearing blackish; vestiture of fine, sparse, yellow hairs, slightly longer on sides of tergites 1-3 and on sternites; sternite 8 with abundant yellow hairs directed posterodorsally. Genitalia black, covered with sparse, fine yellow hairs (Fig. 261); penis sheath as in Fig. 264.

**Female.** Similar to male; ovipositor strongly compressed, blade-like (Fig. 268 and 270); tergites 8 and 9 shiny black; lateroposterior processes of tergite 9 narrow, not expending beyond apex of cerci.

This species is dedicated to Dr. D. J. Borror from The Ohio State University.

**Measurements.** Total length 19.0-26.3 mm., average 23.5 mm. [type 26.3 mm.]; wing length 15.2-19.0 mm., average 17.5 mm. [type 17.2 mm.]; wing width 3.5-5.9 mm., average 4.9 mm. [type 5.1 mm.].

Pena (INCO). LINARES: 1♀ Bullileo, Feb., 1959, I. Pedagogico (CEE);

**Geographic Distribution.** As shown in Fig. 496.

**Discussion.** Specimens of this species show little variation in color; older and greased specimens appear darker, mainly on the mesonotum and on the tergites.

Specimens on this species have been frequently identified by S. W. Bromley and M. Carrera as *Lochmorhynchus longiterebratus* Macquart, 1850, but *longiterebratus* according to Macquart's figure (Pl. 8, fig. 7) has the ovipositor conical while *L. borrori* has the ovipositor strongly compressed; according the structure of the ovipositor, *L. longiterebratus* could prove to be synonomous with *L. griseus* if Chilean records were available: *L. longiterebratus* has been recorded only from Patagonia [Argentina].

One specimen from J. T. Medina Collection has a label in Philippi's handwriting: "Erax marginatus Ph.", this is a nomen nudum.

**Lochmorhynchus griseus** (Guerin)

(Figs. 263, 265, 266, 267, 269, 273, 471)

*Asilus griseus* Guerin, 1830, p. 292, Chile.

*Erax griseus* (Guerin). Macquart, 1938, p. 115, Chile; Blanchard, 1852, p. 369; 1854, Pl. 3, fig. 2 ab; Philippi, 1865, p. 692; Schiner, 1868, p. 180, Chile.

*Lochmorhynchus griseus* (Guerin). Engel, 1930, p. 460, fig. 3; Stuardo, 1946, p. 84; Hull, 1962, p. 496, figs. 206 A, 716, 1437, 1446, 2203 and 2217.
Erax cinereus Philippi, 1865, p. 693, Santiago, Colchagua.
Erax albescens Schiner, 1868, p. 180, Chile.

Type. ♀, Chile, in Museum National d'Histoire Naturelle, Paris (not seen). Type of E. cinereus in Museo Nacional de Historia Natural, Santiago, Chile (seen). Type of E. albescens in Naturhistorisches Museum, Wien, Austria (not seen).

Diagnosis. Body gray to reddish brown; mystax white with strong black and white bristles intermingled; femora black or reddish; tibiae and tarsi reddish brown; bristles on legs mostly white; wings hyaline, brownish along veins; epandria ending in a terminal projection (Fig. 263); ovipositor shiny black, conical; posterior processes of tergite 9 sharply pointed distally (Fig. 265).

Male. (♂ compared with type). Head in front view: face, frons, and vertex with white micropubescence, less dense between ocellarium and antennae, where a triangular depression appears black or reddish glabrous; frontal hairs black and white in separate rows; ocellarium black with sparse white micropubescence, ocelli yellow; ocellar bristles hairlike, black, continued behind ocellarium forming 2 short rows. Head in lateral view: facial gibbosity appearing black, with sparse gold micropubescence on oral border, border of eyes, and between antennae and facial gibbosity; center of facial gibbosity with dense silver micropubescence; mystax of fine white hairs and 5–6 long, strong, black
or white bristles along sides of oral border; antennae mostly black, first and second segments with short white hairs, more abundant on ventral side; third segment with silver and golden micropubescence, style black; beard white; occipital area with white micropubescence, more dense on posterior border of eyes, vestiture of sparse fine white hairs; occipital bristles and postocular bristles strong, black or white; proboscis shiny black with long fine white hairs on basoventral part and short whitish hairs at tip; maxillary palpi dark brown, with long white hairs. Prothorax black, unevenly covered with sparse silver and golden micropubescence and long fine white or yellowish hairs; collar bristles black or yellowish. Thoracic pleura black or dark brown, mostly covered by silver or dark yellow micropubescence and white or yellowish hairs; mesepimeral bristles fine, white or yellowish. Mesonotum black or dark brown with gray or dark brown micropubescence and short sparse black hairs which are distinctly longer on posterocentral area where a few white or yellowish hairs are intermingled; yellow or white hairs along lateral borders and around and on humeral and posterior calli; scutellum uniformly covered with long fine yellow or white hairs intermingled with black hairs of the same length, sometimes hairs are sparse; 3-5 black dorsocentral bristles located posteriorly; 3 black or yellow notopleural bristles; 1 black intraalar bristle; 3 short black postalar bristles; scutellar bristles not distinct. Slopes of postmesonotum covered with silver or golden micropubescence. Wings hyaline, strongly expanded in costal area at level of apex of discal cell (Fig. 267); subcostal cell narrow, dense
dark brown on expanded area, membrane corrugated in marginal and sub-marginal cells, remainder of membrane slightly rippled; veins dark brown bordered with brownish. Coxae covered with silver or brownish micropubescence and a few white or yellowish, fine hairs and bristles, hairs more abundant on anterior side of front coxae; legs reddish brown to shiny black, covered with short appressed and erect fine white hairs, bristles short, white; ventral side of tarsi and ventral side of tibial apex with black bristles. Claws black. Abdomen covered with whitish or brownish micropubescence, usually more dense on segments 6 and 7 and on posterior one-half of tergites 1-5, abdomen appearing banded from dorsal view; abdominal vestiture of fine white hairs, more abundant and longer on tergites 1-3; 2 or 3 black or yellow bristles on each side of tergite 1; sternite 8 with a dense tuft of white or yellowish hairs. Genitalia shiny black; epandria with a distal process (Fig. 263), vestiture of sparse white or yellowish hairs and a few black hairs intermingled; penis sheath as in Fig. 266.

**Female.** Similar to male but without costal expansion in wing (Fig. 269); ovipositor cylindrical, including segment 8 which is shiny black; lateroposterior projections of tergite 9 longer than cerci and sharply pointed (Fig. 265 and 273).

**Measurements.** Total length 21.1-29 mm., average 26.5 mm.; wing length 16.5-18.2 mm., average 17.6 mm.; wing width 4.6-5.8 mm., average 5.3 mm.
Materials Examined. 27♂, 30♀, and 1 (gen. miss.). ARAUCO: 1♀
Contulmo, March 8, 1906, Schonemann S. (BERL). BIO BIO: 4♂ 2♀ BIO
BIO, 1928, E. P. Reed (2♂ 1♀ CAS; 2♂ 1♀ INCO); 1♀ #30 BIO BIO, 1928
(INCO); 1♂ 1♀ #31 Mulchen, Jan., 1928, F. Ruiz (USNM); 1♂ 3♀ Negrete,
BIO BIO, Dec. 31, 1950, R. & M. (CAS). CAUTIN: 1♂ 2♀ Puerto Saavedra,
CONCEPCION: 2♂ Concepcion, P. Herbst, 1904 (CAS); 1♀ Rio Claro, 1928,
CURICO: 1♂ Iloca, Feb., 22, 1950 (INCO); 1♀ Tonlemo, 35° 09'-71° 41',
Jan.-Feb., 1943, L. E. Pena (INCO). LINALES: 1♂ Longavi, Schonemann
(BERL); 1♂ Palqui, Linares, Feb. 5, 1957, A. Montero (CEE). MALLECO:
1♀ La Fusta, Cord. Longquimay, Feb.-June 21, 1962, Pena (INCO). MAULE:
1♂ Maule, Rio Maule, 1400 m., Feb., 1956, L. Pena (BRAS). NUBLE: 1♂
Nipas, Feb. 6, 1950, J. Dardel (INCO). O'HIGGINS: 1♀ Rancagua, Jan.,
1909, E. P. Reed (CAS). SANTIAGO: 1♀ Isla de Maipo, Santiago, Toro
(CEE); 1♂ 1♀ Las Brisas, Santiago, April 10, 1955, L. E. Pena (BRAS);
1♀ Navidad (JTM); 2♂ Navidad, Costa de Santiago, Feb. 2, 1955, L. E.
Pena (INCO); 1♂ (gen. prep.) Santiago (INCO); 1♂ #8318 Santiago, Puelma
(BERL); 1♀ Santiago, Dr. Puelma (BERL). VALPARAISO: 1♂ El Tabo, Jan.
11, 1961, G. Pino (CEE); 1♂ (gen. prep.) Quilpue, March, 1960, B. Laso
(INCO); 1♂ Quillota, Feb., 1897 (INCO); 1♂ 1♀ #37 Valparaiso, A. Faz
(INCO); 1♀ Valparaiso, Dr. Reed (INCO); 2♂ 2♀ Valparaiso, A. Faz (1♀
USNM; 2♂ CORN). No locality or date: 1 (only thorax and wings)
[type of E. cinereus] (JTM); 1♂ #33 (INCO); 1♀ (INCO); 1♂ 1♀ Chile
(BERL): 2♀ Chile, E. P. Reed (CAS); 1♂ #68 Chile, Dr. Reed (CAS); 1♀
Chile, Eschsch S. (BERL); 1♂ Chile (USNM).
Geographic Distribution. As shown in Fig. 471.

Discussion. The gray specimens usually have silver micropubescence, white hairs, and black bristles; brownish specimens have yellowish or golden brown micropubescence, yellowish hairs, and several bristles whitish or yellow; the color of the legs, mainly of the femora, is sometimes is blackish on gray specimens and brown or reddish in brownish specimens. These variations are not constant, and are usually related with age, the younger specimens being lighter; specimens from northern localities are usually lighter.

The type specimen is dark gray (according to the color of the specimen sent back by Dr. L. Tsacas after comparing it with the type); Dr. Tsacas says in reference to the compared specimens (personal communication): "un de ceux-ci est identique a _E. griseus_ Guerin".

_Lochmorhynchus longiterebratus_ Macquart, according to Macquart's description and figure (1850:83, Pl. 8, fig. 7) could be a synonym of _L. griseus_; this species has been recorded from Patagonia [Argentina]. I have not seen the type; it could be a brown specimen. The length given by Macquart: "3 l."(*) [8.4 mm.] could be a printing error because the scale line on fig. 7 is of 14 l. or 29.4 mm. which is approximately the total length of a large female specimen of _E. griseus_. (*) l. = line.
Lochmorhynchus puntarenensis n. sp.
(Figs. 262, 271, 272, 431)

Type. ♀, Punta Arenas, Jan. 1953, J. Herrera; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Similar to L. griseus, from which it can be separated by the apically rounded posterolateral processes of tergite 9 in females (Fig. 272); mystax of black and white hairs intermingled; bristles on legs black.

Description of Type (♀). Head in front view: face and front covered with silver micropubescence, less abundant on facial gibbosity and frons; frontal hairs black; ocellarium similar in coverture to frons, ocelli yellow; ocellar bristles black. Head in lateral view (Fig. 262): facial gibbosity silver; mystax of black and white hairs intermingled, white hairs more distinct on upper and lower parts; antennae black with sparse silver and golden micropubescence, first and second segments with black hairs, more abundant and longer on first segment; third segment and style as in Fig. 262; beard white; postocular area covered with sparse silver micropubescence and fine white sparse hairs; postocular bristles yellow; 8 occipital bristles on each side of vertex, 6 black and 2 white; proboscis shiny black with long, fine, white hairs on posteroventral part and short yellow
hairs at tip; maxillary palpi dark brown, white hairs on basal one-
half and black hairs apically. Prothorax black, unevenly covered
with silver and golden micropubescence and sparse fine white hairs,
which are yellowish and more dense on prothoracic lobe; collar
bristles mostly black, a few white intermingled. Thoracic pleura
black covered with silver and dark golden micropubescence, vestiture
of a few fine white hairs sparse on sclerites; mesepimeral bristles
yellowish. Coxae similar in coverture to thoracic pleura, hairs and
bristles white, hairs more abundant on anterior side of front coxae;
femora black with apical border dark reddish, covered with white
appressed hairs, longer erect hairs on ventral side of front femora,
bristles of femora black; front and middle tibiae and tarsi black on
dorsal side and dark reddish brown on ventral side; hind tibiae and
tarsi black; vestiture of tibiae and tarsi similar to femora. Claws
black, basal one-fifth red. Mesonotum covered with gray and golden
micropubescence, except on central stripes and lateral spot in
part; central stripes widely separated; vestiture of mesonotum of
medium-sized sparse black hairs, which are longer on posterocentral
area; fine white hairs on humeral calli and on frontal and lateral
borders; scutellum with sparse gray micropubescence and sparse strong
black hairs on center, white hairs on sides, and 8 white hairs on
each side of posterior border appearing like scutellar bristles; 6
black dorsocentral bristles, located posterior to transverse suture;
2 black notopleural bristles; 1 black intraalar bristle; 2 black
postalar bristles. Slopes of postmesonotum with silver micropubescence.
Wings hyaline, veins mostly black, brownish near base. Abdomen covered with gray micropubescence on dorsum and on sides of tergites with a dark area of brown micropubescence, in dorsal view appearing banded; abdominal vestiture of short sparse black hairs on dorsum and white hairs on venter; longer white hairs on sides of first tergite. Ovipositor conical (Fig. 271), including segment 8, black with sparse fine yellow hairs; posterolateral projections of tergite 9 rounded apically and extending beyond cerci (Fig. 272).

**Male.** Unknown.

The name *puntarenensis* refers to the type locality.

**Measurements of Type.** Total length 22.5 mm.; wing length 12.9 mm.; wing width 3.4 mm. Paratypes similar in size.

**Material Examined.** 3♀. MAGALLANES: 3♀ Punta Arenas, Jan., 1953, J. Herrera (1 CEE; 2 INCO).

**Geographic Distribution.** As shown in Fig. 431.

**Discussion.** The type and the paratypes are almost identical.

**Lochurus** n. gen.

Type of the genus: *Asilus crassus* Bromley, 1932.
Head in front view three-tenths wider than high; vertex deeply sunken; ocellarium moderate-sized, ocelli large. Head in lateral view: postocular area one-third the eye width; facial gibbosity strongly developed, occupying four-fifths of face; first antennal segment one and one-half to two times the length of second; third segment slightly compressed, tapered, two times the length of second, with a short, narrow, cylindrical microsegment bearing a long style with a terminal spine, length of style two and one-half to three times the length of second segment; mystax abundant, long, dense, limited to front part of facial gibbosity. Mesonotum with central stripes and lateral spots; vestiture of short sparse hairs in front of transverse suture, the hairs longer on posterocentral area; 10-14 strong, distinct dorsocentral bristles. Scutellum with a few medium-sized hairs; 2-3 pairs of scutellar bristles. Slopes of postmesonotum with a group of medium-sized hairs. Marginal and fourth posterior cells closed and stalked; $R_4$ and $R_5$ forming a nearly symmetrical fork; $R_4$ ending before wing apex, $R_5$ behind wing apex; anal cell closed near wing border, usually with a short stalk; $M_3$ and $m$ forming a 90° angle. Front tibial spur absent; posterior femora with a dorsolateral row of 4-7 and a lateroventral row of 6-10 spinelike bristles. Abdomen mostly cylindrical in males, in females gently tapered. Wings of males shorter than abdomen, sometimes slightly longer in females. Male genitalia enlarged, clublike, not rotated; epandria forming a forceps, large, moderately to greatly dilated, with a notch and a fingerlike process on distal border; hypandrium
short, with a large rectangular notch on distal border; gonopods short, dilated. Female genitalia short, slightly compressed; tergite 8 attenuated distally, tergite 9 short, small; no spines on ovipositor.

Distribution. Neotropical (Chile), 3 species.

This genus is closely related to Cratopoda Hull, from which it can be separated by the coverture of the scutellum and the shape of the penis sheath. In Cratopoda the scutellum is covered by 2 tufts of woolly hairs, leaving a bare space in between; in Lochyrus the hairs of the scutellar disc are fine, not woolly, sparse, and uniformly distributed; penis sheaths as shown in Figs. 239, 243, and 244 for Cratopoda and Figs. 276, 281 and 282 for Lochyrus.

The name Lochyrus refers to the strong body (λοχυρός = powerful).

Key to the Species of Lochyrus

1. Thorax and abdomen uniformly gray; male genitalia large, as wide as the first abdominal segment, epandrium globose (Figs. 278 and 280) ....................................... 1

1'. Thorax and abdomen light or dark gray with abundant golden or brownish areas; male genitalia never wider than three-fourths the width of the first tergite (Figs. 275 and 288) .................................. 2
2(1'). Abdomen gray with dorsal area distinctly dark golden brown; most or all bristles of mesonotum and legs black; male genitalia in dorsal view as wide as fourth abdominal tergite, tip of lower distal lobe of epandrium directed outward (Fig. 288). ............... *L. frezieri* n. sp.

2'. Abdomen mostly golden brown, in dorsal view appearing almost black; most or all bristles of mesonotum and legs white; male genitalia in dorsal view as wide as seventh abdominal tergite, tip of lower distal lobe of epandrium directed toward midline (Fig. 275, 279) .................

.................  

*L. balmacedensis* n. sp.

Lochyrus balmacedensis n. sp.

(Figs. 274, 275-277, 279, 416.)

**Type.** ♂, from Balmaceda, Aysen, Jan. 17-20, 1961, Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Similar to *L. frezieri*, from which it can be separated by the smaller genitalia of male which is as wide as the seventh segment, and the tips of epandria facing each other (Fig. 275); all or most of the bristles are white.

**Description of Type (♂).** Head in front view: face, front, and vertex with silver micropubescence, less dense over ocellarium;
ocelli yellowish; frontal hairs long, black; ocellar bristles long, black, a few white hairs intermingled. Head in lateral view: facial gibbosity dark gray; mystax of white bristles, a few black hairs intermingled on upper part; antennae black, first and second segments with black hairs, longer on ventral side of first segment; beard of fine white hairs; postocular area with yellowish micropubescence, vestiture of fine yellow hairs mostly concentrated near eye borders; postocular bristles yellow; 17-20 strong occipital bristles arranged in a group on each side of vertex; proboscis black, fine, long, white hairs on basoventral three-fourths, short, fine, yellow hairs at tip; maxillary palpi black, hairs black, a few fine white hairs intermingled. Prothorax blackish, unevenly covered with silver micropubescence, some areas mostly golden, and fine sparse whitish hairs; collar bristles strong, yellow. Thoracic pleura black, unevenly covered with silver and yellowish micropubescence; groups of fine long white hairs on sternopleura and pteropleura; mesepimeral bristles fine, white. Mesonotum unevenly covered with golden and silver micropubescence except lateral spots in part and central stripes which appear dark brown; vestiture of short fine sparse black hairs, longer near midline behind transverse suture; scutellum similar in coverture to mesonotum, vestiture of long, fine, white hairs uniformly distributed; near 12 dorso-central bristles mixed with hairs of similar length, 3-4 most posteriorly located bristles white, remaining bristles black; 3 notopleural bristles, 2 white, 1 black; 2 white intraalar bristles; 3 white postalar bristles; 2 pairs of white scutellar bristles. Slopes of postmesonotum with
yellowish micropubescence and fine white hairs. Wings hyaline; veins black, brown in costal area. Coxae similar in coverture to thoracic pleura, hairs and bristles white, hairs more abundant on anterior side of front coxae; femora uniformly shiny black with short appressed white hairs, a few longer hairs on ventral and dorsal sides of front femora; tibiae and tarsí similar in color and vestiture to femora, front tibiae slightly lighter; bristles of legs white. Claws black, basal one-fourth red. Abdomen covered with golden gray micropubescence; vestiture of short appressed white hairs; a narrow brown line on midline of tergites; bristles on sides of tergites mostly directed laterally, white; sternite 8 with a sparse row of black hairs directed posteriorly on posterior border. Genitalia (Figs. 274, 275, 279) mostly black, reddish black in part, as wide as segment 7; tips of epandria directed toward midline, facing each other; penis sheath as shown in Figs. 276, 277.

Female. Similar to male; ovipositor short, hairs white, short yellow hairs on cerci.

The name balmacedensis refers to the type locality.

Geographic Distribution. As shown in Fig. 416.

Discussion. One ♀ has 4 dark brown notopleural bristles and the frontal hairs are intermingled black and white.

Lochyrus crassus (Bromley), n. comb.
(Figs. 278, 280-284, 286, 415)

Asilus crassus Bromley, 1932, p. 279, figs. 27 and 28, Concepcion, Araucania; Stuardo, 1946, p. 85; Hull, 1962, p. 545.


Diagnosis. Body gray; legs black, tip of femora red; male genitalia greatly enlarged, globose, as wide as first abdominal segment (Fig. 280); ovipositor as in Fig. 283.

Male. Head in front view: face with yellowish micropubescence, less dense on dorsal part of facial gibbosity, front blackish; ocelli yellow; frontal bristles long, white and black intermingled; ocellar bristles long, black, a few finer white bristles intermingled. Head in lateral view: facial gibbosity appearing gray; mystax of abundant long black hairs and strong white bristles intermingled; antennae black, first and second segments with abundant black and white hairs intermingled;
beard of dense fine hairs; postocular area unevenly covered with silver micropubescence, more dense on eye borders, vestiture of fine white hairs, mostly concentrated near borders; postocular bristles black; 6-8 strong occipital bristles arranged in a group on each side of vertex; long fine white hairs on vertex; proboscis with white hairs on basoventral one-half, short yellow hairs at tip; maxillary palpi black, hairs black with a few white hairs intermingled. Prothorax black with silver micropubescence, hairs long, fine, white; 5-7 black collar bristles, a group of 4-6 black hairs on center of pronotum. Thoracic pleura covered with silver micropubescence, sometimes slightly brownish in parts, hairs sparse, fine, mostly white; mesepimeral bristles fine, black. Mesonotum covered with silver micropubescence, brownish in part, lateral spots partly covered, central stripes black; vestiture of black hairs, longer on each side of dorsocentral bristles, a few weak short white hairs on humeral calli and on posterior border; scutellum similar in coverture to mesonotum, with fine white hairs uniformly distributed; 10-14 black dorsocentral bristles; usually 2 black notopleural bristles, exceptionally 3 or 4; 1 black intraalar bristle; 2 black postalar bristles; 2-3 pairs of long fine black scutellar bristles. Slopes of postmesonotum with silver and brownish micropubescence, and white and brownish medium-sized hairs. Wings (Fig. 286) hyaline, fumose at tip; veins black, dark brown in costal area. Coxae similar in coverture to thoracic pleura, hairs white, more abundant on anterior side of front coxae, usually with no distinct bristles; femora black, apical one-fifth red, vestiture of short white hairs, longer on
lateral and ventral sides, a few black hairs intermingled; tibiae dark brown to black, vestiture of black, white, and yellow hairs, longer on ventral side of front and middle tibiae; tarsi similar in color to tibiae, usually darker; bristles on legs black. Abdomen uniformly covered with gray micropubescence; posterior border of tergites sometimes appearing reddish; vestiture of short, black and white, sparse hairs, longer on sternites; bristles on sides of tergites black; posterior border of sternite 8 with dense rows of white or yellowish medium-sized hairs directed posteriorly. Male genitalia (Figs. 278, 280) globose, large, as wide as first abdominal segment, black, covered with short yellowish hairs; longer hairs on posterior side of epandria black; hypandrium as shown in Fig. 284; penis sheath as shown in Fig. 281, 282.

**Female.** Similar to male; ovipositor as shown in Fig. 283.

**Measurements.** Total length 21.0-25.2 mm., average 22.8 mm.; wing length 13.2-14.8 mm., average 14.2 mm.; wing width 3.4-3.9 mm., average 3.7 mm.

**Material Examined.** 131♂ and 74♀. ARAUCO: 1♂ Contulmo, Dec. 2, 1904, Schonemann S. (BERL); 1♂ Contulmo, Dec. 31, 1901, Schonemann S. (BERL); 1♂ Contulmo, Dec. 22, 1904, Schonemann S. (BERL); 1♂ Contulmo, Oct. 9, 1903, Schonemann S. (BERL); 1♀ Contulmo, Jan. 4, 1903, Schonemann S. (BERL); 1♀ Contulmo, Oct. 9, 1903, Schonemann S. (BERL);
2♂♀ Contulmo, Dec. 20, 1904, Schonemann S. (BERL); 1♂ Contulmo, Dec. 6, 1904, Schonemann S. (BERL); 2♂ Contulmo, Dec. 22, 1904, Schonemann S. (BERL); 3♂ Contulmo, Jan. 4, 1905, Schonemann S. (BERL); 1♂ Contulmo, Jan. 14, 1906, Schonemann S. (BERL); 1♂ Contulmo, April 5, 1902, Schonemann S. (BERL); 1♂ Contulmo, Jan. 25, 1902, Schonemann S. (BERL); 1♀ Contulmo, Dec. 10, 1903, Schonemann S. (BERL). BIO BIO:


MALLECO: 1♂ Angol, Malleco, Jan., 1954, L. E. Pena (BRAS); 1♂ Angol, Dec. 10, 1940, R. Kening (USNM); 1♂ Angol, March 6, 1941, P. A. Berry (USNM); 1♀ Angol, Dec. 23, 1926 (USNM); 1♀ Angol, Dec. 8, 1937 (USNM); 1♀ #53 Angol, Dec. 10, 1924 (USNM); 1♂ Angol, Nov. 12, 1936 (USNM); 1♂ Angol, Nov. 25, 1928 (USNM); 1♂ Angol, Nov. 19, 1936 (USNM); 1♂ Angol, Dec. 11, 1931 (USNM); 1♂ Angol, Dec. 4, 1934 (USNM); 1♂ Angol, Nov. 25, 1936 (USNM); 1♂ Angol, Dec. 9, 1940, J. Fuller (USNM); 1♂ Angol, Jan. 1, 1936, D. S. Bullock (USNM); 1♂ Angol, Jan. 21, 1937 (USNM); 1♀ Angol, Dec. 5, 1934 (USNM); 1♂ Angol, Jan. 26, 1934 (USNM); 1♂ Angol, Rere, Oct. 5, 1956, L. Bernedo (INCO);

1♂ Angol, Nov. 24, 1962, B. Bentau (INCO); 1♀ Angol, Dec. 10, 1960, German Hueras (INCO); 1♂ 1♀ Angol, Nov. 11, 1960, A. Liengueo (INCO);

1♂ Angol, Dec. 1, 1961, L. Sandoval (INCO); 1♀ Angol, Dec. 10, 1960, C. Bravo (INCO); 1♀ Angol, Dec. 1, 1960, C. García (INCO); 1♂ Angol, Nov. 28, 1961, J. Quilangueo (INCO); 1♀ Angol, Nov. 12, 1961, R. Romero (INCO); 1♂ Angol, Dec. 1, 1961, Aguilera (INCO); 1♂ Angol, 1962, Figueroa (INCO); 1♂ Angol, Nov. 8, 1958, J. Hahn (INCO); 1♂ Angol, Dec. 1, 1961, Pendola (INCO); 3♂ Angol, Jan. 1, 1951, R. & M. (CAS);

1♀ Angol, Nov. 9, 1961, A. Mohr (INCO); 1♂ Angol, Dec. 12, 1961, R. Cozo (INCO); 1♂ Angol, Nov. 25, 1960, Nunez (INCO); 1♂ Angol, Feb. 12,
1962, R. (INCO); 1♀ Angol, Dec. 8, 1960, P. Sedano (INCO); 1♂ Angol, Nov. 26, 1961, E. Riguelme (INCO); 1♂ Angol, Jan. 3, 1962, Figueroa (INCO); 1♀ Angol, Nov. 28, 1960, A. Morales (INCO); 1♂ Angol, Nov. 30, 1961, S. Quilatun (INCO); 1♀ Angol, Nov. 24, 1961, B. Bental (INCO); 1♂ Angol, Nov. 24, 1956, O. Fetis (INCO); 1♂ Angol, Dec. 5, 1959, A. Paredes (INCO); 1♀ Angol, Nov. 29, 1958, O. Perry (INCO); 1♂ Angol, Dec. 13, 1961, B. Bental (INCO); 1♂ Collipulli, Jan. 3, 1954, Mendez (INCO); 1♀ #1176 Collipulli, Jan. 20, 1958, J. O. C. (INCO); 2♂ 2♀ (copula), Collipulli, Feb. 22, 1964, Mendez (INCO); 1 (gen. miss.) #388 Angol, Jan. 1, 1924 (USNM); 1♂ 10 mi. N. of Perquenco, Malloco, Jan. 6, 1951 (CAS); 1♀ Los Alpes, Feb. 19, 1961, J. Morales (INCO); 1♀ Sierra de Nahuelbuta, W. of Angol, 1200 m., Jan. 3, 1951, R. & M. (CAS); 1♂ Victoria, Dec. 30, 1919, F. Ruiz (INCO); 1♀ #34 Victoria, Dec. 30, 1929 (USNM). NUBLE: 1♂ Atacalco, Nuble, 600 m., Jan. 22, 1955 (BRAS); 1♂ (gen. prep.) Chillan. Dec. 26, 1961, Trampas (INCO); 1♀ Chillan, Nuble, Dec., 1964, J. Lopez (INCO); 1♀ Chillan, Jan. 9, 1962, Alister (INCO); 1♂ Chillan, Nuble, Dec. 12, 1963, M. Figueroa (INCO); 1♂ Chillan, Feb. 22, 1962, J. P. Lopez (INCO), 1♀ Chillan, Dec. 18, 1961, J. Lopez (INCO); 1♀ Chillan, Jan. 14, 1962, J. Lopez (INCO); 1♀ Nuble, March 29, 1964, J. Lopez (INCO); 4♂ Nohueche, Nuble, Dec. 15, 1953, L. E. Pena (USNM); 1♂ Nohueche, Nuble, Dec. 17, 1953, L. E. Pena (USNM); 1♂ 2♀ 50 km. E. of San Carlos, Dec. 26, 1950, R. & M. (CAS); 1♂ 15 km. E. of San Carlos, Dec. 23, 1950, R. & M. (CAS). O'HIGGINS: 1♀ Cortaderal, Feb., 1899, Schonemann S. (BERL); 1♀ Cortaderal, Feb. 10-13, 1899, Schonemann S. (BERL). SANTIAGO: 1♀ #20312 1♂ El Canelo, Santiago, Jan., 1950 (♀ BRAS;♂ MUNCH); 1♀ El Canelo, Santiago, Jan. 28, 1956, L.
Pena (BRAS); 1♂ #23467 El Canelo, Santiago, Dec., 1951 (BRAS); 1♂ #16 Perales, Santiago, Dec., 1925 (USNM). TALCA: 1♀ Las Mercedes, Jan. 9, 1935, F. Ruiz (USNM). VALDIVIA: 1♂ #20331 Panguipulli, Jan., 1945 (BRAS); 1♂ #20332 Panguipulli, Jan., 1945 (BRAS); 1♂ #20333 Panguipulli, Jan., 1945 (BRAS). VALPARAISO: 1♂ S. Slope Bell Mtn., 3000 ft., Dec. 17, 1950 (CAS). No locality or date: 1♂ Chile, E. C. Reed (USNM); 2♂ (JTM); 1♂ #1167, Jan. 23, 1958, J. O. R. (INCO).

**Geographic Distribution.** As shown in Fig. 415.

**Discussion.** Greased specimens appear black; in females the legs are slightly darker and some show little red marks on the femora. Two males from J. T. Medina Collection have labels in Philippi's handwriting: "Asilus venator n. sp."; this is a nomen nudum.

**Lochyrus frezieri** N. sp.

(Figs. 285, 287-290, 485)

**Type.** ♂, from Caramavida, Arauco, Jan. 1-6, 1954, L. E. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Similar to *L. crassus* (Bromley), from which it can be separated by the gray body with large areas of golden micropubescence on the thoracic pleura, mesonotum, and the dorsum of the abdomen; the
male genitalia as wide as the fourth abdominal segment, and the tip of the lower lobe of the epandria is generally directed posterolaterally (Fig. 288).

Description of Type (♂). Head in front view: face, frons, and vertex unevenly covered with sparse silver and yellowish micropubescence; frontal hairs long, black; ocelli light brown; black ocellar bristles abundant. Head in lateral view (Fig. 287): facial gibbosity appearing dark gray; mystax of abundant long black hairs, a few white hairs intermingled in center; antennae black, first and second segments with abundant medium-sized black hairs, longer on ventral side of first segment; beard of fine white hairs; postocular bristles black; 13-16 strong black occipital bristles arranged in a group on each side of vertex; proboscis black, with long fine white hairs on basoventral three-fourths, short yellowish hairs at tip; maxillary palpi black with long hairs at tip, most hairs on basal part white. Prothorax black with brownish micropubescence, hairs fine, white, sparse, more dense on prothoracic lobe; collar bristles black on dorsum, white on sides. Thoracic pleura with dense brownish micropubescence, fine long white hairs on sternopleura, pteropleura, and metepisterna; mesepimeral bristles light brown. Mesonotum covered with golden micropubescence on anterior three-fourths, posterior one-fourth with silver micropubescence except over central stripes and lateral spots, which appear black; central stripes divided by a dark brown line; vestiture of short, sparse, black hairs that are longer on posterior half of mesonotum, mainly between dorsocentral bristles; scutellum mostly covered with silver micropubescence except
in center, vestiture of fine medium-sized black hairs uniformly distributed; 10 strong black dorsocentral bristles, behind transverse suture a parallel row of 4–6 black bristles on inner side of dorsocentrals; 2 black notopleural bristles; 2 black intraalar bristles; 3 black postalar bristles, 1 weaker; 3 pairs of long black scutellar bristles.

Slopes of postmesonotum with silver micropubescence and medium-sized fine white hairs. Wings hyaline, fumose at apex; veins black, dark brown in costal area. Coxae similar in coverage to thoracic pleura, hairs mostly white, more abundant on anterior side of front coxae; femora black with a dark red ring before apex, vestiture of black and white hairs intermingled, long on front femora and on ventral side of middle and hind femora, hairs mostly black on hind femora; tibiae reddish brown, blackish apically, vestiture similar to femora but less abundant; tarsi black; bristles of legs black, a few reddish and shorter on middle femora and on tibiae. Claws black. Abdomen covered with silver micropubescence, distinctly brownish on dorsum of tergites; vestiture of short sparse black hairs, longer white hairs on dorsum of tergites 1–3, on sides of tergites, and on sternites; sternite 8 with dense black hairs and a posteriorly directed row of dense white hairs on posterior border; bristles on side of tergites light reddish. Genitalia black (Fig. 288, 290), vestiture of short white hairs and longer black sparse hairs; tip of lower lobe of epandria slightly directed outward; penis sheath as in Fig. 285, 289.
Female. Similar to male; last 3 abdominal segments with strong black hairs; ovipositor short, short yellow hairs on cerci.

This species is dedicated to Francisco A. Frezier, a French naturalist who arrived to Chile in 1712.

Measurements. Total length 13.2-21.8 mm., average 18.5 mm. [type 18.9 mm.]; wing length 9.3-13.5 mm., average 11.9 mm. [type 12.2 mm.]; wing width 2.4-3.7 mm. [type 3.4 mm.].

Material Examined. 46♂ and 47♀. ACONCAGUA: 1♀ Rio Blanco, Dec. 6, 1917, P. Hernst (INCO); 1♀ Rio Blanco, Aconcagua, Dec. 5-8, 1961, Pena (INCO). ARAUCO: 1♂ 2♀ Butamalal, Cord. Nahuelbuta, 1100-1400 m., Arauco, Jan. 23-31, 1954 (1♂ USNM; 1♀ INCO; 1♀ OTT); 1♂ [type] Caramavida, Arauco, Jan. 1-6, 1954, L. E. Pena (INCO); 1♂ Caramavida, Arauco, Dec. 31, 1953, L. E. Pena (OTT); 1♂ 1♀ Alto de Caucupil, 1300 m., Arauco, Jan. 8, 1954, L. E. Pena (INCO); 1♀ Contulmo, Dec. 22, 1904, Schonemann S. (BERL); 1♀ Contulmo, Dec. 17, 1903, Schonemann S. (BERL); 1♀ Contulmo, Jan. 4, 1903, Schonemann S. (BERL); 1♀ Peillen-Pilli, Cordillera de Nahuelbuta, 600-800 m., Arauco, Jan. 13, 1954, L. E. Pena (INCO); 2♂ 2♀ Pichinahuel, Arauco, 1200 m., Feb., 1956, L. E. Pena (1♂ 1♀ INCO; 1♂ 1♀ BRAS); 4♂ 2♀ Pichinahuel, Cord. Nahuelbuta, 1100-1400 m., Arauco, Jan. 31, 1954 (2♂ 1♀ OTT; 2♂ CEE; 1♂ 1♀ INCO); 1♀ Piedra del Aguila, Cord. de Nahuelbuta, Feb., 1963, Pena (INCO). BIO BIO: 1♀ El Abanico, BIO BIO, Dec. 30, 1950, R. & M. (INCO); 1♀ Longúimay, Jan. 9, 1962, Pena (CEE). CAUTIN: 1♂ 1♀ 10 mi. N. E. of Pucon, Jan. 12, 1951,

Geographic Distribution. As shown in Fig. 485.

Discussion. A ♀ from J. T. Medina collection has a label in Philippi's handwriting: "Asilus annulifer Ph. n. sp."; this is a nomen nudum.

Lycomyia Bigot

Lycomyia Bigot, 1857, 288.


Type of the genus: Lycomyia germainii Bigot, 1857, by monotypy.

Head in front view one-third wider than high; vertex deeply sunken, borders more or less parallel; ocellarium elevated, large, with a few short ocellar bristles, ocelli large. Head in lateral view (Fig. 292): postocular area one-tenth the eye width; face flat, slightly produced at oral border; proboscis depressed in apical one-fourth; antennae long,
as long as height of eyes; first antennal segment 3 times the length of second; third antennal segment very long, one and one-half to 2 times the length of the first 2 combined, slightly attenuated at tip, slightly compressed, with a short cylindrical microsegment and a 3-times longer terminal style bearing a short terminal spine; mystax reduced to oral border. Mesonotum with no distinct patterns; vestiture of a few short weak hairs; 4-5 dorsocentral bristles, similar to the hairs surrounding them. Scutellum with a few weak hairs close to the row of 2-3 pairs of scutellar bristles. Slopes of postmesonotum with a group of weak medium-sized hairs. Marginal and fourth posterior cells closed and stalked; R₄ reaching wing border before apex; R₅ and R₄₊₅ aligned, ending behind wing apex; anal cell closed with a short stalk; M₃ and base of m forming a 90° angle. Front tibial spur absent. Abdomen long, narrow, more or less cylindrical; 4-6 bristles on sides of tergites. Wings usually reaching tip of abdomen. Male genitalia of moderate size, not rotated, as broad as the preceding segment; hypandrium short; epandrium of moderate length with 2 distal notches and 2 fingerlike processes bent 90° toward the midline: gonopods short, with a long dististylus. Female genitalia short, conical, including segments 8; no spines on ovipositor.

Distribution. Neotropical (Chile), 1 species, Lycomyia germainii Bigot.

For some time there have been differences of opinion regarding the position of the genus Lycomyia; Carrera (1948:423-426) placed it in the subfamily Asilinae, and Hull (1962:535) followed Carrera's recommendation.
In spite of its close resemblance to the species of Laphriinae, this genus has all the characteristics of Asilinae.

Lycomyia germainii Bigot  
(Figs. 291-295, 297, 409)

Lycomyia germainii Bigot, 1857, pp. 290-291, Pl. 6, fig. 3 a-b, Chile.
Lycomyia germainii Bigot. Osten Sacken 1891, p. 419, Chile, Argentina;
Schiner 1891, p. 419; Kertesz 1909, p. 208, Chile, Argentina;
Bromley, 1932, p. 269; Stuardo, 1946, p. 84; Carrera & Vulcano,
1961, p. 76, Parque Nac. Lenin, Pucara, Argentina; Hull, 1962,
p. 536, figs. 367, 754, 1402, 1411, 1566, 2197, 2289, 2358 and
2504.

Lycomyia germainii Bigot. Philippi, 1865, pp. 694-695; Schiner, 1866,
p. 706, Chile; 1868, p. 169, Chile; Carrera 1948, p. 424-427,
fig. 1-2, Valdivia, Panguipulli.

Type. A♂, #214, Coll. Bigot, Type Dip.:227 1/4 is hereby
designated as lectotype; the lectotype and the cotypes (3 ), are in
Hope Department of Entomology, Oxford University, England.

Diagnosis. Body long; thorax and legs blackish; abdomen red; third
antennal segment long; face golden; mystax and hairs of coxae yellowish;
hairs on abdomen reddish; bristles of notum black; wings hyaline, fumose
at apex; genitalia similar in color to abdomen.
Description of Lectotype (♂). Head in front view: face and frons with dense golden micropubescence, except around base of antennae, more sparse in frons; 3-4 black frontal hairs; ocelli yellow; ocellar bristles short, weak, black, strongly proclinate. Head in lateral view (Fig. 292): face golden, darker on lower half; mystax of dense white hairs; antennae dark brown, first and second segments with short black hairs; beard scarce. Short black hairs on ventral border of eyes and yellowish brown hairs on lower part of postocular area; postocular area covered by micropubescence which is yellow around foramen magnum, silver along eye borders, and black in between, vestiture of sparse short weak black hairs; postocular bristles black; 4 strong black occipital bristles, intermingled with few shorter finer hairs; proboscis black, with fine sparse medium-sized white hairs on basal ventral part, short yellow hairs at tip; maxillary palpi black with black hairs. Prothorax dark brown with a few small areas of dark golden micropubescence, hairs short, weak, sparse; collar bristles black. Thoracic pleura shiny dark brown; 3 long brown hairs on metepisterna; 4 long brown mesepimeral bristles and a tuft of black hairs above the bristles. Mesonotum blackish with a few areas of weak silver micropubescence on front and posterior borders, vestiture of a few short black hairs; in lateral view some dark golden micropubescence can be distinguished over central area of mesonotum; 5 black dorsocentral bristles; 3 long black notopleural bristles; 4 black intraalar bristles, 3 close together, 1 separated; 3 black postalar bristles; 2 pairs of reddish brown scutellar bristles. Slopes of postmesonotum with silver micropubescence, hairs fine, medium-sized, golden. Wings (Fig. 297) hyaline, fumose in apical one-third; veins
dark brown. Coxae dark brown with white hairs and bristles, more abundant on anterior side of front coxae, scarce on hind coxae; femora, tibiae, and tarsi dark brown, femora lighter on ventral side; vestiture of legs consisting of short fine appressed yellow hairs, less dense on ventral side of femora, bristles black, a few on femora dark reddish brown. Claws black. Abdomen red; anterior border of first and second tergites black, a large triangular spot of dense silver micropubescence on anterior side of second tergite; vestiture of reddish, medium-sized, appressed hairs, bristles reddish; sternite 8 with 2 tufts of red hairs directed ventrally. Genitalia (Fig. 291, 294) similar in color to tergites, vestiture of short black hairs; penis sheath as in Fig. 293.

Female. Similar to male; ovipositor as in Fig. 294, 295, with hairs similar to those of abdomen.

Measurements. Total length 23.0-32.2 mm., average 26.5 mm. [lectotype 23.2 mm.]; wing length 16.1-22.5 mm., average 19.8 mm. [lectotype 16.2 mm.]; wing width 2.9-4.5 mm., average 3.1 mm. [lectotype 2.9 mm.].

Material Examined. 20♂ and 21♀. ARAUCO: 1♀ Caramavida, Arauco, Dec. 31, 1953, L. E. Pena (OTT); 1♀ Contulmo, Feb. 19, 1904, Schonemann S. (BERL); 2♂ Contulmo, Dec. 19, 1903 (BERL); 1♀ Contulmo, Nov. 29, 1903, Schonemann S. (INCO); 1♂ Contulmo, Dec. 15, 1904, Schonemann S. (INCO); 2♂ Peillem-Pilli, Cord. Nahuelbuta, Arauco, 600-800 m., Jan. 13,
Geographic Distribution. As shown in Fig. 409.

Prey. Pompilidae (Hym.) (Carrera & Vulcano, 1961:76)

Discussion. Most of the specimens studied have the thorax black, and the legs dark, almost black, with the ventral side of the femora lighter; sometimes the femora are distinctly lighter on the ventral side.

Mallophora Macquart


Type of the genus: Asilus bomboideus Wiedemann, 1821, designated by Coquillett, 1910.

Head in front view two-fifths wider than high; vertex deeply sunken; ocellarium small, low; ocelli small. Head in lateral view; postocular area one-fifth the eye width; face flat, strongly produced toward oral border; antennae long, third segment fusiform, longer than the two preceding combined, with a long terminal style, longer than third segment, with a short spine at tip; mystax occupying half of face, with long stout bristles near oral border and shorter and weaker hairs scattered on upper part. Mesonotum uniformly colored, not patterned; mesonotal covering of short scattered hairs; mesopleura with a well developed
pointed process on subalare, this character unique for the genus (Fig. 300). Scutellum with abundant dense long hairs directed dorsally; scutellar bristles not distinct. Slopes of postmesonotum with micropubescence or pile. Marginal cell closed with a short stalk; fourth posterior cell closed with a long stalk; $R_4$ and $R_5$ connected by a cross vein forming a third submarginal cell; $R_4$ ending before wing apex, $R_5$ ending behind wing apex; anal cell closed and stalked; $M_3$ and $m$ forming a $110^\circ$ angle. Front tibial spur absent. Abdomen short, broad, tapered, with abundant pile. Wings extending far beyond end of abdomen. Male genitalia small, not rotated; hypandrium short; epandria forcepslike, moderately elongated, slightly tapered. Female genitalia compressed, no spines.

**Distribution.** Neartic, Neotropical, 112 species; 1 species in Chile, *Mallophora freycineti* Macquart.

*Mallophora freycineti* Macquart

(Figs. 296, 298-300, 413)

*Mallophora freycineti* Macquart, 1838, p. 85, Brasil; 1846, p.77, Nouvelle Granade, Colombia; Walker, 1855, p. 579, Brasil; Williston, 1901, p. 319; Aldrich, 1905, p. 278; Bromley, 1934, p. 348; James, 1953, p. 53, Honduras; Hull, 1962, p. 469; Martin, 1965, p.34.
Type. ♀, Brasil; supposed to be in Museum National d'Histoire Naturelle, Paris, France, but according Martin (1965:34) is not there (not seen).

Diagnosis. Large stout species; hairs abundant, black; a line of white hairs on ventral border of eyes, more abundant and longer in 
; a few white hairs intermingled with the black mystax; occipital hairs mostly yellowish; maxillary palpi with long, white, hairs on basoventral part of apical segment, more distinct in .

Male. Head in front view: face and front shiny black, a line of silver or golden micropubescence along eye borders on face; mystax of sparse bristlelike black hairs, more abundant near oral border, a few white hairs intermingled in center of mystax, a few sparse short whitish hairs on dorsal side of mystax and near base of antennae; frontal bristles short, yellow, located near eye borders; ocellarium black, ocelli light brown; ocellarium with abundant short yellow hairs directed radially. Head in lateral view (Fig. 296): face shiny black; antennae black, first and second segments with a few short black hairs; beard of abundant dense white hairs in front and black hairs posteriorly; occipital area black with a broad white line on posterior border of eyes, vestiture of fine black hairs in center and white hairs on eye borders and behind ocellarium; occipital bristles black, located in a group of 3-4 on each side of vertex; proboscis shiny black with long black hairs on basoventral part and short yellow hairs at tip; maxillary palpi dark brown with abundant bristlelike black hairs, white hairs on
basoventral part of apical segment. Prothorax black with abundant fine black hairs; 4-6 pairs of black collar bristles. Thoracic pleura black, with dark brown micropubescence on borders of sclerites, and covered by fine black hairs; mesepimeral bristles fine, abundant, dense, black. Mesonotum velvety black, with short sparse black hairs, longer along borders; humeral and posterior calli dark brown; scutellum black, covered with dense long black hairs; 3 short black notopleural bristles; 1 short black intraalar bristle; 2 black postalar bristles. Slopes of postmesonotum with dark brown micropubescence between slopes and mesepimera. Wings (Fig. 298) dark brown, darker on costal border and near base, usually with purple highlights on dark areas. Legs dark brown, posterior femora more slender than front and middle femora; posterior tibiae stronger than front and middle tibiae; femora with abundant black bristles, more abundant in middle femora; femora and tibiae covered with abundant fine black hairs, longer and more dense on posterior tibiae; tarsi similar in vestiture to tibiae. Claws blunt (Fig. 299), black. Abdomen black, covered with abundant black hairs, longer on lateral and ventral sides. Genitalia black with black hairs.

**Female.** Similar to male; white hairs on head less abundant and noticeable; ovipositor short, segment 8 small, conical, segment 9 minute, with short yellow hairs.

**Measurements.** Total length 24.0-27.0 mm., average 25.5 mm.; wing length 25.0-27.0 mm., average 25.8 mm.; wing width 8.0-9.0 mm., average 8.3 mm.
Material Examined.  2♂ 3♀. Brasil: 1♂ #851 Barneri, March 20, 1955, K. Lenko (BRAS); 1♂ Barneri, Jan. 6, 1955, K. Lemko (BRAS); 2♀ #21298 and 21299, Est. S. Paulo, Llaporanga, N. B. Antonina, Barreto Col. (BRAS). Chile, TARAPACA: 1♀ Azapa, M. Etcheverry (INCO).

Geographic Distribution. From Honduras to Brasil and northern Chile (Fig. 413).

Discussion. This is the first record of Mallophora in Chile. This species keys out to Mallophora nitidula Hermann in Curran’s (1934) key to the neotropical species of Mallophora in the American Museum of Natural History.

Hull (1962:469) considers M. freycineti as a synonym of M. infernalis Wiedemann (1821).

Megametopon n. gen.

Type of the genus: Asilus occidentalis Philippi, 1865.

Head in front view one-sixth wider than high; vertex deeply sunken; eyes close together over ocellarium, leaving a separation narrower than center of frons; ocellarium large, ocelli large. Head in lateral view: postocular area one-sixth the eye width; facial gibbosity prominent, occupying three-fourths of face; occipital bristles abundant, bent, forming a right angle; second antennal segment one-half the length of first; third antennal segment one-fourth longer than first, compressed, tapered
toward apex, with a few short hairs on dorsal border; a rather thick, gently tapered terminal style, which is three-fourths the length of third segment, and bears a short apical spine; mystax of long, strong, bristlelike hairs, arising only from central area of facial gibbosity. Mesonotum elevated along midline; central stripes and lateral spots present; vestiture of abundant long hairs, longer along midline behind transverse suture; 7-12 distinct dorsocentral bristles. Scutellum with scattered long hairs directed dorsally, 3-4 pairs of long scutellar bristles. Slopes of postmesonotum with micropubescence that often resembles short villi. Marginal and fourth posterior cells closed and stalked; \( R_4 \) and \( R_5 \) parallel for most of their length; \( R_4 \) angulated at base, with a stump vein which is very seldom indistinct or lacking; \( R_4 \) reaching wing border shortly before wing tip, \( R_5 \) reaching wing border behind tip; anal cell closed near wing border, usually with a very short stalk; \( M_3 \) and \( m \) forming a 90°-100° angle. Front tibial spur absent; no bristles on front femora. Abdomen tapered in males; in females compressed from segment 4, sometimes from posterior one-half of second segment. Wings usually reaching tip of abdomen. Male genitalia small, not rotated; hypandrium short; epandrium moderate size, slightly compressed in terminal third; gonopods short, globose. Female genitalia long, pointed, ovipositor strongly compressed, bladelike, including segments 6-9; no spines on ovipositor, but a single row of short, spine-like bristles on ventral border of tergite 9.

**Distribution.** Neotropical (Chile), 2 species.
This genus is close to *Nesiotes*, n. gen. from which it can be separated by the angulated base of $R_4$, and the entire first tergite; in *Nesiotes* $R_4$ is gently curved at its origin and the first tergite has a distinct depression on the middorsal line (Fig. 345).

The name *Megametopon* refers to the large face and frons (μεγα = big; μετώπον = forehead).

Key to the Species of *Megametopon*

1. Thoracic pleura and sides of abdominal tergites blackish, with gray micropubescence; penis sheath as in Fig. 311 ...........
   . . . . . . . . . . . . . . . M. occidentale (Philippi)
1'. Thoracic pleura and sides of abdominal tergites brownish with abundant areas of golden micropubescence; penis sheath as in Fig. 304. . . . . . . . . . . . . . . . M. immisericorde n. sp.

*Megametopon* immisericorde n. sp.
(Figs. 301-304, 422)

Type. ♀, 79, Perales, Santiago, Jan. 26; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Similar to *M. occidentalis*, from which it can be separated by the golden micropubescence on the thoracic pleura and abdomen; the definitive character is the shape of the penis sheath.
Description of Type (♂). Head in front view: face with golden micropubescence, except on center of facial gibbosity; frons and vertex black; ocellarium with sparse golden micropubescence; frontal hairs black; ocelli yellowish; ocellar bristles black. Head in lateral view: facial gibbosity dark golden; mystax black, with yellow hairs intermingled on oral border; antennae black, first and second segments with black hairs, basal one-sixth of third segment reddish; beard yellow; postocular area unevenly covered with golden micropubescence, hairs fine, yellow; occipital bristles long, hairlike, bent frontwards, the area where occipital bristles are located appearing devoid of micropubescence; postocular bristles mostly black; proboscis shiny black, with sparse fine yellowish hairs on basal three-fourths; maxillary palpi black, hairs black on basal part, fine yellow hairs. Prothorax with golden micropubescence and sparse yellow hairs; collar bristles black, intermingled with a few black hairs. Thoracic pleura unevenly covered with golden micropubescence and a few fine yellow hairs; a few black hairs on dorsal side of mesopleura; mesepimeral bristles yellow. Mesonotum with golden micropubescence except on central stripes and lateral spots, which are dark brown; micropubescence on humeral calli, posterior calli, postocentral area, and scutellum grayish golden; central stripes fused in one broad band; vestiture of mesonotum of black hairs, longer and more dense on middorsal line, mainly in postocentral area; scutellum with sparse fine black hairs; 3 strong black notopleural bristles; 2 black intraalar bristles, 1 weaker; 2 black postalar bristles, 1 weaker; 4 pairs of fine black scutellar bristles. Slopes of postmesonotum with silver micropubescence. Wings hyaline, slightly fumose at tip; veins mostly reddish
brown; membrane rippled in marginal and submarginal cells. Coxae similar in coverture to thoracic pleura, hairs yellow, less abundant on hind coxae; femora tibiae, and tarsi black, vestiture of short, appressed yellow hairs, a few longer and erect on front femora, with abundant black hairs intermingled; bristles black. Claws black. Abdomen covered with grayish golden micropubescence, dark gold on dorsum of tergites; vestiture short, black hairs on dorsum and longer yellow hairs on sides of tergites; sternites with yellowish and black hairs intermingled, mostly black toward the last sternites; sternite 8 with a tuft of black hairs directed ventrally. Genitalia (Fig. 301, 302, 303) shiny black, hairs black; penis sheath as in Fig. 304.

**Female.** Similar to male; ovipositor dark brown, hairs mostly black.

The name *immisericorde* refers to the predatory habits of the species.

**Measurements of Type.** Total length 18.5 mm.; wing length 13.1 mm.; wing width 3.6 mm. Paratypes similar in size.

**Material Examined.** 2♂ and 2♀. SANTIAGO: 1♂ (gen. prep.) Santiago (INCO). VALPARAISO: 1♂ #79 [type] Perales, Santiago, Jan. 26 (INCO); 1♀ Valparaíso, Dec. 3, 1919, P. Herbst (INCO). No locality or date: 1♀ E. P. Reed (INCO).

**Geographic Distribution.** As shown in Fig. 422.
Prey. *Halictus* sp. (Hym.)

Discussion. This species can be separated from light specimens of *M. occidentalis* by the shape of the penis sheath (Fig. 311).

*Megametopon occidentale* (Philippi) n. comb.

Figs. 305-311, 430


Type, lost. A neotype is hereby designated as a from 12 km. N. E. of Pucon, 380 m., Jan. 12, 1951, R. & M.; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body black, sides of thorax and abdomen with gray micropubescence; legs and male genitalia shiny black; sternite 8 of males with a tuft of black hairs directed ventrally; ovipositor shiny black or dark brown, bladelike.

Description of Neotype (♂). Head in front view: face, frons, and vertex with dark gray micropubescence, yellowish on lower sides of face; frontal hairs long, black; ocellarium reddish black; ocellar bristles long, black. Head in lateral view (Fig. 306): facial gibbosity dark gray; mystax black with a few yellow hairs intermingled near oral border, dorsals hairs of mystax contacting antennal hairs; antennae black, first
and second segments with black hairs; beard yellow; postocular area
with dark gray micropubescence, vestiture of fine white hairs; occipital
bristles long, bent forward in a 90° angle, black, mixed with long black
hairs similarly bent; proboscis black with sparse fine white hairs on
ventral side, short yellow hairs at tip; maxillary palpi black with black
hairs. Prothorax with gray micropubescence and white hairs; collar bris-
tles black. Thoracic pleura unevenly covered with grayish micropubescence
and sparse fine whitish hairs; mesepimeral bristles yellow. Mesonotum
with gray micropubescence except on central stripes and lateral spots;
central stripes fused in one broad central stripe; vestiture of sparse
black hairs, longer on middorsal line; 10-12 long black dorsocentral
bristles; 3 black notopleural bristles; 2 black intraalar bristles; 1-2
postalar bristles; scutellum similar in coverture to mesonotum, vestiture
of sparse fine black hairs; 2 pairs of black scutellar bristles. Slopes
of postmesonotum with grayish micropubescence. Wings (Fig. 305) hyaline,
fumost at tip; membrane rippled in marginal and submarginal cells; veins
dark brown, reddish in basal area. Legs shiny black, with fine yellowish
hairs that are longer on femora and coxae; bristles strong, black. Claws
black. Abdomen dark gray, lighter on posterior border of tergites, ves-
titure of short black hairs on dorsal side and longer yellow hairs on
sides of tergites and on sternites; sternite 8 with a tuft of black hairs
directed ventrally. Genitalia shiny black, hairs black (Fig. 307, 310);
penis sheath as in Fig. 311.
Female. Similar to male; ovipositor shiny black (Figs. 307-309).

Measurements. Total length 12.0-18.4 mm., average 13.4 mm. [neotype 12.1 mm.]; wing length 9.2-11.3 mm., average 10.1 mm. [neotype 9.2 mm.]; wing width 2.3-3.0 mm., average 2.6 mm. [neotype 2.4 mm.].

Material Examined. 13♂ and 46♀. ACONCAGUA: 1♀ Zapallar, Aconcagua, Dec. 15, 1950, R. & M. (CAS); 1♂ 10 km. E. of Zapudo [sic], Aconcagua, Nov. 28, 1950 (CAS). ARAUCO: 1♂ 2♀ Contulmo, Dec. 1, 1905, Schonemann S. (INCO); 1♂ Contulmo, Jan. 1, 1903, Schonemann S. (INCO); 1♂ Contulmo, Feb. 4, 1904, Schonemann S. (BERL); 1♀ Contulmo, Dec. 12, 1903, Schonemann S. (BERL); 1♂ Contulmo, Feb. 6, 1904, Schonemann S. (BERL); 1♂ 2♀ Contulmo, Jan. 9, 1905, Schonemann S. (BERL); 2♂ Contulmo, Jan. 4, 1905, Schonemann S. (BERL); 1♀ Contulmo, Feb. 13, 1903, Schonemann S. (BERL); 1♂ 1♀ Contulmo, Jan. 12, 1905, Schonemann S. (BERL); 1♀ Contulmo, March 6, 1903, Schonemann S. (BERL); 1♂ Contulmo, Feb. 2, 1903, Schonemann S. (BERL); 1♀ Contulmo, Jan. 5, 1903, Schonemann S. (BERL). CAUTIN: 2♂ [1 neotype], 1 (gen. prep.), 1♀ 12 km. N. E. of Pucon, 380 m., Jan. 12, 1951, R. & M. (INCO); 1♀ (gen. prep.) 10 m. N. E. of Pucon, Jan. 12, 1951, R. & M. (INCO); 2♀ 10 mi. N. E. of Pucon Jan. 12, 1951, R. & M. (CAS); 2♀ 20 km. E. of Temuco, Cautin, Jan., 1951, H. Smith (CAS). CONCEPCION: 1♂ 2♀ (1 gen. prep.) Concepcion, 1903, P. Herbst (INCO); 1♀ Concepcion, March 4, 1959, Trampas (INCO); 1♀ Concepcion Oct. 15, 1955, Rebolledo (CAS); 1♀ Lota, Jan., 1944 (BERL); 1♀ Lota-Coelemu, April 9, 1961, Orellana (INCO); 1♀ Manquimavida, May 2, 1960, A. R. (INCO). CURICO: 1♀ Estero La Jaula, Los Quenes, Curico, Jan. 4-18, 1964, L. E. Pena (INCO); 2♂ Los Niches, 11 km. E. of Curico, Dec. 20-30, 1963, L. E.

Geographic Distribution. As shown in Fig. 430.

Discussion. Most of the specimens studied are similar to the neotype; some are lighter, with the micropubescence on the face, mesopleura, and abdomen yellowish; the hairs and veins are also lighter; these specimens are difficult to separate from immisericorde, the definitive character is the shape of the penis sheath (Fig. 311). Specimens from southern localities are usually darker. One male has the hairs of sternite 8 yellow; this characteristic is also present on the male genitalia attached to the ♀ recorded as: 1♀ (gen. in copula) and shown in Fig. 307.
Menexenus n. gen

Type of the genus: Asilus concepcionensis Bromley, 1932.

Head in front view one-fifth wider than high; vertex deeply sunken; ocellarium of moderate size, ocelli large. Head in lateral view: postocular area one-eighth the eye width; facial gibbosity reduced to a more or less rounded elevation on oral margin, occupying the lower one-third of face; first antennal segment one and one-half times the length of second; third segment moderately compressed, tapered, one and one-fourth times the length of first, with a short microsegment which sometimes is minute and difficult to see, and with a terminal style one-half or three-fourths the length of the segment, with a short apical spine; mystax sparse, long, restricted to center of facial gibbosity, and continued as a row of bristles on each side of oral border, mixed with shorter hairs. Mesonotum with distinct central stripes and lateral spots; vestiture of short, reclinate, sparse hairs; 4-7 dorsocentral bristles intermingled with bristlelike hairs. Scutellum with scattered medium-sized hairs; 1 pair of long distinct scutellar bristles. Slopes of postmesonotum with a group of medium-sized white hairs. Marginal and fourth posterior cells closed, with a stalk; fork of $R_{4+5}$ usually symmetrical; $R_4$ sometimes slightly angulated at base, ending shortly before wing apex; $R_5$ ending behind wing apex; anal cell closed near wing border, usually with a minute stalk; $M_3$ and $m$ forming a 90° angle. Front tibial spur absent. Abdomen more or less
cylindrical. Wings in females reaching tip of abdomen, shorter in males. Male genitalia not rotated, moderate to large, in dorsal view more or less rounded (Fig. 340 and 341); in lateral view somewhat depressed (Fig. 339 and 342); epandrium forceplike with a deep notch on distal border; in dorsal view the notch is surrounded by a depressed area; hypandrium short; gonopods long, apical one-half tapered, completely visible from a ventral view. Female genitalia short; seventh segment not modified; tergite 8 attenuated; tergite 9 short, narrow; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 2 species.

This genus is close to *Heligmoneura* Bigot, from which it can be separated by the structure of the male genitalia and the ovipositor, as shown in Figs. 339-342, and in Hull, 1962, Figs. 2262, 2339, 2366, and 2378 (*Heligmoneura modesta* Bigot). According to Hull, 1962:582, *Heligmoneura* is Paleartic, Ethiopian, Oriental, and Australian in distribution.

The genus name is the name of an Athenian pupil of Socrates.

**Key to the Species of Menexenus**

1. Epandria in dorsal view appearing as a posteriorly truncated club, wider than the preceding abdominal tergite (Fig. 340); epandria bent mesad distally in right angle; penis sheath as in Fig. 337
   
   \[ \ldots \ldots \ldots \ldots \ldots \ldots \ldots M. concepcionensis \] (Bromley) n. comb
1'. Epandria in dorsal view as an elongated club, as wide as or only slightly wider than the preceding abdominal tergite; epandria gently bent mesad distally (Fig. 341); penis sheath as in Figs. 343, 344. . . . . . . . . . . . . . . . M. veredus n. sp.

Note: Females are very difficult to separate; only the more grayish color of the mesopleura and abdomen, and the darker femora of veredus could be of some help.

Menexenus conceptionensis (Bromley) n. comb.

(Figs. 334-340, 408)


Heligmoneura conceptionensis (Bromley). Stuardo, 1946, p. 85.

Type. ♂, from Concepcion, in British Museum, London, England (not seen).

Diagnosis. Body brown; abdomen covered with gray micropubescence; legs brown; mystax yellow and black, mostly yellow in lower one-half; epandria curved mesad.

Male. Head in front view: face, frons, and vertex covered with golden micropubescence, more dense on face; 6–8 black frontal bristles;
ocellarium with sparse golden micropubescence, ocelli reddish yellow; ocellar bristles medium-sized, black, proclinate. Head in lateral view (Fig. 335): face golden; mystax entirely yellow or with 7-10 black hairs on upper part; antennae dark brown, first segment mostly black; first and second segments with sparse silver micropubescence and dark brown hairs concentrated on dorsal and ventral sides; beard of sparse fine long yellowish hairs; postocular area unevenly covered with gray and silver micropubescence, vestiture of fine yellowish hairs, concentrated near eye borders; 6-0 fairly yellow postocular bristles; 5-6 occipital bristles that are mostly yellow (a few black), bent forward in right angle; proboscis shiny black, slightly depressed apically, fine long white hairs on lower ventral part, short golden hairs at tip; maxillary palpi black with long fine yellow hairs. Prothorax reddish brown, covered with silver and golden micropubescence and with sparse fine yellow hairs; collar bristles yellow. Thoracic pleura similar in color and coverture to prothorax, hairs sparse, fine, yellowish; 9-12 long yellow mesepimeral bristles. Mesonotum covered with golden gray micropubescence except on the 2 central stripes and on lateral spots which appear distinctly dark brown; central stripes cuneiform, ending posteriorly immediately behind transverse suture; vestiture of short sparse black hairs except on stripes and spots; fine white hairs on humeral calli, 1-3 stronger black hairs usually present; scutellum with golden gray micropubescence and sparse short fine black hairs; 4-7 black dorsecentral bristles; 2 black notopleural bristles; 3 black intraalar bristles, 2 together, 1 apart; 2 black postalar bristles;
1 pair of fine medium-sized black scutellar bristles. Slopes of post-
mesonotum with silver micropubescence and fine long yellowish hairs. Wings
(Fig. 334) hyaline; veins dark brown, and R₁ light brown. Coxae similar
in coverture to thoracic pleura, hairs and bristles yellowish, more
abundant on anterior part of front coxae, scarce on hind coxae; femora,
tibiae, and tarsi brown, darker on dorsal side of femora, apex of tibiae,
and apex of tarsal segments; femora covered with sparse appressed short
yellowish hairs; tibiae with short black and yellow hairs intermingled;
tarsal hairs mostly black; a few long fine white hairs on ventral and
lateroventral sides of femora and tibiae, more abundant on front tibiae,
scarce or absent on hind tibiae; bristles of legs mostly medium-sized,
black, some long yellow bristles on front and middle tibiae and tarsi.
Claws black, reddish brown on basal one-fifth. Abdomen covered with
dense light gray micropubescence, usually brown on dorsum or on laterodorsal
area of tergites; vestiture of short fine sparse black hairs, longer hairs
on sides of tergites and on sternites; lateral bristles of tergites yellow,
distinctly longer on first tergite. Genitalia (Fig. 339, 340) reddish
brown and black, with long yellow hairs; epandria recurved apically toward
midline or bent at a 90° angle (Fig. 340); penis sheath as in Fig. 338, 338.

Female. Similar to male; abdomen usually dark gray, bristles of sides
of tergites mostly black; tergite 8 dark reddish in part; hairs of
ovipositor (Fig. 336) mostly black, some long; hairs on cerci yellow.
Measurements. Total length 14.2-18.1 mm., average 16.1 mm.; wing length 9.6-13.5 mm., average 12.0 mm.; wing width 2.6-3.1 mm., average 3.0 mm.


**Geographic Distribution.** As shown in Fig. 408.

**Discussion.** The proportion of black hairs on the mystax varies from two-thirds to one-half; these hairs are always concentrated on the upper part of the mystax. The body appears blackish in greased specimens. The color of the dark areas of the legs varies from dark brown to black.

**Menexenus veredus** n. sp.  
(Figs. 341-344, 424)

**Type.** from El Canelo, Dec. 21, 1952, E. Z. B.; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

**Diagnosis.** Similar to *M. concepcionensis*, from which it can be separated by the gently curved epandria (Fig. 341) and the shape of the penis sheath (Fig. 344).

**Description of the Type (♂).** Head in front view: face, frons, and vertex with silver micropubescence, more dense on face; 6 black medium-sized frontal hairs; ocellarium with pubescence like that of frons, ocelli reddish black; ocellar bristles medium-sized, strongly proclinate. Head in lateral view: face silver, mystax of white hairs, 5 strong and 10 fine black hairs dorsally and 3 black hairs laterally; antennae black with
sparse silver micropubescence, first and second segments with short black hairs, mostly on dorsal and ventral sides; beard of fine, sparse white hairs; postocular area unevenly covered with silver micropubescence, vestiture of fine yellowish hairs, mostly concentrated near eye borders; postocular bristles black on upper part, yellow on lower part; 5 black occipital bristles on each side of vertex; proboscis black with fine white hairs on posteroventral one-half, short yellow hairs at tip; maxillary palpi black, hairs white, a few black longer hairs at tip. Prothorax reddish and black covered with silver micropubescence and sparse fine long white hairs; collar bristles yellow, 1 black. Thoracic pleura similar in coverture to prothorax, only a few fine white hairs; 8-10 mesepimeral bristles, mostly yellow, 2-3 black. Mesonotum covered with gray micropubescence except on central stripes and lateral spots which appear dark brown bordered by a light brown line; vestiture of short sparse black hairs; scutellum with gray micropubescence and sparse short fine black hairs; a few short fine white hairs on humeral calli; 5 black dorsocentral bristles; 1 pair of black scutellar bristles directed dorsally. Slopes of postmesonotum reddish, with silver micropubescence and fine white hairs. Wings hyaline, veins dark brown. Coxae similar in coverture to thoracic pleura, with white hairs and bristles which are more abundant on anterior part of front coxae and scarce on hind coxae; femora, tibiae, and tarsi brown, darker on dorsal side of femora, apex of tibiae, and apex of each tarsal segment; vestiture of short appressed yellowish hairs; a few long hairs on middle and front femora and tibiae, more abundant on
front femora and tibiae; bristles of hind legs black; bristles of middle and front legs yellow with a few black bristles intermingled; long yellow bristles present on front and middle tibiae; tarsal bristles black. Claws black, basal one-fifth reddish. Abdomen reddish, covered with gray micropubescence; tergites appearing gray, sternites reddish; vestiture of short sparse fine black hairs on dorsum of tergites, and yellow, longer, sparse on sides of tergites and on sternites; lateral bristles of tergites yellow. Male genitalia (Fig. 341, 342) reddish and black, hairs long, yellowish; epandria gently curved (Fig. 341); penis sheath as in Fig. 343, 344.

Female. Unknown.

The name _veredus_ refers to the hunting habits of the species.

**Measurements of Type.** Total length 13.9 mm.; wing length 9.0 mm.; wing width 2.6 mm. Paratypes similar in size.

**Material Examined.** 4♂. SANTIAGO: 3♂ [1 type], (1 gen. prep.) El Canelo, Dec. 21, 1959, E. Z. R. (INCO); 1♂ El Canelo, Jan. 28, 1956, L. Pena (BRAS).

**Geographic Distribution.** As shown in Fig. 424.
Discussion. The color of the legs varies from light brown to dark brown; the coverture of the abdominal tergites appears light gray in one paratype, dark in the remaining specimens.

**Myaptex** Hull


Type of the genus: *Myaptex hermanni* Hull, by original designation.

Head in front view one-third wider than high; vertex deeply sunken; ocellarium moderately large, ocelli small. Head in lateral view: postocular area one-seventh of eye width; facial gibbosity prominent, rounded, occupying two-thirds of face; first antennal segment two and one-half times the length of second, which is almost beadlike; third segment compressed, strongly attenuated toward apex, as long as or longer than first segment, with a short cylindrical microsegment, style slightly dilated on apical one-third, nearly one and one-half times the length of third segment, with a short spine at tip (Fig. 317); mystax of hairs and bristles intermingled, bristles longer than hairs. Mesonotum with distinct central stripes and lateral spots; vestiture of short and long bristlelike hairs intermingled, 12-14 distinct dorsocentral bristles, arranged in one row in front of transverse suture and in 2-3 rows behind the suture. Scutellar vestiture variable, a few long hairs or hairs and bristles
intermingled; scutellar bristles variable, usually 1 or 2 pairs, or several not forming a row. Slopes of postmesonotum with micropubescence only. Marginal and fourth posterior cells closed and stalked; \( R_4 \) and \( R_5 \) parallel for most of their length, \( R_4 \) ending before wing tip and \( R_5 \) behind wing tip; anal cell closed with a short stalk; \( M_3 \) and \( m \) forming a 90° angle. Front tibial spur absent; 6-9 strong bristles on lateroventral side of posterior femora. Abdomen cylindrical in males, tapered in females; first tergite depressed on midline. Male wings reaching tip of abdomen or slightly shorter, females always with shorter wings. Male genitalia large, conspicuous, not rotated, usually forming a 40° to 90° angle with abdomen, variable in shape; hypandrium short; epandrium medium-sized to large, globose or slightly compressed and elongated; gonopods short globose or elongated, from a lateral view more or less tapered; penis sheath ending in two long whiplike processes (Figs. 315, 320, 326, 330). Female genitalia long, compressed, pointed; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 4 species.

### Key to the Species of *Myaptex*

1. Scutellum with 1 or 2 pairs of scutellar bristles located on posterior border; scutellar disc with weak scattered medium-sized hairs, never forming dense patches . . . . . . . . 2
1'. Scutellum with a dense patch of long fine white hairs on each side; central area with 10-16 bristlelike black hairs which are similar to the scutellar bristles. M. vexillaria n. sp.

2(1). Epandria long, narrow, not dilated, not curved toward midline (Fig. 329); sternite 8 in with a central distal tuberclelike process with a dense tuft on hairs of distal border, more straight on upper sides (Fig. 329); sternite 7 in as shown in Fig. 333. M. virilis n. sp.

2'. Epandria enlarged, curved toward midline (Fig. 312, 321); sternite 8 without a distal tuberclelike process (Fig. 313, 318); sternite 7 in as shown in Figs. 314, 319. 3

3(2'). Epandria in dorsal view recurved at tip (Fig. 321), without a spinelike distal process; sternite 7 in lateroposteriorly expanded (Fig. 319). M. brachyptera (Phil.) n. comb.

3'. Epandria in d dorsal view bent in a right angle toward the midline, and with a spinelike distal process (Fig. 312); sternite 7 in ♀ not lateroposteriorly expanded (Fig. 314) M. hermanni Hull
Myapex brachyptera n. comb.
(Figs. 317-322, 434)

Asilus brachypterus Philippi, 1865, p. 698, Colchagua; Bromley, 1932
p. 28; Stuardo, 1946, p. 84; Hull, 1962, p. 545.

Myapex hermanni, Hull, 1962, Fig. 2445 (♀).

Type, lost. A neotype is hereby designated as a ♀ from Angol,
Dec. 6, 1959, B. Carvallo; this specimen is deposited in Departamento
de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body dark brown, scutellum with fine sparse white hairs
and 2 strong black scutellar bristles; male genitalia large, epandria
reurved at tip; sternite 7 in lateroposteriorly expanded.

Description of Neotype (♂). Head in front view: face covered by
dense silver micropubescence; frons black with sparse silver micro­
pubescence in front of ocellarium and brown micropubescence behind
ocellarium; frontal hairs sparse, black, forming a row on eye border;
ocellarium similar in coverture to fronts, ocelli dark brown; ocellar
bristles black. Head in lateral view (Fig. 317): facial gibbosity
silver; mystax of fine white hairs and strong black bristles intermingled;
antennae black, first and second segments with short hairs, mostly white
on ventral side, black on dorsal side; silver micropubescence and sparse
fine white hairs, postocular bristles yellow, short; 9-11 occipital
bristles, yellow and black intermingled; proboscis black, fine long sparse white hairs on posteroventral part, short fine yellow hairs at tip; maxillary palpi black, with white hairs. Prothorax covered with silver micropubescence and sparse fine white hairs; collar bristles yellow. Thoracic pleura with silver and yellowish micropubescence and a few fine white hairs; mesepimeral bristles black with few fine white hairs intermingled. Mesonotum, calli, and scutellum similar in coverture to thoracic pleura, except on central stripes which appear dark brown, vestiture of sparse black hairs of different sizes, longer on dorso-central area; scutellum with fine sparse white hairs; 7-9 black dorso-central bristles; 2 black notopleural bristles; 3 black intraalar bristles, 1 stronger; 1 black postalar bristle; 1 pair of black scutellar bristles. Slopes of postmesonotum with silver micropubescence. Wings hyaline, veins brown. Coxae with silver micropubescence, similar to thoracic pleura, few hairs and bristles, hairs longer and more abundant on anterior side of front coxae; femora black with sparse short, usually appressed white hairs, bristles mostly yellowish; front and middle tibiae and tarsi dark brown, hairs white, bristles black; hind tibiae and tarsi similar in color and vestiture to femora, bristles black. Abdomen unevenly covered with silver micropubescence, dorsum of tergites mostly brown, abdomen in dorsal view appearing banded; vestiture of short sparse black hairs on dorsum, and white hairs on sides and venter; a few black bristles on sides of tergites 1-4, more abundant on posterior border of tergite 1. Genitalia (Fig. 318, 321) light brown, covered with short
yellowish hairs; epandria recurved at tip; gonopods short, about one-third the length of epandria, hypandrium short; penis sheath as shown in Fig. 320.

**Female.** Similar to male; ovipositor blade like, including segment 8 (Fig. 322); sternite 7 extended lateroposteriorly (Fig. 319).

**Measurements.** Total length 7.8-10.2 mm., average 8.4 mm. [neotype 9.9 mm.]; wing length 5.1-5.9 mm., average 5.7 mm. [neotype 5.5 mm.]; wing width 1.1-1.6 mm., average 1.4 mm. [neotype 1.4 mm.].

Geographic Distribution. As shown in Fig. 434.

Discussion. The shape of the epandria in the males and the seventh sternite in females differentiate this species. Variations from black to white have been found in the color of the frontal hairs; the hind tibiae and tarsi are usually similar in color to the front and middle legs, seldom (e.g., in the neotype) darker; the number of black bristles
on the femora is variable, but usually yellowish bristles are more abundant than others.

*Myaptex hermanni* Hull

(Figs. 312-316, 433.)


**Type.** ♀, Concepcion, November 19, 1908, P. Herbst, in Deutsches Entomologisches Institut, Berlin (not seen).

**Diagnosis.** Similar to *M. brachyptera*, from which it differs in the right angle of the apex of the epandria and a posterior dorsal hook; females have sternite 7 not distinctly expanded lateroposteriorly.

**Male.** Head in front view: face, front, and vertex covered with silver micropubescence, less dense between ocellarium and antennae; ocellarium silvery, ocelli whitish; ocellar bristles black; frontal hairs sparse, white. Head in lateral view: facial gibbosity silver; mystax mostly white, black bristles intermingled on dorsal part; antennae black, first and second segments with short hairs, white on ventral side, black on dorsal side; beard white; postocular area unevenly covered with golden micropubescence, vestiture of fine white hairs; postocular bristles white; occipital bristles black; proboscis black with long fine white hairs on posteroventral side and short fine yellow hairs at tip. Prothorax with golden micropubescence and sparse white hairs; collar bristles
yellow. Thoracic pleura with golden micropubescence and few medium-sized white hairs on each sclerite; mesepimeral bristles black and white intermingled. Mesonotum covered with golden and silver micropubescence, except on central stripes and part of lateral spots; vestiture intermingled with short and medium-sized sparse black hairs; short white hairs present along borders and on postero-central area; scutellum with golden micropubescence and sparse white hairs on both sides of disc; 10 long black dorsocentral bristles; 2 black notopleural bristles; 2 black intraalar bristles; 2 black postalar bristles; 1 pair of white scutellar bristles. Slopes of postmesonotum with golden micropubescence. Wings hyaline, veins dark brown. Coxae similar in coverture to thoracic pleura, a few white hairs and bristles, longer and more abundant on anterior side of front coxae; femora black with appressed white hairs; bristles on front and middle femora mostly white, in hind femora mostly black; tibiae and tarsi brown, with appressed white hairs, bristles mostly black. Claws black, base reddish. Abdomen mostly covered with golden micropubescence except on dorsum of tergites, which appear brownish because the less dense micropubescence; vestiture of short black hairs on dorsum of tergites, sides and sternites with white hairs; sternites 2 and 3 with a few long black hairs; bristles on sides of tergites mostly white; vestiture of first tergite more abundant. Genitalia (Fig. 313) reddish brown, with short appressed white hairs; epandria in dorsal view angulated at tip, with a hook at apex and a distinct notch before angulation (Fig. 312); gonopods and hypandrium short; penis sheath as in Fig. 315.
Female. Similar to male; ovipositor compressed (Fig. 316) sternite 7 as in Fig. 314.

Measurements. Total length 12.3-14.0 mm., average 13.2 mm.; wing length 7.1-8.2 mm., average 7.6 mm.; wing width 1.4-2.1 mm., average 1.8 mm.

Geographic Distribution. As shown in Fig. 433.

Discussion. The vestiture of the scutellum varies from a well defined 2-tuft condition leaving a central line bare (as in the type) to a more or less uniform distribution of the hairs; 1 pair of the scutellar bristles are white in the type, but in some other specimens there are 1 or 2 pairs of black scutellar bristles. The coverture of the mesonotum varies from golden to silver, and the central stripes can be well separated by a silver line or fused together (as in the type). Greased specimens appear darker, some almost black.

The female ovipositor presented by Hull, 1962, Fig. 2445, shows the sternite 7 laterally projected, this character is proper of *M. brachyptera* (Philippi), not of *M. hermanni*.

*Myapex vexillaria* n. sp.

(Figs. 323-328, 454).

Type. ♂, from Vicuna, Coquimbo, Nov. 2, 1961, Pena; this specimen is deposited in Departamento de Zoología, Universidad de Concepción, Chile.

Diagnosis. Similar to *M. brachyptera*, from which differs by the large black genitalia of the male, which are directed dorsally and forms a 90° angle with the abdomen; sternite 7 in females is long and narrow.
Description of Type (♂). Head in front view: face with dense white micropubescence, less dense over facial gibbosity; frons, ocellarium, and vertex blackish with sparse gray micropubescence; frontal hairs black and white intermingled; ocelli blackish; ocellar bristles black. Head in lateral view: facial gibbosity gray; mystax of white hairs and long strong black bristles intermingled; antennae black, first and second segments with black hairs dorsally and mostly white hairs ventrally; third segment as in Fig. 323; beard white; postocular area with brown micropubescence, white along posterior borders of eyes, vestiture of fine white hairs; postocular bristles black; occipital bristles black. Prothorax with micropubescence of coppery highlights, vestiture of long fine white hairs; collar bristles white, a few black bristles intermingled. Thoracic pleura unevenly covered with gray micropubescence, a few black and white hairs intermingled over sclerites; mesepimeral bristles black. Mesonotum covered with gray micropubescence, except over central stripes and lateral spots which appear blackish; from lateral view, mesonotum has coppery highlights; vestiture of short and medium-sized sparse black hairs, longer and more abundant on postero-central area, a few short white hairs on borders; scutellum shiny dark brown with a dense tuft of white hairs on each side, longer black bristlelike hairs scattered over central area; 14–15 black dorsocentral bristles, starting near anterior border; 2 black notopleural bristles; 3 black intraalar bristles; 3–4 black postalar bristles; 2 pairs of black scutellar bristles,
similar to the black hairs of central area. Slopes of postmesonotum with silver and brownish micropubescence. Wings (Fig. 328) hyaline, veins blackish. Coxae similar in coverture to thoracic pleura, with a few white hairs and bristles, 1 black bristle on hind coxae, hairs longer and more abundant on anterior side of front coxae; femora black, reddish on apical border, vestiture of short appressed white hairs, a few long black or white hairs on dorsal and ventral sides of front and middle femora; tibiae and tarsi brownish, similar in vestiture to femora; bristles on legs black. Claws black. Abdomen covered with silver micropubescence; a pair of indistinct yellowish spots on dorsum of tergites 2-5; vestiture of short white hairs, each hair appearing surrounded at base by a black ring devoid of micropubescence, the abdomen appearing punctulated, mainly from a lateral view; bristles on tergites 2-3 black; first and second tergites with white hairs on sides, more abundant on first tergite. Genitalia (Fig. 325) black, with appressed white hairs; penis sheath as in Fig. 326.

**Female.** Similar to male; ovipositor as in Fig. 327; sternite 7 narrow, as in Fig. 324.

The name *vexillaria* refers to the dorsally directed (flaglike) position of the male genitalia.
Measurements. Total length 12.5-19.5 mm., average 17.5 mm. [type 14.0 mm.]; wing length 8.1-11.2 mm., average 10.1 mm. [type 10.1 mm.]; wing width 1.8-3.0 mm., average 2.6 mm. [type 2.4 mm.].

COQUIMBO: 1♀ Estero Canela, Puerto Oscuro, Coquimbo, Oct. 24, 1961, Pena (INCO); 1♀ El Pangue, Vicuna, Coquimbo, Nov. 3-4, 1961, Pena (USNM); 1♀ Fray Jorge, Coquimbo, Nov. 4-5, 1957, L. E. Pena (INCO); 1♂ 2♀ Hda. Illapel, Coquimbo, 600 m., Nov. 1-9, 1954, L. E. Pena (2♀ BRAS; 1♂ INCO); 1♂, 1 (gen. miss.) Hda. Illapel, 600-1000 m., Oct. 24-25, L. E. Pena (BRAS); 1♀ Paiguano, pres Elqui, Nov., Dr. Gajardo (PARIS); 1♀ Quebrada Los Choros, 400-500 m., Coquimbo, Oct. 31, 1961, L. E. Pena (USNM); 1♂ 15 mi. S. of Los Vilos, Coquimbo, Dec. 13, 1950, R. & M. (INCO); 5♀ Vicuna-Pangue, 900 m., Nov. 2-3, 1961, Pena (INCO); 1♂ [type] Vicuna, Coquimbo, Nov. 2, 1961, Pena (INCO). SANTIAGO: 2♀ El Canelillo, Santiago, Etcheverry (CEE; INCO). VALPARAISO: 1♀ Valparaiso, Nov. 15, 1922, P. Herbst (INCO); 1♀ Valparaiso, Dec. 2, 1919, P. Herbst (CAS); 1♀ Valparaiso, Nov. 13, 1922, P. Herbst (CAS). No locality or date: 1♂ Chile, E. P. Reed (INCO); 1 (gen. miss.) Chile (INCO).

Geographic Distribution. As shown in Fig. 454.
**Discussion.** The males are easily recognizable by the dorsally directed position of the genitalia and the 2 dense patches of white hairs on the scutellum; the females can be recognized by the patches on the scutellum and by the shape of sternite 7. Some specimens of *M. hermanni* have white hairs on both sides of the scutellum, but never in dense tufts as is in *M. vexillaria*.

*Myaptex virilis* n. ap.

(Figs. 329-333, 449).

**Type.** ♂, from Pedegua, Aconcagua, Nov. 28, 1950, R. & M.; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Body with brown micropubescence; mystax white; male genitalia reddish, epandria narrow; sternite 8 in male with a distinct posterovertral process with dense white hairs on distal border; sternite 7 of females as in Fig. 333.

**Description of Type (♂).** Head in front view: face with yellowish micropubescence, less dense on facial gibbosity; frons and ocellarium blackish with sparse brownish micropubescence; frontal hairs mostly white; ocelli whitish; ocellar bristles black. Head in lateral view: facial gibbosity gray; mystax long, white; antennae (Fig. 331) brown, first and second segments with short hairs, black on dorsal side and
mostly whitish on ventral side; beard white; postocular area covered with brown micropubescence and sparse, fine, white hairs; postocular bristles yellow; occipital bristles black; fine white hairs on vertex; proboscis black with fine white hairs on posteroventral three-fourths, short, white hairs at tip; maxillary palpi black, with white and black hairs intermingled. Prothorax with dark golden micropubescence and fine sparse white hairs; collar bristles yellow. Thoracic pleura with dense, dark golden micropubescence and fine, sparse, white hairs unevenly distributed; mesepimeral bristles whitish. Mesonotum covered with dark golden micropubescence, less dense over central stripes and lateral spots; silver micropubescence separating and surrounding central stripes and lateral spots; vestiture of short, sparse black hairs, longer on posteroventral area, sparse, white hairs near borders; scutellum with dark golden micropubescence and fine sparse white hairs, more or less arranged in 2 tufts; 5 black dorsocentral bristles; located posterior to transverse suture; 2 yellow notopleural bristles; 2 black intraalar bristles; 2 black postalar bristles; 2 pairs of scutellar bristles, 1 pair yellow, the other black. Slopes of postmesonotum with silver micropubescence. Wings hyaline, veins dark brown, light brown in costal and posterior areas. Coxae similar in coverture to thoracic pleura, hairs and bristles white, hairs more abundant on anterior part of front coxae; femora black on dorsal side, brown on ventral side, covered by appressed short white hairs, some longer hairs on dorsal and ventral sides; tibiae and tarsi brown, hind tibiae darker dorsally, vestiture similar to femora;
bristles mostly black. Abdomen with gray micropubescence, brownish on
tergites 2-5, sides of tergites and sternites with short white hairs;
bristles on sides of tergites 1-4 white; a few long hairs on sides of
tergite 1; sternite 8 with a distal process with rows of dense, white
hairs on distal border. Genitalia (Fig. 329) reddish; epandria long,
narrow; gonopods pointed; hypandria short; penis sheath as in Fig. 330.

Female. Similar to male; ovipositor dark (Fig. 332), sternite 7
as shown in Fig. 333.

The name virilis refers to the large genitalia of the males.

Material Examined. 5♂ and 10♀♀. ACONCAGUA: 1♀ Concon, Aconcagua,
[?], Dec. 16, 1950, R. & M. (CAS); 1♂[type] Pedegua, Aconcagua, Nov. 28,
1950, R. & M. (CAS); 1♀ 5 mi. W. of La Junta, Coquimbo, Dec. 7, 1950,
R. & M. (CAS); 1♀ 15 mi. W. of La Junta, Dec. 7, 1950 R. & M. (INCO);
1♂ 2♀ Los Chinchés, Vicuña, Feb., 1940 (2♀ CAS; 1♂ INCO); 1♀ 5 mi. N.
of Ovalle, Dec. 1, 1950, R. & M. (INCO); 1♂(gen. prep.) 1♂ 12 mi. E. of
Rivadavia, Coquimbo, Dec. 4, 1950, R. & M. (INCO). No locality or date:
1♂ (JTM).

Geographic Distribution. As shown in Fig. 449.
Discussion. The scutellar bristles vary from 1-2 pairs and from yellow to black; when only 1 pair is present, they are usually black; the notopleural bristles vary from yellow to black, often they are yellow on one side of the specimen and black on the other side. A specimen from J. T. Medina Collection has a label in Philippi's handwriting: "A. longistylus Ph."; this is a nomen nudum.

Nesiotes n. gen.

Type of the genus: Nesiotes chiloensis n. sp.

Head in front view one-third wider than high; vertex deeply sunken; ocellarium moderate, ocelli small. Head in lateral view: postocular area one-sixth of the eye width; facial gibbosity prominent, rounded, occupying two-thirds of face; first antennal segment one and one-half times the length of second, which is almost beadlike; third antennal segment compressed, dorsal and ventral borders parallel on basal three-fourths, and as long as first two segments combined; a short cylindrical microsegment with a long style as long as third segment, bearing a short apical spine; mystax of bristlelike hairs. Mesonotum with central stripes and lateral spots; vestiture of short, weak sparse hairs; 6-8 long dorso-central bristles arranged in a single row from in front of transverse suture. Scutellum with fine sparse medium-sized hairs; 3-4 pairs of scutellar bristles directed dorsally. Slopes of postmesonotum with micropubescence only. Marginal and fourth posterior cells closed and
stalked; \( R_4 \) and \( R_5 \) forming an almost symmetrical fork; \( R_4 \) ending before wing apex and \( R_5 \) behind wing apex; anal cell closed with a short stalk; \( M_3 \) and \( m \) forming a 90° angle. Front tibial spur absent. Abdomen in males mostly cylindrical, in females tapered and strongly compressed from segment 7; first tergite interrupted on center (Fig. 345). Wings extending beyond tip of abdomen, more so in \( \varphi \). Male genitalia large, conspicuous, not rotated, usually forming a 60° angle with abdomen; hypandrium large, surrounding base of genitalia in an almost complete ring, separated for a short distance dorsally; epandria long, narrow, expanded distally; gonopods directed dorsally, with a long dististyle directed posteriorly (Fig. 346, 347); penis sheath long, exposed, covered only basally by the gonopods, and ending in 2 parallel sigmoid tubes. Female genitalia long, strongly compressed, pointed; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 1 species, *Nesiotes chileonsis* n. sp.

This genus is closely related to *Andreotrochus*, from which it can be separated by the absence of strong bristles on the lateroventral side of the hind femora, and by the shape of the penis sheath which ends in a moderately sigmoid double tube and not in 2 long whiplike tubes as in *Andreotrochus*.

The name *Nesiotes* refers to the habitat of the genotype (\( \nu\sigma\nu\tau\gamma\upsilon\sigma \) = islander).
Nesiotes chiloensis n. sp.
(Figs. 345-352, 423).

Type. ♂, from Dalcahue, Isla Chiloe, Feb. 1-8, 1962, Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Body black; thoracic pleura mostly covered with distinct shiny silver micropubescence; mystax black, beard white; male genitalia large, epandria expanded distally, gonopods directed dorsally (Fig. 346); ovipositor strongly compressed.

Description of Type (♂). Head in front view: frons with dense golden micropubescence, more sparse on facial gibbosity; frons dark; ocellarium dark, ocelli reddish, ocellar bristles long, black; frontal hairs long, black. Head in lateral view (Fig. 348): facial gibbosity golden; mystax long, black; antennae black, first and second segments with black hairs, longer on ventral side; beard white; postocular area with silver micropubescence, vestiture of black hairs, mostly concentrated near eye borders; postocular bristles not distinct; 5-6 long fine black proclinate occipital bristles on each side of vertex; proboscis black with long fine sparse white hairs on posteroventral half, fine yellow hairs at tip; maxillary palpi black with sparse medium-sized white hairs. Prothorax black with silver micropubescence and sparse, fine, black and white hairs intermingled.
hairs mostly white on prothoracic lobe; collar bristles black. Thoracic pleura covered with shiny, distinctly silver micropubescence, except on mesopleura where it appears blackish and partially covered with brownish micropubescence; vestiture of long fine sparse white hairs with a few black hairs intermingled, hairs on mesopleura mostly black; mesepimeral bristles yellow. Mesonotum and scutellum with silver and golden micropubescence except on central stripes and on lateral spots which appear black; vestiture of sprase fine black hairs of different sizes, longer in posteroentral area; scutellum with sparse fine, black hairs; 2 long black notopleural bristles; 2 black intraalar bristles; 2 black postalar bristles, 1 longer; 9-10 black dorsocentral bristles; 3 pairs of long black scutellar bristles. Slopes of postmesonotum with dense silver micropubescence. Wings (Fig. 349) hyaline, fumose on distal and posterior borders, veins black. Coxae similar in coverture to thoracic pleura, with fine, white hairs, no bristles; femora, tibiae, and tarsi black with sparse fine, white and black hairs, longer on femora, bristles more distinct on tibiae and tarsi. Claws black. Abdomen dark brown, silver micropubescence on sides of tergites and on sternites, vestiture of fine sparse, long white hairs, shorter on dorsum; bristles on sides of tergite 1 intermingled black and white, on tergites 2-7 white, usually forming a row of 3-4 bristles on each side. Genitalia (Figs. 346, 347, 350) large, black, vestiture mostly of short, black hairs, long hairs on base of gonopods and on ventral side of epandria; dististyle (Figs. 346, 347) with spines on ventral side.
Female. Similar to male; ovipositor (Fig. 351, 352) reddish brown, hairs short, fine, yellow.

The name chiloensis refers to the type locality.

Measurements of Type. Total length 10.8 mm.; wing length 7.8 mm.; wing width 2.2 mm. Paratypes similar in size.


Geographic Distribution. As shown in Fig. 423.

Discussion. The genitalia of the male is different from the genitalia of related species, but no study of internal structures has been made; the shape of the penis sheath can be seen between the epandria and the gonopods (Fig. 346).
**Nomomyia** n. gen.

Type of the genus: *Erax murinus* Philippi 1865.

Head in front view one-fourth wider than high; vertex deeply sunken, eyes close together over the ocellarium, leaving a separation which is half the width of front; ocellarium low, small, ocelli large. Head in lateral view: postocular area one-fifth the eye width; facial gibbosity low, occupying slightly more than one-half of face; ocellarium located beyond front line of eyes; antennae long, second segment three-fourths the length of first; third antennal segment as long as first segment, compressed, slightly attenuated basally, more attenuated distally; a short microsegment and a slender style which is as long as third segment, with a short terminal spine; mystax of a few long hairs arising from all over frontal area of facial gibbosity, 2 strong bristles in front part. Collar bristles absent, only fine hairs. Mesonotum with central stripes and lateral spots distinct; mesonotal vestiture of short weak hairs in front of transverse suture, 2 short rows of longer hairs behind transverse suture; hairs longer in anterocentral area, 2-12 dorsocentral bristles. Scutellum with medium-sized to long hairs directed dorsally; 3 pairs of scutellar bristles. Slopes of postmesonotum with micro-pubescence. Marginal cell closed and stalked, expanded in central part; fourth posterior cell closed and stalked; R₄ and R₅ nearly parallel in central part; R₄ angulated at base, with a stump vein, and ending before wing apex, R₅ behind wing apex; anal cell closed with a short stalk;
costal area of wings expanded in males; membrane rippled; M₃ and m forming a 90° angle; M₃ slightly bent. Front tibial spur absent. Abdomen slightly tapered. Wings not reaching tip of abdomen. Male genitalia of moderate size, not rotated, usually aligned with abdomen; hypandrium short, posterior border slightly bilobed; epandrium of moderate length, flattened on external side and with a large triangular depression, posterior border with a rounded notch; gonopods short, in lateral view appearing elongated. Female terminalia truncated, with a short ovipositor after the short ninth tergite; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 2 species.

This genus is similar to *Lochmorhynchus* Engel because the shape of the antennæ, the form of the mystax, and the expanded costal area of the wings of the male, but it differs in several other characters, most of them given in the diagnosis. R₄ and R₅ are useful to separate them; in *Nomomyia* R₄ ends before wing tip and R₅ behind wing tip, while in *Lochmorhynchus* both veins reach the wing border before the wing tip.

The name *Nomomyia* refers to the kind of habitat of the genotype (*νομός* = pasture; *νυμία* = fly).
Key to the Species of *Nomomyia*

1. Body light brown; femora bicolored, black dorsally and brownish ventrally; scutellum covered with golden micropubescence; male genitalia reddish brown (Fig. 358); ovipositor as in Fig. 359

   ..................................................  *N. murina* (Phil.) n. comb.

1'. Body blackish gray; femora shiny black, except the basal and sometimes also the apical portion which are brownish; scutellum covered with silver micropubescence; male genitalia black (Fig. 353); ovipositor as in Figs. 356, 357

   ..................................................  *N. ivetteae* n. sp.

*Nomomyia ivetteae* n. sp.

(Figs. 353-357, 475).

*Type. ♀, from 10 mi. W. of Vicuna, Chile, Dec. 3, 1950, R. & M.; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.*

*Diagnosis. Similar to *N. murina*, from which it can be separated by the gray color of the body, the black femora sometimes with base and apex reddish, and by the shape of the epandrium (Fig. 353) and penis sheath (Fig. 354).*
Description of Type (♂). Head in front view: frons, face, and vertex covered with silver micropubescence, less dense around ocelli; frontal hairs black; ocelli yellow; ocellar bristles black. Head in lateral view (Fig. 355): facial gibbosity silver; mystax of black and white hairs intermingled, 2 strong black bristles on anterior side of oral border; antennae black, brownish in part, first and second segment covered with silver micropubescence and black hairs; beard of fine white hairs; postocular area covered with silver micropubescence and fine sparse white hairs; postocular bristles black, forming a row with the 4 black occipital bristles, occipital bristles stronger, proboscis black, with fine long white hairs on posterocentral side, short yellowish hairs at tip; maxillary palpi black with white hairs, black hairs distally. Prothorax with silver and golden micropubescence, and fine sparse white hairs. Thoracic pleura mostly covered with silver micropubescence, a golden area on mesopleura; vestiture of sparse fine white hairs; mesepimeral bristles black and white intermingled. Mesonotum with golden micropubescence over humeral calli and lateral spots, central stripes dark brown, separated by a line of silver and golden micropubescence, posterior calli and space between central stripes and lateral spots mostly covered by silver micropubescence or appearing black; vestiture of short sparse black hairs, longer on posterocentral area; scutellum silver, with sparse fine medium-sized black hairs; 10-12 black dorsocentral bristles, not distinct because sometimes black hairs of similar length and color are intermingled with the bristles; 2 strong black notopleural bristles;
1 strong black intraalar bristle; 2 strong black postalar bristles; 3 pairs of black scutellar bristles. Slopes of postmesonotum with dense silver micropubescence. Wings hyaline, slightly femora in costal area and apex, veins black, brownish in costal area. Coxae similar in coverture to thoracic pleura, hairs fine, white more abundant on anterior side of front coxae, without bristles; femora mostly black, basal one-fifth and trochanters reddish, front femora reddish also on apical one-fifth, vestiture of fine white hairs, appressed on dorsal side, longer and erect on ventral side; front and middle tibiae brownish, slightly darker on basal one-half and on apical border, hind tibiae mostly black; tarsi dark brown; vestiture of tibiae and tarsi similar to femora, hairs longer and more abundant on ventral side of front tibiae; bristles black, longer on tibiae, absent on front femora. Claws black, basal one-fourth reddish brown. Abdomen with gray micropubescence, lines of brown micropubescence on sides and midline of tergites; vestiture of short black hairs on dorsum, longer white hairs on sides of tergites and on sternites; lateral bristles of tergites black. Genitalia (Fig. 353) black, hairs black, a few shorter white hairs intermingled; penis sheath as in Fig. 354.

Female. Similar to male; femora thinner and wings not expanded in costal area; ovipositor (Fig. 356, 357) similar in coverture to the abdomen, fine, yellow hairs on cerci.

This species is dedicated to my wife, Ivette.
Measurements of Type. Total length 22.2 mm.; wing length 14.2 mm.;
wing width 4.1 mm. Paratypes similar in size.

Material Examined. 2♂ and 4♀. COQUIMBO: 1♀ 4 mi. S. of Vicuña,
Dec. 3, 1950, R. & M. (CAS); 1♂ [type] 2♀ 10 mi. W. of Vicuna, Dec. 3,
1950 (1♂ 1♀ INCO; 1♀ CAS). No locality or date: 1♂ (gen. prep.) 1♀
Chile, E. P. Reed (INCO).

Geographic Distribution. As shown in Fig. 475.

Discussion. A definitive character to separate this species from murina is the shape of the penis sheath, shown in Figs. 354 and 360.
The amount of reddish coloration on the femora varies from only the basal
one-fifth to the basal and apical one-fourth, the latter combination
mostly on the front femora; a few specimens have most of the ventral side
of the front femora reddish.

Nomomyia murina (Philippi) n. comb.
(Figs. 358-362, 456).

Erax murinus Philippi, 1865, p. 694, Santiago; Stuardo, 1946, p. 84.
Nerax murinus (Philippi), Hull, 1962, p. 478.

Type. ♂, no locality, in Museo Nacional de Historia Natural,
Santiago, Chile (seen).
Diagnosis. Body reddish brown with silver micropubescence; femora black dorsally and reddish brown ventrally, larger in males; wings expanded on costal side; genitalia of males small; ovipositor mostly conical.

Male. Head in front view: face, frons, and vertex with silver micropubescence, less dense on facial gibbosity, on center of frons and almost absent on ocellarium; frontal hairs black and white intermingled; ocelli reddish; ocellar bristles black. Head in lateral view: facial gibbosity silver; mystax of white and black bristles intermingled, usually in equal amounts, 2 strong black bristles on front side of oral border; antennae dark, second segment brownish; first and second segments with silver micropubescence and hairs, hairs mostly black, a few white hairs intermingled on ventral side; beard of fine white hairs; postocular area densely covered with yellowish micropubescence, hairs sparse, fine, whitish; postocular bristles short, weak, yellow; 6 black occipital bristles, arranged in a row on each side of vertex, the first bristles stronger; proboscis shiny black with fine sparse white hairs on posteroventral half, short, white hairs on apical part and white hairs on basal part. Prothorax blackish with silver micropubescence and sparse fine white hairs. Thoracic pleura mostly reddish brown, a black area on mesopleura and sternopleura unevenly covered with silver micropubescence and a few fine, long, white hairs; mesepimeral bristles black and yellow intermingled. Mesonotum with golden micropubescence, sometimes silver
on posterior calli, except on central stripes and interior borders of lateral spots which appear dark brown, central stripes wider anteriorly; vestiture of short sparse black hairs, longer on posterocentral area, fine white hairs on humeral calli; scutellum brown with sparse golden micropubescence and fine, sparse, medium-sized black hairs; 2-4 indistinct black dorsocentral bristles, behind transverse suture; 2 black notopleural bristles; 1 black intraalar bristles; 1 black postalar bristles; 3 pairs of long fine black scutellar bristles. Slopes of postmesonotum with yellowish micropubescence. Wings (Fig. 361) hyaline, slightly fumose in costal and apical areas, veins brown. Coxae similar in coverture to thoracic pleura, with fine white hairs that are more abundant on anterior part of front coxae, and no bristles; femora black on dorsal side and reddish brown or light brown on ventral side, vestiture of fine, white hairs and strong black bristles except on front femora with a few black hairs intermingled; tibiae and tarsi brown, hairs both short and long, white, a few black hairs intermingled mainly on middle tibiae and tarsi; bristles strong, black. Claws black. Abdomen brownish, covered with micropubescence which is silver or gray on lateral borders and on sternites, brown on sides and middorsal line, appearing as a continuous line, remaining micropubescence golden brownish; vestiture of short sparse black and white hairs intermingled, white hairs longer on sides of tergites and on sternites; lateral bristles of tergites black. Genitalia (Fig. 358) reddish brown with black hairs; gonopods short; hypandrium short; penis sheath as in Fig. 360.
Female. Similar to male, but femora not enlarged and costal area of wings not expanded (Fig. 362); ovipositor (Fig. 359) short, similar in coverture to abdomen, hairs black.

Measurements. Total length 14.5-24.5 mm., average 18.5 mm., [type: abdomen broken]; wing length 9.9-14.2 mm., average 11.5 mm., [type 12.5 mm.]; wing width 2.8-4.1 mm., average 3.4 mm., [type 4.0 mm.].

Material Examined. 13♂ and 7♀. COQUIMBO: 1♂ Hda. Illapel, Coquimbo, 600 m., Nov. 1-7, 1954, L. E. Pena (BRAS). O'HIGGINS: 1♀ La Leonera, Cord. Rancagua, 800-1900 m., Dec. 26-30, 1954, L. E. Pena (INCO). SANTIAGO: 1♂ 1♀ Penalolen, Dec. 14, 1952 (MNHN). VALPARAISO: 1♂ El Salto, Valparaiso, Dec. 27, 1919, P. Herbst (INCO); 1♂ (gen. prep.) El Salto, Valparaiso, Jan. 15, 1921, P. Herbst (INCO); 1♂ Limache, A. Faz (INCO); 1♂ Olmue, Feb. 17, 1920, P. Herbst (CAS); 1♂ #18 Perales, Feb. 23 (INCO); 1♂ Valparaiso, A. Faz (INCO); 1♀ Valparaiso, J., 1894 (INCO); 2♀ Valparaiso, 1900, P. Herbst (INCO); 1♂ Valparaiso, Dec. 12, 1920, P. Herbst (CAS); 1♂ Valparaiso, Dec. 31, 1919, P. Herbst (CAS); 1♂ Valparaiso, Jan. 22, 1920, P. Herbst (CAS). No locality or date: 1♂ [type] (JTM); 1 E. P. Reed (CAS); 1♀ #2112 Chile, Meyer S. (BERL); 1♀ #21 Chile, Dr. Reed (CAS).

Geographic Distribution. As shown in Fig. 456.
Discussion. The type specimen is incomplete; the antennae and the distal half of the abdomen are missing, therefore no study on male genitalia has been done on type material. Variation in size is considerable, as shown by the measurements.

**Philonex Bromley**


Type of the genus: *Asilus mucidus* Walker, 1837, by original designation.

Head in front view one-fourth wider than high; vertex deeply sunken; ocellarium large, ocelli medium-sized. Head in lateral view: postocular area one-eighth the eye width; facial gibbosity prominent, occupying one-half of face; antennae short, second segment short, third segment shorter than first, attenuated toward apex, compressed, with a long, slender style nearly 2 and one-half times the length of the segment and with a short spine at tip; mystax abundant, arising from all over facial gibbosity. Mesonotum with 2 central stripes and lateral spots, mesonotal covering of short sparse hairs, a few hairs longer behind transverse suture; 3 dorsocentral bristles. Scutellum with a few long, strong bristles on discal area, a tuft of long hairs directed dorsally on each side of scutellar border, no distinct scutellar bristles. Slopes of post-mesonotum with micropubescence, no pile. Marginal and fourth posterior cells closed and stalked; R₄ and R₅ reaching border before wing apex;
anal cell closed at wing border or with a short stalk; $M_3$ and $m$ forming a 90° angle; costal area expanded in males. Front tibial spur absent, a row of 5-6 short bristles on anterior side of front tibiae (Fig. 365). Abdomen tapered. Wings slightly shorter than abdomen. Male genitalia moderate in size, not rotated; eighth sternite with long laterally directed lobes and with long strong hairs directed toward midline, forming a scooplke structure (Fig. 363); hypandrium short, hidden under sternite 8; epandrium narrow, compressed at apex, and forming a lobelike structure (Fig. 363, 367); gonopods large. Female genitalia beadlike (Fig. 369); abdomen strongly compressed at segment 8; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 2 species.

Lonchodogonus Hull (1962:496-498, figs. 209, 751, 1435, 1444, 2256, 2281, 2373, and 2382) could be synonymous of Philonerax. I have not seen the type species.

**Key to the Species of Philonerax**

1. Brownish species; femora bicolored, black on dorsal side, light brown on ventral side; male genitalia and penis sheath as in Fig. 363 and 364; lateral lobes of sternite 8 attenuated before apical expansion .................. $P. mucidus$ (Walker)
1'. Blackish species, femora mostly black, sometimes slightly reddish on ventral side; male genitalia and penis sheath as in Figs. 367 and 368; lateral lobes of sternite 8 not attenuated before apex and not expanded distally . . . . . . P. chilechicoensis n. sp.

**Philonerax mucidus** (Walker)

Fig. 363-365, 411

**Asilus mucidus** Walker, 1837, p. 340, Port St. Elena.

**Philonerax mucidus** (Walker). Bromley, 1935, p. 270-272, fig. 23 and 24

abc, Patagonia, Nahuel Huapi, Bariloche and Chubut, Argentina; Hull, 1962, p. 485, figs. 212, 689, 705, 750, 1439, 1448 and 2225.

**Type.** ♂, Port St. Elena, Dec. Lieut. Graves; location of this specimen unknown (not seen).

**Diagnosis.** Body brownish, hairs mostly white; mystax of intermingled yellow and black hairs; sternite 8 with lateral lobes and white hairs on posterior border, forming a scooplike structure which curves toward median line; ovipositor beadlike; segment 8 narrow, compressed, distinctly constricted.

**Male.** Head in front view: face, frons, ocellarium, and vertex with silver micropubescence, less dense between ocellarium and antennae; frontal
hairs yellow, white and black intermingled. Head in lateral view: facial gibbosity appearing brownish, silver near eyes; mystax mostly yellow, long, black bristlelike hairs on front and along oral border, hairs on upper side of facial gibbosity directed dorsally; antennae dark brown, first and second segments with yellow hairs on ventral side and shorter black hairs on dorsal side, third segment darker, with 3-6 short hairs on dorsum; beard yellow; postocular area with silver micropubescence, more dense along posterior border of eyes, vestiture of fine yellow hairs, bristles on posterior border of eyes yellow; 5-7 black occipital bristles behind eyes on each side of vertex; proboscis shiny black with long white hairs on basoventral part, short yellow hairs at tip; maxillary palpi brown, with white hairs; posterior area of ocellarium with a few white hairs. Prothorax dark reddish brown with long fine sparse yellow hairs; collar bristles yellow, a few black hairs intermingled. Thoracic pleura brown, unevenly covered by golden micropubescence, long fine sparse yellow hairs uniformly distributed over sclerites, a few shorter white hairs on dorsal part of mesopleura, mesepimeral bristles strong, long, brown, intermingled with a few black bristles. Mesonotum black covered by gray micropubescence except over central stripes which are glabrous and slightly divergent behind transverse suture; lateral spots indistinct; mesonotal vestiture of sparse short black and white hairs, white hairs more abundant on front part, humeral calli, sides, and posterocentral area; scutellum with dense white hairs near lateral borders, a few long
black or white hairs on center; 2-3 short, black, indistinct dorsocentral bristles; 2-3 black notopleural bristles, one sometimes reddish; 1 black or reddish intraalar bristle; 2 black postalar bristles. Slopes of postmesonotum brown, covered with dense silver micropubescence. Wings hyaline, veins light brown. Coxae brownish with sparse silver micropubescence and white hairs, and a few white bristles, hairs more abundant on anterior side of front coxae; femora light brown on ventral side, dark brown or black on dorsal side, vestiture of white or yellowish hairs, with a few fine black hairs intermingled which are more abundant on hind femora, vestiture of hind femora longer; tibiae and tarsi light brown with white appressed hairs on dorsal side and longer and more erect hairs on ventral side; black and yellow bristles approximately in equal amount; a row of 5-7 short black bristles on anterior side of front tibiae (Fig. 365). Abdomen light brown with short white hairs, longer and more abundant on tergites 1-3, a broad glabrous dark brown band along midline of abdominal terga. Male genitalia as in Fig. 363, brown, hairs white; lateral lobes of sternite 8 attenuated before apical expansion; penis sheath as in Fig. 364.

Female. Similar to male but brown band on abdominal terga indistinct; costal area of wing not expanded; ovipositor black, sternite 8 shiny black; ventral hairs of tergite 9 yellow.
Measurements. Total length 11.0-18.1 mm., average 16.8 mm.; wing length 8.2-10.3 mm., average 9.6 mm.; wing width 2.5-3.3 mm., average 3.0 mm.


Geographic Distribution. From Nahuel Huapi Lake to Santa Elena Port (45° S - 66° W, approx.), as shown in Fig. 411.

Discussion. There are no records of this species in Chile, but the species could extend into Chile following the international road of Paso Perez Rosales where the Cordillera is lower.

Lonchodogonus cribatus Hull could be a synonym of P. mucidus, according to the description and drawings given by Hull (1962:498, figs. 209, 751, 1435, 1444, 2256, 2281, 2373, and 2382). I did not see the type specimen which is in Zoologische Staatssammlung, Munich, Germany.
Philonerax chilechicoensis n. sp.

Fig. 366-370, 500.

**Type.** ♂, Chile-Chico, Lag. Buenos Aires, Aysen, Dec. 24-31, 1960, Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Similar to *P. mucidus*, from which it can be separated by the gray color of the body, the black color of the tibiae and femora, and the white color of most of the leg bristles; the lateral lobes of sternite 8 are not attenuated before the apex, which is not distinctly expanded apically.

**Description of Type (♂).** Head in front view: face and frons with dense silver micropubescence along eye borders, central area with sparse micropubescence, appearing mostly dark brown on front of facial gibbosity and black on frons; frontal hairs white with a few black hairs intermingled; ocellarium black, ocelli yellow; ocellar bristles long, fine, black and white intermingled. Head in lateral view (Fig. 366): facial gibbosity appearing mostly dark, dense silver micropubescence on eye borders; mystax mostly black in center, white on upper part and sides, hairs on upper part directed dorsally, 6 pairs of long, black bristles on oral border; antennae black, first and second segments with short black hairs, a few white hairs on ventral side of first segment; style dark
brown; beard white; postocular area mostly black, with dense white micropubescence along posterior border of eyes, vestiture of fine sparse long hairs and a row of 5-6 white postocular bristles; 6-8 black occipital bristles on each side of vertex, behind eye borders; proboscis shiny black with long white hairs on basoventral three-fourths and short, fine, white hairs at tip; maxillary palpi black with white hairs. Prothorax black with sparse long fine white hairs; collar bristles white. Thoracic pleura black covered by unevenly sparse dark gold micropubescence and fine sparse white hairs, mostly on posterior part of mesopleura and sternopleura; mesepimeral bristles fine black and white intermingled, a few bristles appearing yellow. Mesonotum black, unevenly covered by gray golden micropubescence, except on central stripes and part of anterior lateral spots which appear glabrous, mesonotal vestiture of sparse short intermingled black and white hairs, black hairs more abundant on central area, white hairs mostly proclinate except a tuft on each side of central stripes near anterior border; scutellum glabrous with a tuft of dense white hairs on each side, fine strong black long hairs on center plus fine white hairs; 1 pair of indistinct dorsocentral bristles; 2 black notopleural bristles; 1 black intraalar bristle; 2 black postalar bristles. Slopes of postmesonotum black with sparse silver micropubescence. Wings (Fig. 370) hyaline, veins black on anterior part and dark brown posteriorly. Coxae black with sparse white micropubescence and white hairs, a few white bristles on middle and hind coxae; hairs more abundant on anterior part
of front coxae; femora black with white and black hairs intermingled, white hairs mostly appressed on hind femora, hairs longer on front and middle femora; tibiae black on dorsal side, brown on ventral side, covered with appressed short white hairs on dorsal side and long, white and black intermingled hairs on ventral side; tarsi similar in color and coverture to tibiae, bristles on legs white, except the row of 6 black bristles on anterior side of front tibiae and some bristles on ventral side of tarsi. Claws black, basal fourth reddish brown. Abdomen covered with gray micropubescence except on middorsal line of tergites which appears dark brown, vestiture of short white hairs except on middorsal line, hairs longer on sides of tergites 1-3. Genitalia as in Fig. 367, black with white hairs; long hairs on lateral projections of sternite 8, yellow; penis sheath as in Fig. 368.

Female. Similar to male; ovipositor as in Fig. 369, black, cerci gray, hairs white.

The name chilechicoensis refers to the type locality.

Measurements of Type. Total length 17.5 mm.; wing length 11.7 mm.; wing width 3.4 mm. Paratypes similar in size.

Material Examined. 2♂ and 2♀. AYSEN: 1♂ (type), 2♀ Chile-Chico, Lag. Buenos Aires, Dec. 24-31, 1960, Pena (INCO); 1♂ (gen. prep.)

**Geographic Distribution.** As in Fig. 500

**Discussion.** Females of this species can be separated from of P. mucidus by the general color of the body which appears mostly gray, and by the color of the bristles of the legs which are white instead of black.

**Proctacanthus** Macquart

*Proctacanthus* Macquart, 1838, p. 120; Hull, 1962, p. 487.

Type of the genus: *Proctacanthus philadelphicus* Macquart, 1838, designated by Coquillet, 1910.

Head in front view one-third wider than high; ocellarium large, ocelli large. Head in lateral view: postocular area one-fifth the eye width; facial gibbosity low, face inclined; antennae with the third segment as long as the first two combined, compressed, apically attenuated, with a long slender style about 2 times the length of the segment; mystax abundant, dense, hairs on upper half short, the ones on lower half long, straight. Mesonotum with central stripes and lateral spots, sometimes indistinct; mesonotal coverture of short scattered hairs, a few longer
ones on posterocentral area; 2-3 distinct dorsocentral bristles, located behind transverse suture. Scutellum with abundant long hairs directed dorsally; scutellar bristles not distinct. Slopes of mesonotum with micropubescence, no hairs. Marginal and fourth posterior cells closed and stalked; R₄ and R₅ reaching wing border before apex; anal cell closed and stalked; M₃ and m forming a 90° angle. Front tibial spur absent. Abdomen depressed, tapered toward end in males, conical in females. Wings shorter than abdomen in females, similar in length of slightly longer in males; in recently emerged adult males the abdomen is shorter. Male genitalia not rotated; hypandrium short; epandrium moderately large, without elaborations; gonopods one-half the length of epandrium, dististylus with a number of short distinct stout spines on ventral border which are easily visible from ventral view (Figs. 371, 374). Female genitalia conical, long; ovipositor with 12-13 pairs of stout spines.

**Distribution.** Neartic, Neotropical, Australian, 56 species; 1 species in Chile, *Proctacanthus rubriventris* Macq.

*Proctacanthus* can be separated from *Eccritosia* by the length of the abdomen; the abdomen in *Proctacanthus* is long and usually extends beyond the wing apex, while in *Eccritosia* it is short and usually does not extend beyond the middle of the wing. No specimens of *Eccritosia* have been recorded from Chile.
Proctacanthus rubriventris (Macquart)  
(Figs. 371-377, 410).

Proctacanthus rubriventris Macquart, 1850, p. 87, Pl. 8, fig. 3, Brasil;  
Schiner, 1866, p. 714; Hull, 1962, p. 488; Bromley, 1946, p. 116;  
Lynch, 1880, p. 259-260, Brasil, Colchagua Chile, Tucuman and  
Mendoza Argentina.

Eccritosia rubriventris (Macquart). Carrera, 1960, p. 50-51, Sud of  
Brasil, from Sao Paulo to Buenos Aires, Tucuman and Salta (W.  
Argentina), and Chile.

Erax speciosus Philippi, 1865, p. 193, Pl, 26, fig. 28, Colchagua;  
Schiner, 1866, p. 713.

Eccritosia speciosa (Philippi). Stuardo, 1946, p. 84.

Type. ♂, Brazil; its location unknown. Type of A. xanthopogon  
possibly in Museo Nacional de la Plata, Argentina. Type of E. speciosus,  
lost.

Diagnosis. Body large, robust; mystax and beard yellow, dense, long;  
frontal hairs dense, black, mesonotum yellowish or dark reddish with  
distinct central stripes and lateral spots; scutellum with abundant yellow  
hairs; first and second abdominal segments black, first segment with  
abundant yellow hairs on sides, remaining segments dark or light reddish;  
legs black, hairs and bristles black.
Male. Head in front view: face densely covered with light golden micropubescence; frons shiny black; frontal hairs abundant, black; ocellarium black, ocelli dark red; ocellar bristles weak, procline.

Head in lateral view (Fig. 372): face silver; mystax yellow, long, abundant, upper hairs shorter; antennae black, first segment with sparse silver micropubescence, a few short black hairs on first 2 segments; third segment blackish, style light brown apically; beard dense, yellow; postocular area with silver micropubescence, more dense on upper side behind ocellarium; proboscis large, curved, black with fine whitish hairs on posterolateral part, short dark brown hairs at tip; maxillary palpi black with abundant yellow hairs, some long, black hairs around apex. Prothorax black, propleura with dense yellow hairs, pronotum with sparse black hairs, a line of white hairs on frontal border of collar; collar bristles black. Thoracic pleura black, unevenly covered with silver micropubescence; yellow hairs similar to mystax on posterior half of mesopleura and sternopleura, mostly directed posteriorly, black hairs similar to hairs on collar on upper one-half of mesopleura, meseepimeral bristles hairlike, yellow, similar to hairs on metepisterna. Mesonotum usually mostly yellowish with darker borders and reddish humeral and posterior calli; central stripes and lateral spots indistinct, some specimens with dark red mesonotum have 2 distinct black central stripes and lateral spots; mesonotal vestiture of short sparse black hairs, longer near borders; scutellum black with abundant yellow hairs on posterior borders, hairs procline, scutellum appearing uniformly covered; 3 black
dorsocentral bristles near posterior border; 2 black notopleural bristles; 1 black intraalar bristle; 2 black postalar bristles. Slopes of postmesonotum with silver micropubescence. Wings (Fig. 377) hyaline, sometimes slightly yellowish; membrane finely rippled. Legs black; coxae with yellow hairs, longer and more abundant on front coxae, intermingled in equal amount black and white; femora, tibiae, and tarsi with black hairs, slightly more abundant on hind tibiae; bristles black. Claws black. First 2 abdominal segments black, remaining segments reddish; sparse micropubescence on sides of tergites 3 and 4; vestiture of segment 1 and 2 of black hairs, abundant yellow hairs on sides of tergite 1, vestiture of segments 3–8 of short sparse fine yellow hairs; hairs on sternites slightly longer. Genitalia (Fig. 311, 375) small, similar in color to segments 3–8, sometimes slightly darker, vestiture of short yellow hairs; penis sheath as in Fig. 376.

Female. Similar to male, usually longer and more robust; abdomen strongly tapered, usually dark red, glabrous on dorsum; ovipositor (Fig. 373) with short fine white hairs and 11-12 pairs of dark red spines at tip.

Measurements. Total length 24.0–33.5 mm., average 31.4 mm.; wing length 17.0–27.3 mm., average 22.0 mm.; wing width 5.1–7.2 mm., average 5.9 mm.

Geographic Distribution. As shown in Fig. 410.

Discussion. Specimens from Chile, Argentina, Uruguay, and Brasil belong to this species, confirming the wide distribution of the species. The color of the mesonotum varies from yellow with almost no distinct central stripes and lateral spots to dark red with black central stripes and lateral spots; the color of the mesonotum apparently is related to the age of the specimens, being dark red in the oldest specimens; the
color of the abdomen varies from orange to dark red, females usually having darker abdomens.

Four puparia have been collected belong to this species, a lateral view is shown in Fig. 252.

**Rhadinosoma n. gen.**

Type of the genus: *Rhadinosoma calderense* n. sp.

Head in front view one-fourth wider than high; vertex deeply sunken; ocellarium low but large, ocelli large. Head in lateral view: postocular area one-sixth the eye width; face flat (Fig. 379); first antennal segment twice as long as second, third segment equal in length to first 2 combined, depressed; microsegment cylindrical, one-fifth the length of the segment, with a long, slender, slightly dilated style bearing a short apical spine; mystax formed by one row of strong bristles on oral border, and 5-8 short hairs on central area of face. Mesonotum with central stripes and lateral spots, often indistinct; vestiture of short sparse weak hairs; 4 pairs of long, strong, distinct dorsocentral bristles located behind transverse suture. Scutellum with uniform vestiture of short weak hairs; 1 pair of strong scutellar bristles directed dorsally. Slopes of post-mesonotum with micropubescence only. Marginal and fourth posterior cells closed and stalked; *R₄* and *R₅* forming a symmetrical fork; *R₄* reaching wing border at wing tip, *R₅* behind wing tip; anal cell closed with a
short stalk; \( M_3 \) and \( m \) forming a 70° angle. Front tibial spur absent. Abdomen long, cylindrical, narrower than thorax, with 2-4 long strong bristles on each side of tergites 2-7. Wings reaching tip of abdomen. Male genitalia small, short, not rotated (Figs. 378, 381, 382); hypandrium short; epandrium short, fingerlike, not forcepslike; gonopods short, globose. Female genitalia long, strongly compressed; no spines on ovipositor.

**Distribution.** Neotropical (Chile), 1 species, *Rhadinosoma calderense* n. sp.

This genus is not closely related to any other genus of Chilean Asilinae, is easily recognizable by the flat face with a few bristles on the oral border, and the strong bristles on the sides of the tergites.

The name *Rhadinosoma* refers to the slender body (ὀστεόν = slender; σῶμα = body).

**Rhadinosoma calderense** n. sp.  
(Figs. 378-384, 469)

**Type.** ♂ , from 40 km. S.E. Caldera, Atacama, Oct. 17, 1957, L. E. Pena; this specimen is deposited in Departamento de Zoología, Universidad de Concepcion, Chile.
Diagnosis. Body uniformly covered with silver micropubescence, darker on dorsum of tergites; legs black or dark brown, base of femora and tibiae light brown; short hairs and bristles mostly white; mystax white. Male genitalia small, dark brown; ovipositor shiny dark brown.

Description of Type (♂). Head in front view: face, fronts, vertex, and postocular area covered by dense silver micropubescence; frontal hairs fine, white; ocelli reddish; ocellar bristles fine, white. Head in lateral view (Fig. 379): face silver, mystax of 16 white bristles on oral margin and 4 shorter ones between oral border and base of antennae, a few short white hairs intermingled with bristles; antennae black with silver micropubescence, which is dense on first segment and sparse on second and third; first and second segments with short black and white hairs intermingled; beard of short white hairs; postocular vestiture of fine sparse white hairs, mostly concentrated near eye borders; occipital bristles white, forming a continuous row behind vertex; postocular bristles white, aligned with occipital bristles forming a single row; proboscis shiny black with a few long fine white hairs on basoventral side and short yellow hairs at tip; maxillary palpi with a few white hairs. Prothorax covered with dense silver micropubescence, hairs sparse, fine, white; 4 strong white collar bristles. Thoracic pleura covered with dense silver micropubescence and a few fine long white hairs; 6 white mesepimeral bristles. Mesonotum covered with dense silver
micropubescence which is darker on anterior side and over central stripes and lateral spots, sparse dark golden micropubescence mixed with silver around lateral spots and along borders of central stripes; vestiture sparse consisting of a few short black hairs near middorsal line and a few fine white hairs on posterocentral area; scutellum with dense silver micropubescence and sparse uniformly distributed, fine white hairs; 4 dorsocentral bristles, most of them black; 2 long strong notopleural bristles, (black on one side and white on the other), 1 strong long white intraalar bristle; 1 strong white postalar bristle; scutellar bristles white. Slopes of postmesonotum with dense silver micropubescence. Wings (Fig. 380) hyaline, slightly fumose at tip; veins brownish. Coxae and trochanters similar in coverture to thoracic pleura, hairs and bristles white, more abundant on anterior part of front coxae; base of femora and tibiae light brown; tarsi dark brown; femora, tibiae, and tarsi covered with sparse appressed, fine, short white hairs; bristles white, some black bristles on tarsi, mainly on ventral side. Claws black. Abdomen with silver micropubescence, brownish on dorsum of each tergite; vestiture of short fine white hairs; lateral bristles of tergites white. Genitalia (Figs. 378, 381, 382) dark reddish brown, with hairs of similar color; white hairs on cerci; penis sheath as in Fig. 384.

Female. Similar to male; ovipositor (Fig. 383) dark brown, hairs white.
The name calderense refers to the type locality.

**Measurements of Type.** Total length 9.5 mm.; wing length 6.8 mm.; wing width 1.8 mm. Paratypes similar in size.


**Geographic Distribution.** As shown in Fig. 469.

**Discussion.** The color of the mesonotal bristles varies from white to black, the white bristles being always more abundant. Greased specimens appear completely black.

Stizolestes Hull


Type of the genus: *Asilus pamponeroides* Edwards (see discussion).

Head in front view one-eighth wider than high, vertex moderately sunken, ocellarium moderate. Head in lateral view: postocular area
one-fifth the eye width; facial gibbosity large, narrow, strongly produced; mystax abundant, long, located along midline of facial gibbosity; antennae long, slender, first segment twice the length of second, third segment tapered, one and one-fourth times the length of first 2 segments combined, with a short cylindrical microsegment and a long slender style usually three-fourths the length of the third segment; occipital and postocular bristles not distinct, instead abundant long fine hairs, strongly bend forward behind vertex. Central stripes and lateral spots of mesonotum distinct; mesonotal vestiture long, more dense on middorsal line and posterior to transverse suture; scutellum with fine pile, 1-6 pairs of scutellar bristles; slopes of postmesonotum with pile. Marginal and fourth posterior cells closed and stalked; R₄ reaching wing margin almost at wing apex, R₅ reaching wing margin far behind wing apex; anal cell closed with a short stalk; M₃ and m forming a 120° angle. Front tibial spur absent. Abdomen long, cylindrical in males, slightly compressed in females. Wings usually extending beyond tip of abdomen. Male genitalia small, not rotated; epandria usually separated, short, less than one-third the length of epandria; hypandrium short, hidden by sternite 8. Ovipositor pointed, compressed; no spines on cerci.

Distribution. Neotropical (Chile), 8 species.
Hull (1962:560) designated A. nigriventris Philippi as the type, but it is apparent from his description (base of wings white, front tibiae with a setate brush) and figures (especially figs. 2177 and 2211) that he based his description of this genus on *pamponeroides* rather than *nigriventris*.

The species in this genus have been previously included in the genus *Asilus* (Philippi, 1965; Bromley, 1932; Hull, 1962; and others). The genus *Asilus* is characterized by the absence of bristles on the abdomen, and appears to be only European; in the Chilean material studied, I have not found specimens of the genus *Asilus*.

The species of *Stizolestes* are similar; the body and the femora are black, usually shiny; the pile on the mesonotum, most of the pile on the femora and posterior segments of abdomen is also black; the tibiae are usually reddish on the basal three-fourths and black on the apex (this coloration is more or less constant in some species but greatly variable in others); a milky white condition of the base of the wing, abundant long pile on the front tibiae, and a distinctly bicolorous mystax are characteristics of the males; females are difficult to separate.

**Key to the Nales of Stizolestes**

1. Mystax black on upper part and white or yellow on lower part, sometimes only a few hairs on basal borders . . . . . . . . . 2

1'. Mystax totally black . . . . . . . . . . . . . . . . . . . . . . . . 4
2(1). Basal third of wings milky white ........ S. modellus (Bromley)
2'. Wings hyaline at base ........................................ 3

3(2'). Front tibiae with long dense white hairs .... S. gayi (Macquart)
3'. Front tibiae with few long yellowish hairs ...........

.................................................. S. nigriventris (Philippi)

4(1'). Base of wings milky white, or at least part of anal lobe or
alulae whitish, not totally translucent ............... 5
4'. Base of wings hyaline; when base of wings or alulae are over-
lapping, they still appear translucent .................. 8

5(4). Epandria 4-5 times longer than wide (Fig. 385); a distinct
golden spot behind humeral calli . S. aureomaculatus (Bromley)
5'. Epandria no more than 2 and one-half times longer than wide;
pale yellow or silver areas on mesonotum ............... 6

6(5'). Front tibiae and pretarsi with a dense brushlike tuft of white
or yellowish hairs, directed anterolaterally and forming a
45° angle with the tibia ...... S. pamponeroides (Edwards)
6'. Front tibiae without the above described brushlike tuft .... 7

7(6'). Front tibiae with 3-4 long red bristles on outer side, at least
one of which is half as long as tibiae; front tarsi segments
with distinct dense appressed white hairs on dorsum and sides .................................. \textit{S. eritrichus} (Philippi)

7'. Front tibiae without long bristles but with dense yellow erect hairs directed posteriorly; front tarsal segments with black hairs .................................. \textit{S. modellus} (Bromley)

8(4'). Front tibiae with long dense hairs all along ventral side; no distinct long bristles in center of tibiae .................................. \textit{S. mayi} (Edwards)

9(8'). Beard, front coxal hairs, and front tibial hairs and bristles black; tibiae mostly black .................................. \textit{S. atriabarbis} n. sp.

9'. Beard, front coxal hairs, and front tibial hairs yellow or white; tibiae mostly reddish with black apex, sometimes all tibiae mostly blackish .................................. \textit{S. nigriventris} (Philippi)

\textbf{Stizolestes aureomaculatus} (Bromley) n. comb.

(Figs. 385, 386, 461).

\textbf{Asilus aureomaculatus} Bromley, 1932, p. 274, fig. 25, Casa Pangue, Ensenada, Castro, Ancud; Stuardo, 1946, p. 84; Hull, 1962, p. 545.

\textbf{Type}. $\delta$ Casa Pangue, in British Museum, London, England (not seen); 2\textsuperscript{\(\delta\)} paratypes (seen).
**Diagnosis.** Body shiny black; a distinct golden spot behind humeral calli; mystax black. Male wings white in basal third or half; epandria 4-5 times longer than wide; front tibiae with abundant long yellow hairs.

**Male.** Head in front view: face with sparse gray micropubescence, frons and vertex blackish; frontal hairs black; ocellar bristles black. Head in lateral view: facial gibbosity blackish or dark gray; mystax black; antennal hairs black; occipital vestiture black, beard whitish with a few black hairs intermingled; maxillary palpi black with black hairs. Prothorax black with sparse black hairs, white on prothoracic lobe; collar bristles black. Thoracic pleura black with a few long, fine black hairs; mesepimeral bristles black and yellow intermingled. Mesonotum with golden micropubescence behind humeral calli and along sides, vestiture black; scutellum black with fine black hairs; 8-12 long black dorsocentral bristles; 2-4 black notopleural bristles; 1-2 black intraalar bristles; 2-5 black postalar bristles; 2-6 pairs of long, fine black scutellar bristles. Slopes of postmesonotum with abundant golden micropubescence and fine white pile. Wings milky white on basal third or half, fumose at apex and on posterior border; veins dark brown. Coxae black with light gray micropubescence and white hairs, abundant on anterior side of front coxae; femora dark brown to black with long fine black hairs, no distinct strong bristles; tibiae yellowish, apex black; front tibiae with abundant long yellow hairs all along tibiae and directed posteriorly, no distinct long bristles; middle and hind tibiae with fine
black bristles; tarsi black. Claws black. Abdomen shiny black with erect white hairs on segments 1-4, hairs shorter and mostly white on remaining tergites. Genitalia black (Fig. 385); epandrium 4-5 times longer than wide; penis sheath as in Fig. 386.

**Female.** Similar to male but wings hyaline at base and no long dense hairs on front tibiae; tibiae with black bristles and fine yellow or whitish hairs, sometimes intermingled with a few black hairs; ovipositor short, pointed, compressed, with black hairs; short yellow hairs on cerci.

**Measurements.** Total length 13.0-22.5 mm., average 19.8 mm. (paratypes 18.0-20.0 mm.); wing length 11.5-13.3 mm., average 12.1 mm.; wing width 2.8-3.2 mm., average 3.1 mm.


Geographic Distribution. As shown in Fig. 461.

Stizolestes eritrichus (Philippi) n. comb.
(Figs. 387, 388, 468).


Type, lost. A neotype is hereby designated as a from Fd. Malcho, Cord, Parral, Dec. 1956, Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Front tibiae with 3-4 long red bristles; front tarsi covered by abundant appressed white hairs; wings whitish on anal border and alulae; mystax totally black (only males known).
Description of Neotype (♂). Head in front view; frons, face, and vertex blackish, sparse gray micropubescence on sides of facial gibbosity; frontal hairs and occellar bristles black. Head in lateral view: facial gibbosity dark gray; mystax all black; antennal hairs black; beard yellowish; postocular area blackish with fine black hairs; maxillary palpi black with black hairs. Prothorax with black hairs, white hairs on prothoracic lobe; collar bristles black. Thoracic pleura with a few fine black hairs; mesepimeral bristles black and yellow intermingled. Mesonotum with silver micropubescence; 8-10 indistinct dorsocentral bristles; 2 black notopleural bristles; 1 black intraalar bristle; 2 black postalar bristles; scutellum with fine black hairs and a few yellow hairs intermingled mainly on posterior border; 2 pairs of black scutellar bristles. Front coxae with abundant pure white hairs; femora black; tibiae reddish with black apex, hind tibiae with apical half black; front tibiae with 3 long, shiny red bristles on posterior side and 2 shorter ones at apex; no long hairs on front tibiae; front tarsi completely covered on dorsum and sides by distinct appressed medium-sized yellowish hairs; similar vestiture on middle tarsi but less distinct. Abdomen with yellow hairs, distinctly longer on ventral side, last 2 tergites and last 3 tergites with black hairs. Genitalia (Fig. 387, 388) black, with black hairs, longer on basal border of epandria.

Female. Unknown.
Measurements of Neotype. Total length 17.8 mm.; wing length 14.2 mm.; wing width 3.4 mm.


Geographic Distribution. As shown in Fig. 458.

Discussion. This species (♂) can be recognized by the red bristles on the front tibiae and the unique vestiture of front tarsi.

Stizolestes atribarbis n. sp.

(Fig. 389, 459).

Type. ♂, from Pichinahuel, Cord. Nahuelbuta, Arauco, Dec. 31, 1958, G. Barria; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

Diagnosis. Similar to S. nigriventris but hairs of beard, front coxae, and front tibiae black; wings hyaline, slightly fumose at apex.

Description of Type (♂). Head in front view: face, frons, and vertex black, a small area between antennae and mystax dark golden; frontal hairs and ocellar bristles black. Head in lateral view: facial gibbosity
shiny black; mystax totally black; antennal hairs black; beard black; occipital area with dark gray micropubescence, vestiture black; hairs on ventral side of proboscis black; maxillary palpi black, hairs black. Prothorax with fine black hairs, lighter on prothoracic lobe; collar bristles black. Thoracic pleura with dark gray micropubescence and a few fine black hairs; mesepimeral bristles black. Mesonotum with dark gray micropubescence behind humeral calli and along sides; vestiture black, with a few fine whitish dorsocentral bristles; 2 black notopleural bristles; 3-5 black intraalar bristles; 4-5 black postalar bristles; scutellum with dark gray micropubescence and fine white hairs; 1 pair of black scutellar bristles. Coxae with gray micropubescence and black hairs, abundant on front femora; tibiae black, front tibiae slightly dark brown, vestiture of fine short hairs, black on front and middle tibiae, golden on hind tibiae; front tibiae with 3-4 long black bristles and several long, fine, black hairs directed posteriorly; tarsi black. Slopes of postmesonotum with whitish pile. Wings hyaline, slightly fumose at apex. Abdomen uniformly covered by dark gray micropubescence, with short black hairs on dorsum of tergites and longer white hairs on sides and on sternites, more abundant on sides of first tergite and on sternites 1-2; bristles on dorsum of tergites black, on sides whitish. Genitalia (Fig. 389) black with black hairs, a few short white hairs on sides of epandria and on gonopods, longer black hairs on ventral border of epandria near apex.

Female. Unknown.
The name *atribarbis* refers to the color of the beard.

**Measurements of Type.** Total length 13.9 mm.; wing length 9.6 mm.; wing width 2.4 mm. Paratypes of a similar size.


**Geographic Distribution.** As shown in Fig. 459.

**Discussion.** This species can be easily recognized by the black vestiture of the head, thorax, and legs; 2 paratypes have the front and middle tibiae dark brown in part.

*Stizolestes gayi* (Macquart) m. comb.
(Figs. 391, 394, 501).

*Asilus gayi* Macquart, 1838, p. 148 (nec *Dasypogon gayi* Macquart 1838, p. 37), Chile; 1850, p. 95; Blanchard, 1852, p. 370, Santiago, Valparaiso; 1854, Pl, 2 figs. 12 and 12a; Walker, 1855, p. 704; Philippi, 1965, p. 695, Santiago, Valparaiso, Valdivia; Williston, 1891, p. 89;
Bromley, 1932, p. 273, Concepcion, Puerto Montt, Puerto Varas, Peulla, Ancud, Casa Pangue, Ensenada; Stuardo, 1946, p. 85.


_Type._ ♀, Chile, in Museum National d'Histoire Naturelle, Paris, France (not seen). Types of _A. valdivianus_ and _A. incomptus_ lost.

**Diagnosis.** Face mostly golden; mystax black on upper part and pure white on lower part in males, mostly black in females; brownish micropubescence on thoracic pleura and on dorsum of tergites; wings hyaline; males with abundant pure white long dense pile on front tibiae, females with this pile more sparse.

**Male.** Head in front view: face with golden micropubescence between facial gibbosity and antennae and on lower borders of face, facial gibbosity brown; frons with gray micropubescence; frontal hairs and ocellar bristles black; antennal hairs black. Head in lateral view: facial gibbosity appearing blackish; mystax black on upper two-thirds, white on basal third; beard white; postocular area gray with long fine vestiture; hairs on
ventral side of proboscis white; maxillary palpi black with black hairs. Prothorax with whitish hairs; collar bristles yellow and black intermingled. Thoracic pleura shiny dark brown, unevenly covered with golden brown micropubescence and a few fine white hairs; mesepimeral bristles yellow. Mesonotum with silver micropubescence except on the central stripe and lateral spots, which appear dark brown or blackish; scutellum with gray micropubescence and fine uniformly distributed white hairs; 10-14 black dorsocentral bristles, usually indistinct; 2 black notopleural bristles; 1 black intraalar bristle; 2 black postalar bristles; 3-4 pairs of long, fine, black scutellar bristles. Wings (Fig. 394). Coxae with white hairs, abundant on anterior side of front coxae; femora black with short white hairs on middle and hind femora; long white hairs on venter and long black hairs on dorsum of front femora; front tibiae with long fine distinct white hairs, usually arranged in 2 dense rows along posterior side; bristles on front tibiae and on hind femora yellowish, others mostly black; tibiae reddish, basal half or apex black; tarsi black. Abdomen with gray micropubescence on sides and venter; dorsum appearing shiny dark brown with short yellow hairs, remaining vestiture of medium-sized to long white hairs, more dense on first and second tergites. Genitalia as shown in Fig. 391; vestiture black, a few longer black bristles on ventral side

**Female.** Similar to male but mystax mostly or entirely black, and only a few long whitish hairs on front tibiae; ovipositor similar to other species of the genus.
Measurements. Total length 15.5-16.8 mm., average 17.5 mm. (type 6 lin. (= 12.6 mm.)); wing length 11.4-11.5 mm., average 11.5 mm; wing width 2.8-3.1 mm., average 3.1 mm.

Material Examined. 51♂ and 41♀. ARAUCO: 1♂ Contulmo, Dec. 20, 1904, Schonemann S. (INCO); 1♂ Contulmo, Oct. 29, 1903, Schonemann S. (INCO); 1♂ Contulmo, Oct. 15, 1904, Schonemann S. (BERL); 1♂ Contulmo, Dec. 13, 1904, Schonemann S. (BERL); 1♂ 2♀ Contulmo, Dec. 2, 1904, Schonemann S. (BERL); 2♀ Contulmo, Dec. 22, 1904, Schonemann S. (BERL); 1♀ Contulmo, Oct. 26, 1903, Schonemann S. (BERL); 1♀ Contulmo, Dec. 20, 1904, Schonemann S. (Berl); 1♀ Contulmo, Dec. 1, 1904, Schonemann S. (BERL); 1♀ Contulmo, Nov. 22, 1904, Schonemann S. (BERL); 1♂ 1♀ Contulmo, Nov. 8, 1903, Schonemann S. (BERL); 2♂ Contulmo, Nov. 15, 1904, Schonemann S. (BERL); 1♀ Contulmo, Nov. 12, 1905, Schonemann (BERL); 1♂ Contulmo, Nov. 20, 1903, Schonemann (BERL); 1♀ Peillem Pilli, Cord. Nahuelbuta, 600-800 m., Arauco, Jan. 13, 1954, L. E. Pena (INCO). CAUTIN: 1♂ Cerro Nielol, Temuco, Jan. 2, 1963, Fetis (INCO); 1♀ Loncoche, Jan. 5, 1962, H. M. Vegas (INCO); 1♂ Temuco, Chile, 1920 (USNM); 1♂ Temuco, 1920 (USNM); 1♂ Temuco, Oct. 13-15, 1940, P. A. Berry (USNM); 1♀ 20 km. E. of Temuco, Jan. 7, 1961, R. & M. (CAS); 1♂ Temuco, Nov. 3, 1960, Balboa (INCO); 1♀ Tolten, Feb. 10, 1937 (USNM). CONCEPCION: 1♂ Concepcion, Nov. 18, 1956, F. Silva (INCO); 1♂ Concepcion Oct. 18, 1959, F. Silva (INCO); 1♂ Concepcion, Nov. 12, 1956, F. Silva (INCO); 1♀ Concepcion, Nov. 20, 1956, F. Silva (INCO); 1♀ Concepcion,
Lanco, Feb. 3, 1962, J. Garcia (INCO); 3♂'s 23470, 23473, 23474 and 1♀
#23471 Panguipulli, Valdivia, Dec., 1951 (BRAS); 2♂ Panguipulli, Jan., 1928,
Engesser S. (BERL); 2♂ 30 km. S. of Valdivia, Jan. 13, 1951, R. & M.
(CAS); 1♀ Valdivia, Dec. 17, 1954, Sandoval (INCO). **Locality uncertain:**
1♀ #53 Rofuco, Jan. 13, 1930, F. Ruiz (USNM). **No locality or date:**
1♂ Chile, E. P. Reed (INCO); 1♂ #2107 and 2♀ Chile, Philippi S. (BERL).

**Geographic Distribution.** As shown in Fig. 501.

**Discussion.** For discussion about the material identified by
Macquart in Museum National d'Histoire Naturelle, see discussion of
Cratopoda helix.

The males are easily separated by the long white pile on the front
tibiae and the base of wing hyaline; females are difficult to separate
when the golden brown micropubescence on the thoracic pleura and the
dorsum of the tergites has been damaged by the presence of grease; some
females have abundant white pile on the front tibiae, some almost more
than some males, but usually the pile is reduced to only few hairs;
females are easily confused with females of S. nigriventris.

Type measurements are according the original description; the
smaller size of the type compared with the material examined could be
because specimens with partially telescoped abdominal segments have not
been measured; this telescoped condition is common in the species.
Stizolestes mayi (Edwards) n. comb.

(Figs. 393, 444)


Diagnosis. Mystax black; wings hyaline at base; front tibiae with long dense yellow pile; tibiae largely yellow.

Male. Head in front view: face with silver micropubescence, frons and vertex blackish; frontal hairs and ocellar bristles black. Head in lateral view: facial gibbosity gray; mystax abundant, totally black; hairs on antennae black; beard white; hairs on ventral side of proboscis black; maxillary palpi black with black hairs; postocular vestiture and occipital bristles black. Prothorax with whitish hairs, more abundant on prothoracic lobe; collar bristles black. Thoracic pleura with gray micropubescence on lower half, upper half mostly dark brown with scattered fine whitish or blackish hairs, mesepimeral bristles yellow, with a few black bristles intermingled. Slopes of postmesonotum with silver micropubescence and white pile. Wings hyaline at base, fumose in apical half. Coxae and front femora with abundant hairs, white and black intermingled; front tibiae with long dense yellow pile, tibiae reddish, apex black; tarsi black; bristles on legs weak, usually short and black. Abdomen
with abundant long fine white pile on segments 1-3, remaining tergites with shorter hairs, black on tergites 7 and 8; pile on sternites long, mostly black. Genitalia (Fig. 393) black, epandria two to two and a half times longer than wide, hairs black, a few longer hairs on basal border near apex; dististylus usually visible from outside.

Female. Unknown.

Measurements. Total length 18.0 mm. (type 16.0 mm.); wing length 11.7 mm.; wing width 3.4 mm. All specimens studied similar in size.


Geographic Distribution. As shown in Fig. 444.

Discussion. This species (♂) strongly resembles S. aureomaculatus in body length, uniform black color of the mystax, and the long epandria; it differs in the color of the base of the wing, which is milky white in aureomaculatus and hyaline in mayi; the epandria are proportionally longer in aureomaculatus. The type measurement is according to the original description.
Stizolestes modellus (Bromley) n. comb.

(Figs. 390, 499.)


Diagnosis. Male: wings milky white in basal one-sixth; front tibiae with abundant long yellow pile; mystax black on upper side, yellow or whitish on lower one-third or one-half; tibiae from totally black to mostly reddish with black apex.

Male. Head in front view: face very narrow, usually blackish, sometimes silvery; frons blackish; frontal hairs and occipital bristles black. Head in lateral view: facial gibbosity blackish; mystax black in upper one-half and three-fourth, lower hairs white to dark yellow; hairs of antennae black; beard white to dark yellow, similar to hairs of anterior side of front coxae; hairs on ventral side of proboscis white or yellowish; maxillary palpi black, hairs black; postocular area blackish, ventiture mostly black. Prothorax with whitish hairs, more dense on prothoracic lobe. Thoracic pleura with groups of long, fine white and black hairs; mesepimeral bristles yellow. Mesonotum with silver micropubescence except on central stripe and lateral spots, which appear black, scutellum blackish, with silver micropubescence on borders and
fine black hairs on disc; 10-14 indistinct dorcentral bristles; 2-3 black notopleural bristles; 1 black intraalar bristle; 2-3 black postalar bristles; 2-3 pairs of fine scutellar bristles, mixed with several hairs of similar color and length. Coxae with white and black hairs intermingled; femoral hairs black on dorsum and mostly white on ventral side, much longer on front femora; 3-5 long usually reddish fine bristles on external side of hind femora; no distinct long bristles on front femora; tibiae reddish yellow, apex black, sometimes tibiae all black; front tibiae with abundant long yellow pile directed posteriorly, no distinct long bristles; other bristles on legs short, weak, and black. Abdomen black, sometimes dark brown on dorsum of tergites; vestiture of fine yellow or whitish hairs on segments 1-3, remaining hairs black, short on dorsum, longer on sides and ventral part; sides of tergites 4 and 5 with yellow bristles. Genitalia similar to S. atribarbis (Fig. 389), vestiture of black hairs.

Female. Similar to male but wings hyaline at base, no long yellow pile on front tibiae, and mystax mostly or totally black; front tibiae with 4-5 fine long black bristles directed posteriorly and a few long white hairs.

Measurements. Total length 11.2-13.5 mm., average 13.1 mm. [type 13.0 mm.]; wing length 8.1-9.7 mm., average 9.3 mm.; wing width 2.1-2.7 mm., average 2.5 mm.

Geographic Distribution. As shown in Fig. 499.

Discussion. The females studied have been recognized among the material collected on the same date and locality as the males by their narrow
blackish face and small, almost circular heads from front view. This species is sympatric with S. nigriventris, from which it is difficult to separate.

Type measurements are from the original description.

**Stizolestes nigriventris** (Philippi) n. comb.

(Figs. 392, 395-398, 503)

**Asilus nigriventris** Philippi, 1865, p. 966 (nee *nigriventris* Bigot, 1878); Williston, 1891, p. 91; Kertesz, 1909, p. 261; Stuardo, 1946, p. 85.

Type, lost. A neotype is hereby designated as a from Co. Nielol, Jan, 1963, Fetis; this specimen is deposited in Departamento de Zoologia, Universidad de Concepcion, Chile.

**Diagnosis.** Male: Upper three-fourths of mustax black and lower third yellowish; front tibiae with a few long whitish or black fine hairs and 3 weak yellow or black bristles. Wings hyaline in both sexes.

**Description of the Neotype (♂).** Head in front view: face with light golden micropubescence, gray in frons; frontal hairs black. Head in lateral view (Fig. 395): facial gibbosity black; upper two-thirds of mystax black, basal one-third yellowish; hairs on antennae black; beard whitish; hairs on ventral side of proboscis white, dense; palpi black with black hairs; postocular area with gray micropubescence, vesti-
ture of fine black hairs. Prothorax with a few fine white hairs; most collar bristles yellow, some black. Thoracic pleura with sparse fine gray micropubescence and a few fine black or whitish hairs; mesepimeral on metepisterna. Mesonotum and scutellum with dense silver micropubescence except on central stripe and lateral spots; lateral spots connected forming a broad band; in lateral view central stripe and later spots appear dark brown; 10-12 indistinct black dorsocentral bristles; 2 black notopleural bristles; 2 black intraalar bristles; 2 black postalar bristles; scutellum with fine white hairs; 3 black scutellar bristles. Slopes of postmesonotum with silver micropubescence, pile white. Wings hyaline, fumose in apical fourth. Coxae with white hairs, abundant on anterior side of front coxae; femora with a few weak, mostly yellow hairs; some black hairs on front femora; tibiae reddish yellow, apex black, bristles fine, short on hind tibiae; front tibiae with 3 weak yellow hairs of similar length; tarsi black. Abdomen with brownish gray micropubescence on dorsum of tergites and on sternites; lateral borders of tergites glabrous, bluish black; medium-sized white hairs on tergites 1 and 2, on sides of all tergites, and on sternites; tergites 3-8 with short black hairs; bristles on sides of tergites yellow. Genitalia (Fig. 392, 397, 398) black; hairs black, a few longer ones on ventral border of epandria; penis sheath as in Fig. 396.

**Female.** Similar to male but mystax mostly or totally black; ovipositor similar to other species.
Measurements. Total length 11.8-16.1 mm., average 15.0 mm. [neotype 15.1 mm.]; wing length 7.3-10.2 mm., average 9.5 mm. [neotype 10.1 mm.]; wing width 2.1-3.0 mm., average 2.7 mm. [neotype 3.0 mm.].

Jan. 12, 1951, R. & M. (CAS); 1♀ Temuco, Jan., 1909, P. Herbst (CAS); 3♂ 2♀ 20 km. E. of Temuco, Jan. 7, 1951 (CAS); 1♂ Temuco, Feb. 12, 1936 (USNM); 1♀ Temuco, Sept. 12, 1936 (INCO). CHILOE: 2♂ 1♀ Ancud, Isla Chiloe, Dec., 1926, R. & E. Shannon (INCO); 1♀ Aucar, Chiloe, Jan. 6-15, 1952, L. E. Pena (INCO); 1♂ 1♀ (copula), Castro, Dec. 12-18, 1940, P. A. Berry (INCO); 1♀ Dalcahue, Isla Chiloe, Feb., 1961, L. Pena (INCO).

CONCEPCION: 1♀ Coelemu, Feb. 1, 1954, Hillerns (INCO); 1♀ #1179 Coelemu, Jan. 2, 1957, Hillerns (INCO); 1♀ Coelemu, Jan. 5, 1957, Hillerns (INCO); 1♂ Concepcion, Nov. 1904, P. Herbst (CAS); 1♂ Concepcion, 1903, P. Herbst (CAS); 2♂ Concepcion, Schonemann S. V. (BERL); 17♂ 3♀ Concepcion, Jan. 24, 1962, Mendez (INCO); 3♂ Concepcion, Jan. 3, 1958, J. O. R. (INCO); 1♂ 1♀ Concepcion, Jan. 25, 1962, Mendez (INCO); 1♂ Concepcion, Nov. 4, 1956, J. O. R. (INCO); 1♀ Concepcion, Jan. 20, 1962, Mendez (INCO); 1♂ #1182 Concepcion, Jan. 27, 1958, J. O. R. (INCO); 18♂ 13♀ Concepcion, Feb. 18, 1962, Mendez (INCO); 2♂ 1♀ Coronel, Jan. 7, 1962, Artigas (INCO); 1♀ Chiguayante, Jan. 7, 1962, Mendez (INCO); 1♂ #1184 Florida, Nov. 19, 1957, J. A. R. (INCO); 1♀ Lota, Dec. 15, 1958, L. Ramirez (INCO); 1♂ (gen. prep.) San Pedro, Nov. 24, 1956, Cid (INCO); 1♀ San Pedro, Nov. 15, 1956, Cid (INCO); 1♂ San Pedro, Jan. 29, 1957, J. R. (INCO). CURICO: 1♂ Coigual, Curico, 1400-1600 m., Jan. 13, 1955, L. E. Pena (BRAS); 2♂ El Coigo, Curico, Jan., 1961, Pena (INCO); 1♂ El Coigo, Curico, Feb., 1961, Pena (INCO). LINARES: 10♂ Cord. Parral, Dec. 1-8, 1960, Pena (INCO); 1♂ Cord. Parral, Dec., 1950, Pena (INCO); 1♂ 1♀ Cord. Parral, Dec., 1956, Pena (INCO); 1♂ Estero Leiva, Cord. Parral, Jan. 8-12, 1953, Barros-Pena (INCO); 1♀ Fdo. Malcho, Cord. Parral, Dec.,
1950, L. E. Pena (INCO); 1♂ Fdo. Malcho, Cord. Parral, Jan., 1957, Pena (INCO); 1♂ Fdo. Malcho, Parral, Dec., 1956, L. E. Pena (INCO); 5♂ 4♀ Fdo. Malcho, Parral, Jan., 1957, L. E. Pena (INCO); 1♂ Las Cruces, Cord. Parral, Dec. 12-14, 1960, Pena (INCO). LLANQUIHUE: 1♂ Ensenada, Llanquihue, Dec. 14-15, 1926, F. & M. Edwards (BRIT); 1♂ Peulla, Llanquihue, Dec. 12-18, 1926, F. & M. Edwards (BRIT); 3♂ Puerto Montt, Llanquihue, Dec., 1926, R. & M. Shannon (INCO); 4♂ Puerto Montt, Llanquihue, Dec., 1926, R. & E. Shannon (INCO); 1♀ Puerto Varas, Llanquihue, 1926, R. & E. Shannon (INCO); 3♂ 1♀ Puerto Varas, Llanquihue, Dec., 1926, R. & E. Shannon (INCO). MALLECO: 1♀ Angol, Nov. 26, 1959, M. Quilotran (INCO); 1♂ Angol, Nov. 1, 1961, M. Klacker (INCO); 1♂ Angol, Nov. 17, 1958, Soto (INCO); 1♀ Angol, Nov. 27, 1961, Figueroa (INCO); 1♂ Angol, Dec. 10, 1961, B. Bustos (INCO); 1♂ Angol, Nov., 1961, J. Munoz (INCO); 1♂ Angol, Dec. 17, 1961, Pendola (INCO); 1♂ Angol, Dec., 1959, G. Moller (INCO); 1♂ Angol, Dec. 3, E. Salgado (INCO); 1♂ Angol, Dec. 7, 1961, E. Riquelme (INCO); 1♂ Angol, Dec. 8, German Huertas (INCO); 1♂ Angol, Nov. 8, 1964, N. San Martin (INCO); 1♂ Angol, Dec. 5, 1959, B. Carvallo, (INCO); 1♂ Angol, Dec. 9, 1961, J. Munoz (INCO); 1♂ Angol, Nov. 11, 1961, E. Salgado (INCO); 1♂ Angol, Dec. 3, 1959, R. Paredes (INCO); 1♂ Angol, Jan. 3, 1962, Figueroa (INCO); 1♂ Angol, Dec. 4, 1959, B. Carvallo (INCO); 1♂ Angol, Dec. 1, 1961, Pendola (INCO); 1♂ Angol, Nov. 10, 1960, M. Morales (INCO); 1♂ Angol, Oct. 26, 1958, G. Contreras (INCO); 1♂ (gen. prep.) Angol, Dec. 26, 1927 (INCO); 1♂ Angol, Oct. 26, 1956, O. Fetis (INCO); 1♀ Angol, Dec. 8, 1960, R. Sienemann (INCO); 1♀ Angol, Nov. 28, 1960, E. Sandoval (INCO); 1♂ Angol, Dec. 6, 1956, O. Fetis (INCO); 1♂ Angol, Nov. 19, 1958, S.
S. Perez (INCO); 1♀ Angol, Nov. 28, 1960, Nunez (INCO); 1♂ Angol, Dec. 7, 1959, E. Montoya (INCO); 1♀ Angol, Nov. 18, 1958, E. Vegas (INCO); 1♂ Angol, Dec. 6, 1959, A. Paraedes (INCO); 1♂ Angol, Oct. 3, 1956, O. Fetis, (INCO); 1♀ Angol, Dec. 9, 1940, M. Rebolledo (USNM); 1♀ Angol, Jan. 1, 1930 (USNM); 1♂ Angol, Nov., 1940, P. A. Berry (USNM); 1♀ Angol, Dec. 7, 1937, (USNM); 1♂ #394, Dec. 26, 1927 (USNM); 1♂ Angol, Oct. 8, 1937, Vega (USNM); 2♂ Angol, Jan. 1, 1951, R. & M. (CAS); 1♀ Angol, Dec. 31, 1950, R. & M. (CAS); 1♀ Angol, Malleco, Jan., 1951, L. E. Pena (BRAS); 1♂ Angol, Dec. 5, 1934 (USNM); 1♂ Angol, Nov. 1, 1934 (USNM); 1♂ Angol, Dec., 1937 (USNM); 1♂ Angol, Aug. 14, 1937 (USNM); 1♂ Angol, Dec. 8, 1937 (USNM); 1♂ Angol, Nov. 7, 1934, D. S. Bullock (USNM); 1♀ Angol, Jan. 1, 1934, D. S. Bullock (USNM); 1♂ Angol, Dec., 1934 (USNM); 1♂ Angol, Nov. 25, 1935, D. S. Bullock (USNM); 1♀ Angol, Nov., 1940, P. A. Berry (USNM); 1♀ Angol, Dec. 26, 1927 (USNM); 1♀ Angol, Dec. 5, 1935 (USNM); 1♂ Angol, March 6, 1941, P. A. Berry (USNM); 1♂ Angol, Dec. 9, 1939, D. S. Bullock (USNM); 1♂ Angol, Dec. 7, 1929 (USNM); 1♂ 1♀ Calletue, 1953, Dr. Reed (CAS); 1♀ Calletue, Jan., 1932, Dr. Reed (CAS); 1♂ Curacautín, Malleco, 521 m., Dec. 19-21, 1950, L. E. Pena (INCO); 1♂ Sierra de Nahuelbuta W. of Angol, 1200 m., Jan. 2, 1951 (CAS). NUBLE: 1♂ Chillan, Dec. 16, 1961, Artigas (INCO); 1♂ 1♀ Los Cipreses, 1000 m., Nuble, Jan. 19, 1955, L. E. Pena (BRAS); 1♀ Recinto, Nuble, Feb., 1955, L. E. Pena (BRAS); 1♀ 2♀ 15 km. E. of San Carlos, Dec. 23, 1950 (CAS); 2♂ 1♀ San Carlos, Dec. 25, 1950, R. Cortes (CAS); 1♀ 18 km. E. of San Carlos, Dec. 24, 1950 (CAS); 1♂ 15 km. E. of San Carlos, Dec. 28, 1960 (INCO); 1♂ 2♀ San Fabián de Alico, Nuble, Jan., 1954, L. Pena (BRAS). O'Higgins:
1♀ Peumo, Nov., 1952, E. O. B. (INCO). OSORNO: 2♂ 3♀ Pto. Octay, Nov. 2, 1956, J. Salgado (INCO); 1♂ 30 km. W. of Purranque, Jan. 15, 1951 (CAS); 1♂ 30 mi. W. of Purranque, Osorno, Jan. 16, 1951 (CAS); 1♂ Osorno, Nov. 26, 1937 (USNM). SANTIAGO: 1♀ Las Condes, Santiago, Nov., 1959, Pena (INCO); 1♂ Penalolen, Santiago, Nov. 28, 1954, L. E. Pena (BRAS). TALCA: 1♀ Alto Vilches, Jan. 17, 1964, L. E. Pena (INCO); 1♂ #50 Las Mercedes, Jan. 10, 1936, F. Ruiz (INCO); 2♂ 4♀ 22 mi. N. of Talca, Dec. 22, 1950, R. & M. (CAS). VALDIVIA: 1♀ Lanco, Feb. 3, 1962, J. Garcia (INCO); 1♀ Las Mercedes, Jan. 17, 1964, L. E. Pena (INCO); 1♂ #50 Las Mercedes, Jan. 10, 1936, F. Ruiz (INCO); 2♂ 4♀ 22 mi. N. of Talca, Dec. 22, 1950, R. & M. (CAS). VALPARAISO: 1♂ Algarrobo, Valparaiso, Sept. 24–27, 1950, L. Pena (INCO); 1♂ Alhue, Dec., 1929, Dr. Reed (CAS); 1♀ Quillota, Las Palmas, Nov. 20, 1954, L. Pena (BRAS); 1♀ Renaca, 1932, Dr. Reed (CAS); 2♂ S. Slope Bell Mtn. 3000 f., Dec. 17, 1950, R. & M. (CAS); 1♂ Valparaiso, Dr. Reed (CAS); 1♂ Valparaiso, A. Faz (USNM); No. locality or date: 1♀ 1♂ Chile, Philippi (BERL); 1♂ #22 1♀ Chile, Dr. Reed (CAS); 4♂ 6♀ Chile, E. P. Reed (CAS).

**Geographic Distribution.** As shown in Fig. 503.

**Discussion.** Variation in the color of the hairs and bristles is common, usually to white, yellow, or reddish; the brownish gray micro-pubescent on the dorsum of the tergites is often hidden by grease, or missing.

The name *nigriventris* has been used 7 times to name Asilidae others than *Stizolestes nigriventris* (Philippi):
Dasypogon nigriventris Dufour, 1833, Spain; Proctacanthus nigriventris Macquart 1838, America Septentrionalis [N. America]; Hirmoneura nigriventris Macquart, 1849, Tasmania; Mallophora nigriventris Jaennike, 1867, Paraguay; Stenopogon nigriventris Loew, 1868, Asia Minor; Lochites nigriventris Bigot, 1878, Chile [see Deromyia]; Dioctria nigriventris Strobl, 1902, Europe Meridionalis [s. Europe].

Hulls designation of Asilus nigriventris Philippi as genotype of Stizolestes is apparently based on a misidentification

**Stizolestes pamponeroides** (Edwards) n. comb.

(Figs. 399, 502)

Asilus pamponeroides Edwards, 1932, p. 277, Fig. 26, Aucud; Stuardo, 1946, p. 85; Hull, 1962, p. 545.


Diagnosis. Males: mystax totally black; wings milky white in basal third; front tibiae and basitars with a dense brushlike tuft of white or yellow hairs directed anterolaterally, forming a 45° angle with tibiae.
Male. Head in front view: face and frons with silver micropubes-
ence, usually a golden spot between antennae and mystax; frontal hairs
black. Head in lateral view: facial gibbosity blackish; mystax totally
black; antennal hairs black; beard white to dark yellow, similar in color
to hairs on anterior side of front coxae and front tibiae; ventral hairs
of proboscis abundant, long, similar in color to beared; maxillary palpi
black with black hairs; postocular area blackish, silver on eye borders,
vestiture black. Prothorax with fine blackish vestiture, whitish and
more dense on prothoracic lobe. Thoracic pleura with a few small spots
of golden micropubescence, a distinct one on base of metepisternae;
pile sparse, fine, long, black. Mesonotum with golden micropubescence
except on central stripe and on lateral spots which appear black; gray
micropubescence on posterior calli and on postercentral area; scutellum
blackish, pile black; 12-20 indistinct black dorsocentral bristles; 2
black notopleural bristles; 1 black intraalar bristle; 2 black postalar
bristles; 3-4 pairs of scutellar bristles. Slopes of postmesonotum with
silver micropubescence and pile intermingled whitish and black. Wings
milky white basally, mainly on basal and anal cells; apical half fumose.
Coxae with white, black and yellow hairs intermingled; pile on femora
mostly black, erect on front femora; tibiae reddish yellow with apex
black, sometimes hind tibiae totally black, front tibiae with 3-4 long
fine black bristles and a few long hairs; a dense brushlike tuft of
medium-soized yellow or white hairs on sides of apical third; tarsi
black. Abdomen shiny black, vestiture of white erect hairs on segments
1-3, black on remaining segments, shorter on tergites 4-8. Genitalia
black; epandria short, one and one-fourth to one and one-half times as long as wide; vestiture black, long hairs on ventral border near apex.

**Female.** Similar to male, but wings hyaline at base and the brush-like tuft on the tibiae and basitarsi is usually less distinct; ovipositor as in Fig. 399.

**Measurements.** Total length 13.5-17.3 mm., average 15.8 mm. [type 16.0 mm.]; wing length 9.2-13.1 mm., average 11.1 mm. [type 13.0 mm]; wing width 2.3-3.1 mm., average 2.7 mm.

**Material Examined.** 26♂ 6♀. ARAUCO: 1♂ Contulmo, Oct. 4, 1903 (INCO); 1♂ Contulmo, Dec. 22, 1904 (BERL); 1♂ Contulmo, Oct. 17, 1904 (BERL); 1♂ Contulmo, Oct. 7, 1903 (BERL); 2♂ Contulmo, Oct. 9, 1903 (INCO; BERL); 2♂ Contulmo, Oct. 15, 1904 (BERL); 1♀ 10 mi. N. E. of Pucon, Jan. 12, 1951, R. & M. (CAS). CHILOE: 2♂ Ancud, Dec. 18, 1926, R. & E. Shannon (INCO). CONCEPCION: 1♂ Concepcion, P. Herbst, 1903 (CAS); 1♂ Concepcion, Dec. 20, 1955, J. A. C. (INCO); 1♂ Concepcion, Nov. 12, 1955, E. Bravo (INCO); 1♂ Concepcion, Nov. 6, 1957, P. Alister (INCO); 1♀ Concepcion, Dec. 15, 1956, J. A. C. (INCO); 1♂ Concepcion, Dec. 5, 1955, C. Aguayo (INCO); 1♀ Concepcion, Jun. 10, 1955, Voldoin (INCO); 2♂ 2♀ Concepcion, Oct. 8, 1956, Cid (INCO); 1♀ Concepcion, Nov. 22, 1955, E. Bravo (INCO); 1♂ Florida, Oct. 15, 1955, Casan (INCO); 2♂ Laraquete, Oct. 18, 1964 (INCO); 1♂ Lag. San Pedro, Nov., 1963, T. Cekalovic (INCO); 1♂ San Pedro, Nov. 24, 1956, Cid (INCO); 1♀ San Pedro,
10, 1956, Cid (INCO); 19 San Pedro, Nov. 9, 1956, Cid (INCO); 19 Talcahuano, Sept., 1955, C. Mergrin (INCO); 19 Talcahuano, Sept. 26, 1934 (USNM).


**Geographic Distribution.** As shown in Fig. 502.

**Discussion.** Males are easily recognized by the milky white base of the wings and the brushlike tuft on the front tibiae and basitarsi; females can be recognized when the tuft on the front tibiae is distinct, but when it is indistinct they can easily be confused with females of *S. modellus*. Type measurements are the original description.

**Zoticus n. gen.**

Type of the genus: *Zoticus toconaoensis* n. sp.

Head in front view two-sevenths wider than high; vertex deeply excavated and narrow; ocellarium low, ocelli large. Head in front view: postocular area one-seventh the eye width; facial gibbosity long, well developed, occupying four-fifths of face, frontal border gently curved, almost straight; antennae long, first segment one and one-half times the length of second; third segment one and one-fourth the length of first, compressed; terminal style three-fourths the length of third segment, with a short terminal spine (Fig. 400); mystax
abundant, long and dense, arising from all over doral area of facial gibbosity. Mesonotum with central stripes and lateral spots; coverture of short sparse hairs, some longer behind transverse suture; 6-8 long dorsocentral bristles. Scutellum with long hairs, slightly curved toward the head; 4-5 pairs of long strong scutellar bristles. Slopes of postmesonotum with micropubescence only. Marginal and fourth posterior cells closed and stalked; $R_4$ ending before wing tip, $R_5$ ending behind wing tip; anal cell closed, with a short stalk; $M_3$ and $m$ forming a $100^\circ$ angle. Front tibial spur absent; fron femora with bristles. Abdomen more or less cylindrical, slightly tapered in males, mostly compressed in females; strong bristles on sides of tergites and on posterior borders of sternites. Wings not reaching tip of abdomen. Male genitalia of moderate size, not rotated; hypandrium short, with a rectangular notch on center of posterior border; epandrium long, with a notch and a fingerlike process on posterior border; gonopods short, globose. Ovipositor compressed, bladelike (Fig. 401), including segment 7; no spines on cerci.

The name Zoticus refers to the fast movements of the specimens, mainly when flying ($\zeta\omega\tau\kappa\sigma\varsigma = vivacious$)

**Distribution.** Neotropical (Chile), 1 species, *Zoticus toconaensis* n. sp.

This genus is similar to *Atractocoma* and *Megametopon*. It differs from *Atractocoma* in having the first tergite complete and $R_4$ not angulated at base; the body hairs are distinctly spindle shaped in *Atractocoma*, and
normal in *Zoticus*. It differs from *Megametopon* among other characters, by having bristles on the front femora; *Megametopon* has only long strong hairs on the front femora.

*Zoticus toconaoensis* n. sp.

(Figs. 400-405, 489)

**Type.** ♀, from Toconao, 2480 m., March, 1954, L. Pena; this specimen is deposited in Departamento de Zoologia, Universidad de Concepción, Chile.

**Diagnosis.** Body mostly grayish; femora black, tibiae brownish; hairs and bristles of body and legs white; mystax white, or black and white intermingled; male genitalia black; sternite 8 short, with black or black and white hairs intermingled on posterior border.

**Description of Type (♂).** Head in front view: face uniformly covered by dense silver micropubescence, frons mostly shiny black, a few area of gray micropubescence along lateral borders and over ocellarium, ocelli yellowish; frontal hairs mostly white, with a few longer hairs intermingled; ocellar bristles black, divergent. Head in lateral view (Fig. 400): facial gibbosity gray; mystax white; antennae black, first and second segments with black and white hairs intermingled, distinctly longer on ventral side; beard white; postocular area covered with dense gray micropubescence, vestiture of fine white hairs; postocular bristles yellow; occipital bristles white, proclinate, intermingled with abundant
longer white hairs, more dense on vertex; proboscis black with fine sparse long hairs on ventral side, short yellow hairs at tip; maxillary palpi black with white hairs. Prothorax shiny black with sparse white micropubescence and long white hairs; collar bristles white. Thoracic pleura unevenly covered with silver micropubescence and a few fine white hairs; mesepimeral bristles white. Mesonotum with gray micropubescence except over central stripes and lateral spots, vestiture of sparse short white hairs, longer on postero-central part where a few black hairs are intermingled; scutellum with similar micropubescence and long sparse white hairs; 8 white dorsocentral bristles; 2 white notopleural bristles; 1 white intraalar bristle; 1 white postalar bristle; 4 pairs of white scutellar bristles. Slopes of postmesonotum with silver micropubescence. Wings (Fig. 402) hyaline; veins brown, lighter in costal and basal areas. Coxae similar in coverture to thoracic pleura, fine hairs and bristles white, hairs and bristles more abundant on anterior part of front coxae; femora shiny black, hairs mostly very fine, sparse, appressed; bristles strong, white; tibiae and tarsi mostly brown, middle tibiae darker in part, coverture and bristles similar to femora. Claws black reddish at base. Abdomen uniformly covered with gray micropubescence; center of tergites in dorsal view, appearing darker; vestiture of short white hairs, longer on sides of tergite 1; bristles on sides of tergites and posterior border of sternite white. Genitalia shiny black (Fig. 404), hairs white, a row of white bristles on ventral side of epandria; epandria long with a dorsodistal process; gonopods and hypandrium (Fig. 403) short; penis sheath as in Fig. 405.
Female. Similar to male; ovipositor (Fig. 40) shiny dark brown or black, hairs yellowish.

The name toconaoensis refers to the type locality.

Measurements. Total length 10.2-14.4 mm., average 13.1 mm. [type 12.5 mm.]; wing length 8.1-9.2 mm., average 8.7 mm. [type 8.6 mm.]; wing width 2.3-2.9 mm. [type 2.8 mm.].

Material Examined. 11♂ and 3♀. ANTOFAGASTA: 1♂ Encrucijada, Antofagasta, Dec. 2, 1961, Pena (INCO); 1♂ 1♀ Laguna Verde, limite Antofagasta, Dec. 1, 1959, Inst. Pedagogico (1♂ CEE; 1♀ INCO); 1♂ 1♀ Salar Pujsa, Cord. Antofagasta, 4500 m., Dec. 15, 1952, L. Pena (1♂ BRAS; 1♀ INCO); 1♂ San Pedro de Atacama, 2436 m., Antof., Mayo, 1952, L. E. Pena (INCO); 1♂ Soltar, W. Laskar, 3500 m., Cord. Antof., Dec. 9, 1952, L. Pena (INCO); 1♂ 1♀ Tumbre, Dec. 15, 1961, Pena (INCO); 3♂ Tumbre, Antofagasta, Feb., 1953 (2 MNHN; 1 INCO); 1♂ [type] Toconao, 2480 m., March, 1954, L. Pena (INCO).

Geographic Distribution. As shown in Fig. 489.

Discussion. The most important variations are in the color of the mesonotal and occipital bristles, which are white in the specimens from Toconao (type) and black in the remaining specimens. The mystax may be white or bicolored (the upper hairs black and the lower hairs white or
yellowish); the coverture of the mesonotum varies from gray to yellowish and the lateral spots may or may not be covered by it.
Among the material studied, 1 genus and 9 species described from Chile, have not been recognized. The type material is lost, their location unknown or unobtainable, and the information given by the original descriptions are insufficient to recognize them. The genus Dasycyrton, described by Philippi with only one species, has not been recognized since then; the other genera recorded in this section are valid genera, but they do not occur in Chile, hence the species belong to some other genera. It is possible that most of these species are synonomous with known species or they are described as new species in this paper. The species are: Asilus megastylus Philippi, Asilus poecilopus Philippi, Atomosia modesta (Philippi), Dasycyrton gibbosus Philippi, Dasypogon punctipennis (Philippi), Dasypogon latus Philippi, Saropogon carbonarius Philippi, Stichopogon ocrealis (Rondani), Promachus spissibarbis (Macquart).

The synonymy (according to former authors), the type locality (when known), and the original description in translation are given.

Asilus megastylus Philippi


Type, lost.

The thoracic hairs are almost identical than in A. poecilopus, but the color is less brownish, mostly grayish. The abdomen lacks bristles on sides of posterior segments, or they are very short. They mystax is not black like in poecilopus, but totally white, or white intermingled with some black bristles. The third antennal segment is short and broad, scarcely one and one-half longer than width, oviform, pointed; the fine bristles is almost twice as long as the third segment and wider at apex. The wings are totally hyaline. The forceps of the male are not wider than the last abdominal segment and very long." (translated from German).

The statement about the length of the forceps (epandria), is similar to the male genitalia of Stizolestes aureomaculatus (Fig. 385).
Asilus poecilopus Philippi


_Type_ lost.

This species cannot be recognized. Philippi's statement about the third antennal segment being oblong places the species out of _Stizolestes_; furthermore, the type locality is somewhat too far north compared with the distribution of the species of _Stizolestes_.

_Philippi's original description:_ "A. poecilopus Ph., A. murinus; facie albida, mystace antennisque nigris; thorace fusco-vittato, setis mollibus, anticis brevibus, nigris vestito; femoribus plerumque cinereis, tibiis tarsisque ferrugineis. Long. 7 and one-half lin., extens. alarum 13 li. Valparaiso. Illapel. Similar to and easily confused with _A. valdivianus_, but separated by the following characteristics: the third antennal segment ovoid, much wider than the preceding segment; beard and occipital hairs pure white; thorax lighter but the stripes more distinct, sides light gray, the pubescence shorter, more scarce mainly on the anterior half of the thorax which is covered by short bristles directed posteriorly, not with long soft dense hairs; tarsi and front tibiae yellow, hind tibiae yellow at base and gray apically, front femora
yellow or with only a gray ring, hind femora gray with base yellow. The abdomen is covered by shorter black hairs, very appressed in a grayish specimen with 3 brownish stripes, in the other blackish. The 2 specimens are 2." (translated from German).

**Atomosia modesta** (Philippi)

(Fig. 406, after Philippi)

*Laphria modesta* Philippi, 1865, p. 685, Santiago, Fig. (on text);
Schiner, 1866, p. 706.

*Atomosia modesta* (Philippi). Lynch, 1882, p. 144; Stuardo, 1946, p. 83;
Hull, 1962, p. 373.

Type, lost.

Philippi's original description: "L. nigra, facie, maculis in pectoris lateribus et plurumque incisuris abdominis argenteis; barba alba; tibiarum antica um basi genubusque fulvis; alis hyalinis. Long. corp. three and one-third lin., extens. alarum four and one-half lin. In prov. Santiago occurrit. Vertex black, front gray; both covered with a few bristles. Face silvery white, without a produced gibbosity in center. Thorax dorsally covered by fine appressed orange villi, not hiding the black color and with two silver spots with highlights. Abdomen bare, velvety black with narrow white borders on the segments, forming a silver spot on sides of second and third segment. Legs short
and thick, femora with long fine sparse hairs, tibiae with two sparse rows of white bristles. The characteristics of wing venation are more clearly shown in the present figure than could be described by words, and according to this it will be possible for the entomologists that are familiar with the new literature to classify this species in the proper genus. Male sexual structures I hope I will have time to describe later." (in translation from German).

I have not been able to recognize this species among the material studied. According to Philippi's figure (Fig. 406) the species has an extra vein between $M_2$ and $M_3 + Cu_1$, dividing the third posterior cell in two cells. This species according the original description and figure is not Atomosia, Laphria, or Andrenosoma. Only Philippi saw the type specimen; Schiner, Lynch, Stuardo, and Hull simply included the species name in lists. Philippi (1865:691) notes that his new species Dasypogon sericeus (now Lamprozona auricincta Loew), resembles Laphria modesta; I believe it could be the same species, or because the color of the front tibiae it might be Lamprozona chilensis (Hermann).

Dasycyrton Philippi

Dasycyrton Philippi, 1865, p. 701; Hull, 1962, p. 139.

Type of the genus, Dasycyrton gibbosus Philippi 1865, by monotypy.
Philippi's original description: "Head wider than the body. Front concave; mystax and proboscis as in Asilidae (Asilicorum). Face not prominent. First segment of antenna cylindrical and hairy, the first much longer. The third segment equal to the preceding segments combined, slender, cylindrical; it terminates in a style barely more slender and equal to half the length of the segment. Thorax strongly arched or humped and strongly compressed. Abdomen compressed and sicklelike. Discal cell of wing a little widened; all posterior cells open. Tibiae with long pile but not very spiny (? bristly)". (as translated by Hull 1962:139).

I have not been able to recognize this genus among the material studied. The characteristics given by Philippi for the genus and the single species described, Dasycyrton gibbosus, suggest that the genus could be close to Dasypesicus Philippi. Fig. 2524 presented by Hull (1962) (after Philippi 1865), shows the wing of D. gibbosus with a rather peculiar wing venation: $M_3$ is absent and $Cu_1$ forms a straight line from M to the wing border (Fig. 407). This characteristic of wing venation would permit one to recognize the genus when material is available. Philippi's figure of the antenna is similar to the antenna of the genera Dasypesicus and Theromyia Williston, among the genera present in Chile.
Dasycyrton gibbosus Philippi

(Fig. 407, after Philippi)

Dasycyrton gibbosus Philippi, 1865, p. 701, figs. 30 and 30a, Santiago and Aconcagua; Stuardo, 1946, p. 81; Hull, 1962, figs. 2524 and 2527 (after Philippi).

Type, lost.

Philippi's original description: "Dasycyrton gibbosus Ph. D. completely shiny black; thorax hirsute; abdomen with a dorsal carina; weakly shiny almost bare. Body length 3 lin., wing extention approx. 7 lin. V Tab. II f. 3 In province of Santiago and Aconcagua, very rare."

"... body strongly compressed. The dense and stout mystax, the bristles of the head and the ones on the dorsum of the thorax black, but later intermingled with some yellow. The bristles of the scutellum, the fine rather long and inclined villi of femora and tibiae and tarsi in part whitish; anterior tibiae without terminal spine. Wings hyaline with black veins. Halters brownish." (translated from German).
**Dasypogon punctipennis** Macquart

_Dasypogon punctipennis_ Macquart, 1838, p. 46, Chile; Blanchard, 1852, p. 365, Chile; Stuardo, 1946, p. 82; Hull, 1962, p. 228.

**Type,** lost.


*This species is not* Hypenetes punctipennis *(Philippi).*
Dasypecus latus (Philippi)

Dasypogon latus Philippi, 1865, p. 686, Illapel.

Type, lost.

Philippi's original description: "D. latus Ph. D. latus, omnino niger; pilis verticis baseosque antennarum albidis; thorace in parte antica pilis flavis appressis tecto; in postica nitidissimo, chalybeo; abdominis dorso nitidissimo, glaberrimo, fere aeneo-micante, lateribus albido-hirsutis; alis infumatis. Long. corp. 5 lin., extens. alar. eight and one-half lin. Ex itinere Illapelino. The first antennal segment, the vertex and the occiput, covered with long white hairs. The apex of the style appears to be as thick as the third segment therefore difficult to recognize. On the sides of the thorax, over the wing base and along posterior border of scutellum there are long silky hairs. Hairs on sides of abdomen shorter and more erect, disappearing toward the dorsum. The femora and tibia, covered with long, dense hairs, which are not appressed but forming an angle (oblique). Wing venation as in D. punctatus. There is no spine on apical part of tibiae." (translated from German).
Promachus spissibarbis (Macquart)

Trupanea spissibarbis Macquart 1846, p. 80, Chile.


Type. ♂, Chile, in Maximiliano Marchese de Spinola Collection, Castello di Tassarolo, Novi Ligure, Italy (not seen).

Macquart's original description: "Trupanea spissibarbis, Nob. Thorace griseo tomentoso vittisque fuscis. Abdomine nigro; lateribus testaceis. Mystace flavo. Pedibus nigris, supra testaceis. Long. 11 l.(*) ♂. Palpi black, with black hairs. Beard, face, and mystax yellow, the latter sparse, extending up to antennae. Front black, with yellowish micropubescence. Antennae: the first two segments black; the third one is missing. Thorax with reddish brown (gris roussatre) micropubescence and blackish bands; in between are three indistinct longitudinal yellowish lines. Abdomen black, dark brown on sides; posterior border of segments white, interrupted in center. Legs with black bristles and short whitish hairs; hind femora (cuisses) dark brown ventrally. Wings fairly clear; wing venation normal, as in T. flavifasciata. First vein oblique. From Chile. M. le marquis Spinola Collection." (translated from French). (*) l. = line.

The wing venation of T. flavifasciata is shown by Macquart, 1838, Pl. 9, fig. 1; an enlargement of this wing is shown in Fig. 250.
I have not recognized this species among the material studied.

**Saropogon carbonarius** (Philippi)

*Dasypogon carbonarius* Philippi, 1865, p. 687, Colchagua, Valdivia;
Bigot, 1878, p. 221; Stuardo, 1946, p. 82.


**Type**, lost.

**Philippi's original description:** "D. carbonarius pH. D. corpore, capite, antennis pedibusque atris; facie albomicante; vittis duabus thoracis angustis albidis; alis infumatis. Long, corp. 5 lin., extens. alar 8 lin. Habitat in prov. Colchagua et Valdivia. The long hairs covering uniformly the head are black. The style of the antennae is distinct, fairly long, and two-segmented. The thorax has long black slightly reclined hairs on dorsum. The scutellar bristles are dense, long and curved dorsally. The abdomen is dorsally nude; very shiny; but the venter has long white hairs forming patches directed dorsally; only the last segments of venter have shorter black hairs. The legs are covered with long yellowish hairs and the front tibiae have no apical spines. The wings have a long narrow pentagonal discal cell, the fourth posterior cell is widely open, and the anal cell is only slightly open. One specimen from Prov. Colchagua has the sides of thorax and venter grayish. No terminal spine on front tibiae." (translated from German).
According to the original description, this species has no front tibial spur, hence it cannot be included in Araiopogon, where other Chilean species described under Saropogon are presently located.

**Stichopogon ocrealis** (Rondani)

*Philammosius ocrealis* Rondani, 1863, p. 45.


**Type.** Location unknown.

*Rondani's original description:* "sp. n. *Philammosius ocrealis."

Long. Mill. 7. (Mas.) Black, dark silky on head and thorax. Mystax light reddish brown, - beard pure white - Antennae with first segment cylindrical, second shorter, sub-oval; the last sub-lanceolate. - Halters yellow - Wings slightly grayish, apex of the eighth vein bent, contacting the ninth vein, appearing like a cross vein. Sides of first abdominal segment with white bristles, remaining segments with a white lateral mark, and on the last two a distinct whitish line on margin, genitalia with strong forceps. Legs with white hairs and bristles, the four front tibiae reddish near base on external side: femora, mainly the hind femora, with white hairs on ventral side; hind tibiae with dense short stout white bristles on posterior side; tarsi with some black bristles intermingled. Chiliae - Philippi." (translated from Latin).
218. **Pronomopsis rubripes**, ♂ genitalia in lateral view.
219. **P.**, penis sheath in lateral view.
220. **Atractocoma nivosa**, ♂ genitalia in lateral view.
221. **A.**, head in lateral view.
222. **A.**, wing.
223. **Chilesus geminatus**, head in lateral view.

c cercus
gp gonopod
hyp hypandrium
mb membrane
psh penis sheath
tg8 eighth tergite
sap subanal plate
225. Chilesus geminatus, \( \sigma \) genitalia in lateral view.

226. C. " ovipositor in lateral view.

227. Cratolestes chiliensis, \( \sigma \) genitalia in lateral view.

228. C. " penis sheath in lateral view.

229. C. " wing.

230. C. " ovipositor (after clearing), in dorsal view; no hairs shown.

231. C. chiliensis, ovipositor (after clearing) in ventral view; no hairs shown.

c cercus
ep epandrium
gp gonopod
hyp hypandrium
stn8 eighth sternite
tg8 eighth tergite
tgg9 ninth tergite
232. *Cratolestes wirthi*, head in lateral view.

233. C. n , penis sheath in lateral view.

234. C. n , ♀ genitalia in lateral view.

235. C. n , ovipositor (after clearing), in dorsal view; no hairs shown.

236. *Cratopoda emarginata*, ♀ genitalia in lateral view.

237. C. n , ♀ genitalia in ventral view.

238. C. n , penis sheath in lateral view.

c cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
tg7 seventh tergite
tg8 eighth tergite
tg9 ninth tergite
239. *Cratopoda emarginata*, tip of penis sheath in dorsal view.

240. C* " , ovipositor in lateral view.

241. C* " , ovipositor (after clearing), in ventral view; hairs not shown.

242. *Cratopoda helix*, $\sigma$ genitalia in lateral view.

243. C* " , tip of penis sheath in dorsal view.

244. C* " , penis sheath in lateral view.

245. C* " , ovipositor in lateral view.

246. C* " , $\sigma$ genitalia in ventral view.

c cercus
dist dististylus
gp gonopod
hyp hypandrium
tg7 seventh tergite
tg9 ninth tergite
stn8 eighth sternite

c = cercus
ep = epandrium
gp = gonopod
tg7 = seventh tergite

254. **E**. "♂ genitalia in dorsal view.

255. **E**. "♀ penis sheath in lateral view.

256. **E**. "♀ ovipositor in lateral view.

257. **E**. "♀ middle tibia.

258. **E**. "♀ wing.

259. **E**. "♀ tip of ovipositor in dorsal view.

260. **E**. "♀ ♂ genitalia in lateral view.

c = cercus
ep = epandrium
gp = gonopod
sap = subanal plate
stl = stylus
mb2 = middle tibia
t7 = seventh tergite
t8 = eighth tergite
t9 = ninth tergite
st8 = eighth sternite


266. *L*. "", penis sheath in lateral view.

cercus
epandrium
gonopod
hypandrium
subanal plate
fifth sternite
fifth tergite
ninth tergite


269. *L. griseus*, ♂ wing.

270. *L. borrori*, tip of ovipositor in lateral view.


274. *Lochyrus balmacedensis*, ♂ genitalia in lateral view.

\[\begin{array}{|c|c|}
\hline
\text{c} & \text{cercus} \\
\text{ep} & \text{epandrium} \\
\text{gp} & \text{gonopod} \\
\text{hyp} & \text{hypandrium} \\
\text{t}_7 & \text{seventh tergite} \\
\text{t}_8 & \text{eighth tergite} \\
\text{t}_9 & \text{ninth tergite} \\
\hline
\end{array}\]
275. *Lochyrus balmacedensis*, ♂ genitalia (after clearing), in dorsal view; no hairs shown.


277. *L. crassus*, penis sheath in lateral view.

278. *L. crassus*, ♂ genitalia in lateral view.

279. *L. balmacedensis*, ♂ genitalia (after clearing), in ventral view; no hairs shown.

280. *Lochyrus crassus*, ♂ genitalia (after clearing), in dorsal view; no hairs shown.


c = cercus
ep = epandrium
gp = gonopod
hyp = hypandrium
stn8 = eighth sternite
tg8 = eighth tergite

284. *L. n.*, hypantrium in ventral view.


286. *L. crassus*, wing.

287. *L. frezieri*, head in lateral view.

288. *L. n.*, genitilia (after clearing), in dorsal view; no hairs shown.


290. *L. n.*, genitilia in lateral view.

c cercus
ep epandrium
gp gonopod
hyp hypandrium
stgn eighth sternite
tgn eighth tergite	
tgn ninth tergite

292. *L*.  

293. *L*.  

294. *L*.  

295. *L*.  


cercus
ep epandrium
dist dististylus
gp gonopod
hyp hypandrium
t8 eighth tergite
t9 ninth tergite
298. Mallophora freycineti, wing.

299. M. claw.

300. M. wing base area.

301. Megametopon immisericorde, genitalia in ventral view; no hairs shown.

302. Megametopon immisericorde, genitalia in lateral view.

303. M. genitalia in dorsal view; no hairs shown.

304. Megametopon immisericorde, penis sheath in lateral view.

bal basalar sclerite
c cercus
c1 claw
dist dististylus
ep epandrium
epm2 mesepimeron
gp gonopod
ha halter
hpl hypopleuron
hyp hypandrium
pl2 mesopleuron
ptpl pteropleuron
pul pulvillus
pwp pleural wing process
sal subalar sclerite
scl2 mesoscutellum(scutellum)
slpn2 slopes of postmesonotum
sp2 mesothoracic spiracle
stpl2 mesosternopleuron
sv sectorial cross vein
tg8 eighth tergite
ts transverse suture
w wing
305. *Megametopon occidentale*, wing.

306. M*  
   "  
   , head in lateral view.

307. M*  
   "  
   , σ and φ genitalia in copula.

308. M*  
   "  
   , ovipositor in lateral view.

309. M*  
   "  
   , ovipositor in ventral view.

310. M*  
   "  
   , σ genitalia in lateral view.

311. M*  
   "  
   , penis sheath in lateral view.

bast  basistylus
o    cercus
dist  dististylus
ep   epandrium
gp   gonopod
hyp  hypandrium
stn7 seventh sternite
stn8 eighth sternite
tg7  seventh tergite
tg8  eighth tergite
tg9  ninth tergite
312. *Myaptex hermanni*, ♂ genitalia (after clearing), in dorsal view; no hairs shown.

313. *Myaptex hermanni*, ♂ genitalia in lateral view.

314. M. " , ♂ sternite 7 in ventral view.

315. M. " , penis sheath in lateral view.

316. M. " , ovipositor in ventral view.

317. M. *brachypterus*, head in lateral view.

318. M. " , ♂ genitalia in lateral view.

c cercus
cp epandrium
gp gonopod
hyp hypandrium
psh penis sheath
sap subanal plate
t57 seventh tergite
t58 eighth tergite
tg9 ninth tergite

320. *M. t* " , penis sheath in lateral view.

321. *M. t* " , ♂ genitalia (after clearing), in dorsal view; hairs not shown.

322. *Myaptex brachyptera*, ovipositor in lateral view.

323. *M. t* vexillaria, antenna.

324. *M. t* " , ♀ sternite 7, in ventral view.

325. *M. t* " , ♂ genitalia in lateral view.

326. *M. t* " , penis sheath in lateral view.

327. *M. t* " , ovipositor in lateral view.

c cercus
ep epandrium
hyp hypandrium
stn7 seventh sternite
tg6 eighth tergite
tg9 ninth tergite
328. Hyaptex vexillaria, wing.
329. M. virilis, c'genitalia in lateral view.
330. M. " ", penis sheath in lateral view.
331. M. " ", antenna.
332. M. " ", ovipositor in lateral view.
333. M. " ", ♀ sternite 7 in ventral view.
334. Xenexenus concepcionensis, wing.
335. M. " ", head in lateral view.

c cercus
ep epandrium
gp gonopod
hyp hypandrium
stn7 seventh sternite
stn8 eighth sternite
tg8 eighth tergite
tg9 ninth tergite.

337. M. 
   "   , penis sheath in lateral view.

338. M. 
   "   , tip of penis sheath, dorsal view.

339. M. 
   "   , "genitalia in lateral view.

340. M. 
   "   , "genitalia (after clearing),
   in dorsal view; no hairs shown.

341. *Menexenus veredus*, "genitalia (after clearing), in dorsal
   view; no hairs shown.


- cercus
- ep epandrium
- gp gonopod
- hyp hypandrium
- sap subanal plate
- stng eighth sternite
- teg eighth tergite
- teg ninth tergite

344. *M.*, penis sheath in lateral view.


346. *N.*, ♂ genitalia in lateral view.

347. *N.*, ♀ genitalia (after clearing), in ventral view; no hairs shown.

348. *Nesiotes chiloensis*, head in lateral view.

349. *N.*, ♀ wing.

bas = basistylus
dist = dististylus
ep = epandrium
gp = gonopod
hyp = hypandrium
n2 = mesonotum
pc = posterior callus
psh = penis sheath
R4 = fourth radial vein
scl2 = mesoscutellum (scutellum)
slpn2 = slopes of postmesonotum
tg1 = first tergite
tg2 = second tergite
350. *Nesiotes chiloensis*, $\delta$ genitalia (after clearing), in dorsal view; hairs not shown.


353. *Nomomyia ivetteae*, $\delta$ genitalia, in lateral view.

354. *N.*, penis sheath, in lateral view.

355. *N.*, head in lateral view.


357. *N.*, ovipositor in lateral view.

\(c\) cercus
\(\text{dist}\) dististylus
\(\text{ep}\) epandrium
\(\text{gp}\) gonopod
\(\text{hyp}\) hypandrium
\(\text{stn}_7\) seventh sternite
\(\text{tg}_8\) eighth tergite
\(\text{tg}_9\) ninth tergite
358. *Nomomyia* murina, ♂ genitalia in lateral view.

359. *N.* ovipositor in lateral view.

360. *N.* penis sheath in lateral view.

361. *N.* ♂ wing.

362. *N.* ♀ wing.

363. *Philonerax* mucidus, ♂ genitalia in lateral view.

364. *P.* penis sheath in lateral view.

365. *P.* front tibia.

op epandrium

sp gonopod

hyp hypandrium

stn8 eighth sternite

tb1 front tibia
366. Philomerax chilechicoensis, head in lateral view.

367. P,  n,  ♂ genitalia in lateral view.

368. P,  n,  penis sheath in lateral view.


371. Proctacanthus rubriventris, ♂ genitalia in lateral view.

372. P,  n,  head in lateral view.

c cercus
dist dististylus
ep epandrium
gp gonopod
hyp hypandrium
stn8 eighth sternite
tg8 eighth tergite
tg9 ninth tergite
373. Proctacanthus rubriventris, ovipositor in dorsal view.

374. P. n., gonopod in ventral view.

375. P. n., ♀ genitalia in dorsal view.

376. P. n., penis sheath in lateral view.

377. P. n., wing.

378. Rhadinosoma calderense, ♀ genitalia in lateral view.

379. R. n., head in lateral view.

380. R. n., wing.

381. R. n., ♀ genitalia (after clearing) in dorsal view; hairs not shown.

bas  basistylus
ο  cercus
dist  dististylus
ep  epandrium
gp  gonopod
hyp  hypandrium
psh  penis sheath
sap  subanal plate
stn8 eighth sternite
tg8  eighth tergite
tg9  ninth tergite
382. **Rhadinosoma calderense**, ♀ genitalia (after clearing) in ventral view; hairs not shown.


384. **R.**, "", penis sheath in lateral view.

385. **Stizolestes aureomaculatus**, ♀ genitalia in lateral view.

386. **S.**, "", penis sheath in lateral view.

387. **S. eritrichus**, ♀ genitalia in lateral view.

388. **S.**, "", ♀ genitalia (after clearing) in dorsal view; hairs not shown.

**Abbreviations**:
- bas: basistylus
- c: cercus
- dist: dististylus
- ep: epandrium
- gp: gonopod
- hyp: hypandrium
- psh: penis sheath
- sap: subanal plate
- tg8: eighth tergite

390. *S.* modellus, ovipositor in lateral view.

391. *S.* gayi, ♂ genitalia in lateral.

392. *S.* nigriventris, ♀ genitalia in dorsal view.

393. *S.* mayi, ♂ genitalia in lateral view.

394. *S.* gayi, wing.

bas basistylus
a cercus
dist dististylus
ep epandrium
gp gonopod
psh penis sheath
sap subanal plate
tg8 eighth tergite
tg9 ninth tergite

396. *S.* "  , penis sheath in lateral view.

397. *S.* "  , ♀ genitalia in dorsal view.

398. *S.* "  , ♀ genitalia in lateral view.

399. *S.* *pamponeroides*, ovipositor in lateral view.

400. *Zoticos toconaoensis*, head in lateral view.

401. *Z.* "  , ovipositor in lateral view.

c cercus
ep epandrium
gp gonopod
psh penis sheath
tg6 sixth tergite
tg8 eighth tergite
tg9 ninth tergite
402. *Zoticos toconaeensis*, wing


404. *Z*. "*, \(\delta\) genitalia in lateral view.

405. *Z*. "*, penis sheath in lateral view.


c cercus
Cu cubital vein
D discal cell
ep epandrium
gp gonopod
hyp hypandrium
K medial vein
m medial cross vein
P posterior cell
R radial vein
sap subanal plate
tg8 eighth tergite
408. *Manexenus concepcionensis*

409. *Lycomyia germainii*

410. *Proctacanthus rubriventris*

411. *Pronomopsis chalybea, Philonerax mucidus*

412. *Prolepsis quadrinotata, Pronomopsis rubripes, Pritchardia hirtipes*

413. *Kallophora freycineti, Efferia patagonensis*
414. The provinces of Chile.

415. *Lochyrus crassus*

416. *Lochyrus balmacedensis*
417. Hypenetes punctipennis
418. Hypenetes magellanicus
419. Hypenetes valentinei
420. Hypenetes davidsoni
421. Cratolestes wirthi
422. Megametopon immisericorde
423. Nesioptes chiloensis
424. Kenaxenus veredus
425. Holopogon minusculus
426. Leptochela jaujensis
427. Scylaticus venustus
428. Hypenetes critesi
429. *Scylaticus cuneigaster*

430. *Megametopon occidentale*

431. *Lochmorhynchus puntarenensis*

432. *Araiopogon fraternus*

433. *Lyaptex hermanni*
434. *Hyaptex brachyptera*
435. *Oberon fulvipes*
436. *Alyssomyia bulbosa*
437. *Lamprozona chilensis*
438. Araiopogon cyanogaster
439. Cratolestes chiliensis
440. Lamprozona auricincta
441. Deromyia fuscipennis
442. Araiopogon choapensis
443. Theromyia pegnai
444. Stizolestes mayi
445. Atomosia modesta
446. Deromyia nigriventris
447. *Dasycyrtton gibbosus*
448. *Creolestes rubricornis*
449. *Hyaptes virilis*
450. *Scylaticus lugens*
451. *Scylaticus rufipes*
452. *Lochyrus balmacedensis*
453. Araiopogon gayi
454. Myaptex vexillaria
455. Cratopoda emarginata
456. Nomomyia murina
457. Graptostylus dolosus
458. Stizolestes eritrichus
459. Stizolestes atriaborbis
460. Oberon fulvicornis
461. Stizolestes aureomaculatus
462. Theromyia murina
463. Dasypecus heteroneurus

464. Pritchardia curicoensis

465. Scylaticus chilensis

466. Andrenosoma rufiventris
467. *Obelophorus terebratus*

468. *Hypenetes fucosus*

469. *Rhadinus calderense*

470. *Creolestes keisseri*

471. *Lochmorhynchus griseus*
472. *Pritchardia puella*
473. *Alyssomyia pampina*
474. *Hexemeritia micans*
475. *Nomomyia ivetteae*
476. *Obelophorus landbecki*
477. Holopogon coquimbensis
478. Holopogon arayenensis
479. Eremomyia tumbrensis
480. Holopogon sucinopedis
481. Pritchardia tertialis
483. *Cratopoda helix*

484. *Hypenastes digitatus*

485. *Lochyrus frezieri*
486. Pronomopsis talabrensis
487. Holopogon tener
488. Atractocoma nivosa
489. Zoticos toconaoensis
490. Holopogon lanosus
491. Holopogon papaveroi
492. Holopogon hippopilosus
493. Hypenetes śchineri
494. Holopogon notocinereatus
495. Chilesus geminatus
496. *Lochmorhynchus borrhori*

497. *Creolestes nigribarbis*

498. *Creolestes rufescens*

499. *Stizolestes modellus*

500. *Philonerax chilechicoensis*
501. *Stizolestes gayi*
502. *Stizolestes pamponeroides*
503. *Stizolestes nigriventris*
504. *Hypenetes asiliformis*
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