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## NEW AMERICAN ASILIDAE (DIPTERA). IV<sup>1</sup>

By C. H. CURRAN

The types of the new species described in this paper are in The American Museum of Natural History. Most of the forms described are from the Williston Collection or forwarded by Count A. A. Barbiellini, only a few being from other sources.

### **MIROLESTES**, new name

*Myolestes* BRETHES, 1904, Ann. Mus. Nac. Buenos Aires, (3) IV, p. 338.

The above name is proposed to replace *Myolestes*, preoccupied in birds. Only one species has been described, but three additional ones have been received from Brazil. The following table separates the known species.

#### TABLE OF SPECIES

- |  |                              |
|--|------------------------------|
| 1.—Mesonotum with three strong brown or black vittae, the median one sometimes geminate; front brown or black..... | 2.                           |
| Mesonotum with four weak vittae; front ferruginous.....  | 3.                           |
| 2.—Median brown vitta geminate.....  | <i>lynchii</i> Brethes.      |
| Median brown vitta geminate on not more than the anterior fifth.   |                              |
|  | <i>barbiellinii</i> , n. sp. |
| 3.—Sides of the face broadly white pollinose.....  | <i>facialis</i> , n. sp.     |
| Face wholly yellow pollinose.....  | <i>pleuralis</i> , n. sp.    |

### **Mirolestes barbiellinii**, new species

Ferruginous, the legs partly yellow; mesonotum with three broad brownish vittae. Length, 13 mm.

**FEMALE.**—Face golden brown above, golden yellow below, the sides broadly white. Front and middle of the occiput shining black, the former with reddish tinge anteriorly, its sides narrowly golden-yellow pollinose; two or three pairs of hairs behind the ocellar tubercle, the postocellar bristles black. Occiput white pollinose, with golden-yellow tinge above; hair white, the occipital cilia white and yellow, the upper one or two black; beard scanty. Mystax with a few black or brown bristles and white hair and bristles, quite thin. Antennae black, with black hair, the third segment haired above on the basal half, bearing a dorsal spine above beyond the middle, followed by a slight excision.

Mesonotum and scutellum cinereous-yellow pollinose, bearing three broad brown vittae, the median one entire, geminate on the anterior fifth, the outer ones somewhat

<sup>1</sup>American Museum Novitates Nos. 425, 487, and 755 comprise parts I to III of this series.

shining and extending from the humeri almost to the posterior margin. Hair sparse and very short, the dorsocentral hairs and bristles black. Scutellum appearing partly brown in some views, without hair or bristles. Pronotum brown above; metanotum golden brown dorsally; pleura white, the posterior border broadly yellowish, in front with a broad brown band extending from behind the humeri to behind the front coxae; hair white.

Legs yellowish, the anterior four ferruginous above, the tibiae broadly reddish yellow apically; tarsi reddish, becoming brown apically; spur of front tibia brown on apical half.

Wings with luteous tinge, slightly darkened apically. Halteres reddish with brown knob.

Abdomen shining ferruginous, the second and following segments each with a brownish or blackish lateral stripe and the apices more or less darkened. Genitalia dark reddish.

**HOLOTYPE**.—Female, São Paulo, Brazil (Count A. A. Barbiellini).

It is possible that the lateral blackish markings on the abdomen are due to staining, although some of them appear to be natural.

#### ***Mirolestes facialis*, new species**

Ferruginous, the abdomen with black markings; mesonotum with four narrow reddish brown vittae. Length, about 11 mm.

**FEMALE**.—Face and frontal orbits golden-yellow pollinose, the sides of the face broadly whitish, the front shining ferruginous; ocellar tubercle brown pollinose. Occiput brownish yellow, becoming gray below, the hair and bristles yellow. Mystax composed of white bristles and hairs. Proboscis black, reddish basally; palpi brown, reddish above toward the apex, their hair black. Antennae brownish red; third segment black on about the apical half, haired above on the basal half, excised at the apical fourth but without distinct spine.

Mesonotum brownish red, bearing four narrow, pale brown vittae, the median pair approximate, obsolete behind, the outer ones weakly interrupted at the suture; scutellum discolored but probably paler than the mesonotum. Mesonotal hair and bristles black. Pleura whitish pollinose, in part with yellow tinge, anteriorly with the usual broad brown band; hair and bristles yellow.

Legs brownish red, the femora and tibiae more yellowish ventrally, the tarsi becoming black apically; spur of front tibia almost all ferruginous. Tibial bristles almost all yellowish, those on the tarsi mostly black; femora almost bare.

Wings almost hyaline, the apex somewhat grayish. Halteres yellow with brown knobs.

Abdomen somewhat discolored, ferruginous with the sides rather broadly black, the dark color produced broadly inward toward the bases of the segments and almost wholly covering the disc of the second and the broad base of the third segments; ninth segment black except for a broad median dorsal line; genital hooks ferruginous.

**HOLOTYPE**.—Female, São Paulo, Brazil (Count A. A. Barbiellini).

**Mirolestes pleuralis**, new species

Ferruginous, the face wholly dark golden-yellow pollinose; mesonotum with four weak brown vittae. Length, 14 mm.

**FEMALE**.—Face and sides of the front with dark golden-yellow pollen, the occiput brownish-red pollinose, grayish below, paler along the orbits; front shining dark reddish, the ocellar tubercle with brownish-yellow pollen; occipital hair rather strong, yellow, one or two of the upper occipital cilia black. Mystax with yellow hairs and one or two pairs of yellow bristles. Proboscis shining black, the basal third reddish yellow below. Palpi reddish with black base and hair. Antennae reddish; third segment mostly brown, haired on the upper surface to beyond the middle, at the apical sixth with a small spine followed by a shallow excision.

Thorax rich brownish-yellow pollinose, the pleura with lighter areas in the middle and a broad brownish band anteriorly; mesonotum with four rather weak, narrow brown vittae, the median pair approximate and obsolete posteriorly, the outer ones distinctly interrupted at the suture. Hair very sparse, black dorsally, pale on the pleura.

Legs reddish, the apical segment of the anterior four tarsi brown; bristles reddish yellow, black on the tarsi; spur of front tibia mostly brown.

Wings hyaline with luteous tinge. Halteres yellow with brown knob.

Abdomen shining dark reddish, the sides and apices of the segments more or less blackish. Ninth segment mostly reddish, black at the apex and on the sides.

**HOLOTYPE**.—Female, São Paulo, Brazil (Count A. A. Barbiellini).

**ALLOPOGON** Schiner

The following key includes the species occurring in Brazil and Uruguay.

## TABLE OF SPECIES

- |   |                               |
|---|-------------------------------|
| 1.—Wings hyaline, at most slightly darkened apically.....       | 2.                            |
| Wings brown on the basal third.....                             | <i>basalis</i> , n. sp.       |
| 2.—Mesonotum with three or four reddish or brownish vittae..... | 3.                            |
| Mesonotum whitish, with five reddish vittae.....                | <i>tessellatus</i> Wiedemann. |
| 3.—Hair and bristles of the head whitish.....                   | 4.                            |
| Hair and bristles of the head black.....                        | <i>dimidiatus</i> , n. sp.    |
| 4.—Antennae reddish.....  | <i>necans</i> Wiedemann.      |
| Antennae brown.....   | <i>vittatus</i> Wiedemann.    |

**Allopogon basalis**, new species

Wings broadly brown basally; abdomen orange, white from basal view, the sides with black spots. Length, 12 mm.

**MALE**.—Front, occiput above the neck and upper three-fourths of the face yellow in ground color, silvery-white pollinose; face brownish on the lowest third or slightly more. Occiput brown, in some views wholly white pollinose. Front with a few hairs above and on the sides; one pair of strong ocellar bristles; three pairs of oral bristles, the lateral pair weak. Palpi brown, black-haired. Antennae orange. Hair on the head wholly black.

Dorsum of the thorax reddish in ground color, whitish pollinose, the disc of the mesonotum with olivaceous tinge; scutellum and metanotum with yellowish pollen. Hair very short, black, the bristles black; one or two pairs of strong dorsocentrals. Pleura brown, broadly pale in ground color and white pollinose above in front of the wings, the hair and bristles black. There are indications of a pair of narrow brownish vittae on the front of the mesonotum.

Legs shining reddish, the tarsi black with the first segment almost all yellow; femora basally and the tibiae toward their apices more or less ferruginous. Coxae brown.

Wings light brown on the basal third, hyaline beyond.

Abdomen yellowish red above, white pollinose from basal view; each segment with a rather quadrate black spot on either side covered with brown pollen. Venter black, brown pollinose. Genitalia shining reddish. Abdomen bare dorsally except at the tip, the venter with fine brown hair; genitalia with coarse black hair.

HOLOTYPE.—Male, Brazil.

### ***Alloponon dimidiatus*, new species**

Ferruginous and blackish, the apical half of the abdomen white from basal view. Length, 12.5 to 15 mm.

MALE.—Occiput above the neck, front and face reddish in ground color, densely white pollinose; occiput black, white pollinose; cheeks shining brown; hair and bristles wholly black. Front with sparse hair on the upper half; ocellar bristles rather weak. Palpi shining brown. Antennae reddish, the third segment with brown tinge.

Thorax reddish in ground color, practically all pollinose. Mesonotum with very pale shining yellowish pollen having an olivaceous tinge on the disc; with four brown vittae, the median pair approximate and extending to the posterior fourth, the outer ones extending from the anterior fourth almost to the scutellum, interrupted at the suture; pronotum and broad upper border of the pleura in front of the wings whitish pollinose, the scutellum and metanotum with pale brassy-yellow pollen; pleura brown pollinose. Hair and bristles wholly black.

Legs reddish yellow, the femora more or less ferruginous basally; coxae brown and clothed with brown pollen; tips of the tibiae and the apical tarsal segments brownish.

Wings hyaline, the apical sixth, and the posterior margin on the apical half grayish.

Abdomen blackish in ground color, the apices of the segments increasingly broadly reddish, the eighth segment with the dorsum wholly red; second to fourth segments dull black with the apices and sides white pollinose, the third with the base very broadly whitish, the fifth and following segments rather silvery-white pollinose. Genitalia reddish, black haired. Abdomen with short, coarse black hair dorsally and fine brown hair on the brown pollinose venter.

FEMALE.—The dark mesonotal vittae may be ferruginous and the lower border of the pleura is paler than the brown middle band. Abdomen rusty reddish with a large black spot on each side of the first six segments, the dark spots followed by silvery-white pollinose spots; apical segments yellow pollinose laterally, shining dorsally the remaining segments with rusty-reddish pollen dorsally, the apices of the segments pale.

Types.—Holotype, male and allotype, female, Rio de Janeiro, Brazil, November. Paratypes, four males and one female, Rio de Janeiro (Williston Collection).

### LASTAURINA Curran

The type of this genus is *Dasypogon ardens* Wiedemann. In the male all the abdominal segments bear bands of bright reddish-yellow pile.

### ATOMOSIA Macquart

Since the publication of the key to the species belonging to this genus, Dr. Bromley has described a number of species from Cuba, and four others have come to my attention. A new key, enlarged to include all the species that have been sufficiently well described is given below.

#### TABLE OF SPECIES<sup>1</sup>

- 1.—Border of scutellum with two or four bristles on the margin.....4.  
Border of scutellum with six or more marginal bristles.....2.
- 2.—Six or seven marginal bristles on the scutellum.....3.  
Border of scutellum with bristly hairs on the entire margin (Argentina).  
*venustula* Arribalzaga.
- 3.—Mesonotum with very short white hair (Cuba).....*pubescens* Bromley.  
Mesonotum with very short yellowish and blackish hair.  
*Aphestia andreoides* Bromley.
- 4.—Anterior femora and tibiae not wholly pale yellow.....5.  
Anterior femora and tibiae wholly pale yellow.....25.
- 5.—Posterior tibiae and tarsi with dense silvery hair.....6.  
Posterior tibiae without dense silvery hair dorsally.....7.
- 6.—Two ocellar bristles.....*tibialis* Macquart.  
Four or six ocellar bristles (Colombia).....*argyrophora* Schiner.
- 7.—No longer dorsocentrals among the appressed hair of the mesonotum.....8.  
Dorsocentral hairs or bristles always present.....9.
- 8.—Collar with very stout bristles.....*armata* Hermann.  
Collar with fine hair.....*nuda* Hermann.
- 9.—Thorax and abdomen metallic bronze-green.....*metallesceus* Hermann.  
Thorax and abdomen black.....10.
- 10.—Hair of face and palpi wholly or mostly black.....11.  
Hair of face and palpi yellow or white.....14.
- 11.—Oral margin very broadly bordered with shining black...*melanopogon* Hermann.  
Oral margin pollinose.....12.
- 12.—Face golden brown, whitish above the oral margin.....*barbiellini*, n. sp.  
Facial pollen white.....13.
- 13.—Mesopleura wholly pollinose (Cuba).....*parva* Bigot.  
Mesopleura mostly shining black.....*selene*, n. sp.
- 14.—Scutellum with two bristles.....15.  
Scutellum with four bristles.....18.

<sup>1</sup>A. *cervaei* Bromley, from Cuba, is omitted.

- 15.—Mesopleura wholly pollinose. . . . . *danforthi*, n. sp.  
     Mesopleura partly shining black. . . . . 16.
- 16.—Mesonotum and scutellum with yellowish hair. . . . . 17.  
     Mesonotum and scutellum with white hair. . . . . *glabrata* Say.
- 17.—Femora wholly black or with only the tips reddish. . . . . *incisuralis* Macquart.  
     Femora with the bases broadly reddish. . . . . *rica*, n. sp.
- 18.—Ocular tubercle with at most four bristles. . . . . 20.  
     Ocellar tubercle with six or more bristles. . . . . 19.
- 19.—Ocellar tubercle with six bristles. . . . . *setosa* Hermann.  
     Ocellar tubercle with numerous bristles. . . . . *beckeri* Jaenicke.
- 20.—Posterior femora reddish with the apical half black. . . . . 21.  
     Posterior femora blackish with only the base and apex reddish brown. . . . . 22.
- 21.—Front above and middle of face brownish-golden pollinose (Brazil).  
     *frontalis* Curran.  
     Front and face white pollinose. . . . . *glabrata* Say.
- 22.—Vertex shining black. . . . . *geniculata* Wiedemann.  
     Vertex with ochreous pollen. . . . . 23.
- 23.—Face golden yellow. . . . . *macquarti* Bellardi.  
     Face white. . . . . 24.
- 24.—Ocellar tubercle with two black bristles and two white hairs.  
     *melanopogon* Hermann.  
     Ocellar tubercle with only the two black bristles; apical tarsal segment black-haired. . . . . *puella* Wiedemann.
- 25.—Tarsi wholly black or brown. . . . . 26.  
     At least the basal two segments of the tarsi not black. . . . . 29.
- 26.—Posterior calli yellow. . . . . *nigra* Bigot.  
     Posterior calli black. . . . . 27.
- 27.—Abdomen blackish. . . . . 28.  
     Abdomen dark metallic-blue (Cuba). . . . . *metallica* Bromley.
- 28.—Posterior tibiae practically all black; basal antennal segments reddish brown (Cuba). . . . . *maestrae* Bromley.  
     Posterior tibiae yellow on the basal half; antennae wholly blackish (Panama).  
     *panamensis* Curran.
- 29.—Ocellar tubercle with two bristles. . . . . 30.  
     Ocellar tubercle with six or more bristles. . . . . *anonyma* Williston.
- 30.—Posterior calli partly or wholly reddish yellow. . . . . 32.  
     Posterior calli black. . . . . 31.
- 31.—Posterior tibiae wholly yellow (N.A.). . . . . *sayi* Johnson.  
     Posterior tibiae broadly black at apex. . . . . 36.
- 32.—Apical three segments of posterior tarsi, and apical third of hind tibiae, brownish the femora wholly pale. . . . . 36.  
     Only the apical segment of the tarsi brown. . . . . 33.
- 33.—Posterior femora brownish apically. . . . . *soror* Bigot.  
     Posterior femora wholly reddish or yellowish. . . . . 34.
- 34.—Posterior tibiae wholly yellow. . . . . *mucida* Osten Sacken.  
     Posterior tibiae with apex broadly brown. . . . . 35.
- 35.—Mesonotum without long hair. . . . . *bequaerti* Bromley.  
     Mesonotum with long hairs. . . . . *punctifera* Hermann.

36.—Front shining black on median third for the whole length (Brazil).

*coxalis* Curran.

Front pollinose on anterior half or with a linear median shining vittae. . . . . 37.

37.—Apical two or three tarsal segments brownish. . . . . 38.

Only the apical tarsal segment brownish. . . . . *rufipes* Macquart.

38.—Posterior calli wholly black. . . . . 39.

Posterior calli reddish yellow. . . . . *eupoda* Bigot.

39.—Posterior femora black on apical third (Brazil). . . . . *tenuis* Curran.

Posterior femora wholly reddish yellow (Brazil). . . . . *lineata* Curran.

### ***Atomosia barbiellinii*, new species**

Related to *parva* Bigot, but the face is golden brown on more than the upper half and the mesopleura is mostly shining. Length, 7 to 8 mm.

MALE.—Front cinereous pollinose, the vertex reddish brown; ocellar swelling black, bearing one pair of black bristles and some short white hairs, the frontal hair black. Occiput reddish-brown pollinose above, cinereous below, the hair white, yellow above, the bristles yellow. Face golden brown, becoming cinereous on the lowest fourth; hair and bristles whitish along the oral margin, black above. Proboscis and palpi white-haired. Antennae black; third segment one-fourth longer than the basal two, excised and with a small spine a little beyond the middle.

Mesonotum and scutellum shining black, thickly clothed with very short, pale brassy-yellow hairs, the bristles of the same color, the notopleural bristle and the weak dorsocentrals black; scutellum with two pairs of short bristles. Pleura with yellowish-cinereous pollen, the mesopleura mostly bare; hair white.

Legs black, the coxae cinereous pollinose; femora with the narrow bases and tips reddish, the posterior pair with the basal fifth reddish. Anterior four tibiae on the basal fourth and the posterior pair on the basal two-thirds reddish. Hair white, the bristles yellowish to ferruginous, partly black on the tarsi; tarsi black-haired above.

Wings cinereous hyaline with brownish tinge; anterior cross-vein situated slightly beyond the middle of the discal cell; apical cell widely open. Halteres reddish yellow.

Abdomen slightly shining black, clothed with short brown hair, the hair on the sides yellowish; tips of the segments whitish pollinose, the pollen limited to the sides on the second segment. Venter brown, with dull yellowish hair.

FEMALE.—Oral bristles black, the hair white; bristles on the sides of the mesonotum black; anterior femora reddish on the under surface on their whole length, the middle pair incompletely reddish below; basal third of the posterior femora reddish; anterior four tarsi white-haired above; wings without brown tinge; sixth and seventh abdominal segments broadly yellow-haired laterally, the abdominal hair shorter.

TYPES.—Holotype, male, and allotype, female, São Paulo, Brazil (Count A. A. Barbiellini). Paratype, female, Rio de Janeiro (H. Sousa Lopes).

### ***Atomosia selene*, new species**

Related to *parva* Bigot, but the mesopleura is more than half shining black. Black, coarsely punctured, the head and pleura whitish pollinose. Length, 9.5 mm.

FEMALE.—Head whitish pollinose, the ocellar tubercle shining black; two or three pairs of yellowish ocellar bristles and several hairs; occiput above and the

vertex with brownish yellow pollen, the pile white. Face with black bristles and hairs, the hair on the upper half white; frontal bristles black. Proboscis and palpi white-haired, the palpi with several black apical bristles. Antennae black, the third segment brownish, twice as long as the basal two, excised and bearing a small spine at the apical third above.

Mesonotum and scutellum shining black, the pile very short and appressed, pale brassy yellow, paler anteriorly; bristly dorsocentral hairs black, the bristles ferruginous. Scutellum with two pairs of bristles. Pleura, except most of the mesopleura, whitish pollinose and pilose. Collar with yellowish tinged hair.

Legs black, the coxae white pollinose and pilose; tips of the femora, the broad bases of the anterior four tibiae and more than the apical half of the posterior pair reddish, the posterior femora narrowly reddish at the base. Hair and bristles white, the tarsal bristles ferruginous; posterior tarsi wholly black-haired above, the middle pair with the apical two segments black-haired.

Wings cinereous hyaline, the anterior cross-vein situated at the middle of the discal cell; apical cell open or closed in the wing margin. Halteres yellow.

Abdomen shining black, with very short black hair, the apices and sides of the segments with white hair, the terminal segment wholly pale-haired; narrow tips of the second to sixth segments white pollinose, the pollen broadly interrupted on the second to fourth segments, on the second limited to the sides. Venter brownish with whitish hair.

HOLOTYPE.—Female, São Paulo, Brazil (Count A. A. Barbiellini).

### ***Atomosia danforthi*, new species**

Black, the legs partly yellowish; mesonotum with yellow hair; mesopleura wholly pollinose. Length, 6 mm.

MALE.—Face and lower part of the occiput white pollinose; occiput mostly cinereous, the front brownish-yellow pollinose; hair and bristles white, only one pair of black ocellar bristles; ocellar tubercle shining black. Palpi with black hair. Antennae black, with black hair and bristles; third segment one-fourth longer than the basal two combined, excised and bearing a spine near the apical third.

Mesonotum and scutellum shining black, with very short brassy-yellow hair, the bristles black or yellowish; scutellum with one pair of yellow marginals. Pleura wholly cinereous pollinose, with yellow tinge above, the hair and bristles white.

Legs black, the coxae cinereous pollinose; femora with the basal fourth and apical fifth reddish, the anterior four more or less reddish on the whole length beneath; tibiae reddish on almost the basal two-thirds; hair white, black on the apices of the tibiae and on the tarsi, the tibial bristles mostly black; trochanters reddish except at the apex.

Wings cinereous hyaline, with brownish or luteous tinge; apical cell closed and short petiolate; anterior cross-vein situated distinctly before the middle of the discal cell. Halteres yellow.

Abdomen shining black, the apices of the third to sixth segments white pollinose, the pollen broadly interrupted on the third and fourth segments, and limited to small spots on the second. Hair brownish yellow, black on the apical two segments except on the lateral margins. Venter brownish, pale-haired.

FEMALE.—The bristles on the femora and tibiae are white and the anterior four tarsi are white-haired above.



Types.—Holotype, male, and allotype, female, Coamo Springs, Porto Rico, November 9, 1930 (S. T. Danforth).

***Atomosia rica*, new species**

Black, the legs partly yellow; mesonotum yellow-haired; mesopleura mostly shining black. Length, 6.5 to 8 mm.

MALE.—Front cinereous pollinose, the ocellar tubercle shining black and bearing one pair of black bristles; occiput golden brown, becoming white below; face white pollinose; hair and bristles white, black on the palpi and antennae but wholly white on the under side of the first segment of the latter. Antennae black, the third segment excised and bearing a spine at the apical third, one-third longer than the basal two combined.

Mesonotum and scutellum shining black, with short brassy-yellow hair, the sides of the former narrowly cinereous pollinose; bristles black, those on the posterior calli and the single scutellar pair yellow. Pleura cinereous white pollinose, the mesopleura with a large, orbicular shining spot in the middle; hair and bristles white.

Legs black, the coxae cinereous pollinose; trochanters mostly reddish yellow; femora with the basal fifth reddish yellow, the posterior pair yellowish on the basal fourth, the anterior pair more or less reddish on the whole length below, the apices of all the femora broadly reddish; tibiae with about the basal fourth reddish yellow; basal segment of the tarsi reddish except apically, the hind ones reddish only basally. Hair and bristles white, the anterior tarsi black-haired above.

Wings cinereous hyaline; apical cell open; anterior cross-vein at the middle of the discal cell. Halteres yellow.

Abdomen shining black; third to sixth segment with linear apical white pollinose fascia, the second with a small lateral white spot; hair white. Venter grayish.

FEMALE.—Anterior four legs missing; the posterior femora are broadly reddish at the apex.

Types.—Holotype, male, Mayaguez, Porto Rico, September 1, 1931; allotype, female, Las Marias, Porto Rico, May, 1931 (S. T. Danforth).

**PROMACHINA** Bromley

As pointed out by Dr. Bromley, this genus is intermediate between *Promachus* Loew and *Mallophora* Macquart, differing from the former in having the claws blunt and from the latter by its more slender build and narrow face and front. The typical species of *Promachina* have the face only gently swollen below and bear hair on the upper portion. A second group more closely resembles *Erax* Scopoli in having the face more gibbous below and without hair above, the genitalia resembling *Erax*. It is possible that a new genus should be erected for this latter group but, until more is known concerning the many described species of *Erax* from the Neotropical region, it seems unwise to propose a new genus.

It is possible that a number of described species at present placed in the genera *Asilus*, *Erax*, *Promachus*, and *Mallophora* belong in *Pro-*

*machina*, but this can only be determined by an examination of the types. Several of the species known to belong to *Promachina* agree well with species of *Erax* and *Promachus* in general coloration and it is impossible to be certain of the identity of the various forms. All the species known to me are included in the following key.

## TABLE OF SPECIES

- 1.—Legs wholly black in ground color . . . . . 2.  
     Legs in part yellowish or reddish . . . . . 4.
- 2.—Face rather strongly gibbous below, without hair on the upper third . . . . . 3.  
     Face but little swollen below, with hair below the antennae . . . *nigripes* Fabricius.
- 3.—Wings gray on the apical seventh only in front of the fourth vein.  
     *neowillistoni* Bromley.  
     Wings mostly grayish on the apical half . . . . . *eraxoides*, n. sp.
- 4.—Front tibiae black . . . . . 5.  
     Front tibiae at least partly reddish or yellowish . . . . . 6.
- 5.—Abdomen with band of white pile on the second segment. ♀, *annularis* Fabricius.  
     Abdomen with golden-yellow pile . . . . . *pulchellus* Bellardi.
- 6.—Scutellum with black pile . . . . . 7.  
     Scutellum with white or yellowish pile . . . . . 8.
- 7.—Abdomen with golden yellow pile . . . . . ♀, *annularis* Fabricius.  
     Abdomen black, with a band of long white hair near the base.  
     *trichonotus* Wiedemann.
- 8.—Scutellar pile almost or quite as long as the dorsocentral bristles . . . . . 9.  
     Scutellar pile short and not very conspicuous . . . . . 10.
- 9.—Dorsum of the abdomen with black hair . . . . . *barbiellinii*, n. sp.  
     Abdomen with yellowish hair, toward the apex often with some black hair.  
     *trapezoidalis* Bellardi.
- 10.—Scutellum with one pair of bristles; male genitalia wholly black-haired.  
     *pulchripes* Bromley.  
     Scutellum without bristles or they are extremely weak; male genitalia with  
     golden hair at base of under surface . . . . . *proquinquus* Bromley.

***Promachina eraxoides*, new species**

A small species resembling certain species of *Erax* in appearance but with blunt claws. It is closely related to *neowillistoni* Bromley, described in *Erax*, but differs in having the wings much more extensively gray and in the male genitalia. The females can be separated only by the more extensively grayish wings. Length, 9 to 14 mm., exclusive of ovipositor.

**MALE.**—Head black, cinereous-white pollinose, the face and front yellowish or brownish yellow; front with black hair; occipital cilia black; beard white. Mystax black, yellow on the lower half, composed almost entirely of bristles. Proboscis and palpi black, the latter with black hair on the apical half. Antennae black, with black hair; third antennal segment elongate oval, as long as the basal two segments combined; arista slightly longer than the third segment.

Thorax black, cinereous-white pollinose, the black vittae very wide, separated by a line of pale pollen, all broadly separated from the posterior border, the median one

divided by a whitish line. Hair sparse, black, white on the scutellum and pleura; one pair of scutellars; three or four pairs of dorsocentrals; some of the hypopleural bristles black.

Legs wholly black, clothed with appressed pale-yellowish hair; bristles mostly black, partly pale on the femora; tarsal hair mostly black.

Wings hyaline, with luteous tinge, grayish on almost the apical half. Halteres yellowish.

Abdomen with the sides, eighth segment wholly and the rather broad posterior borders of the preceding segments, whitish; seventh segment reddish brown, the preceding two segments more or less brown pollinose medianly; hair black dorsally, white on the sides and on the gray pollinose venter. Genitalia shining black, the lower surface densely clothed with tawny hair except on the apical half of the upper forceps, the tawny pile on the forceps bordered by black bristles; the upper forceps are produced at the lower apex and bear a long, digitate process before the upper apex, the hair brownish.

**FEMALE.**—Mystax with some black bristles laterally; seventh abdominal segment cinereous pollinose on the apical half; main section of the ovipositor not quite as long as the preceding three segments.

**TYPES.**—Holotype, male, and allotype, female, Chapada, Brazil. Paratypes, three males, Chapada (Williston Collection).

I have before me another species represented by several females having the ovipositor much longer and the seventh abdominal segment pollinose on the apical third or less. Their description must await the discovery of males.

This species, together with *neowillistoni*, *pulchripes*, and *propinquus*, all described by Dr. Bromley in the genus *Erax*, might well be placed in a different genus, since they differ from the typical forms in having the face more swollen and the absence of hairs above, more elongate ovipositor and somewhat different venation.

#### ***Promachina barbiellinii*, new species**

Black, yellowish and black-haired, the legs mostly reddish. Related to *trapezoidalis* Bellardi but the abdominal segments are wholly black-haired dorsally, the yellow hair being limited to the sides. Length, 18 mm.

**MALE.**—Front with brown pollen and black hair. Pollen of the occiput golden brown above, becoming grayish below, the pile pale yellow below, darker above, the bases of the bristles brown. Face and cheeks with rather golden-yellow pollen and reddish-yellow hair, a few fine black bristles near the antennae. Proboscis and palpi black, the latter with black bristly hair apically. Antennae black, with black bristles, the first segment with yellowish hair below; third segment about three times as long as wide; arista longer than antenna.

Mesonotum rich brown pollinose, with four darker brown vittae, from posterior view wholly reddish brown; hair black, white on the sides behind the suture and pale yellowish on the scutellum. Pleura brownish red, becoming cinereous below, particularly toward the hind margin; hair pale yellowish. Pronotum with pale pile, at most a few black bristles dorsally.

Legs shining reddish, the anterior four femora black anteriorly, the posterior pair black anterodorsally on the apical half; coxae cinereous pollinose and pale yellow pilose. Anterior four femora black-haired in front, whitish haired behind; posterior femora black-haired in front and on most of the apical half, but with a pale-haired stripe extending almost to the apex on the anterior and posterior surfaces. Tibiae black-haired, with yellow hair on posterior surface, the posterior pair with white hair intermixed with the black on the basal half. Tarsi wholly black-haired.

Wings pale brownish, darker on the apical fourth in front. Halteres reddish yellow.

Abdomen dull black, on the sides with more or less subtriangular cinereous-brown triangles that reach the bases of the segments, the spots on the apical segments almost rectangular; dorsum clothed with short, rather sparse, appressed black hair, the sides with moderately long pale yellow pile, the second segment almost all pale-haired. Venter cinereous-yellow pollinose and pale-haired. Genitalia, shining, reddish, the upper forceps bordered with black, hair wholly black.

HOLOTYPE.—Male, São Paulo, Brazil (Count A. A. Barbiellini).