

## NEOTROPICAL MIRIDAE, CLVI: *ADSAILERIA*, *CUNEOCORIS* AND *TUPIMIRIS*, NEW GENERA OF ORTHOTYLINI (Hemiptera)<sup>1</sup>

JOSÉ C. M. CARVALHO \* and J. C. SCHAFFNER \*\*

Museu Nacional, Rio de Janeiro and Department of Entomology, Texas A & M  
University, Texas, USA.

(With 12 text figures)

Attempts to identify material in a collection of mirids taken from southern Brazil revealed three undescribed monotypic genera belonging to the tribe Orthotylini. The specimens were collected from the state of Santa Catarina by Mr. Fritz Plaumann and were in the collection of J. C. Schaffner. The illustrations accompanying the descriptions of these new genera and species were prepared by Mr. Paulo Wallerstein.

### *Adsaileria* n. gen.

Orthotylinae, Orthotylini. Characterized by its slightly depressed vertex; short rostrum; short pronotum, hyaline corium; and long legs.

Medium sized species; sides parallel; vestiture consisting of fine elongate semi-erect setiform hairs on head, pronotum and embolium; erect hairs on hemelytra and scutellum.

Head wider than long and with short neck-like portion, smooth, shining; eyes occupying entire side of head as seen from above, rounded behind and removed from pronotum by distance approximately equal to diameter of antennal segment I, ventral margin of eye extending below antennal socket; vertex broadly depressed, not carinate or margined; frons broadly convex; clypeus prominent, turned posteriorly; lorum prominent; buccula, gena normal; gula reduced. Rostrum barely surpassing coxae of forelegs; segment I reaching middle of prosternum, much wider than others; segments I and II more or less subequal in length, III and IV about subequal in length, each about 3/4 as long as II. Antenna with segment I thicker than others, slightly longer than vertex, except for two or three elongate erect setae, vestiture appressed with individual hairs not longer than diameter of segment; segment II approximately 4 times as long as I, cylindrical,

<sup>1</sup> Received for publication June 25, 1973.

\* Pesquisador-Conferencista do Conselho Nacional de Pesquisas, Brasil. NSF Senior Foreign Scientist Fellow, Texas A & M University, 1972.

\*\* Associate Professor.

Technical contribution No. TA-10527, Department of Entomology, Texas Agricultural Experiment Station, Texas A & M University, College Station, Texas 77843.

hairs short and appressed; segment III more slender than II, slightly shorter; segment IV about 1/2 as long as III; both III and IV with short appressed pubescence.

Pronotum short, not covering wing base and leaving much of mesoscutum exposed; anterior angles and margin projected over sunken collar-like area; calli indistinct with weak posterior sulcus; lateral margin somewhat carinate; posterior margin broadly concave; posterior corners rounded; elongate hairs sparse on disc, somewhat more dense on anterior pronotal angles and a well defined decumbent row along posterior margin; mesoscutum very broadly exposed, slightly convex with scattered elongate hairs; scutellum flat or slightly convex, apex pointed. Hemelytra with embolium coriaceous, the remainder hyaline; hairs rather uniformly scattered over corium, outer margin of embolium rather heavily setose; cuneus twice as long as wide; membrane very slightly fuscous. Legs slender and elongate; femora with appressed hairs; tibiae with appressed hairs and several rows of erect setae longer than diameter of tibia, also with longitudinal rows of minute corrugations; tarsi slender and very long, segment I shorter than II and III, claws and arolia of orthotyline type.

TYPE SPECIES OF GENUS ADSAILERIA VI-  
RESCENS n. sp.

This genus has the general appearance of *Saileria* Hsiao and *Platyscytus* Reuter but differs from both in having a short rostrum that reaches only to the apices of the anterior coxae. It can be separated from *Rhinocapsidea* Reuter by not having eyes that are straight along the posterior margin and that do not touch the pronotum. In addition the pronotum of *Adsaileria* is not unusually constricted anteriorly. It differs from *Orthotylus* by having a much shorter rostrum, the vertex of the head is not margined and the eyes are removed from the pronotum by a distance of at least the thickness of antennal segment I.

### *Adsaileria virescens* n. sp.

(Figs. 1-4)

Characterized by its color, dimensions and the structure of the male genitalia.

MALE (measurements taken from 19 individuals; measurements of holotype given first followed in parenthesis by the average and the ranges): Length, 4.48 mm (4.35 mm, 4.12-4.60 mm); width, 1.40 mm (1.36 mm, 1.28-1.46 mm). Head length, 0.30 mm (0.34 mm, 0.30-0.40 mm); width of head through eyes, 0.82 mm (0.83 mm, 0.82-0.86 mm); vertex width, 0.34 mm (0.34 mm, 0.32-0.36 mm). Length of antennal segment I, 0.38 mm (0.38 mm, 0.34-0.40); II, 1.60 mm (1.59 mm, 1.52-1.70 mm), III, 1.40 mm (1.39 mm, 1.26-1.48 mm); IV, 0.58 mm (0.62 mm, 0.54-0.74 mm). Pronotal length, 0.46 mm (0.45 mm, 0.42-0.48 mm); width, 1.02 mm (1.01 mm, 0.98-1.06 mm). Cuneal length, 0.72 mm (0.72 mm, 0.66-0.74 mm); width at base, 0.42 mm (0.41 mm, 0.38-0.42 mm).

General coloration pallid with areas suffused with green; head pallid; apex of rostrum, broad medial ring on antennal segment I, segment II except extreme base, segments III and IV dark fuscous, base and apex of segment I and extreme base of II pallid. Pronotum, propleura, mesoscutum occasionally, scutellum, apex of clavus especially along claval commissure, margin of corium between clavus and membrane, cuneus especially along inner margin and apical halves of femora greenish; tibiae pale fuscous; remainder of insect pallid.

Morphological characters as given for genus.

Genitalia: Penis (fig. 2) of orthotyline type with characteristic multibranching sclerotized spiculi as seen from right side. Left paramere (fig. 3) excavated on underside, curved and pointed with 8 toothlike structures on right margin and two on dorsal surface. Right paramere (fig. 4) smaller, bilobed as shown in illustration.

The female is unknown.

**HOLOTYPE:** male, Nova Teutonia, Santa Catarina, Brazil, 27°11'N, 52°23'W, October, 1970, Fritz Plaumann. In the collection of the senior author. **PARATYPES:** 18 males, same data as holotype; 1 male, same locality, taken in November. Deposited in the *Museu Nacional*, Rio de Janeiro, collection of the *Department of Entomology*, Texas A&M University, College Station, Texas, *Canadian National Collection of Insects*, Ottawa, and in the authors' collections.

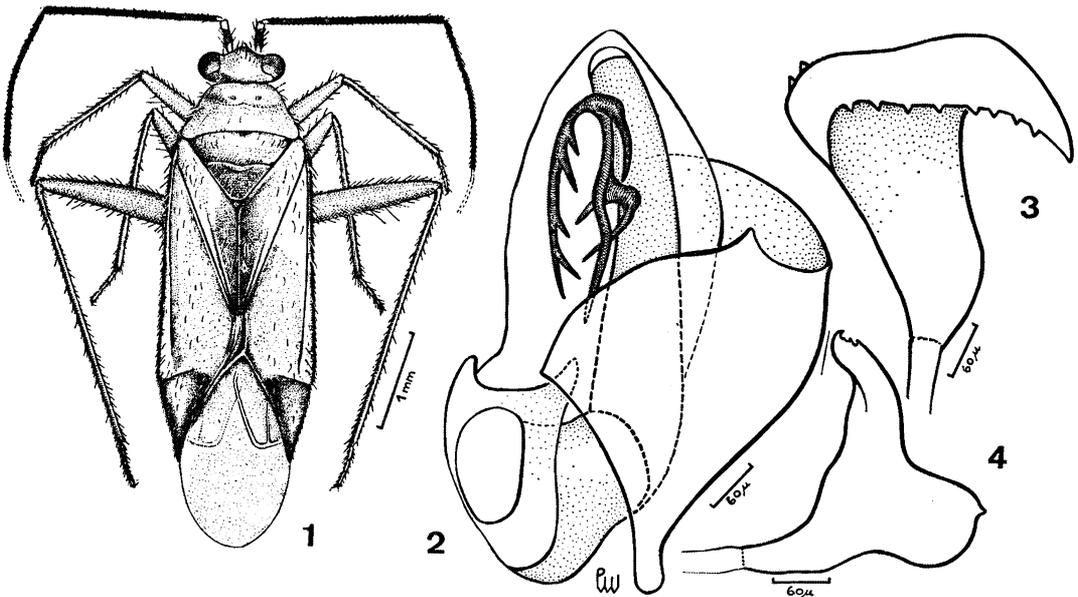
**Cuneocoris** n. gen.

Orthotylinae, Orthotylini. Characterized by being small in size; body densely pilose and distinctly punctate with hair arising from each puncture; cuneal fracture wide and deep; triangular shaped cuneus rounded externally and appearing foliaceous.

Head wider than long; eyes very large, compressed as seen from side and occupying most of the head, contiguous with pronotum, slightly curved posteriorly;

vertex distinctly margined, slightly carinate; frons verticle; clypeus compressed; lorum, jugum and gena greatly reduced. Rostrum reaching the middle coxae; segment I reaching anterior margin of posternum. Antenna with segment I shorter than width of vertex, slightly thicker than II; II four times as long as I, cylindrical, very slightly incrassate towards apex, densely pubescent with hairs about as long as 1/2 width of segment; III and IV more slender than II, pubescence longer.

Pronotum distinctly trapezoidal, inclined anteriorly; calli obsolete; lateral margins rounded, not carinate; posterior margin broadly rounded; posterior corners angulate; mesoscutum covered; scutellum slightly convex. Hemelytra broadened towards cuneus, lateral margin inclined downward; apical half widened towards cuneus, slightly convex; embolium greatly enlarged and curved inward at apex; cuneal fracture deep, very wide; cuneus oblique, rounded exteriorly, foliaceous in aspect; large areola of membrane broadly rounded. Legs short; hind femur with a few long



*Adsaileria virescens* n. sp. Fig. 1 male, paratype; fig. 2 — penis with exposed vesica; fig. 3 — left paramere; fig. 4 — right paramere.

setae; tibiae with fine hairs and spines; arolia of orthotyline type, convergent towards apex.

TYPE SPECIES OF GENUS, *CUNEOCORIS FOLIACEOUS* n. sp. (Figs. 5-8).

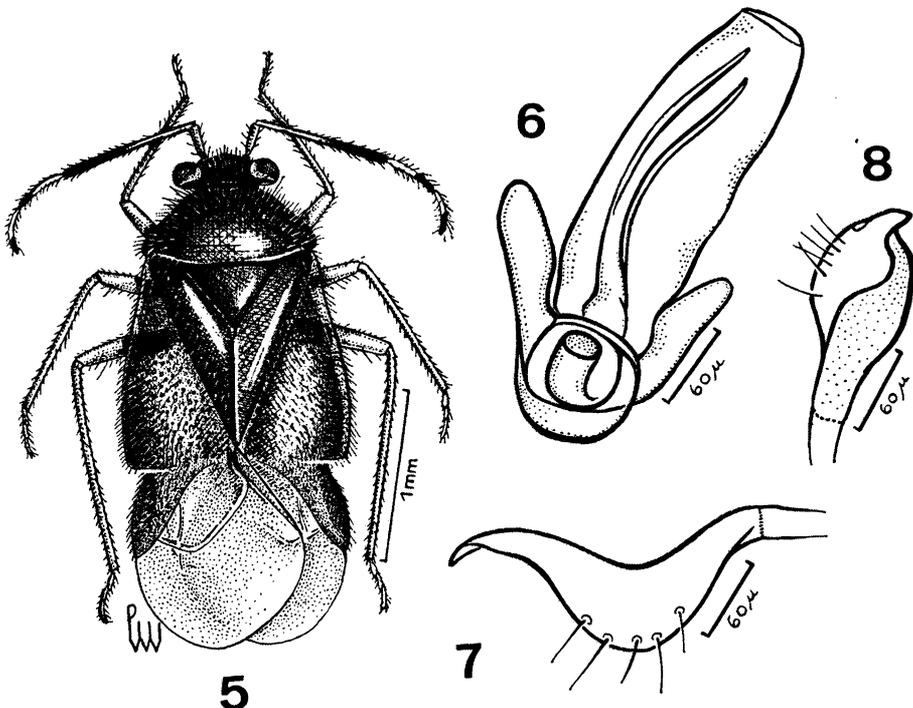
The genus *Cuneocoris* appears to be rather closely related to *Adfalconia* Carvalho and Rosas but differs in having large eyes which almost reach the gula. The cuneus is large, triangular and foliaceous whereas in *Adfalconia* the cuneus is very narrow and elongate. In addition, the body of *Cuneocoris* is finely punctate, that of *Adfalconia* is deeply punctate. This genus differs from *Falconia* Distant in having the length of the first antennal segment not more than about two-thirds the length of the vertex. The length of the first antennal segment of *Falconia* is equal to or longer than the vertex. This genus also bears a superficial resemblance to the genus *Lundiella* Carvalho (Deraeocorinae) but can quickly be separated from it by the presence of the arolia.

***Cuneocoris foliaceus* n. sp.**

(Figs. 5-8)

Characterized by its color, dimensions and the structure of male genitalia.

MALE (measurements taken from 7 individuals; measurements of holotype given first followed in parenthesis by the average and the ranges): Length, 2.76 mm (2.68 mm, 2.46-2.92 mm); width, 1.30 mm (1.33 mm, 1.28-1.40 mm). Head length, 0.12 mm (0.16 mm, 0.12-0.20 mm); width of head through eyes, 0.62 mm (0.65 mm, 0.60-0.68 mm); vertex width, 0.24 mm (0.25 mm, 0.24-0.28 mm). Length of antennal segment I, 0.16 mm (0.16 mm, 0.14-0.16 mm); II, 0.78 mm (0.76 mm, 0.72-0.80 mm); III, 0.32 mm (0.34 mm, 0.32-0.36 mm); IV, 0.24 mm (0.24 mm, 0.22-0.24 mm). Pronotal length, 0.52 mm (0.47 mm, 0.40-0.52 mm); width, 0.98 mm (1.00 mm, 0.98-1.04 mm). Cuneal length, 0.46 mm (0.47 mm, 0.42-0.52 mm); width at base, 0.22 mm (0.24 mm, 0.22-0.28 mm).



*Cuneocoris foliaceus* n. sp. Fig. 5 — male paratype. fig. 6 — penis; fig. 7 — left paramere; fig. 8 — right paramere.

General coloration dark brown to castaneous; head with eyes brown with reddish tinge along margins; antenna pale, apices of II, III and IV black. Pronotum with lateral margin castaneous ranging to testaceous in some specimens, median portion and scutellum darker; endocorium paler; cuneus dark brown; membrane fuscous paler on apical 1/3 and along internal margin. Underside dark brown; legs including coxae, rostrum except apex, pale yellow; apices of tarsi infuscate.

Morphological characters as given for genus.

Genitalia: Penis (Fig. 6) simple, vesica without spiculi or appendages. Left paramere (Fig. 7) widened at middle, excavated below, curved and pointed at apex. Right paramere (Fig. 8) concave ventrally ending in blunt point as illustrated.

**FEMALE** (measurements taken from 11 individuals; measurements of allotype given followed in parenthesis by the average and the ranges): Length, 2.40 mm (2.18 mm, 1.82-2.46 mm); width, 1.30 mm (1.28 mm, 1.16-1.36 mm). Head length, 0.18 mm (0.14 mm, 0.10-0.18 mm); width of head through eyes, 0.60 mm (0.61 mm, 0.56-0.64 mm); vertex width, 0.30 mm (0.31 mm, 0.28-0.34 mm). Length of antennal segment I, 0.14 mm (0.15 mm, 0.12-0.16 mm); II, 0.58 mm (0.59 mm, 0.56-0.62 mm); III, 0.28 mm (0.31 mm, 0.26-0.34 mm); IV, 0.24 mm (0.25 mm, 0.24-0.26 mm). Pronotal length, 0.54 mm (0.47 mm, 0.42-0.54 mm); width, 1.00 mm (1.00 mm, 0.92-1.04 mm). Cuneal length, 0.38 mm (0.39 mm, 0.34-0.42 mm); width at base, 0.26 mm (0.23 mm, 0.22-0.28 mm).

Similar to males but darker in color, hemelytron more rounded at cuneal fracture; antenna paler.

**HOLOTYPE**: male, Nova Teutonia, Santa Catarina, Brazil, 27°11'N, 52°23'W, October, 1970, Fritz Plaumann. In the collection of the senior author. **ALLOTYPE**: female, Nova

Teutonia, Santa Catarina, Brazil, 27°11'N, 52°23'W, September, 1970, Fritz Plaumann. In the collection of the senior author. **PARATYPES**: all collected at Nova Teutonia by Fritz Plaumann; 2 males, 5 females, October, 1969; 1 female, September, 1970; 1 male, 1 female, December, 1970; 3 males, 2 females, September, 1971; 1 female, November, 1971. Deposited in the *Museu Nacional*, Rio de Janeiro, collection of the *Department of Entomology*, Texas A&M University, College Station, Texas, *Canadian National Collection of Insects*, Ottawa and in the authors' collections.

#### **Tupimiris** n. gen.

Orthotylinae, Orthotylini. Characterized by its large and prominent scutellum; large and confluent calli; depressed and carinate vertex; very long second and third antennal segments; and short rostrum.

Body elongate, sides parallel; smooth; covered by very fine erect pubescence noticeably longer and more dense on scutellum.

Head much wider than long; eyes prominent, large, hind margins on level with collar but removed laterally, ventral margin of eye extending well below antennal socket; vertex depressed medially, carinate, carina without rigid bristles or setae; frons rounded, reaching slightly beyond antennal socket; clypeus flat, curved anteriorly; lorum and jugum flat, jugum occupying most of side of head anterior to eye; buccula, gena and gula reduced. Rostrum reaching middle to apex of mesosternum; segment I reaching middle of prosternum, much thicker than others; II and IV twice as long as III. Antenna with segment I thicker than others, tapering towards base and slightly towards apex, vestiture sparse with some setae about as long as diameter of segment; antennal segment I slightly shorter than width of vertex; segment II about 4 times as long as

I, covered by dense short hairs not longer than diameter of segment; segment III more slender than second, slightly shorter; segment IV approximately 1/3 as long as III; both III and IV with short dense pubescence.

Pronotum with a sunken collar (pseudocollar); calli large and confluent, posterior margins delimited from disc by a distinct furrow; lateral margins rounded; posterior margin weakly convex, raised considerably above mesoscutum; mesoscutum exposed, inclined; scutellum large and prominent, convex. Hemelytra with sides parallel; covered by erect pubescence; embolium flattened, slightly reflexed; cuneus less than 1 1/2 times as long as wide at base. Underside of body with osteolar peritreme small; legs relatively slender; hind femur with long setae on apical portion; hind tibia with hairs and long setae distinctly longer than diameter of tibia; segment I of tarsi subequal in length to second, third longest, claws and arolia of orthotyline type. Pygophore of male with 2 or 3 tufts of hairs on posterior margin.

TYPE SPECIES OF GENUS, *TUPIMIRIS SCUTELLATUS* n. sp. (Figs. 9-12).

This genus differs from all other orthotyline genera by its large and prominent scutellum beset with long fine erect hairs and by having the hind portion of the pronotum sharply projecting over the mesoscutum. The head is quite wide and the eyes large.

### *Tupimiris scutellatus* n. sp.

(Figs. 9-12)

Characterized by its color, dimensions and the structure of male genitalia.

MALE (measurements taken from six specimens; those of holotype given first followed in parenthesis by the average and ranges): Length, 4.10 mm (4.05 mm, 3.80-

4.26 mm); width, 1.50 mm (1.49 mm, 1.46-1.52 mm). Head length, 0.28 mm (0.29 mm, 0.24-0.34 mm); width of head through eyes, 0.96 mm (0.97 mm, 0.94-1.00 mm); vertex width, 0.38 mm (0.39 mm, 0.38-0.42 mm). Length of antennal segment I, 0.40 mm (0.39 mm, 0.36-0.40 mm); II, 1.66 mm (1.65 mm, 1.62-1.70 mm); III, 1.48 mm (1.44 mm, 1.36-1.48 mm); IV, 0.48 mm (0.49 mm, 0.42-0.52 mm). Pronotal length, 0.62 mm (0.60 mm, 0.56-0.62 mm); width, 1.28 mm (1.29 mm, 1.24-1.38 mm). Cuneal length, 0.58 mm (0.59 mm, 0.56-0.62 mm); width, 0.36 mm (0.38 mm, 0.36-0.40 mm).

General coloration brown to cinnamonous with pale areas; head pale, infuscate on vertex, frons and tylus; apex of rostrum, eyes and antennae black. Pronotum, scutellum and clavus dark brown; hemelytra fuscous brown except for pale areas at extreme apex and on exocorium near base; external basal half of cuneus pale, remainder fuscous; membrane fuscous. Underside of body dark brown, prosternum, coxae and bases of femora, rostrum, and sides of head pale to pale yellowish; apical portion of femora, tibiae and tarsi fuscous to black.

Morphological characters as given for genus.

Genitalia: Penis (Fig. 6) of orthotyline type with single long and sclerotized spicule on vesica. Left paramere (Fig. 11) somewhat sickleshaped with widest area approximately 1/4 of distance from apex as shown in figure. Right paramere (Fig. 12) curved apically with setae near apex.

The female is unknown.

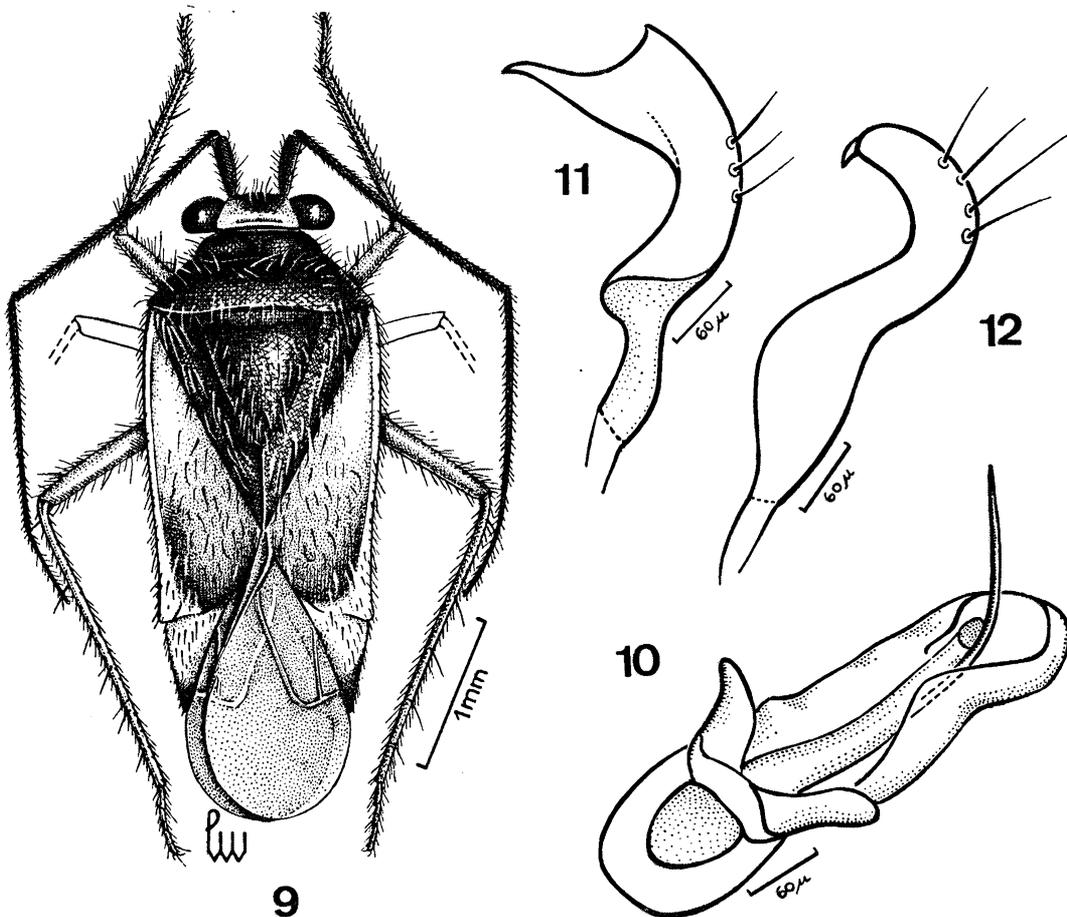
HOLOTYPE: male, Nova Teutonia, Santa Catarina, Brazil, 27°11'N, 52°23'W, December, 1970, Fritz Plaumann. In the J. C. M. Carvalho collection. PARATYPES: two males, same data as holotype; male, same locality, March, 1972; male, same locality, November, 1972; male, same locality, March, 1973. In the *Museu Nacional*, Rio de Janeiro and the J. C. Schaffner collection.

## SUMMARY

The authors describe new genera and species of Orthotylinae, Orthotylini (Hemiptera) from Brazil as follows: *Adsaileria* n. gen.; *A. virescens* n. sp.; *Cuneocoris* n. gen.; *C. foliaceus* n. sp. and *Tupimiris* n. gen.; *T. scutellatus* n. sp.; illustrations of the insects and of the male genitalia are included.

## BIBLIOGRAPHICAL REFERENCES

- CARVALHO, J. C. M., 1951, Neotropical Miridae, 44: On a historical collection made by P. W. Lund and J. T. Reinhardt in Brazil (Hemiptera). *Ent. Medd.* 26: 132.
- CARVALHO, J. C. M. & ROSAS, A. F., 1962, Mirídeos Neotropicais, XCI: Uma tribo e dois gêneros novos (Hemiptera). *Rev. Brasil. Biol.* 22(4): 427.
- DISTANT, W. L., 1884, *Biologia Centrali Americana Insecta. Rhynchota. Hemiptera-Heteroptera*, vol. I: 298.
- FIEDER, F. X., 1858, Kriterien zur generischen Theilung der Phytocoriden (Capsini auct.). *Wien. Ent. Monatsch.* 2: 315.
- HSIAO, T. Y., 1945, A new plant bug from Peru, with a note on a new genus from North America (Miridae, Hem.). *Proc. Ent. Soc. Wash.* 47(1): 27.
- REUTER, O. M., 1907, Capsidae novae in Insula Jamaica mense Aprilis 1906 a D. E. P. van Duzee collectae. *Ofv. F. Vat. Soc. Forh.* 49(5): 17.
- REUTER, O. M., 1908, *Eccritotarsus genetivus* Distant, eine Cyllocorarie. *Wien. Ent. Zeit.* 27: 54.



*Tupimiris scutellatus* n. sp. Fig. 9 male, paratype; fig. 10 — penis; fig. 11 — left paramere; fig. 12 — right paramere.