THE AMERICAN GENERA OF ASILIDAE (DIPTERA): 
KEYS FOR IDENTIFICATION WITH AN ATLAS OF FEMALE SPERMATHECAE AND OTHER MORPHOLOGICAL DETAILS. 
VII.5. SUBFAMILY STENOPOGONINAE HULL - TRIBE TILLOBROMINI, 
WITH DESCRIPTIONS OF THREE NEW GENERA AND TWO NEW SPECIES AND 
A CATALOGUE OF THE NEOTROPICAL SPECIES

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ABSTRACT

A key for the identification of the 7 genera of American Tillobromini (Asilidae, Stenopogoninae), with illustrations of female spermatheca and other morphological details, is given. The following new taxa are described: Grajahua lopesi, gen. n., sp. n. (type-locality: Brazil, Rio de Janeiro, Rio de Janeiro (Grajaú)); Sylaticina tucumana, gen. n., sp. n. (type-locality: Argentina, Tucuman, San Pedro de Colalao); and Sylaticodes, gen. n. (type-species, Dasypogon chilensis Macquart, 1850). A catalogue of the neotropical species, with several new combinations, is added.


INTRODUCTION

dology employed in the dissection and preservation of the male terminalia, female spermat-}

hecae and other morphological parts is the same employed by Artigas (1971).

Tribe TILLOBROMINI Artigas & Papavero

Key to the genera

1. Slender, bare flies. Abdomen long and slender, narrower than thorax and coarctate (at least on second abdominal segment). Mystax thin, in only one row, confined to oral margin (Figs. 1-2). Scutellum bare of hairs and bristles. Proboscis tapering to the apex, as long as mystax, pointed apically and bent downwards (Fig. 1). Face parallel-sided (Fig. 2) Legs very long and slender (Fig. 4). (Brazil: Rio de Janeiro) ................. Girajinha, gen. n.

2. Mystax of variable shape, but always with mixed bristles and hairs. Anterior dorsocentral bristles, if present, mixed with more or less abundant, moderately long pile (South America) .................. 3

3. Mystax consisting of very strong, stiff bristles, extending from oral margin to base of antennae. Dorsocentral bristles also very strong, beginning on the anterior slope of mesonotum. Thorax and head without pile, all bristles stiff and evident. Spermathecae a long, slender, coiled tube (Figs. 5-6). (Western North America) .................. Coleomyia Wilcox & Martin, 1935

4. Face either evenly rounded or from slightly to moderately prominent, but never strongly gibbose and first flagellomere never as below ....... 4


6. Mystax occupying lower 2/3 of face or more (Figs. 8-9). Spermathecae with more or less rounded capsules (Figs. 10-11-17) .............. 5

7. Mystax thick but confined to oral margin and proboscis long and thick, longer than mystax (almost surpassing tip of antennae) (Fig. 7). Face produced at oral margin, forming a thick triangle in profile (Fig. 7). Spermathecae with more or less falciform elongate capsules (Artigas, 1971: Fig. 66). (Chile, Argentina) ................. Euthrixius Artigas, 1971

8. Probsocos much longer than mystax (Fig. 8). Face almost triangularly produced, in lateral view, on its lower 2/3 (Fig. 8). Male terminalia as in Artigas (1970: Figs. 152-153, 155-156, 157-158), Spermat-
Genus *Grajahua* gen. n.

Face 1/4 width of head, frons of similar width. Internal margin of eyes nearly parallel. Upper half of face produced. Mystax reduced to a row of 8-10 bristles, restricted to oral margin. Frontal bristles absent; 2 ocellar bristles: postocular bristles short, scattered, forming a line. Antennae implanted on upper 1/3 of head; pedicel slightly longer than scape; first flagellomere similar in length to combined length of scape and pedicel, wider on middle; second flagellomere minute, excavated dorsally, with a spine on center. Proboscis short, bulbous at base, strongly tapered, apex acute, apical half gently curved down, reminiscent of the proboscis of *Ancylorrhynchus* Macquart. Palpi 2-segmented.
Figures 5 & 6: Coleomyia setigera (Cole). 5, situation of the spermathecae in the abdomen. 6, spermathecae (scale in mm).
Prosternum dissociated from proepisternum. Pronotum with a row of bristles similar to the postocular ones. Mesonotum flat, shining, glabrous; presutural dorso-central bristles minute, 2-3 pairs of strong postsutural bristles; humerals absent; 1 supraalar, 1 postalar and 1 postcallar. Disc of scutellum glabrous, no marginal scutellar bristles. No bristles on mesopleura. Anatergite bare. Katatergite with a row of 5-7 long bristles. Thorax mostly glabrous and shining.

Legs very long and slender, with minute fine hairs, a few fine bristles on tibiae and tarsi; basitarsus as long as remaining tarsomeres together. Claws fine, small, acute. Pulvillus reaching tip of claws.

Wing with cell r1 open; R4 ends at wing apex, R5 ends far below apex; anal cell open.

Abdomen narrower than thorax, second segment coarctate, the abdomen tapering from segment 6. Integument smooth, shining, with fine scattered minute hairs. Ovipositor with strong spines on acanthophorites.

Male unknown.

Type-species, Grajahua lopesi sp. n.

Grajahua lopesi sp. n.

Total length, 13 mm; wing length, 13 mm; wing width, 3.5 mm.

Female. Face shining light-brown on upper half, lower half covered with silvery micropubescence which extends partially along anterior border of eyes until vertex. Ocellar triangle darker, ocelli white; the 2 ocellar bristles black. Mystax with yellow bristles. Postocular bristles black. Pedicel with a few short black bristles; first flagellomere similar in color to scape and pedicel, with a long black area on dorsal basal half where there are short black bristles directed forwards; second flagellomere 1/10 length of first, with a minute black spine on center of dorsal excavation.

Pronotum brownish, glabrous, with a row of short black bristles. Mesonotum shining-brown, glabrous, dorso-centrals yellow, minute, except for 2-3 pairs of postsuturals, which are slightly longer; along the dorso-centrals line there exists silvery micropubesence, forming 2 narrow silver lines along mesonotum. Humeral callus shining, bare, Supraalar, postalar and postcallar bristles black. Most pleural segments with silvery micropubesence on posterior border. Bristles of katatergite yellow. Scutellum shining-brown, bare.

Legs lighter than body, covered with short yellow hairs; anterior tibia and basitarsus darker than remaining legs. Front and hind tarsomeres 2-5 whitish, with whitish fine short hairs. Claws black on apical 2/3, pulvilli white.

Wing hyaline, except on costal, subcostal, and r1 cells (the latter only at base), and apical 1/4, which are dark brown.

Abdomen brown.

Holotype ♀. Brazil, Rio de Janeiro: Rio de Janeiro (Grahaú), 10.viii.1941 (H.S. Lopes), in the MZUSP.

The specific name represents a homage to Prof. Dr. Hugo de Souza Lopez, who collected this interesting fly.

Genus Scylaticina gen. n.

Face 1/4 width of head, its sides nearly parallel. Frons wider than face. Facial gibbosity occupying most of face. Frontal bristles similar to the ocellar ones. Vertical and postvertical bristles medium-sized. Antennae situated on upper 1/4 of head; scape twice as long as pedicel, both with similar sized bristles; first flagellomere 2 times as long as scape plus pedicel, without strong hairs of bristles; second flagellomere small, depressed, as long as wide, dorsally excavated, with a minute spine on center. Proboscis short, cylindrical, abruptly depressed on apical 1/3. Palpi two-segmented, second segment pointed. Face in profile more or less flattened, only very gradually sloping from base of antennae to oral margin (Fig. 9), mystax occupying lower 2/3 of face or more.

Figures 7-9: Head, lateral view: 7, *Euthrixius* sp. 8, *Scylaticodes chilensis* (Macquart), n. comb. 9, *Scylatica* *tucumana*, gen. n., sp. n. (scale in mm).
Front leg with first tarsomere subequal in length to tarsomerses 2-4 together; tarsomerses 2-4 subglobose. Claws acute. Pulvillus reaching 3/4 of claws.

Wing with cell r1 open; R4 ends at wing apex; R5 ends below apex; anal cell slightly open or closed at wing margin; cell m3 open.

Abdomen as wide as mesonotum, cylindrical; 7 tergites visible in the male, 8 in females. Male terminalia rotated almost 180°; apandria divided, gonopods shorter than epandria; hypandrium free, shorter than gonopods, terminalia exposed in ventral view; aedeagus hard, apex simple, curved at tip (Figs. 12-16). Ovipositor with spines on acanthophorites. Spermatheca with hard elongated capsules, capsular ducts very fine (Fig. 17).

Type-species, Scylaticina tucumana sp. n.

Scylaticina tucumana sp. n.

Total length, 10-13 mm.

Margins of face golden micropubescent; center shining black. Mystax black. Tip of pedicel and scape shining black, with short black bristles; first flagellomere bicolorous, mostly reddish-brown on ventral half and black on dorsal and apical half; second flagellomere minute, dark, depressed and excavated, with a short spine on center. Frontal, ocellar and postvertical bristles similar, black, with a few white bristles intermingled on postvertical area. Postocular area with abundant short black bristles all over. Proboscis shining black. Hairs of beard and proboscis wrinkled on apical half.

Pronotum black, mostly covered with silvery and yellow micropubescence; pronotal bristles abundant, black, similar to the postverticals. Propleura with abundant black bristles and hairs. Mesonotum black, with a broad line of golden micropubescence on sides, posteriorly to humeral callus, as well as on humeral callus. Disc of mesonotum with short, very fine, white, scattered hairs; dorsocentrals white, very short on presutural area, longer on postsutural; humeral callus with fine white hairs; supraalar, postalar and postcallar bristles white. Disc of scutellum bare, 2 pairs of long white marginal scutellar bristles. Mesopleura black, with areas of golden micropubescence and fine white hairs. Anepisternum and mesepisternum bare, with golden micropubescence. Katepisternum with 7-9 white bristles.

Coxae covered with micropubescence and abundant white hairs. Legs shining black, hind tibia dark reddish-brown with fine white short hairs; bristles mostly fine, white. Tarsal bristles black.

Wing brownish, darker on costal area; veins brownish.

Abdomen dull black, with bands of golden micropubescence on posterior margin of tergites; on tergites 2-3 these posterior bands of micropubescence extend forwards almost to middle of tergite. Hairs short, white, scattered on tergites 1-3, black on tergites 4-6; sides of tergites 1-3 with abundant white hairs.

Male terminalia black, with fine hairs.

Female: similar to male. Legs lighter and with golden micropubescence more abundant on tergites 5-6; on tergite 5 often covering most of the tergite. Ovipositor shining black, spines on acanthophorites black

Holotype ♂, Argentina, Tucuman: San Pedro Colalao, ii. 1949 (M. Arnau), in the IML.

Paratypes: 9 ♂ and 13 ♀, same data as Holotype; 1 ♀, same locality, no date (Dirings); 1 ♀, same locality, Depto. Trancas, xii.1950 (Arnau); and 1 ♂, Argentina, Tucuman: Tacañas, 6.xii.1946 (Golbach). In IML, DZUC, MZUSP, MZUC.

Genus Scylaticodes gen. n.

Face 1/4 width of head, wider below than above. Frons wider than face at antennal level. Facial gibbosity well-developed, occupying basal 3/4 of face; in profile almost triangularly produced on its lower 2/3 (Fig. 8). Mystax occupying 2/3 or more of face. Lateral frontal bristles shorter than bristles of mystax, proclinate, similar to ocellar bristles. Postocular bristles abundant, gently curved forward. Antennae placed slightly over middle distance between oral margin and ocellar triangle; scape and pedicel similar in length, first flagellomere 1.5 times length of scape plus pedicel; second flagellomere minute, excavated, with small spine on middle. Proboscis straight, cy-
Figures 10 & 11: Zabrotica clarkei Hull. 10, situation of the spermathecae in the abdomen. 11, spermathecae (scale in mm).
lindrical. Palpus 2-segmented; if extended reaching middle of proboscis.

Mesonotum slightly convex, covered with short, reclinate hairs; dorsocentral bristles present only postsuturally, long, similar to other abundant bristles on postsutural area; supraalar, postalar, postcollar and marginal scutellar bristles also similar. Disc of scutellum bare; 2-3 pairs of marginal scutellars. Anepisternum bare. Katepisternum with long bristles.

Legs similar in shape, hind pair larger. Vestiture of legs similar. Claws acute, pulvilli reaching 3/4 of claws.

Wing with R₄ slightly recurrent, or not, ending before wing apex; R₅ ending below wing apex; cell m₃ open; anal cell slightly open or almost closed at wing margin.

Abdomen narrower than thorax, cylindrical, 7 segments visible in males, slightly tapered after segment 5. Male terminalia straight to rotated 90°; epandrium separated into two plates; hypandrium free; aedeagus simple, sigma-shaped, with a simple apex (Artigas,
1971: Fig. 64). Ovipositor with strong spines on acanthophorites. Spermatheca with 3 globose capsules at the end of fine ducts (Artigas, 1971: Fig. 63).

Type-species, Dasypogon, chilensis Macquart, 1850

List of species:
carrasoi (Artigas), 1974: 5, Figs. 1-10 (Sylaticus). Type-locality: Peru, Cuzco, Urubamba. Distr. Peru (Cuzco, Puno), Chile (Arica). HT DZUC. N. COMB.


tricolor Philippi, 1865: 688 (Dasypogon). Type-locality: Chile, Colchagua. TP. SANT.
cuneigaster (Artigas), 1970: 174, Figs. 150, 153, 156, 429 (Sylaticus). Type-locality: Chile, Atacama, Carrizal Bajo, Quebrada Algodoñes. Distr. Chile (Atacama). HT DZUC. N. COMB.
lugens (Philippi), 1865: 689 (Dasypogon). Type-locality: Chile, Colchagua. Distr. Chile (Santiago, Talca, Valparaíso). Ref. Artigas, 1970: 176, Figs. 149, 157, 158, 450. NT DZUC.

Genus Tillobroma Hull


Hyphenetes, subg. Tillobroma Hull, 1962: 154. Type-species, Clavator punctipennis Philippi (Orig. des.).

List of species:
asiliformis (Wulp), 1882: 101 (Hyphenetes). Type-locality: “Argentina”. N. COMB.
critesi (Artigas), 1970: 128, Figs. 92, 93, 95, 97, 428 (Hyphenetes). Type-locality: Chile, Aysen, Balmaceda, Distr. Chile (Arauco), Aysen, Bio-Bio, Cautín, Curico, Linares, Mauleco, Ñuble, Valdivia). HT DZUC. N. COMB.
obtusus (Engel), 1929: 472 (Hyphenetes). Type-locality: Bolivia, cordillera de Buena Vista, s. of Cuevo. Distr. Peru, Bolivia, Brazil (São Paulo, Parana), Argentina, N. COMB.
punctipennis (Philippi), 1865: 699, pl. 26, Figs. 31, 31a-b (Clavator). Type-locality: “Chile”. Distr. Chile (Arauco, Bio-Bio, Linares, Mauleco, Ñuble, Santiago), Argentina. NT DZUC. N. COMB.
schineri (Artigas), 1970: 139, Figs. 118-123, 125, 493 (Hyphenetes). Type-locality: Chile, Rancagua. Distr. Chile (O’Higgins, Valparaíso). HT DZUC. N. COMB.

Genus Zabrotica Hull

Zabrotica Hull, 1958: 253. Type-species, clarkei Hull (orig. des.).

clarkei Hull, 1958: 254. Type-locality: Peru, Oroya. TP USNM.

Unplaced and unrecognized Tillobromini
cruciger Hermann, 1921: 119 (Sylaticus). Type-locality: “Paraguay”.

(Placed in Scylaticus by Stuardo (1846: 81) and Hull (1962: 145)).

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