A new *Toxomerus* species from Chile (Diptera: Syrphidae)

[Eine neue *Toxomerus*-Art aus Chile (Diptera: Syrphidae)]

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Abstract ***Toxomerus schlingeri* THOMPSON & THOMPSON spec. nov.**, is described from Chile. In the genus *Toxomerus* one name is synonymized, and another is included in this genus for the first time [*Toxomerus vertebratus* (RONDANI, 1863; *Syrphus*) = *Syrphus octoguttatus* JAENNICKE, 1867]. A key to the Chilean species of *Toxomerus* is presented along with diagnoses and figures of the critical taxonomic characters.

Key words Syrphidae, Chile, *Toxomerus*, new species, key

Zusammenfassung ***Toxomerus schlingeri* THOMPSON & THOMPSON spec. nov.** wird nach Exemplaren aus Chile beschrieben. In der Gattung *Toxomerus* wird ein Name als Synonym erkannt und ein weiterer wird erstmals in diese Gattung transferiert: [*Toxomerus vertebratus* (RONDANI, 1863; *Syrphus*) = *Syrphus octoguttatus* JAENNICKE, 1867]. Ein Bestimmungsschlüssel zu den chilenischen Arten von *Toxomerus* und Diagnosen sowie Abbildungen kritischer diagnostischer Merkmale zu den einzelnen Arten ergänzen die Arbeit.

Stichwörter Syrphidae, Chile, *Toxomerus*, neue Art, Bestimmungsschlüssel

Introduction

The flower fly fauna of Chile is undoubtedly the best known in all of Latin America. Only one other country [Argentina (LYNCH ARRIBALZAGA 1891–1892) and two areas (Central America (Williston 1891–2), West Indies (THOMPSON 1981)] have had taxonomic treatments of their flower fly faunae. Chile has had its flower fly fauna treated 5 times (BLANCHARD 1852, PHILIPPI 1865, SHANNON 1927, SHANNON & AUBERTIN 1933, and ETCHEVERRY 1963). Some 36 genera and 120 species of flower flies are now known and described from Chile. The Chilean fauna is limited as the northern areas are arid and the mid and southern areas are temperate to cold. Chile has no tropical rainforest, but does have lust temperate rainforest in the south. However, whatever Chile lacks in species richness is more than replaced by the large number (10) of unique genera (clades) found there. Still there are surprises to be found in Chile such as the new *Toxomerus* species here described. And about another dozen new species are known and will be described in future papers.

Toxomerus is an endemic New World group. The maggots are predators of homopterous pests and the flies are flower pollinators. The genus ranges from southern Canada to southern Chile and Argentina and contains some 140 species. The species richness is greatest in the tropical areas, but wherever *Toxomerus* occurs its species are the most abundant flower flies. Keys to some of the species have been provided by CURRAN (1930), HULL (1943), THOMPSON (1981) and METZ & THOMPSON (2001). THOMPSON (1999b) provided a key to Neotropical flower fly genera and a glossary of taxonomic terms; this terminology is followed here. Synonymies follow the standards used by the BioSystematic Database of World Diptera (THOMPSON 1999a and on the web at http://www.diptera.org).

ETCHEVERRY (1963) included four *Toxomerus* species in her review of the Chilean fauna; the Neotropical Diptera catalog (THOMPSON et al. 1976) listed 5 species from Chile. These species are separated in the following key and reviewed below. The synonymies include all the Chilean references and the other critical ones. Detailed information on the specimens examined is not given, but instead their distribution is summarized.

METZ & THOMPSON (2001) provided an overview on the systematics of *Toxomerus* as well as a revision of the larger species. They noted that phenotypically the species of the genus could be divided into those larger than 9 mm and those smaller. All the species treated here are small, about 6–7 mm in body length.

Key to Chilean *Toxomerus* species

1. Mesonotum entirely dark (only postpronotum yellow), or with lateral yellow vitta interrupted, either between postpronotum and transverse suture or ending at transverse suture ..... ***dispar* (FABRICIUS)**

– Mesonotum with lateral yellow vitta continuous and extending from postpronotum to scutellum (Fig. 1) **2**

2. Scutellum black basomedially, pale (white-yellow) pilose (Fig. 1); anepimeron entirely black **6**

– Scutellum entirely pale yellow, black pilose; anepimeron usually yellow dorsally **3**

3. Abdomen with yellow fasciae broadly interrupted medially, creating pair of lunulate maculae, rarely maculae reduced to punctae or absent (Fig. 10) ..... ***vertebratus* (RONDANI)**

– Abdomen with continuous transverse yellow fasciae 4

4. Abdomen black, with narrow transverse yellow fasciae medially, without black vittae or punctae medially (Fig. 2) ..... ***calceolatus* (MACQUART)**

– Abdomen yellow with brownish to black apical fasciae and usually black medial vittae or punctae on anterior 1/2 of terga (Figs 3, 4) 5

5. Supraprocoxal yellow macula present; metafemur with broad black subapical annulus; postalar callus black pilose; male postanal process about 2/3 as long as surstyle (Fig. 15) ..... ***productus* (CURRAN)**

– Supraprocoxal yellow macula absent, entirely black dorsad procoxa; metafemur yellow; postalar callus yellow pilose; male postanal process about 1/3 as long as surstyle (Fig. 13) ..... ***duplicatus* (WIEDEMANN)**

6. Tarsi extensively brownish black; supraprocoxal yellow macula absent; male dichoptic (Fig. 18a); male genitalia without postanal process (Fig. 16) ..... ***schlingeri* THOMPSON & THOMPSON, spec. nov.**

– Pro and mesotarsi yellow; supraprocoxal yellow macula present; male holoptic (as in Fig. 18b); male genitalia with short, but distinct postanal process (Fig. 14) ..... ***floralis* (FABRICIUS)**

Fig. 1: *Toxomerus schlingeri* spec. nov., habitus, dorsal.

Toxomerus calceolatus (Macquart, 1842)

Figs 2 (abdomen), 11 (male genitalia)

Syrphus calceolatus Macquart 1842: 151, pl. 16, fig. 1 (head). Chile. ST ♂♀ MNHN, Paris. Blanchard 1852: 411 (descr., distr.); Philippi 1865: 746 (citation, but Philippi not seen the species); van der Wulp 1882a: 80 & 1882b: 136 (Chile, generic placement); Williston 1886: 311 (cat. cit.); Reed 1888: 26 (cat. cit.); Kertész 1910: 108 (cat. cit.); Bréthes 1920: 42 (Chile: Rio Blanco).

Not *Sphaerophoria calceolata*: Giglio Tos 1893: 33 (351) (Mexico; misidentification; erroneously cited by Kertész & Etcheverry as valid record)

Mesogramma calceolatus: Shannon 1927: 24 (descr. notes, Chile); Stuardo 1946: 125 (cat. cit.).

Mesogramma calceolata: Curran 1930: 2 (key ref.).

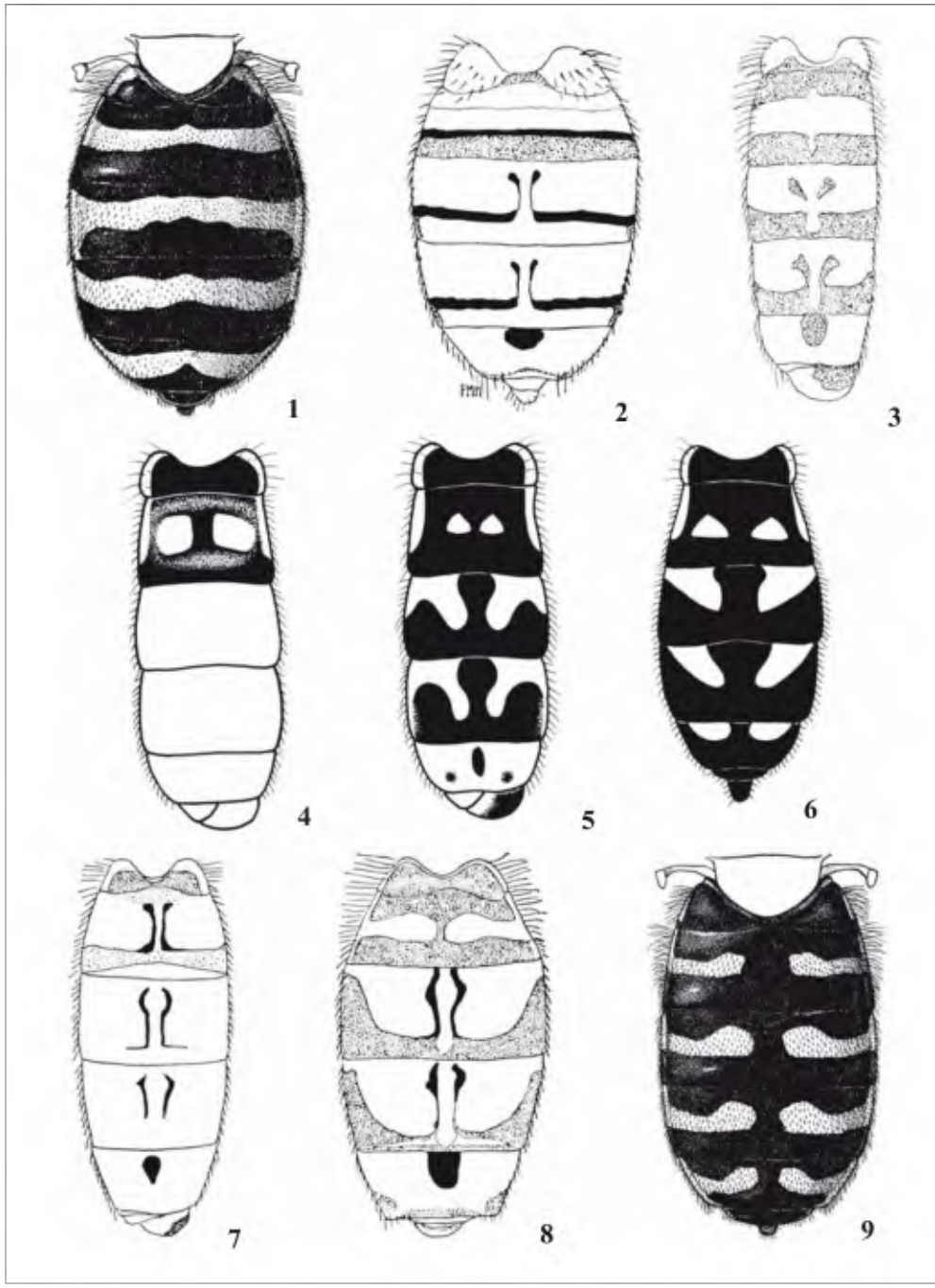
Toxomerus calceolatus: Shannon & Aubertin 1933: 138, fig. 26 (abdominal pattern) (Chile, diagnosis); Thompson, et al. 1976: 49 (cat. cit.).

Mesograpta calceolata: Fluke 1956: 219 (cat. cit.); Etcheverry 1963: 58 (bibliography, distr.).

Diagnosis. Face yellow; antenna brownish yellow; male holoptic; postpronotum yellow; scutum with continuous yellow lateral vitta; scutellum yellow, black pilose; supraprocoxal area dark, yellow macula absent; anepimeron black; katepisternum broadly yellow dorsally; pro- and mesotarsi pale; metatarsus black; metafemur yellow; wing microtrichose. Abdomen pattern (Fig. 2, from Shannon & Aubertin 1933: fig. 26), male genitalia (Fig. 11).

Distribution. Argentina, Chile (Tarapaca-Los Lagos).

Material examined. 50 specimens, from Argentina (Neuguen) and Chile.



Figs 2–10: Abdominal patterns, dorsal view. – **2**: *Toxomerus calceolatus* (MACQUART) from SHANNON & AUBERTIN (1933: 138, fig. 26a); – **3**: *T. duplicatus* (WIEDEMANN) from HULL (1943: 33, fig. 33); – **4**: *T. productus* (CURRAN) from HULL (1943: 33, fig. 30) from holotype; – **5, 6, 7**: *T. dispar* (FABRICIUS) from THOMPSON (1981: 68, figs. 91a–c); – **8, 9**: *T. floralis* (FABRICIUS) from HULL (1943: 34, figs. 38, 40); – **10**: *T. vertebratus* (RONDANI) from SHANNON & AUBERTIN (1933: 138, fig. 26b).

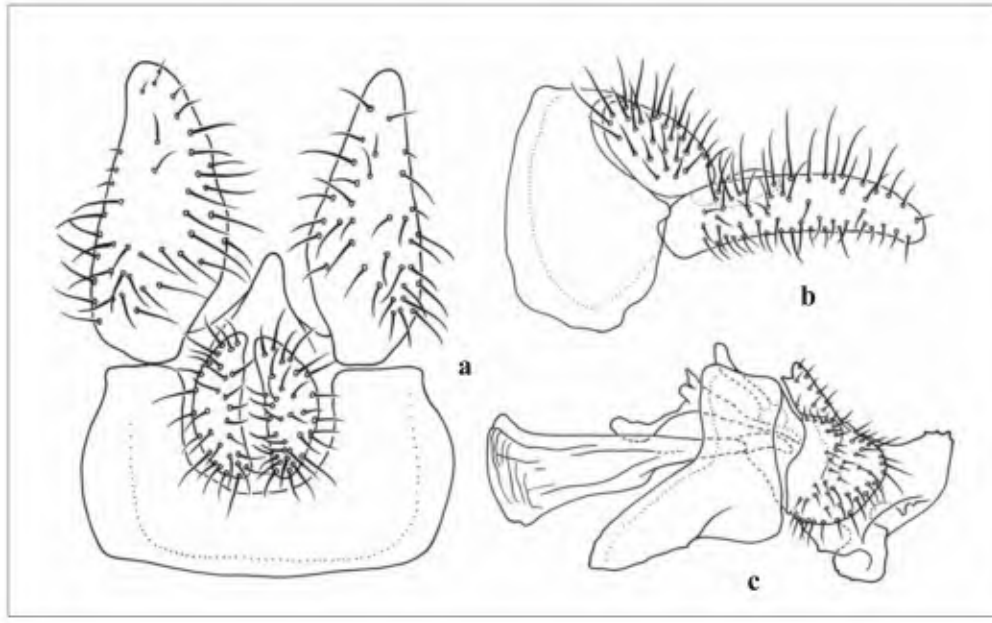


Fig. 11a–c: Male genitalia, *Toxomerus calceolatus* (Macquart). – **a**: 9th tergum and associated structures, dorsal view; – **b**: 9th tergum and associated structures, lateral view; – c: 9th sternum and associated structures, lateral view.

Toxomerus calceolatus and *vertebratus* are the two most common Chilean syrphids, found nearly everywhere and in good numbers. They fly together. The species are obviously closely related as their male genitalia are essentially identical (with only slight differences in the shape of style and the apical notch in superior lobe), but they are readily distinguished by color pattern.

Giglio-Tos recorded a species of *Sphaerophoria* (= *Allograpta*?) as *Toxomerus calceolatus* based on a headless female from Mexico (Tuxpango) collected by Sumichrast. This is clearly a misidentification. Unfortunately the specimen Giglio-Tos examined seems now to be lost.

Toxomerus dispar (Fabricius, 1794)

Figs 5, 6, 7 (abdomen), 12 (male genitalia)

Syrphus dispar Fabricius 1794: 309. "Americae meridionalis" restricted to Virgin Islands, St. Croix (Thompson 1981: 86). ST ♂♀ ZMUC, Copenhagen (destroyed, see Thompson 1981: 86). Wiedemann 1830: 141 (redescription of type); Williston 1886: 312 (citation); Kertész 1910: 113 (cat. cit.).

Scaeva dispar: Fabricius 1805: 253 (combination).

Toxomerus dispar: Thompson 1981: 86 (key ref., taxonomic notes, distr. (West Indies), thoracic pattern*, abdominal pattern*, male and female genitalia*, wing*).

Syrphus basilaris Wiedemann 1830: 143. Brazil. T ♂ NMW, Vienna.

Mesograpta basilaris: Williston 1886: 313 (cat. cit.); Fluke 1956: 218 (cat. cit.).

Mesogramma basilaris: Giglio-Tos 1893: 45 (Mexico, description); Aldrich 1905: 370 (cat. cit.); Curran 1925: 307 (synonymy, difference from *floralis*); Hull 1943: 25 (key ref., variation, syn., distr.).

Mesogramma basilare: Curran 1930: 1 (key ref.), 1934: 401 (key ref., variation, syn., Guyana).

Toxomerus basilaris: Kertész 1910: 144 (cat. cit.); Thompson et al. 1976: 48 (cat. cit., Chile).

Diagnosis. Face yellow in male, dark medially in female; antenna yellow; male holoptic; postpronotum yellow; scutum dark without yellow lateral vitta; scutellum black, only narrowly yellow on apicomedial margin, pale pilose; supraprocoxal area dark, yellow macula absent; anepimeron black; katepisternum yellow dorsally; metafemur black in male except base and apex, yellow with broad black subapical annulus in female; pro- and mesotarsi pale basally, with dark apical 3 tarsomeres; metatarsus black;

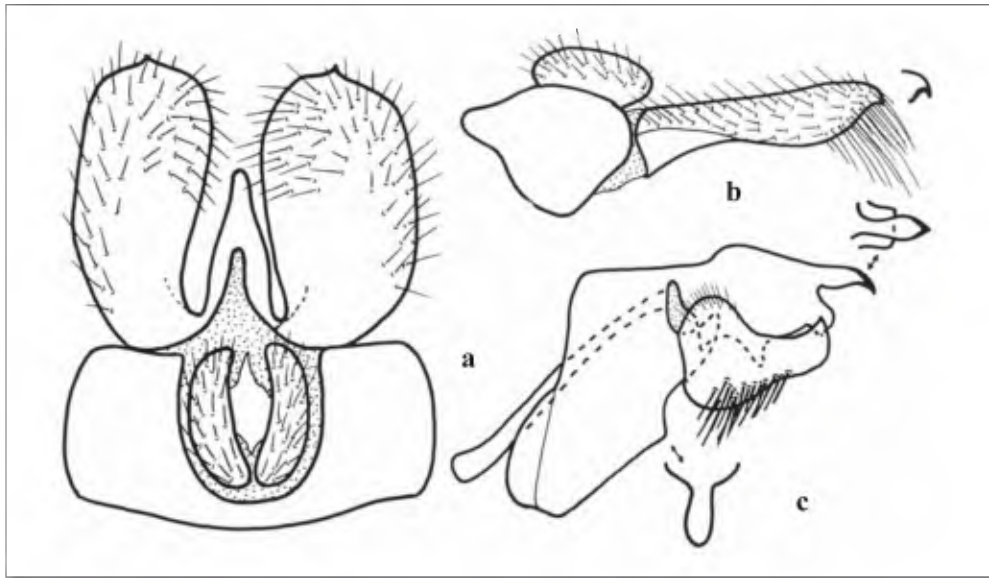


Fig. 12a–c: Male genitalia, *Toxomerus dispar* (FABRICIUS) from THOMPSON (1981: 78, fig. 116). – **a**: 9th tergum and associated structures, dorsal view; – **b**: 9th tergum and associated structures, lateral view; – **c**: 9th sternum and associated structures, lateral view.

wing almost completely microtrichose, narrowly bare basally. Abdomen pattern variable (typical male (Fig 5), dark male (Fig 6), female (Fig 7); male genitalia (Fig 12)).

Distribution. Widespread, from southern USA to Chile & Argentina.

Material examined. More than 200 specimens from USA (Florida), Mexico, Belize, Guatemala, Honduras, Costa Rica, Panama, Colombia, Venezuela, Peru, Brazil, and Bolivia.

THOMPSON (1981) re-established the name *dispar* for the species many authors called *basalaris* WIEDEMANN. He provided a full discussion of the nomenclature and synonymy of these names, along with figures of the taxonomic characters. The distribution record for Chile comes from our 1976 catalog treatment, of which the *Toxomerus* section was done by Yale SEDMAN. We have not seen any specimens from Chile.

Toxomerus duplicatus (WIEDEMANN, 1830)

Figs 3 (abdomen) & 13 (male genitalia)

Syrphus duplicatus WIEDEMANN 1830: 142. Uruguay, Montevideo. T A NMW, Vienna.

Mesogramma duplicata: SCHINER 1868: 350 (taxonomy, 4 varieties, Colombia, Brazil, note on type); HULL 1943: 27, 33 (taxonomic notes, abdominal pattern*)

Mesogramma duplicatus: CURRAN 1926: 114 (notes on type), 1930: 4 (taxonomic notes; syn.), 1934: 401 (key ref., Guyana).

Toxomerus duplicatus: KERTÉSZ 1910: 145 (cat. cit.); THOMPSON et al. 1976: 50 (cat. cit.).

Mesograpta duplicata: VAN DER WULP 1883: 4 (key ref., syn., notes, Argentina); WILLISTON 1886: 313 (cat. cit.); LYNCH ARRIBALZAGA 1892: 52 (key ref., descr. distr.); FLUKE 1956: 221 (cat. cit.); ETCHEVERRY 1963: 59 (bibilography, distr.).

Syrphus ochrogaster THOMSON 1869: 494. Argentina, Buenos Aires. T ♂ NRS. Syn. WILLISTON 1887: 4.

Diagnosis. Face yellow; antenna yellow; male holoptic; postpronotum yellow; scutum with continuous yellow lateral vitta; scutellum yellow, black pilose; supraprocoxal area dark, yellow macula absent; anepimeron yellow; katepisternum broadly yellow dorsally; pro- and mesotarsi yellow; metatarsus black; metafemur yellow; wing extensively bare basally. Abdomen pattern (Fig. 3); male genitalia (Fig. 13).

Distribution. Brazil, Uruguay, Argentina, Chile (Tarapacá).

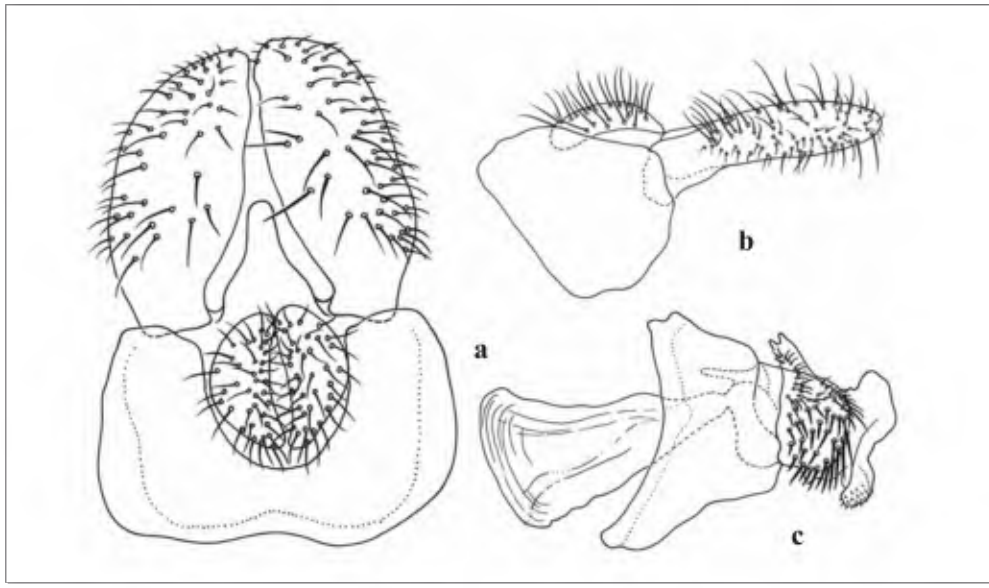


Fig. 13a–c: Male genitalia, *Toxomerus duplicatus* (WIEDEMANN). – **a**: 9th tergum and associated structures, dorsal view; – **b**: 9th tergum and associated structures, lateral view; – **c**: 9th sternum and associated structures, lateral view.

Material examined. 69 specimens from Argentina, Brazil (Paraná), Uruguay and Chile (Tarapacá only).

Our understanding of this species is based on CURRAN's interpretation. CURRAN studied the Wiedemann types and then described a number of closely related species. I have studied CURRAN's "homotypes," specimens he compared with the types (HULL's figure, here reproduced, was also from one of CURRAN's "homotypes"). These agree well with a common species that ranges from southeastern Brazil to northern Chile and Argentina. I (FCT) have also studied syntypes of *ochrogaster* THOMSON and can confirm WILLISTON's synonymy of these names.

The only question about *duplicatus* is how far north does the species range. The status of records from Mexico (GIGLIO-TOS 1893: 44), for example, remain to be resolved. All the older material in the USNM identified by my (FCT) predecessors as *duplicatus* from northern localities (Peru, Venezuela, Colombia, MesoAmerica) is either *watsoni* CURRAN or *difficilis* CURRAN.

Toxomerus floralis (FABRICIUS)

Figs 8, 9 (abdomen), 14 (male genitalia)

Syrphus floralis FABRICIUS 1798: 563. French Guiana. Cayenna [as "Cajennne"]. T ? Kiel (lost, ZIMSEN 1964: 481). WIEDEMANN 1830: 145 (redescription based on type); WILLISTON 1886: 312 (cat. cit.); KERTÉSZ 1910: 114 (cat. cit.).

Scaeva floralis: FABRICIUS 1805: 253 (new combination).

Mesogramma floralis: SCHINER 1868: 347 (new combination); CURRAN 1925: 307 (synonymy, differs from *dispar* (as *basilaris*), 1934: 401 (Guyana, synonymy, taxonomic notes); HULL 1943: 24 (abdominal pattern* key ref., variation, relationship to *dispar* (as *basilaris*).

Mesograpta floralis: FLUKE 1956: 223 (cat. cit.)

Toxomerus floralis: THOMPSON et al. 1976: 50 (cat. cit.); THOMPSON 1981: 89 (abdominal pattern, male & female genitalia, synonymy, taxonomic notes).

Diagnosis. Face yellow in male, may be dark medially in female; antenna yellow; male holoptic; postpronotum yellow; scutum with continuous yellow lateral vitta; scutellum broadly yellow marginally, black medially, pale pilose; supraprocoxal yellow macula present; anepimeron black; katepisternum broadly yellow dorsally; metafemur usually with black subapical annulus; pro- and mesotarsi yellow; metatarsus

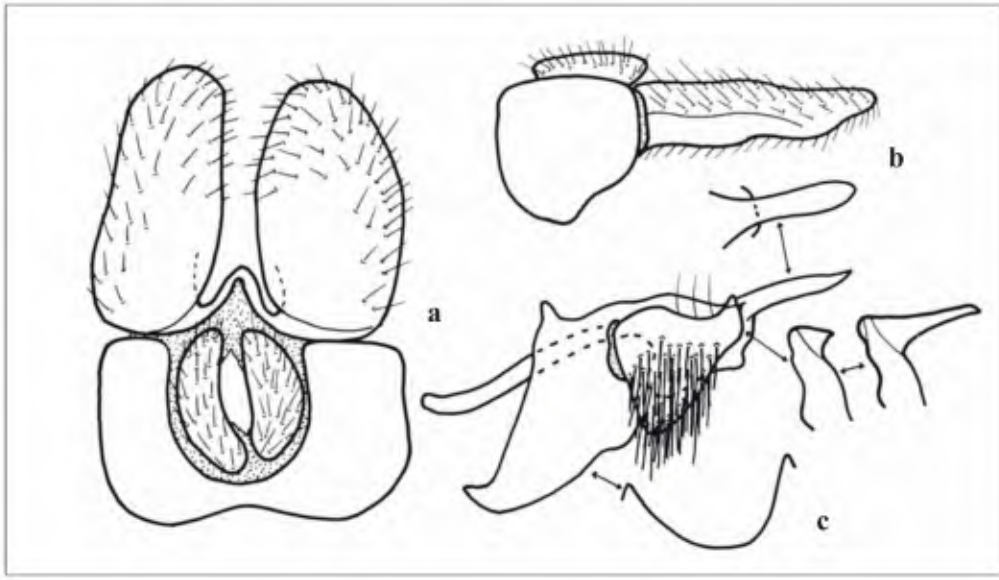


Fig. 14a–c: Male genitalia, *Toxomerus floralis* (FABRICIUS) from THOMPSON (1981: 78, fig. 117). – **a**: 9th tergum and associated structures, dorsal view; – **b**: 9th tergum and associated structures, lateral view; – c: 9th sternum and associated structures, lateral view.

brownish; wing extensively bare on basal 1/2. Abdomen pattern: male (Fig. 8), female (Fig. 9); male genitalia (Fig 14).

Distribution. Widespread, from USA to Chile (SEDMAN & THOMPSON et al. 1976).

Material examined. Over 100 specimens from USA (Florida), Mexico, West Indies, Guatemala, El Salvador, Costa Rica, Panama, Venezuela, Ecuador, Brazil, Paraguay, and Bolivia.

The distribution record for Chile comes from our 1976 catalog treatment, the *Toxomerus* section was done by Yale SEDMAN. We have not seen any specimens from Chile.

Toxomerus productus (CURRAN)

Figs 4 (abdomen), 15 (male genitalia)

Mesogramma productus CURRAN 1930: 5. Ecuador. HT ♂ AMNH. HULL 1943: 14, 27, 32 (key ref., taxonomic notes, abdominal pattern).

Mesograpta producta: FLUKE 1956: 229 (cat. cit.); ETCHEVERRY 1963: 61 (bibliography, distr.).

Toxomerus productus: THOMPSON et al. 1976: 54 (cat. cit.); GERDES 1975: 16 (male & female genitalia figured, notes on types).

Diagnosis. Face yellow; antenna yellow; male holoptic; postpronotum yellow; scutum with continuous yellow lateral vitta; scutellum yellow, black pilose; supraprocoxal yellow macula present; anepimeron yellow on anterior 1/2; katepisternum broadly yellow dorsally; metafemur with broad black subapical annulus; pro- and mesotarsi yellow; metatarus black; wing extensively bare on basal 1/2. Abdomen pattern of *duplicatus* type (Fig. 4 from HULL 1943); male genitalia (Fig. 15 from GERDES 1975 and of holotype).

Distribution. Ecuador, Chile (Tarapacá).

Material examined. Holotype from Ecuador.

We have seen no material from Chile and suspect that ETCHEVERRY's records may be based on misidentification of *duplicatus* specimens.

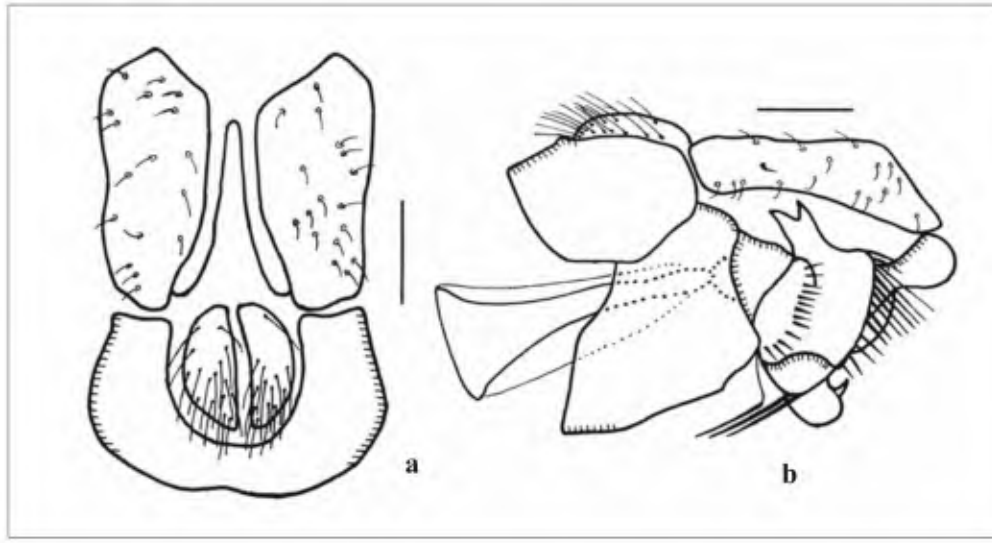


Fig. 15a–b: Male genitalia, *Toxomerus productus* (CURRAN) from GERDES (1975: 16). – **a**: 9th tergum and associated structures, dorsal view; – **b**: lateral view.

Toxomerus schlingeri THOMPSON & THOMPSON, spec. nov.

Figs 1 (habitus), 16 (male genitalia)

Male (Fig. 1). **Head**: Face yellow, shiny medially, sparsely white pollinose and pilose laterally, slightly projected anteriorly beyond antennal base, with distinct tubercle; gena black, shiny anteriorly, white pollinose and pilose posteriorly; lunule brownish yellow; frontal triangle yellow except slightly brownish around lunule, white pilose except black pilose around lunule; eyes dichoptic, separated by width of anterior ocellus; vertical triangle black, black pilose, golden pollinose anterior to ocellar triangle, brown pollinose on ocellar triangle, shiny posterior to ocellar triangle; occiput black, white pollinose and pilose on ventral 2/3, golden pollinose and yellow pilose dorsally; antenna orange, more brownish on apical 2/3 of basoflagellomere, black pilose; arista black.

Thorax: Postpronotum yellow; scutum black, with yellow lateral vitta continuous from postpronotum to scutellum, brownish pollinose except shiny laterally, with narrow silvery pollinose vitta medially, yellow pilose except with black pile intermixed posteriorly; scutellum black basomedially, yellow marginally, yellow pilose; pleuron black except yellow on posterior anepisternum, dorsal 1/3 of katepisternum and metathoracic pleuron, white pilose; supraprocoxal area black, without yellow macula; metasternum black; plumula, calypter and halter yellow. Wing microtrichose; alula broad, as broad as cell CuP. Legs: Pro and mesocoxae black, white pilose; metacoxa yellow, white pilose; trochanters brownish yellow, white pilose; pro and mesofemora yellow, white pilose except black pilose on apical 1/2 of mesofemur; metafemur yellow with subapical black annulus, white pilose except black pilose on apical 1/4; tibiae yellow, white pilose except black pilose basally on meso and metatibia; tarsi brownish black, white pilose except black pilose on apical 4 tarsomeres of metatarsus.

Abdomen: 1st tergum black except yellow laterally, yellow pilose; 2nd tergum black except with yellow medial vitta, arcuate interrupted medial fascia and yellow lateral margin, yellow pilose on basolateral 2/3, black pilose on apicomedial 1/3; 3rd and 4th yellow with black apical interrupted fasciae which has submedial extension to basal margin and basosublateral black punctum, black pilose except yellow pilose basally and laterally; 5th tergum yellow with black medial vitta and basosublateral black punctum; venter yellow to orange, shiny, white pilose; genitalia (Fig 16) yellow except with black macula on sternum 8.

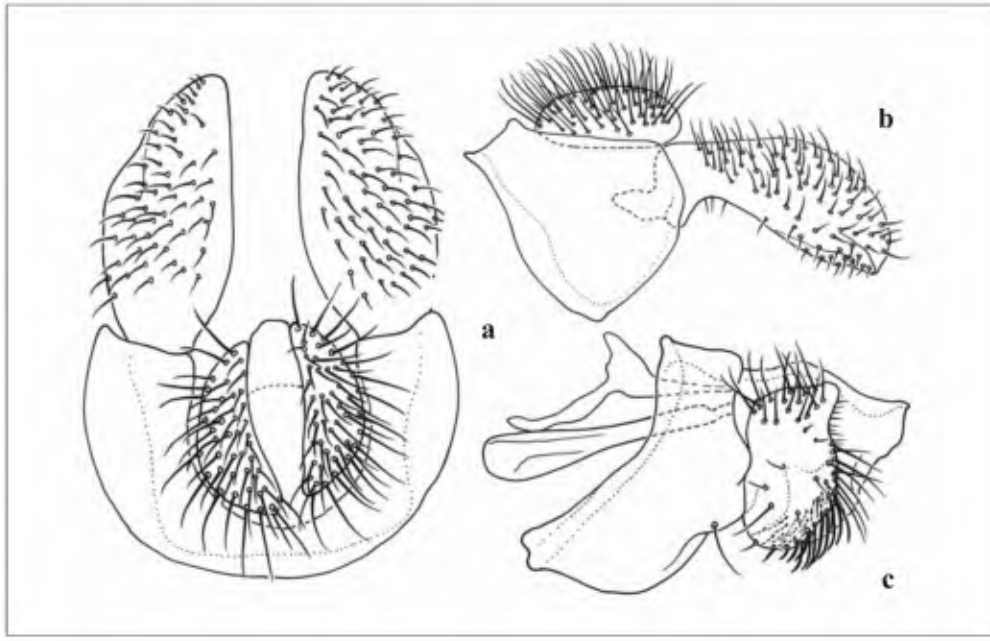


Fig. 16a–c: Male genitalia, *Toxomerus schlingeri* THOMPSON & THOMPSON, spec. nov. – **a**: 9th tergum and associated structures, dorsal view; – **b**: 9th tergum and associated structures, lateral view; – **c**: 9th sternum and associated structures, lateral view.

Female similar to male except for normal sexual dimorphism and face and frons black medially.

Length. body, 6.5 mm, wing, 4 mm.

Variation. As with all *Toxomerus* species, the type series shows some variation in the extent of black and yellow areas on the abdomen.

Types. **Holotype** male, CHILE, Coquimbo, 4 km south southwest of Tongey, 18 November 1997, Betty & F. Christian THOMPSON, deposited in Museo de Entomología Luis Peña, Universidad de Chile, Santiago (UCS). **Paratypes**: 17♂♂, 9♀♀, same data as holotype (CAS (1♂, 1♀), INHS (1♂, 1♀), USNM (15♂♂, 7♀♀); Tarapaca, Lluta, 12 January 1971, L. RUZ, on flowers of *Medicago sativa* (1♂ UVC).

Etymology. This species is named for Evert I. SCHLINGER in recognition of his great contributions to Dipterology. While Ev, as he is known to his friends, is the World's authority on spider-killing flies (Acroceridae), his contributions go far beyond his taxonomic and faunistic work. Ev has provided significant financial support to many diverse projects through his family foundation. Our field work in Chile was supported in part by the Schlinger Foundation.

Toxomerus schlingeri is readily separated from all other *Toxomerus* species by its distinctive abdominal pattern and dichoptic males. The combination of pale medial vitta and large black round macula on the abdomen is unique.

The type locality of the species is a small grassy fen, where a short, little stream runs into the bay. The other two common Chilean *Toxomerus* species (*vertebratus* RONDANI and *calceolatus* MACQUART) were found together with the new species, but were less common. All the *Toxomerus* specimens were collected flying and/or perching on grass.

Toxomerus vertebratus (Rondani, 1866)

Fig. 10 (abdomen), 17 (male genitalia)

Syrphus vertebratus Rondani 1863: 10. Chile. ST 2♂♂ MIZUN, Naples (probably destroyed, see below). Costa 1866: 32 (types deposited in MIZUN); Williston 1886: 312 (cat. cit.); Kertész 1910: 132 (cat. cit.); Shannon & Aubertin 1933: 123 (unrecognized); Stuardo 1946: 130 (*incertis sedis*); Fluke 1957: 156 (*incertis sedis*); Etcheverry 1963: 110 (*incertis sedis*); Thompson et al. 1976: 40 (unplaced). **Comb. nov.**

Syrphus octoguttatus Jaennicke 1867: 398 [90]. Chile. T♂ SMF, Frankfurt. Williston 1887: 28 (cat. cit.); Kertész 1910: 123 (cat. cit.). **Syn. nov.**

Toxomerus octoguttatus: Thompson, et al. 1976: 53 (cat. cit.).

Syrphus interruptus Philippi 1865: 747 (preocc. Panzer 1804). Chile, Valdivia, Illapel. ST♂♀ MNHS, Santiago (lost, see below). Williston 1886: 311 (cat. cit.); Reed 1888: 26 [300] (cat. cit.); Kertész 1910: 117 (cat. cit.); Bréthes 1920: 42 (Chile: Rio Blanco).

Mesogramma philippi Shannon 1927: 24 new name for *interruptus* Philippi. Shannon 1927: 24 (descr. notes, Chile); Curran 1930: 2 (key ref.); Hull 1943: 11 (key ref., abdominal pattern)

Mesogramma philippii: Stuardo 1946: 125 (cat. cit.).

Toxomerus philippii: Shannon & Aubertin 1933: 122 & 138, fig. 26b (abdominal pattern) (Chile, Argentina; diagnosis and variation).

Mesograpta philippi: Fluke 1956: 228 (cat. cit.); Etcheverry 1963: 60 (bibliography, distr.).

Diagnosis. Face yellow in male, brownish medially in female; antenna brownish; male holoptic; postpronotum yellow; scutum with continuous yellow lateral vitta; scutellum yellow, black pilose; supraprocoxal area dark, yellow macula absent; anepimeron black, yellow dorsally; katepisternum broadly yellow dorsally; pro- and mesotarsi brownish; metatarsus black; metafemur yellow; wing almost completely microtrichose, narrowly bare basally. Abdomen pattern typically as figured (Fig. 10), but can be greatly reduced or absent (entirely black); male genitalia (Fig. 17).

Distribution. Peru, Argentina, Chile [Tarapaca-Magallanes (Tierra del Fuego)].

Material examined. Over 200 specimens from Argentina and Chile.

The description of *Syrphus vertebratus* Rondani when read in the context of the Chilean flower fly fauna clearly can be applied only to *octoguttatus* Jaennicke and current authors. The types of *vertebratus* Rondani are now lost.

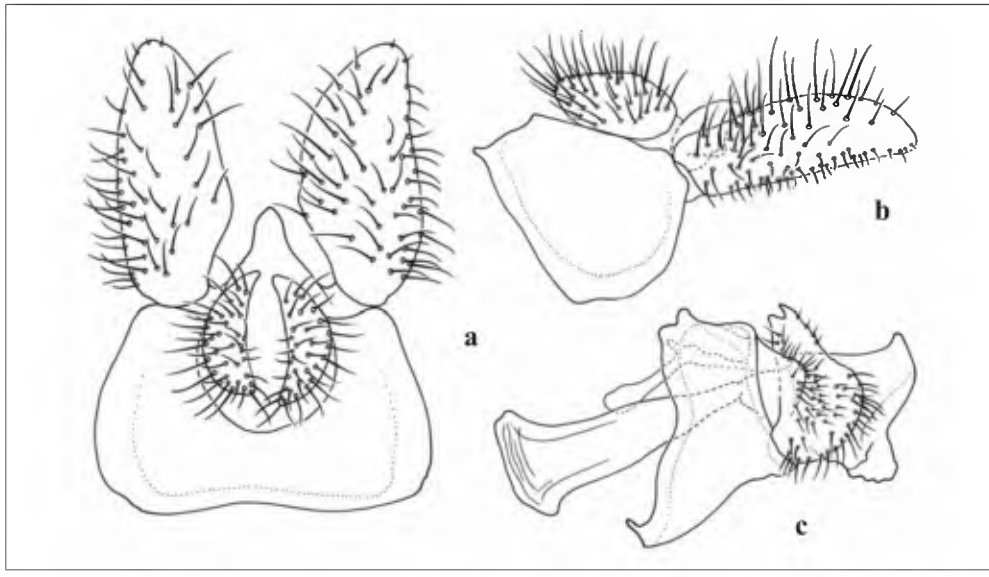


Fig. 17a–c: Male genitalia, *Toxomerus vertebratus* (Macquart). – **a**: 9th tergum and associated structures, dorsal view; – **b**: 9th tergum and associated structures, lateral view; – **c**: 9th sternum and associated structures, lateral view.

a
b

Fig. 18a–b: Male heads, dorsolateral oblique view. – **a**: *Toxomerus schlingeri* THOMPSON & THOMPSON, spec. nov.; – **b**: *T. vertebratus* (MACQUART).

The current status of the RONDANI types in Naples is unknown. In respects to the Neotropical species described by RONDANI, we fortunately have a detailed list of what was deposited in the Museo Zoologico della R. Universitá di Naploi (COSTA 1866). While some collections in Naples were destroyed during World War II (NICHOLAS 1994), the entomological collections survived intact. The neotropical tabanid types of Rondani were studied by Fairchild and Philip (PHILIP 1965a) in the 1960s. Apparently after this no entomologist studied the flies in Naples.

The best current information is that no RONDANI types can now be found. This isn't suprising as recently part of the collection was dismembered and dispersed. Also, many boxes have been replaced with newer ones, but by whom and when is unknown. What is worse, many of the labels have been lost. Up until a few years ago many people had access to the museum, not all of whom belonged to the staff, which had no system of registering loans or who studied particular specimens. There is no catalog of types. So, at this point it would not be surprising to find out that many types may found in private collections (information from Nicola MAIO in e-mail to Sarah WHITMAN, who provided this English translation).

The PHILIPPI collection has been allow to decay in recent years, but was apparent in reasonable condition in 1960s (PHILIP 1965b). A search of the collection for PHILIPPI material in 1997 did not find any specimens that could be considered type material of Syrphidae. Likewise, no type was listed in the catalog of types in the collection (CAMOUSSEIGHT 1980). So, type material of *Syrphus interruptus* PHILIPPI is considered to be lost or destroyed.

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Kurzmitteilung – Short note
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Erste Nachweise von *Lonchoptera nerana* VAILLANT, 1989 aus der Türkei (Diptera: Lonchopteridae)

[First records of *Lonchoptera nerana* VAILLANT, 1989 from Turkey (Diptera: Lonchopteridae)]

von
Jens-Hermann STUKE
Leer (Deutschland)

Von *Lonchoptera nerana* VAILLANT, 1989 war bislang nur der männliche Holotypus aus Italien bekannt (BARTÁK 2005, VAILLANT 1989). Daher überraschte es, dass kleine Serien von zwei Fundorten in der Osttürkei gesammelt werden konnten: 7♂♂, 9♀♀ (22.VII.2005, Strecke Erzurum – Ispir, 2250 m, 40°11,00'N, 040°58,43'O); 4♂♂, 7♀♀ (24.VII.2005, Strecke Horasan – Sarikamis, 2050 m, 40°16,00'N, 042°39,04'O). Die Belege befinden sich in der Sammlung des Autors und in der Sammlung von M. BARTÁK.

Die Tiere wurden in montanen, von einzelnen Bäumen und Büschen umstandenen Bachtälern an sumpfigen, vegetationsarmen Stellen gestreift. Weitere Lonchopteriden konnten an diesen Fundorten nicht nachgewiesen werden. Die einzige weitere Lonchopteridae, die während der zweiwöchigen Exkursion in die Regionen um Erzurum gesammelt wurde, war *Lonchoptera bifurcata* (FALLÉN, 1810): 1♀ (31.VII.2005, Erzurum – Cat, 2110 m, 39°46,10'N, 041°02,36'O); 4♀♀ (31.VII.2005, Erzurum – Cat, 2300 m, 39°44,18'N, 040°59,86'O).