

Gianni Raffone

NEW OR INTERESTING RECORDS OF DIPTERA EMPIDIDAE AND HYBOTIDAE
FROM BOLIVIA WITH DESCRIPTION OF *PLATYPALPUS PSEUDOMOLLITUS* N. SP.
(INSECTA, DIPTERA, BRACHYCERA)

Riassunto. Nuove o interessanti segnalazioni di ditteri Empididae e Hybotidae della Bolivia con descrizione di *Platypalpus pseudomollitus* n. sp. (Insecta, Diptera, Brachycera).

Viene riportato un elenco di 16 specie di ditteri Empididae e Hybotidae raccolti in Bolivia. Quindici specie sono nuove per la Bolivia: *Hilara reducta* Collin, 1933, *Hilara tonsilis* Collin, 1933, *Rhamphomyia eminens* Collin, 1933, *Sphicosa lecta* Collin, 1933 (fam. Empididae); *Austrodromia valdiviana* (Philippi, 1865), *Crossopalpus armipes* (Bezzi, 1909); *Crossopalpus pennescens* (Melander, 1918); *Crossopalpus perplexus* (Smith, 1962); *Drapetis divergens* Loew, 1872; *Drapetis fortis* Bezzi, 1909; *Elaphropeza comata* (Melander, 1918); *Elaphropeza univittata* (Smith, 1962); *Platypalpus orphnus* (Collin, 1933); *Tachyempis nigra* (Bezzi, 1909); *Tachyempis tetrachaeta* Melander, 1928 (fam. Hybotidae). Viene descritta una nuova specie di *Platypalpus* Macquart, 1827: *Platypalpus pseudomollitus* n. sp. simile a *Platypalpus mollitus* (Collin, 1933), da cui differisce principalmente per la presenza di quattro setole notopleurali (due in *P. mollitus*), le zampe interamente gialle (parzialmente nere in *P. mollitus*), il bilanciere giallo (bruno in *P. mollitus*), nonché per la morfologia dei genitali maschili.

Summary. A new species of *Platypalpus* Macquart, 1827 is described: *Platypalpus pseudomollitus* n. sp. is related to *Platypalpus mollitus* (Collin, 1933), from which it differs in having 4 notopleural setae (2 in *P. mollitus*), yellow legs (extensively darkened in *P. mollitus*), brown halteres (yellow in *P. mollitus*), as well as the morphology of male terminalia. The following 15 species are reported from Bolivia for the first time: *Hilara reducta* Collin, 1933; *Hilara tonsilis* Collin, 1933; *Rhamphomyia eminens* Collin, 1933; *Sphicosa lecta* Collin, 1933 (fam. Empididae); *Austrodromia valdiviana* (Philippi, 1865); *Crossopalpus armipes* (Bezzi, 1909); *Crossopalpus pennescens* (Melander, 1918); *Crossopalpus perplexus* (Smith, 1962); *Drapetis divergens* Loew, 1872; *Drapetis fortis* Bezzi, 1909; *Elaphropeza comata* (Melander, 1918); *Elaphropeza univittata* (Smith, 1962); *Platypalpus orphnus* (Collin, 1933); *Tachyempis nigra* Melander, 1928; *Tachyempis tetrachaeta* Melander, 1928 (fam. Hybotidae).

Keywords: Diptera, Empididae, Hybotidae, new species, faunistic records, Bolivia.

INTRODUCTION

While examining Hybotidae material collected in Bolivia by Dr. Paolo Bettella (Museo de Historia Natural “Noel Kempff Mercador”, Santa Cruz de la Sierra, Bolivia), deposited in the collection of the Venice Natural History Museum, I found some species not previously reported from this region and some specimens belonging to a new species.

The taxonomy is according to PHILIPPI (1865), WILLISTON (1896), BEZZI (1909), MELANDER (1918, 1928), COLLIN (1933), SMITH (1962, 1963, 1967), ROGERS (1983), YANG et al. (2007), SAIGUSA (2010).

LIST OF THE SPECIES

Empididae

Hilara reducta Collin, 1933

Bolivia, Dep. S. Cruz, Prov. Andrei Ibanez, 14.XI.1990, 5 ♂♂.

Distribution: Chile (Chiloe Is.: Castro, Ancud; Mechueque Is.). New for Bolivia.

Hilara tonsilis Collin, 1933

Bolivia, Dep. S. Cruz, Prov. Andrei Ibanez, 20.IX.1993, 3 ♂♂.

Distribution: Argentina (L. Nahuel Huapi, Puerto Blest, L. Correntoso); Chile (Casa Pangue). New for Bolivia.

Rhamphomyia eminens Collin, 1933

Bolivia, Dep. S. Cruz, Prov. Andrei Ibanez, 24.XI.1990, 1 ♂.

Distribution: Chile, Peulla. New for Bolivia.

Sphicosa lecta Collin, 1933

Bolivia, Dep. Cochabamba, Prov. Cotapachi, 2.IX.1990, 2 ♂♂.

Distribution: Chile (Concepción). New for Bolivia.

Hybotidae

Austrodromia valdiviana (Philippi, 1865)

Bolivia, Dep. S. Cruz, Prov. Andrei Ibanez, 11.IV.1989, 1 ♂.

Distribution: Chile. New for Bolivia.

Crossopalpus armipes (Bezzi, 1909)

Bolivia, Dep. S. Cruz, Prov. Ichilo, 8.IV.1990, 1 ♀.

Distribution: Chile (Tacna). New for Bolivia.

Crossopalpus pennescens (Melander, 1918)

Bolivia, Dep. Cochabamba, Parco Nat. Amboró, 29.X.1989, 1 ♀.

Distribution: Peru (Matucana). New for Bolivia.

Crossopalpus perplexus (Smith, 1962)

Bolivia, Dep. S. Cruz, Prov. Andrei Ibanez, 9.IX.1993, 1 ♂; Dep. S. Cruz, Prov. Ichilo, 11.IV.1989, 1 ♀; Dep. S. Cruz, Prov. Ichilo, 22.XII.1990, 1 ♂; Dep. Cochabamba, Parco Nat. Amboró, 29.X.1989, 2 ♀♀; Dep. S. Cruz, Prov. Ichilo, 21.III.1989, 1 ♀.

Distribution: Brazil (Santa Catarina, Nova Teutonia). New for Bolivia.

Drapetis divergens Loew, 1872

Bolivia, Dep. El-Beni, Prov. Vaca Diez, 12.III.1990, 1 ♀.

Distribution: Brazil, Mexico, Perù. New for Bolivia.

Drapetis fortis Bezz, 1909

Bolivia, Dep. S. Cruz, Prov. Ichilo, 22.XII.1990, 1 ♀.

Distribution: Peru (Puerto Bermúdez), Ecuador (Pichucha) (RAFFONE, 2010). New for Bolivia.

Elaphropeza comata (Melander, 1918)

Bolivia, Dep. El-Beni, Prov. Antonio Vaca Diez, 12.III.1990, 1 ♂.

Distribution: Brazil (Sao Paulo), West Indies (Trinidad). New for Bolivia.

Elaphropeza univittata Smith, 1962

Bolivia, Dep. S. Cruz, Prov. Ichilo, 16.IX.1990, 1 ♂; Prov. Antonio Vaca Diez, 16.IX.1990, 1 ♀.

Distribution: Brazil (Santa Catarina, Nova Teutonia). New for Bolivia.

Platypalpus orphnus (Collin, 1933)

Bolivia, Dep. S. Cruz, Ichilo, 11.IV.1990, 1 ♀.

Distribution: Chile (Casa Pangue, Angol), Argentina (Rio Negro, L. Correntoso). New for Bolivia.

***Platypalpus pseudomollitus* n. sp.**

Type material. Holotype ♂ and 1 paratype ♂ from Bolivia, Dep. S. Cruz, Prov. Ichilo, 20.XII.1990, Paolo Bettella leg.. Holotype and paratype laterally micropinned. Abdomen and terminalia of holotype in a plastic microvial, pinned with the specimen.

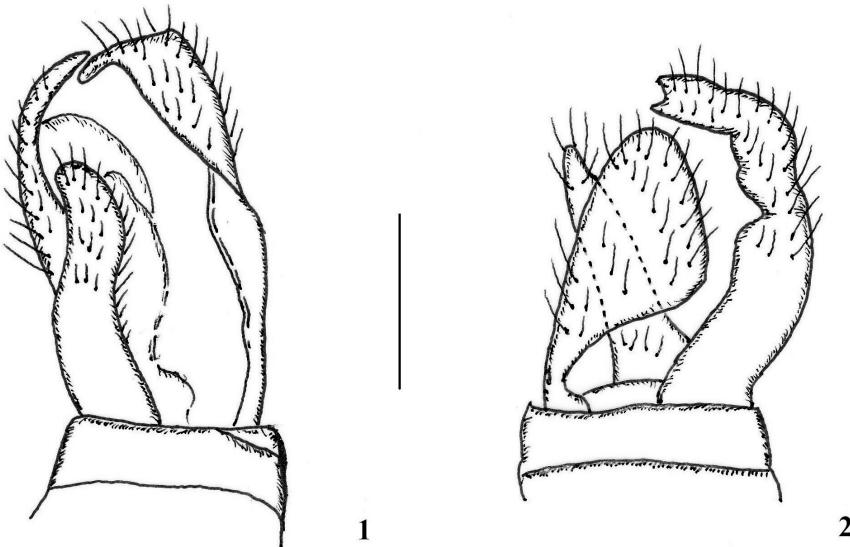
Holotype and paratype are deposited in the dipterological collection of the Venice Natural History Museum, Italy.

Description of the male

Body length: 2.5-2.6 mm.

Head: shiny black, with sparse black hairs; 2 pairs ocellar and 2 pairs vertical black setae; antenna with yellow scape and pedicel, yellow-brownish flagellomere and brownish arista; scape short, half length of flagellomere; flagellomere short, as long as scape and pedicel together; arista long, 6 time flagellomere length; yellow palpus and proboscis; palpus with 4-5 short, yellow setae.

Thorax: shining black on disc, brownish humeral area with sparse yellowish hairs; shiny black scutellum and postscutellum; pleura: shiny black anepisternum and katepisternum; grey microtomentose meron and epimeron; chaetotaxy: 1 humeral seta; 4 irregular rows of acrosticals; 2 sparse and irregular rows of dorsocentrals and 1 long prescutellar; 1 prealar; 2 supralars; 4 notopleurals; 1 long apical scutellar; yellow legs, with sparse yellow hairs; brownish tarsi;



Figs. 1-2. 1: *Platypalpus mollitus* (Collin, 1933), external male terminalia; 2: *Platypalpus pseudomollitus* n. sp. (Holotype: Bolivia, Dep. S. Cruz, Prov. Ichilo), external male terminalia. Scale bar = 0.1 mm.

midfemur with row of posterodorsal yellow setae and row of ventral setulae; no apical spur on midtibia; hindtibia with a row of long posteroventral yellow setae; infuscate wing with brownish veins; R₄₊₅ and M subparallel; costal index - 3: 1.4: 2: 0.6; brown halter.

Abdomen: tergites 1, 2 and 3 yellow; other tergites brown, tergite 4 with sparse brown microtrichiae; yellow sternites.

Male terminalia: right surstyli wide; left surstyli apically furcate.

Comparative remarks. *Platypalpus pseudomollitus* n. sp. is similar to *Platypalpus mollitus* (Collin, 1933) in having the black thorax and yellow scape and pedicel of antenna. It differs from the latter species mainly in having: 4 notopleural setae (2 in *P. mollitus*), yellow legs (extensively darkened in *P. mollitus*), brown halteres (yellow in *P. mollitus*) and the shape of male terminalia with the right surstyli wider (narrow in *P. mollitus*) and the left surstyli apically furcate (rounded in *P. mollitus*) (figs. 1-2).

Derivatio nominis. For the similarity to *Platypalpus mollitus*.

Tachyempis nigra Melander, 1928

Bolivia, Dep. El-Beni, Prov. Antonio Vaca Diez, 16.VII.1990, 1 ♀.

Distribution: Costa Rica (La Suiza de Turrialba, San José), Brazil (Santa Catarina, Nova Teutonia). New for Bolivia.

Tachyempis tetrachaeta Melander, 1928

Bolivia, Dep. El-Beni, Prov. Antonio Vaca Diez, 12.III.1990, 1 ♀.

Distribution: Chile (Conception). New for Bolivia.

ACKNOWLEDGEMENTS

I wish to express my most sincere thanks to Dr. Paolo Bettella (Museo de Historia Natural “Noel Kempff Mercador”, S. Cruz de la Sierra, Bolivia) for allowing me to study the material he collected in Bolivia. I also thank Dr. Lloyd Knutson (Gaeta, Italy) for reviewing the manuscript.

References

- BEZZI M., 1909. Beiträge zur Kenntnis der Sudamerikanischen Dipteren-fauna. Fam. Empididae. *Nova Acta Academiae Caesareae Leopoldino-Carolinae*, 91: 299-406.
- COLLIN J.E., 1933. Diptera of Patagonia and South Chile. Part IV. Empididae. *British Museum (Natural History)*, London, 334 pp.
- MELANDER A.L., 1918. The dipterous genus *Drapetis* Meigen. *Annals of the Entomological Society of America*, 11: 183-221.
- MELANDER A.L., 1928. Diptera, Fam. Empididae. In: Wytsman O. (ed.), Genera Insectorum, Fasc. 185. *Louis Desmet-Verteneuil*, Bruxelles, 434 pp.
- PHILIPPI R.A., 1865. Aufzählung der Chilenischen Dipteren. *Verhandlungen der zoologisch-botanischen Gesellschaft in Wien*, 15: 595-782.
- RAFFONE G., 2010. Su alcuni ditteri Hybotidae dell'Ecuador, con descrizione di *Elaphropeza thoracica* n. sp. (Diptera Hybotidae). *Bollettino della Società Entomologica Italiana*, Genova, 142 (3): 125-128.
- ROGERS E., 1983. The Neotropical species of *Drapetis* Meigen (Diptera: Empididae). *Systematic Entomology*, 8: 431-452.
- SAIGUSA T., 2010. Empididae. In: *Diptera.org/Systema dipterorum*. (Pape T., Thompson F.C., eds.) version 1.0, <http://www.Diptera.org>
- SMITH K.G.V., 1962. Studies on the Brazilian Empididae (Diptera). *Transactions of the Royal Entomological Society*, London, 114: 195-266.
- SMITH K.G.V., 1963. The Empididae (Diptera) collected on the Oxford University Expeditions to British Guiana in 1929 and 1937. *Proceedings of the Royal Entomological Society*, London, (B) 32: 153-161.
- SMITH K.G.V., 1967. Family Empididae (Empidae, Hybotidae). In: A Catalogue of the Diptera of the Americas South of the United States. *Departamento de Zoologia*, São Paulo, 39: 1-67.
- WILLISTON S.W., 1896. On the Diptera of St. Vincent (West Indies). *Transactions of the Royal Entomological Society*, London: 253-449.
- YANG D., YAO G., ZHANG K., ZHANG J., 2007. World Catalog of Empididae (Insecta: Diptera). *China Agricultural University Press*, Beijing, 599 pp.

Author's address:

G. Raffone c/o Museo di Storia Naturale di Venezia, S. Croce 1730, I-30135 Venezia, Italia;
 gianni_raffone@tin.it