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Three new species of genus *Apotropina* Hendel from China (Diptera, Chloropidae)

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Abstract

A review of the species of the genus *Apotropina* Hendel from China is provided. The following 3 species are described as new to science: *A. bistrinata* **sp. nov.**, *A. longiprocessa* **sp. nov.** and *A. tristriata* **sp. nov.** A key to all species of *Apotropina* from the Oriental Region is given.

Key words: Diptera, Chloropidae, *Apotropina*, new species, China

Introduction

Apotropina Hendel is the largest genus in the subfamily Siphonellopsinae, occurring throughout the world and comprising 79 known species (Sabrosky 1951, 1965, 1977, 1982, 1989; Kanmiya 1983; Nartshuk 1984; Yang *et al.* 1993; Cherian 2002). It is mostly Australasian in distribution with 38 species recorded (Spencer 1977; Sabrosky 1989), 3 species of the genus have been known from the Palaearctic Region (Dely-Draskovits 1977; Kanmiya 1983; Nartshuk 1984), 12 species from the Oriental (Sabrosky 1977; Yang *et al.* 1993; Cherian 2002), 15 species from the Neotropical (Sabrosky & Paganelli 1984), 8 species from the Afrotropical (Sabrosky 1982) and 6 species from the Nearctic (Sabrosky 1951). Up to the present, 3 species have been known to occur in China (Yang *et al.* 1993).

The genus *Apotropina* is characterized by the combination of the following characters: head wider than long, in profile roughly square or trapezoidal; face narrow, flat or slightly concave, without distinct facial carina; gena variable in width, usually narrower than first flagellomere; vibrissal angle rounded; frons broad, not distinctly projecting beyond eye; ocellar triangle polished or microtomentose, its apex reaching at least middle of frons; setae on head usually well developed; 3–4 orbital setae, the foremost 1–2 proclinate, uppermost 2 proclinate or laterocline; ocellar setae long, proclinate and divergent; postvertical setae much shorter than ocellar setae; inner vertical setae longer than outer vertical setae; scutum convex and microtomentose; anepisternum bare or with setae; thoracic setae long and distinct; 2 postpronotal setae; 1+1 notopleural setae strong; 1–4 dorsocentral setae; scutellum short, rounded apically, convex or flattened on disc; apical scutellar setae longer than scutellum; sternites 6–7 in male placed asymmetrically (Andersson 1977; Kanmiya 1983; Yang *et al.* 1993).

In the present paper, three new species, *A. bistrinata* **sp. nov.**, *A. longiprocessa* **sp. nov.** and *A. tristriata* **sp. nov.**, are described from Oriental China. A key to the species of genus *Apotropina* from the Oriental Region is provided.

Material and methods

Specimens were studied and illustrated with a ZEISS Stemi 2000–c microscope. Genitalic preparations were made by macerating the apical portion of abdomen in warm 10% NaOH for 17–20 min. After examination it was

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References

- Andersson, H. (1977) Taxonomic and phylogenetic studies on Chloropidae (Diptera) with special reference to Old World genera. *Entomologica Scandinavica*, Supplement, 8, 1–200.
- Becker, T. (1911) Chloropidae. Eine monographische Studie. iii. Die Indo-australische Region. *Annales historico-naturales Musei nationalis hungarici*, Budapest, 9, 35–170.
- Cherian, P.T. (2002) *The fauna of India and the adjacent countries-Diptera. volume IX Chloropidae (part 1) Siphonellopsinae and Rhodesiellinae*. Zoological Survey of India, Kolkata, pp. 1–368.
- Dely-Draskovits, A. (1977) *Lasiopleura brevivenosa* sp. n. aus der paläarktischen Region (Diptera, Chloropidae). *Annales historico-naturales Musei nationalis hungarici*, Budapest, 69, 177–179.
- Frey, R. (1923) Philippinische Dipteren. I. Fam. Chloropidae. *Notulae Entomologicae*, 3, 71–83, 97–112.
- Kanmiya, K. (1983) A systematic study of the Japanese Chloropidae (Diptera). *Memoirs of the entomological Society of Washington*, 11, 1–370.
- Nartshuk, E.P. (1984) Family Chloropidae. In: Soós, Á. & Papp L. (Eds.), *Catalogue of Palaearctic Diptera, Vol. 10. Chusidae-Chloropidae*. Akadémiai Kiadó, Budapest, pp. 222–298.
- Sabrosky, C.W. (1951) A review of the Nearctic species of *Lasiopleura* (Diptera, Chloropidae). *Canadian Entomologist*, Ottawa, 83, 336–343.
<http://dx.doi.org/10.4039/Ent83336-12>
- Sabrosky, C.W. (1965) Family Chloropidae. In: Stone, A., Sabrosky, C.W., Wirth, W.W., Foote, R.H. & Coulson, J.R. (Eds.), *A catalog of the Diptera of America North of Mexico. United States Department of Agriculture, Agriculture Handbook*, no. 276, pp. 773–793.
- Sabrosky, C.W. (1977) Family Chloropidae. In: Delfinado, M.D. & Hardy D.E. (Eds.), *A catalog of Diptera of the Oriental Region, Volume 3*. The University Press of Hawaii, Honolulu, pp. 277–319.
- Sabrosky, C.W. (1982) The Afrotropical species of *Apotropina* Hendel (Diptera: Chloropidae). *Annals of the Natal Museum*, 25, 267–279.
- Sabrosky, C.W. (1989) Family Chloropidae. In: Evenhuis, N.L. (Ed.), *Catalog of Diptera of the Australasian and Oceanian Regions*. Bishop Museum Press, Honolulu & E.J. Brill, Leiden, pp. 650–665.
- Sabrosky, C.W. & Paganelli, C.H. (1984) Family Chloropidae. In: *A catalogue of the Diptera of the Americas South of the United States*, pp. 1–64.
- Spencer, K.A. (1977) A revision of the New Zealand Chloropidae. *Journal of the Royal Society of New Zealand*, 7, 433–472.
<http://dx.doi.org/10.1080/03036758.1977.10419424>
- Yang, D., Yang, C.K. & Kanmiya, K. (1993) A study on the *Apotropina* (Diptera, Chloropidae). *Japanese Journal of Entomology*, 61(1), 31–38.