



<http://dx.doi.org/10.11646/zootaxa.3750.4.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:80D883AC-EC81-4323-A166-D193CEAEE5DC>

Three new species of the tribe Meconematini (Orthoptera: Tettigoniidae) from Taiwan

CHANG YAN LIN¹, DU XI CUI² & SHI FU MING¹

¹College of Life Sciences, Hebei University, Baoding 071002, P. R. China. E-mail: changylin@126.com

²College of Plant Protection, Southwest University, Chongqing 400716, P. R. China. E-mail: duxicui@hotmail.com

Abstract

The paper reported three new species from Taiwan, i.e. *Xizicus (Eoxizicus) taiwanensis* sp. nov., *Xizicus (Axizicus) falcata* sp. nov. and *Decma (Decma) brachyptera* sp. nov., supplied the descriptions and illustrations.

Key words: Meconematini, new species, *Xizicus*, *Decma*, Taiwan

Four species of the subfamily Meconematinae were recorded from Taiwan, i.e. *Neophisis (Indophisis) kotoshoensis* (Shiraki, 1930), *Taiyalia sedequiana* Yamasaki, 1992, *Taiyalia squolyequiana* Yamasaki, 1992, and *Leptoteraura (Leptoteraura) taiwana* Yamasaki, 1987. One of the authors (Du Xi Cui) co-operated with the National Museum of Natural Science, Taichung where she studied material in the collection. We discovered three new species of the tribe Meconematini, namely *Xizicus (Eoxizicus) taiwanensis* sp. nov., *Xizicus (Axizicus) falcata* sp. nov. and *Decma (Decma) brachyptera* sp. nov. which are described here. The type material is deposited in the Museum of Hebei University.

1. *Xizicus (Axizicus) falcata* Chang, Du & Shi sp. nov.

Figs. 1–8

Male. Body small, comparatively thinner and longer. Head stout and short, fastigium frontis vertical, fastigium verticis conical, protruding, apex rounded with a thin longitudinal furrow. Eyes globular.

Pronotum shorter, anterior margin straight, posterior margin rounded, transversal sulci indistinct; lateral lobes longer than deep; humeral sinus shallow.

All femora without spines on ventral surface. Forecoxa with a spine, foretibiae with 6 spines on inner side and 5 spines on outer side (including a pair of apical spines); tibial tympana open on both sides. Mesotibiae with 5 spines on inner side and 6 spines on outer side of ventral surface. Posttibiae with 27–31 spines on internal and external sides of dorsal surface separately, bearing a pair of dorsal apical spurs and two pairs of ventral apical spurs; genicular lobes with apices rounded.

Tegmina narrower and longer, surpassing apices of postfemora, anterior and posterior margins parallel, apices rounded. Stridulatory area concealed under pronotum. Hind wings longer than tegmina.

Tenth abdominal tergite longer, centre of posterior margin with a shallow notch, the lateral lobes moderately elongated posteriorly. Epiproct long tongue-shaped. Cerci with 2/3 base stout, cylindrical, apical area separated into two branches, outer branch short, slightly curved upwards, apex rounded; inner branch long, falcate, curved inwards, apex acute. Subgenital plate elongate, broad, basal area with median sulcus, posterior margin rounded. Styli medium-length, apices subacute on lateral margins of subapex of subgenital plate.

Body green. Eyes reddish brown. Disc of pronotum with a pair of longitudinal light brown stripes. Genicular lobes of postfemora brown, spines of posttibia on dorsal surface blackish brown, apices of spurs and claws blackish brown.

References

- Bey-Bienko, G.Y. (1955) Observations on faunistic and systematics of the superfamily Tettigonioidea (Orthoptera) from China. *Zoologicheskyy Zhurnal, Moscow*, 34, 1250–1271.
- Bey-Bienko, G.Y. (1957) Results of Chinese-Soviet zoological-botanical expeditions to South-western China 1955–1956. *Entomologicheskoe Obozrenie, Moscow*, 36, 401–417.
- Bey-Bienko, G.Y. (1962) New or less-known Tettigonioidea (Orthoptera) from Sichuan and Yunnan results of Chinese-Soviet zoological-botanical expeditions of South-western China 1955–1957. *Trudy Zoologicheskogo Instituta, Moscow*, 20, 111–138.
- Bey-Bienko, G.Y. (1971) A revision of the bush-cricket of the genus *Xiphidiopsis* Redt. (Orthoptera: Tettigonioidea). *Entomological Review*, 50, 472–483.
- Gorochoy, A.V. (1993) A contribution to the knowledge of the tribe Meconematini (Orthoptera: Tettigoniidae). *Zoosystematica Rossica*, 2 (1), 63–92.
- Gorochoy, A.V. (1998) New and little known Meconematinae of the tribes Meconematini and Phlugidini (Orthoptera: Tettigoniidae). *Zoosystematica Rossica*, 7 (1), 101–131.
- Gorochoy A.V. (2004) A new subgenus and two new species of *Decma* (Orthoptera: Tettigoniidae: Meconematinae). *Zoosystematica Rossica*, 13 (1), 28.
- Gorochoy A.V. (2012) Taxonomy of the katydids (Orthoptera: Tettigoniidae) from East Asia and adjacent islands. Communication 4. *Far Eastern Entomologist*, 243, 1–9.
- Gorochoy, A.V., Liu, C.X. & Kang, L. (2005) Studies on the tribe Meconematini (Orthoptera: Tettigoniidae: Meconematinae) from China. *Oriental Insects*, 39, 63–88.
<http://dx.doi.org/10.1080/00305316.2005.10417418>
- Jin, X.B., Kevan, D.K. McE. & Yamasaki, T. (1990) A new genus, subgenus and species of small predacious orthopteroids from the Ryukyu Islands (Grylloptera: Tettigonioidea: Meconematidae). *Proceedings of the Japanese Society of Systematic Zoology*, 42, 21–31.
<http://dx.doi.org/10.1080/03946975.1991.10539497>
- Karny, H.H. (1907) Revisio Conocephalidarum. *Abhandlungen der K.K. Zoologisch-botanischen Gesellschaft in Wien*, 4, 1–114.
- Karny, H.H. (1924) Beiträge zur Malayischen Orthopterenfauna. VII. Prodrömus der Malayischen Meconeminen. *Treubia*, 5 (1–3), 105–136.
- Liu, X.W. & Jin, X.B. (1999) Tettigonioidea. In: Huang, B.K. (Ed.), *Fauna of Insects in Fujian Province of China. Vol. 1*. Fujian Science and Technology Publishing Company, Fuzhou, pp. 119–160.
- Liu, X.W. & Zhang, W.N. (2000) Studies on Chinese katydids. I. ten new species of the tribe Meconematini (Orthoptera: Tettigonioidea: Meconematidae) from China. *Entomotaxonomia*, 22 (3), 157–170.
- Liu, X.W. & Yin, H.S. (2004) Orthoptera: Tettigonioidea and Stenopelmatoidea. In: Yang, X.K. (Ed.), *Insects from Mt. Shiwandashan Area of Guangxi from China*. China Forest Publishing Company, Beijing, pp. 90–110.
- Liu, X.W. & Zhou, M. (2007) A taxonomic study on the genus *Decma* Gorochoy from China (Orthoptera: Tettigonioidea: Meconematidae). *Acta Entomologica Sinica*, 50 (6), 610–615.
- Tinkham, E.R. (1943) New species and records of Chinese Tettigoniidae from the Heude Museum, Shanghai. *Notes d'Entomologie Chinoise*, 10, 33–66.
- Tinkham, E.R. (1944) Twelve new species of Chinese leaf-katydids of the genus *Xiphidiopsis*. *Proceedings of National Museum*, 94, 505–527.
<http://dx.doi.org/10.5479/si.00963801.94-3176.505>
- Tinkham, E.R. (1956) Four new Chinese species of *Xiphidiopsis* (Orthoptera: Tettigonioidea). *Transactions of the American Entomological Society*, 82, 1–16.
- Xia, K.L. & Liu, X.W. (1992) Orthoptera, Tettigonioidea and Grylloidea. In: Huang, F.S. (Ed.), *Insects of Wuling Mountains Area, Southwestern China*. Science Press, Beijing, pp. 87–113.