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New species and new record of the rare genera *Xynotingis* Drake, 1948 and *Zeiratingis* Drake & Ruhoff, 1961 (Hemiptera: Tingidae) from China

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Abstract

Xynotingis hoytana Drake, 1948 and *Zeiratingis hainanensis* sp. nov. are recorded from China (Hainan Island). Species of both genera are very rarely collected. This represents the first record of both genera in this country. The new species is described. Illustrations of the involved species are provided as well as a key to the species of the genus *Zeiratingis*.

Key words: Heteroptera, Tingidae, *Xynotingis*, *Zeiratingis*, new species, new record

Introduction

Tinginae is a cosmopolitan subfamily of Tingidae (Hemiptera), approximately 280 species in nearly 50 genera are known from China (Péricart & Golub 1996; Golub *et al.* 2012), of which 14 genera and 19 species occur in Hainan Island (Liu & Chen 2002; Dang & Bu 2012; Dang *et al.* 2013). In our recent studies, we recorded two rare genera, *Xynotingis* Drake and *Zeiratingis* Drake & Ruhoff for the first time in China, both from Hainan Island. *Xynotingis* is a monotypic genus described by Drake (1948). Its type species is *X. hoytona* and up to now only known from Japan. *Zeiratingis* was described by Drake & Ruhoff (1961) based on its type species *Z. peirosa*, known from Vietnam, and *Z. dissita*, known from Borneo.

These two genera have been rarely collected since their original descriptions. *Xynotingis hoytona* has been recorded in a few papers from Japan (Takeya 1951, 1953; Drake & Maa 1953; Yazaki 2009). The only records of the *Zeiratingis* species mentioned above are their original descriptions, since then they have not been reported.

Here we described the species *Zeiratingis hainanensis* sp. nov. new to science, and record *Xynotingis hoytona* for the first time in China. Illustrations of the involved species are provided, along with a key to species of *Zeiratingis*.

Material and methods

The specimens studied are deposited at the Institute of Entomology, College of Life Sciences, Nankai University, Tianjin, China (NKUM). Photographs were taken with a computer-controlled SPOT RT digital camera adapted to the stereoscopic microscope Nikon SMZ1000 and related software. Measurements were taken with an ocular micrometer, and were given in millimeters (mm).

Taxonomy

Xynotingis Drake, 1948

Xynotingis Drake, 1948: 8; Drake & Ruhoff, 1960: 88; 1965: 427; Péricart & Golub, 1996: 78.

Type species: *Xynotingis hoytona* Drake, 1948, by original designation.

Hemelytra broad, broader in anterior half, with sutural areas overlapping and their apices jointly rounded in repose; costal area broad, anteriorly bent upwards, nearly erect, mostly triseriate, areolae moderately large and irregularly arranged, but four to five rows of relatively small areolae broad at anterior brown band. Subcostal area narrow, biseriate, nearly upright. Discoidal area very large, slightly extending beyond middle of hemelytra, narrow at both ends, nine rows of areolae broad at its widest part. Sutural area wider and larger than the other areas; areolae at base as large as that of discoidal area, but areolae near apex being larger than all of others.

Measurements. Body length ($N = 1$ male, 1 female): male, 3.54, female, 3.68; width (across hemielytra): male, 1.75, female, 1.90. Width (across paranota): male, 1.96, female, 2.08; height of paranota (from base to apex): male, 1.24, female, 1.30; length of paranota: male, 1.20, female, 1.20. Length of hemelytra: male, 2.55, female, 2.68. antennal segments measurements: I, 0.12, II, 0.11, III, 1.18, IV, 0.42 (male), I, 0.11, II, 0.10, III, 1.12, IV, 0.45 (female).

Material examined. Holotype: male, China, Hainan Province, Ledong County, Jianfengling Nature Reserve, Mingfenggu, alt. 900 m, 6.VI.2007, Pengzhi Dong leg. **Paratype:** 1 female, the data same as holotype.

Etmology. The specific epithet indicates the location where the new species is found.

Comments. *Zeiratingis hainanensis* **sp. nov.** is similar to *Z. dissita* (from Borneo) in having enormous paranota and the costal area mostly triseriate. However, the new species differs from the latter by its shorter body (3.54–3.68 against 4.75 in *Z. dissita*), and by the head and the outer margins of the lateral carinae visible dorsally (Figs. 5, 6) (in *Z. dissita* they are entirely covered).

Zeiratingis hainanensis **sp. nov.** differs from *Z. peirosa* (from Vietnam) by its broader costal area which is mostly triseriate, the anterior brown band is four to five relatively small areolae broad (in *Z. peirosa* it is mostly biseriate, and same biseriate at anterior brown band, see Drake & Ruhoff, 1961: 158, fig. 18a), anterior of paranota straightly upright on the compound eyes (in *Z. peirosa*, it is convex anteriorly, see Drake & Ruhoff, 1961: 158, fig. 18b), outer margins of lateral carinae entirely visible but not clearly visible in *Z. peirosa*.

Key to the species of *Zeiratingis*

1. Costal area narrow, mostly biseriate *Zeiratingis peirosa* Drake & Ruhoff, 1961
- Costal area broad, mostly triseriate 2
2. Body long, length: 4.75; head and lateral carinae on pronotal disc entirely concealed by the enormous paranota, and dorsally not visible *Z. dissita* Drake & Ruhoff, 1961
- Body short, length: 3.54–3.68; head and outer margins of lateral carinae visible dorsally (Figs. 5, 6) *Z. hainanensis* **sp. nov.**

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References

- Dang, K. & Bu, W.J. (2012) The discovery of the genus *Heissiella* Péricart, 1984 (Hemiptera: Heteroptera: Tingidae) from China, with description of a new species. *Entomotaxonomia*, 34 (4), 624–628.
- Dang, K., Guilbert, E. & Bu, W.J. (2013) New species and new records of the genus *Trachypeplus* Horváth (Hemiptera: Tingidae) from China. *Zootaxa*, 3669 (4), 531–550.
<http://dx.doi.org/10.11646/zootaxa.3669.4.7>
- Drake, C.J. (1948) Some Tingidae (Hemiptera) from China, Japan and India. *Notes d'Entomologie Chinoise*, 12, 1–9.
- Drake, C.J. & Maa, T. (1953) Chinese and other Oriental Tingidae (Hemiptera). *Quarterly Journal of the Taiwan Museum*, 2, 87–102.
- Drake, C.J. & Ruhoff, F.A. (1960) Lace-bug genera of the world (Hemiptera: Tingidae). *Proceeding of the United States National Museum*, 112, 1–105.
<http://dx.doi.org/10.5479/si.00963801.112-3431.1>
- Drake, C.J. & Ruhoff, F.A. (1961) New genera and new species of lacebugs from the Eastern Hemisphere (Hemiptera:

- Tingidae). *Proceedings of the United States National Museum*, 113, 125–183.
<http://dx.doi.org/10.5479/si.00963801.113-3455.125>
- Drake, C.J. & Ruhoff, F.A. (1965) *Lacebugs of the World: A Catalog (Hemiptera: Tingidae)*. United States National Museum Bulletin, Washington, 634 pp.
- Golub, V.B., Luo, Z. & Vinokurov, N.N. (2012) Studies of true bugs of Xinjiang, Western China. II. Cimicomorpha: lace bugs (Hemiptera: Heteroptera: Tingidae: Tinginae). *Zootaxa*, 3580, 69–82.
- Liu, G.Q. & Chen, C. (2002) Tingidae. In: Huang, F.S. (Eds.), *Forest Insects of Hainan*. Science Press, China, i–xv, pp. 1–1064.
- Péricart, J. & Golub, V.B. (1996) Tingoidae. In: Aukema, B. & Rieger, Ch. (Eds.), *Catalogue of the Heteroptera of the Palaearctic Region. Vol. 2*. Netherlands Entomological Society, Wageningen, i–xiv, pp. 1–361.
- Takeya, C. (1951) A tentative list of Tingidae of Japan and her adjacent territories (Hemiptera). *Kurume University Journal (Natural Sciences)*, 4, 5–28.
- Takeya, C. (1953) Notes on the Tingidae of Shikoku, Japan (Hemiptera). *Transactions of the Shikoku Entomological Society*, 3, 167–176.
- Yazaki, M. (2009) Hemipterous insects confirmed by Yahagi River forest investigation. *Yahagi Research*, 13, 29–38.