

<http://dx.doi.org/10.11646/zootaxa.3947.2.3>

<http://zoobank.org/urn:lsid:zoobank.org:pub:95531C50-CB39-4CFA-9DD5-C2C655B51D0A>

## Two new species of the genus *Platambus* Thomson, 1859 from China (Coleoptera: Dytiscidae, Agabinae)

LARS HENDRICH<sup>1</sup> & MAREK PRZEWOŹNY<sup>2</sup>

<sup>1</sup>SNSB - Zoologische Staatssammlung München, Münchhausenstraße 21, 81247 München, Germany. E-Mail: [hendrich@zsm.mwn.de](mailto:hendrich@zsm.mwn.de)

<sup>2</sup>Department of Systematic Zoology, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, PL-61-614 Poznań, Poland.  
E-mail: [hygrotus@amu.edu.pl](mailto:hygrotus@amu.edu.pl)

### Abstract

One new species of the genus *Platambus* Thomson, 1859 from Ganzi Tibetan Autonomous Prefecture, Sichuan Province (*P. brancuccii* sp. n.) and one from Chengdu, Sichuan Province (*P. korgei* sp. n.) are described. They belong to the *Platambus semenowi*-group sensu Nilsson (2000). Important species characters (median lobes and colour patterns) of the two new species are figured, and notes on their distribution are given. Altogether seven species of the *semenowi*-group are now known from higher mountain regions in Central Asia, northern India, Nepal, Bhutan, Pakistan and China. Six of them are illustrated with habitus photos and a modified key to all species of the *semenowi*-group is presented.

**Key words:** Coleoptera, Dytiscidae, Agabinae, *Platambus*, China, new species

### Introduction

The dytiscid genus *Platambus* Thomson, 1859 of the tribe Agabini contains 62 rheophilic species that are restricted to the Nearctic, Palaearctic and Oriental regions (Brancucci 1988, 2005; Hájek & Brancucci 2006; Nilsson 1995, 2003, 2015 and Wewalka & Brancucci 1995). In the last 20 years extensive collections of aquatic beetles have been made in China by various European and Chinese collectors and revealed steadily new and undescribed dytiscid species. In 1995 and 2012 the authors obtained from Czech colleagues a few specimens of two *Platambus* species of the *semenowi*-group sensu Nilsson (2000), formerly listed in the subgenus *Anagabus* Jakovlev, 1897. Nilsson (2000) synonymised *Anagabus* with *Platambus* and stated species-group instead of them. We agree with Hájek & Brancucci (2006) that *Anagabus* (*semenowi*-group) should represent a monophyletic taxon within the genus *Platambus*. This status is supported by two apomorphies: (1) reduced setal row at posterolateral angle of metafemur; (2) distinct pronoto-elytral angle.

The aims of this paper are to describe two new species of the *semenowi*-group from Central China and to present a new key for the group. Except of *P. striatus* (Zeng & Pu, 1992), where no specimens were available for study, all species are illustrated with colour photos of the habitus. At present, 24 species of the genus *Platambus* are known from China (Nilsson 2015, Nilsson & Hájek 2015).

### Material and methods

Beetles were studied with a Leica MZ 12.5 microscope at 10–100x. Photographs of the habitus were taken with a Nikon SMZ1000 on bellows attached to a Canon EOS50D camera; an image stack was produced, aligned and combined with Helicon Focus 4.77™ software ([www.heliconsoft.com](http://www.heliconsoft.com)).

Male median lobes and parameres were studied wet in a temporary glycerine mount, using a Leica transmitted light microscope at magnifications of up to 40–180×; the genitalia were subsequently washed in distilled water and mounted in 2,5-dimethyl-4-hydroxy-3(2H)-furanone (DMHF) on the same card as the beetle. Photos of the male

- yellowish bands on elytron obscure and narrower ..... *P. brancuccii* sp. n. (Figs 5, 6, 7, 9)
- Pronotum less cordiform, sides almost straight before posteriors angles. Anterior angles of pronotum broadly yellowish. Longitudinal yellowish bands on elytron clear and broader ..... *P. sogdianus* (Jakovlev, 1897) (Figs 3, 13)

## Acknowledgements

We should like to thank Hans Fery (Berlin) for critical reading the manuscript, Günther Wewalka (Vienna) for providing valuable locality information and to Garth Foster (Ayr) for correcting the English of our manuscript. Eva Sprecher (Basel) and Michael Geiser (London) and thanked for the loan of type material. The authors thank Gerhard Bächli (Switzerland) and Fritz Gusenleitner (Linz) for giving permission to use black and white drawings formerly published in “Mitteilungen der Schweizerischen Entomologischen Gesellschaft” and “Linzer Biologische Beiträge”.

## References

- Brancucci, M. (1982) Les *Platambus* du sous-genre *Anagabus* (Col., Dytiscidae). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft*, 55, 115–124.
- Brancucci, M. (1988) A revision of the genus *Platambus* Thomson (Coleoptera, Dytiscidae). *Entomologica Basiliensis*, 12, 165–239.
- Brancucci, M. (2005) Notes on some *Platambus* (s.str.) Thomson, 1859 species from China, with the description of one new species (Coleoptera, Dytiscidae). *Entomologica Basiliensis*, 27, 1–5.
- Ghosh, S.K. & Nilsson, A.N. (2012) Catalogue of the diving beetles of India and adjacent countries (Coleoptera: Dytiscidae). Supplement 3. Skörvnöpparn, Umeå, 77 pp.
- Hájek, J. & Brancucci, M. (2006) *Platambus striatus* (Zeng & Pu 1992) a valid species from south-western China (Coleoptera: Dytiscidae). *Linzer Biologische Beiträge*, 38, 1397–1402.
- Jakovlev, A. (1897) Dyticidarium novorum diagnoses. *L'Abeille*, 29, 37–41.
- Miller, K.B. & Nilsson, A.N. (2003) Homology and terminology: communicating information about rotated structures in water beetles. *Lattissimus*, 17, 1–4.
- Nilsson, A. (1995) Noteridae and Dytiscidae: Annotated check list of the Noteridae and Dytiscidae of China (Coleoptera), In: Jäch, M.A. & Ji, L. (Eds.), *Water beetles of China. Vol. I.* Zoologisch-Botanische Gesellschaft in Österreich und Wiener Coleopterologenverein, Wien, pp. 35–96. [total page number: 410 pp.]
- Nilsson, A.N. (2000) A new view on the generic classification of the *Agabus*-group of genera of the Agabini, aimed at solving the problem with a paraphyletic *Agabus* (Coleoptera: Dytiscidae). *Koleopterologische Rundschau*, 71, 17–36.
- Nilsson, A. (2003) Dytiscidae: XI. New species, new synonymies, and new records in *Platambus* Thomson from China (Coleoptera). In: Jäch, M.A. & Ji, L. (Eds.), *Water beetles of China. Vol. III.* Zoologisch-Botanische Gesellschaft in Österreich und Wiener Coleopterologenverein, Wien, pp. 261–278. [total page number: VI + 572 pp.]
- Nilsson, A.N. (2015) A world catalogue of the family Dytiscidae or the diving beetles (Coleoptera, Adephaga). Version 1.1.2015, 298 pp. Available from: <http://www2.emg.umu.se/projects/biginst/andersn/World%20catalogue%20of%20Dytiscidae%202015.pdf> (accessed 15 February 2015)
- Nilsson, A.N. & Hájek, J. (2015) Catalogue of Palearctic Dytiscidae (Coleoptera). Internet version 2015-01-01. Available from: [http://www2.emg.umu.se/projects/biginst/andersn/PAL\\_CAT\\_2015.pdf](http://www2.emg.umu.se/projects/biginst/andersn/PAL_CAT_2015.pdf) (accessed 15 February 2015)
- Wewalka, G. & Brancucci, M. (1995) Dytiscidae: Notes on Chinese *Platambus* THOMSON with description of two new species (Coleoptera). In: Jäch, M.A. & Ji, L. (Eds.), *Water beetles of China. Vol. I.* Zoologisch-Botanische Gesellschaft in Österreich und Wiener Coleopterologenverein, Wien, pp. 97–102. [total page number 410 pp.]
- Zaitzev, F.A. (1953) Nasekomye zhestkokrylye. Plavuntsovye i vertyachki. *Fauna SSSR*, 4 (N.S. 58), 1–376.
- Zeng, H. & Pu, Z. (1992) *Hydronebrius striatus*. In: Pu, Z., Zeng, H. & Wu, W. (Eds.), Coleoptera: Dytiscidae and Hydrophilidae. *Insects of the Hengduan Mountains Region*, 1, pp. 482. [pp. 482–485.]