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Notes on some *Platambus* (s.str.) Thomson, 1859 species from China, with the description of one new species (Coleoptera, Dytiscidae)

by Michel Brancucci

Abstract. *Platambus* (s.str.) *wulingshanensis* sp.nov. is described from the north-western part of Hunan province (China). The new species is related to *P. heteronychus* Nilsson, 2003. Notes on the distribution of *P. princeps* (Régimbart, 1888) are given and its presence in Laos is discussed. The recently-described species *Platambus phufahensis* Brancucci, 2004 is considered to be a junior synonym of *P. princeps* (Régimbart, 1888). Two species, *P. schillhammeri* Wewalka et Brancucci, 1995 and *P. dabiesshanensis* Nilsson, 2003 are closely related and belong to a species complex, which is briefly discussed.

Key words. Coleoptera – Dytiscidae – *Platambus* – new species – new synonymy – China – Laos

Introduction

In the collection of the Natural History Museum, Basel, I found two specimens of a species collected in the last few years in the north-west of Hunan province in China. This species has proved to be new to science, and the most closely related known species is *P. heteronychus* Nilsson, 2003. This new species brings to 21 the total number of valid species in the subgenus *Platambus* (s.str.) (according to BRANCUCCI 1988) known in China.

The material examined in this study is deposited in the Natural History Museum of Basel (NMB) and in the Natural History Museum of Vienna (NMW).

Taxonomy

NILSSON (2001) established a new classification of the genus *Platambus* Thomson, 1859, dividing it into a number of species-groups. Nevertheless I prefer to follow the subdivisions that I proposed in my revision (BRANCUCCI 1988), because the classification into species-group is not clear and is still confused. I realise that none of the current systems is fully worked out and satisfactory.

Platambus (s.str.) *wulingshanensis* sp.nov.

Figs 1–4

Type material. Holotype ♂ (NMB): China, NW Hunan prov., Wulingshan, Tianzishan Nat. Res., 800 m, 16–18.VI.1997, Bolm lgt. 1 paratype ♀ (NMB): same locality.

Description. Body regularly oval, distinctly convex, completely black with a testaceous band and spots.

Head black with a bronze lustre, with 2 spots on vertex and labrum ferruginous. Antennae testaceous. Reticulation consisting of well-impressed polygonal meshes, irregular in size, with 1–3 small punctures within them and large punctures at some of



Figs 1–4. *Platambus wulingshanensis* sp.nov.: 1, Habitus. 2–3, Aedeagus in lateral and dorsal views. 4, Left paramere (in the sense of MILLER & NILSSON 2003).

the intersections. Row alongside eyes and clypeal grooves consisting of medium-sized and confluent punctures.

Pronotum black with a bronze lustre, broadly ferrugineous on anterior corners. Reticulation consisting of well-impressed polygonal meshes, irregular in size; meshes with 1 to 3 minute punctures on their inner sides and large punctures at their intersections. Anterior row of punctures complete at sides and consisting of confluent punctures, interrupted at middle; punctures more or less grouped, leaving spaces free. Posterior row broadly interrupted on middle; punctures large and strongly confluent at sides, forming short and deep wrinkles. Lateral margin distinct and distinctly bordered with some punctures alongside the grooves.

Elytra black with a bronze lustre, with a broad subbasal band and a subsutural spot, a lateral half-moon band, a large postmedian angled spot and a preapical rounded spot (Fig. 1). Epipleura completely testaceous. Reticulation consisting of well impressed polygonal meshes, with 1–5 (mostly 3) minute punctures within them and with larger punctures at the intersection of many meshes. Sutural row of punctures restricted to apical half and consisting of medium-sized and well-spaced punctures. Discal, sublateral and lateral rows not reaching base, consisting of well-spaced groups of medium-sized

mostly strongly confluent punctures. Epipleura broad at base, rather narrow as far as first sternite and then evenly but slightly tapered as far as apical part.

Underside dark black, legs ferruginous-brown, coxae and trochanters dark brown. Prosternal process lanceolate, very broad and broadly bordered on middle part and prolonged into a long and sharp point; the border limited by a deep furrow. Metasternal wings long and narrow. Metacoxae rough in structure, almost wrinkled. Metatrochanters narrowly rounded at apex. Metacoxal processes very short and broad. Metafemora with a few isolated fine setae at distal posterior angle. Ventral surface of metatibiae with a row of 7 short and broad setae; ground-surface striolate and evenly covered with minute punctures. Sternites 2, 3 and 4 superficially reticulate, with a deep and short row of confluent punctures on disc bearing longer setae.

Measurements: Holotype: TL = 6.6 mm, TL–h = 5.1 mm; TW = 3.9 mm. Paratype: TL = 6.2, TL–h = 5.2; TW = 4.1 mm.

Male. Protarsi and mesotarsi distinctly dilated with numerous rounded pads. Anal sternite coarsely sculptured on posterior half, wrinkled laterally. Posterior border finely bordered. Aedeagus, in lateral view, slightly curved, evenly tapered backwards from middle and very narrowly rounded at apex (Fig. 2); in dorsal view it is narrow, tapered from base to apex and very narrowly rounded at apex (Fig. 3). Basal part of parameres transverse, apical part very long (Fig. 4).

Female. Similar to male. Anal sternite reticulate with small punctures on their inner sides and with larger punctures at the intersection of some meshes. Posterior half with some much larger punctures on both sides of middle, and with wrinkles laterally.

Distribution. China (Hunan).

Etymology. The name of the locality where this species was discovered.

Differential diagnosis. This species comes close to *P. heteronychus* Nilsson, 2003 described from Guangdong province, China. It can however be easily distinguished by its habitus, which is more broadly oval and is widest by the mid-length of the elytra; in *P. heteronychus*, the greatest width is before the mid-length. Furthermore, the 2nd puncturation of the elytra (the larger punctures) is distinctly more impressed and the aedeagus is evenly tapered backwards from middle, whereas it is strongly tapered in apical fifth in *P. heteronychus*.

***Platambus* (s.str.) *princeps* (Régimbart, 1888)**

Platynectes princeps Régimbart, 1888: *Ann. Mus. Civ. Stor. Nat. Genova* **6(2)**: 615.

Agabus princeps: NILSSON (1995): *Water Beetles of China* **I**: 59. – NILSSON (1996): *Entomologica Basiliensia* **19**: 641.

Platambus princeps: NILSSON (2000): *Koleopt. Rdsch.* **70**: 34. – NILSSON (2001): *World Cat. Insects* **3**: 39.

Platambus phufahensis Brancucci, 2004: *Mitt. Schweiz. Ent. Ges.* **77**: 82. **syn.nov.**

Remarks. During my field trips to Laos, I collected a large *Platambus* which I described as *P. phufahensis* Brancucci, 2004. It was locally abundant in North Laos. After the paper had been published, I realised that this new species was similar to *P. princeps*, known in the meantime from many places in China, and that consequently *P. phufahensis* should be considered to be a junior synonym of *P. princeps*.

According to the species-groupings proposed by NILSSON (2001), *P. princeps* should be placed in the *optatus* species-group. As stated in the description of *P. phufahensis* (BRANCUCCI 2004), *P. princeps* is very closely related to the North Indian species *P. balfourbrownei* Vazirani, 1965 and phylogenetically should be placed next to it. However, NILSSON (2001) has placed *balfourbrownei* in another species-group (*maculatus*).

Species-complex *P. (s.str.) schillhammeri* - *P. (s.str.) dabieshanensis*

Remarks. WEWALKA & BRANCUCCI (1995) described *P. schillhammeri* from Wulingyan (north-west Hunan province). A few years later, NILSSON (2003) published the description of *P. dabieshanensis*, based on a single specimen from Yuexi in Dabieshan (Anhui). Nilsson did not give any differential diagnosis for that species. I had the opportunity of studying the holotype, and *P. dabieshanensis* is undoubtedly very close to *P. schillhammeri*, the size being the most suggestive character (5.2 mm against 6.0 mm for *P. schillhammeri*).

The discovery of a larger specimen (5.8 mm) from Huoshan, just a few km north of Yuexi, and of a smaller one from Nanjiangjiao (north-east Hunan) should have confirmed my first reaction, that both species should be considered as synonyms. However, in the meantime a series of specimens from Dashennongjia (Hubei) and Dongiangkou (Shaanxi) has been examined. These are much larger (7 mm), more elongate, and the females are roughened. They appear to belong to another species but have a practically identical aedeagus. Unfortunately, all the available male are not fully hardened and their characters cannot be compared with precision. Rather than place a species in synonymy or even describe a new one, I prefer to wait until more material becomes available.

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