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## A REVIEW OF THE GENUS *PLATAMBUS* (S. STR.) IN THE HIMALAYAS, WITH THE DESCRIPTION OF A NEW SPECIES (COLEOPTERA, DYTISCIDAE)

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*Platambus* (s.str.) *dembickyi* sp. n. is described from North India (Meghalaya), and *P. nepalensis* (Guéorguiev, 1968) is recorded for the first time from India (Arunachal Pradesh). A key for the species occurring in the Himalayas of India, Nepal and Bhutan is given.

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Since the last revision of the genus *Platambus* Thomson 1859 (Brancucci 1988), many changes have occurred, species have been added, mostly transferred from the genus *Agabus* Leach, 1817 (Nilsson 2003). The genus *Platambus* belongs to the tribe Agabini and counts, together with the species described here, 62 species. They are distributed over the Nearctic, Palearctic and Oriental regions (Nilsson 2001, 2003a, 2003b). The recent expedition to North India by our friend and colleague Lubos Dembický (Brno, Czech Republic) yielded two species of *Platambus*, one new described here as *Platambus dembickyi* sp. n., and *P. nepalensis* (Guéorguiev), hitherto known only from one locality in Nepal and one locality in Bhutan (Brancucci 1988, Nilsson 2001). For the reason cited above, I am taking this opportunity to give a revised key to the species occurring in the Himalayas of India, Nepal and Bhutan. Including the new species, nine species of *Platambus* (s. str.) are now known from the Himalayan region. These species belong to the species-group *maculatus* defined by Nilsson (2001), except for *P. coriaceus* (Régimbart) which belongs according to Nilsson to the *optatus* group.

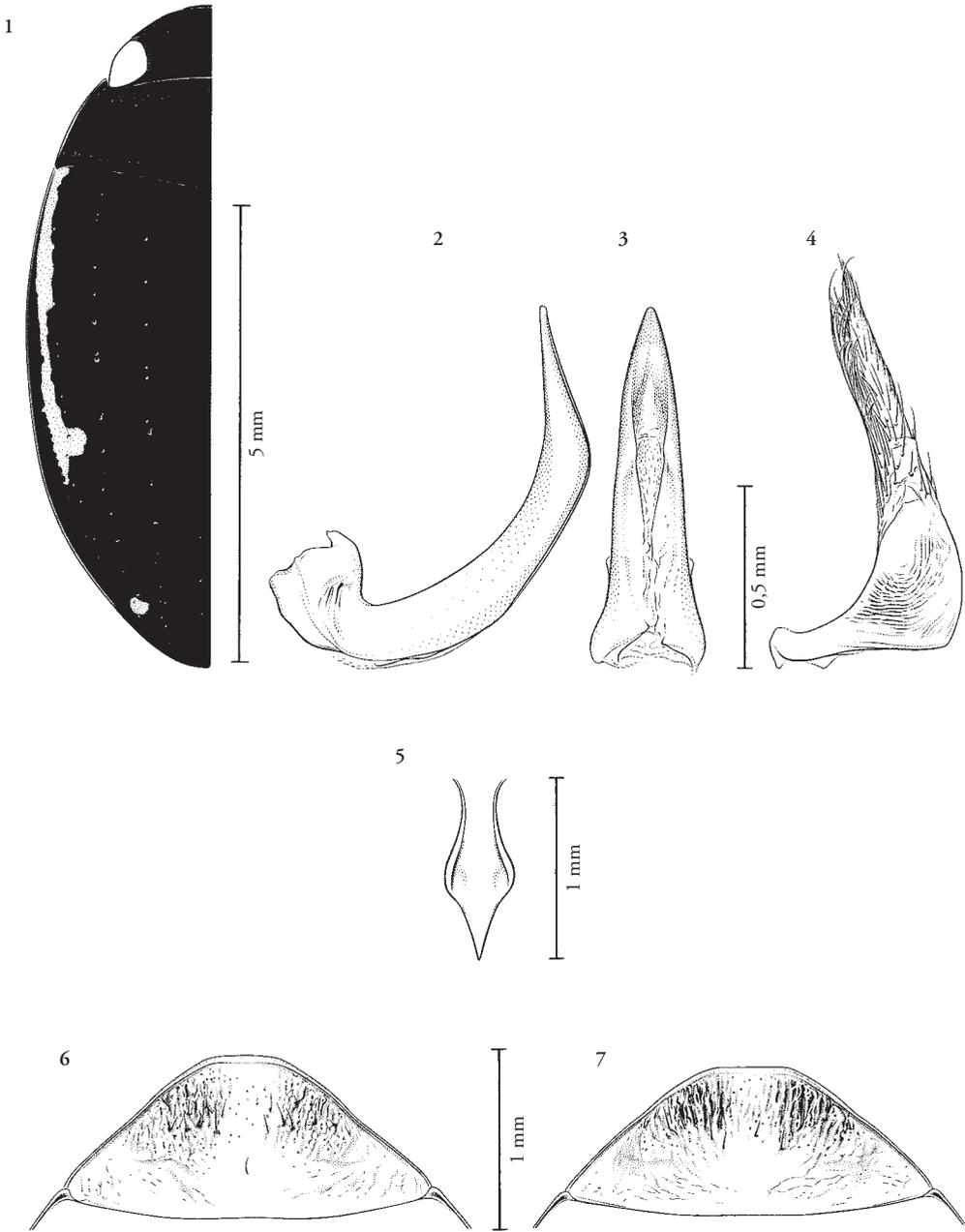
### MATERIAL AND METHODS

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

### Checklist

#### Himalayan Species

*Platambus* Thomson, 1859  
*P. balfourbrownei* Vazirani, 1965  
*P. coriaceus* (Régimbart, 1899)  
*P. wittmeri* Wewalka, 1975  
*P. satoi* Brancucci, 1982  
*P. nepalensis* (Guéorguiev, 1968)  
*P. lindbergi* Guéorguiev, 1963  
*P. biswasi* Vazirani, 1965  
*P. fletcheri* Zimmermann, 1928  
*P. dembickyi* sp. n.



Figs. 1-7. *Platambus dembickyi* sp. n. – 1, Habitus; 2-3, male, aedeagus in lateral and dorsal views; 4, male, left paramere (in the sense of Miller & Nilsson 2003); 5, prosternal process; 6, male, anal sternite; 7, female, anal sternite.

## DESCRIPTIONS

*Platambus* (s. str.) *dembickyi* sp. n.  
(figs. 1-7)

Holotype ♂ (NMB): "NE India, Meghalaya, 8 km N of Shillong, 25°38'N, 91°54' E, ~ 1200 m, 7.-9.V.2004, L. Dembický leg." 48 Paratypes (30 ♂ and 16 ♀, NMB; 1 ♂ and 1 ♀, NMW) with the same data as holotype.

**Description**

Measurements. – Holotype: total length = 7.20 mm, total length-head = 6.60 mm, total width = 4.00 mm. Paratypes (♂ and ♀ do not differ in size): total length = 7.10-7.80 mm (7.39 mm, n = 10), total length-head = 6.50-7.00 mm (6.73, n = 10), total width = 4.00-4.44 mm (4.17, n = 10).

Body elongate-oval, distinctly convex, completely black with a bronze lustre and with testaceous band and spots on elytra (fig. 1).

Head black with a bronze lustre, anterior part of vertex and labrum testaceous. Antennae testaceous. Reticulation consisting of medium-sized polygonal meshes, irregular in size, with 1-3 small punctures on their inner sides and a very few somewhat larger punctures on some of the intersections. Row alongside eyes oblique and clypeal grooves rounded, both consisting of medium-sized and confluent punctures.

Pronotum black, shining with a bronze lustre, very indistinctly ferruginous on anterior corners. Reticulation consisting of polygonal meshes, irregular in size; meshes with 1 to 3 minute punctures on their inner sides and somewhat larger punctures at the intersection of some meshes. Anterior and posterior borders somewhat wrinkled particularly at sides. Anterior row of punctures incomplete, broadly interrupted on disc; punctures large, and confluent punctures grouped and leaving spaces free. Posterior row broadly interrupted on middle; punctures large and strongly confluent at sides, forming short and deep wrinkles. Lateral margin distinctly bordered with some punctures alongside the grooves.

Elytra black with a distinct bronze lustre, with a broad sublateral band reaching posteriorly the large and angular postmedian spot and a preapical angular spot. Epipleura testaceous at extreme base, ferruginous on the rest of the surface. Reticulation consisting of slightly impressed polygonal meshes, with 1-5 (mostly 3) minute punctures within them and with larger punctures at the intersection of some meshes. Sutural row of punctures restricted to apical third and consisting of 5-6 medium-sized well-spaced punctures. Discal, sublateral and lateral rows not reaching base; punctures in well-spaced groups of medium-sized and 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 ferruginous-brown, hind coxae and hind trochanters dark brown. Prosternal process lanceolate, very broad and broadly bordered on middle part, prolonged into a long and sharp point as described for *P. fletcheri* Zimmermann 1928, (Brancucci 1988) but medially flattened, at most somewhat convex, not medially carinate; metasternal wings short and narrow (fig. 5). Metacoxae roughly structured, almost wrinkled. Metacoxal process elongate with a deep middle furrow and deep and rough metacoxal lines. Metatrochanters narrowly rounded, ending in a short point, finely structured. Metafemora with a few isolated punctures at distal posterior angle. Ventral surface of metatibiae with a row of 7 short and broad setae; ground-surface distinctly striolate and evenly covered with minute punctures. Sternites 2, 3 and 4 superficially reticulate with a deep and short row of confluent punctures on the disc bearing longer setae.

Male. – Protarsi and mesotarsi distinctly dilated with numerous rounded pads. Anal sternite microreticulate on anterior third, strongly wrinkled and punctured on posterior half (fig. 6). Posterior margin rounded, somewhat flattened, finely but distinctly bordered.

Aedeagus, in lateral view, slightly curved on basal  $\frac{2}{3}$ , suddenly tapered and concave dorsally on apical third (fig. 2); in dorsal view it is narrow, evenly tapered from base to apex and pointed at apex (fig. 3). Basal part of parameres transverse, apical part only 1.2 times as long as base (fig. 4).

Female. – Similar to male. Anal sternite superficially reticulate with minute punctures on their inner sides and with larger punctures at the intersection of many meshes. Both sides of middle on posterior half with a few much larger punctures and with distinct and deep wrinkles (fig. 7). Posterior margin rounded, flattened on middle and finely bordered.

**Derivatio nominis**

Dedicated to my friend and colleague Lubos Dembický (Brno, Czech Republic) who collected the type material of this beautiful species.

**Affinities**

This species comes very close to *P. wittmeri* Wewalka, 1975. The aedeagus is very similar in these two species and on its own does not really help in identification: the apex of the aedeagus of *P. wittmeri* is somewhat more extended. The best characters are to be found in the habitus, which is distinctly more elongate, and particularly in the larger punctures on the elytra at the intersection of the meshes: these are large and numerous in *P. wittmeri*, but small and very sparse in *P. dembickyi*.

The new species is also very close to *P. fletcheri*,

and both species have been collected in localities that are very close to each other. They can however be easily separated by the aedeagus. Furthermore, the anal sternite of the male is strongly wrinkled in *P. dembickyi*, but practically smooth in *P. fletcheri*. In the latter species the prosternal process is carinate along the middle, but is only somewhat convex in *P. dembickyi*. Finally, the minute punctures in the meshes of the elytral reticulation are more numerous in *P. dembickyi*, being 3-5 or sometimes more in each mesh, whereas there are mostly 1-3 in *P. fletcheri*.

*Platambus* (s.str) *nepalensis* (Guéorguiev)

*Stictogabus nepalensis* Guéorguiev, 1968: 42. Holotype: Nepal, Sun Khosi Tal, 2150m, 2.V.1962, G. Ebert leg. (ZSM). [examined]

*Platambus bhutanensis* Wewalka, 1975: 157. Holotype *P. bhutanensis* Wewalka: Paro, Bhutan, VI, 1972, 2300m, K. Nishioka leg. (NMB). [examined]

*Stictogabus nepalensis*; Vazirani 1977: 61.

*Platambus bhutanensis*; Vazirani 1977: 98.

*Platambus* (s.str.) *nepalensis*; Brancucci 1988: 197; Nilsson 2001: 39.

Additional material studied. – “NE India, Arunachal Pr., Dirang vicinity, 1550 ±150 m, 27°21-23'N, 92°13-16'E, 1.-9.VI.2004, L. Dembický” (28 ex., NMB). “India, Darjeeling D., Kalimpong, Munghi, 200 m, 3.IV.1986, Ch.J. Rai” (1 ex., NMB).

Comparative measurements from different localities are as follows:

Holotype *P. nepalensis* (Guéorguiev): total length = 7.50 mm, total length-head = 6.80 mm, total width = 4.10 mm.

Holotype *P. bhutanensis* Wewalka: total length = 7.30 mm, total length-head = 6.6 mm, total width = 3.9 mm.

Specimens from Arunachal Pradesh: total length = 7-7.3 mm (7.1 mm, n = 5), total length-head = 6.4-6.8 mm (6.52, n = 5), total width = 3.80-4.20 mm (4.00, n = 5).

Specimen from Darjeeling District: total length = 7.1 mm, total length-head = 6.5 mm, total width = 4.

**Remarks**

*Platambus nepalensis* (Guéorguiev) was described from Sun Khosi Tal in Nepal, and was redescribed a few years later under the name *P. bhutanensis* Wewalka. No other localities either in Nepal or in Bhutan are known. As mentioned in my revision (Brancucci 1988), this species seems to be widespread but very restricted locally. The series collected here in Darjeeling District, Arunachal Pradesh seems to confirm this theory. This is the first record for India. The Indian specimens are somewhat smaller.

**Key to the species of the Himalayan *Platambus***

1. Larger species (8.0-9.8 mm), body broadly oval, black with at most testaceous spots ..... 2
  - Smaller species (5.7-8.8 mm), body elongate-oval with testaceous stripes or spots ..... 3
2. Smaller species (8.4-9.8 mm). ♀. Elytral meshes large and not deep. ♂. Aedeagus, in lateral view, broadened on mid length. N India, Nepal .....
  - ..... *P. balfourbrownei*
  - Larger species (9.5 mm). ♀. Elytral meshes small and strongly impressed. ♂. Aedeagus, in lateral view, thinner and slender on apical part (Nilsson, 1996). N India (Assam) .....
    - ..... *P. coriaceus* (Régimbart)
3. Elytra with distinctly impressed meshes and with numerous medium-sized and strongly impressed punctures at their intersections ..... 4
  - Elytra smooth, reticulation superficial with very few minute punctures at their intersections ..... 6
4. Larger species (7.4-8.0 mm), body narrowly oval. Base of pronotum distinctly narrower than base of elytra. Elytra roughly sculptured, black with testaceous to brown spots ..... 5
  - Smaller species (6.9-7.7 mm), body elongate-oval. Base of pronotum not distinctly narrower than base of elytra. Elytra smooth, dark brown with a bronze lustre and with testaceous stripes and spots laterally. Nepal, India (West Bengal) and Bhutan ..... *P. wittmeri*
5. Body egg-shaped, larger (7.7-7.9 mm), distinctly narrowed posteriorly. Elytral reticulation distinctly impressed, with numerous and evenly distributed punctures at the intersections of the meshes. ♂. Aedeagus, in lateral view, evenly tapered on apical half. Apical part of parameres very long, about 2 times as long as base. East Nepal .....
  - ..... *P. satoi*
  - Body elongate-oval, somewhat depressed and smaller (7.4-7.6 mm). Elytral reticulation very superficial, with numerous unevenly distributed punctures of unequal size at the intersections of the meshes. ♂. Aedeagus, in lateral view, strongly tapered on apical third. Apical part of parameres short, about as long as base. East Nepal, Bhutan ..... *P. nepalensis*
6. Body elongate-oval. Elytra black with testaceous lateral stripes. Aedeagus strongly tapered by apical third ..... 7
  - Body evenly oval. Elytra black with 4 testaceous spots. Aedeagus from mid length evenly tapered as far as apex. Afghanistan, Pakistan and N. India ..... *P. lindbergi*
7. Length: 7.1-7.7 mm. Meshes of the elytral reticulation larger, often incomplete and with 2-5 punctures on their inner sides. ♂. Aedeagus, in

- lateral view, tapered apically but not elongated .. 8
- Length: 7.3-8.3 mm. Meshes of the elytral reticulation superficial and very small, with only 1-2 minute punctures on their inner sides. ♂. Aedeagus, in lateral view, elongated apically. Nepal, North India ..... *P. biswasi*
8. ♂. Anal sternite smooth, and aedeagus long and thin. Prosternal process carinate. North India (Assam) ..... *P. fletcheri*
- ♂. Anal sternite deeply wrinkled, and aedeagus long and thin. Prosternal process flat, at most somewhat convex. North India (Meghalaya) ..... *P. dembickyi*

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