

# **DYTISCIDAE:**

## **Notes on Chinese *Platambus* THOMSON,**

### **with description of two new species**

### **(Coleoptera)**

G. WEWALKA & M. BRANCUCCI

#### **Abstract**

*Platambus jilanzhui* sp.n. and *P. schillhammeri* sp.n. are described from China. They are closely related to *P. balfourbrownnei* VAZIRANI. New records of five Chinese *Platambus* species are published; *P. balfourbrownnei* is recorded for the first from China.

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

#### **Introduction**

Since the revision of the genus *Platambus* THOMSON (BRANCUCCI 1988) two additional species belonging to the subgenus *Agraphis* GUIGNOT were described (BRANCUCCI 1990, 1991) but none belonging to other subgenera. The new species described herein represent the 26th and 27th species of the genus *Platambus* s.l. (the 17th and 18th of *Platambus* s.str.).

#### **Material**

The material used for this study is based partly on specimens collected by the CWBS (deposited in the NMW and CASS), and on additional material deposited in the NMW and CWW.

#### **Acronyms and descriptions of localities**

CASS Chinese Academy of Sciences, Institute of  
Applied Ecology, Shenyang

CWBS China Water Beetle Survey

CWW Wewalka collection, Wien

NMB Naturhistorisches Museum, Basel

NMW Naturhistorisches Museum, Wien

CWBS loc. 10: **Beijing Municipality**; Xiang Shan (Fragrant Hills), ca. 35 km NW Beijing City; small stream (epirhitron), flowing through forest; 2.VII.1992; leg. Jäch & Ji; [10 (leg. Jäch) and 10a (leg. Ji)]

CWBS loc. 12: **Yünnan Province**; Dali Autonomous Prefecture; Yünlong County; ca. 150 km NW Xiaguan City; Bi Jiang (river), ca. 40 m wide, slightly polluted, 2000 m a.s.l.; 28.VI.1993; leg. Ji

CWBS loc. 14: **Yünnan Province**; Dali Autonomous Prefecture; Weishan County; Weibao Shan, 60 km S Xiaguan City and 12 km S Weishan City; pool in a small, deep, shaded, unpolluted stream, 2500 - 3000 m a.s.l.; I. - 17.VII.1993; leg. Ji

CWBS loc. 21: **Hunan Province**; Xiangxi Prefecture; Dayong County; Zhangjiajie Forest National Park, Suoxiyü Nature Reserve, Wulingyitan section (ca. 30 km N Dayong City); small, right side tributary of Pipa Xi, short steep stretch with small waterfalls and big boulders, accumulations of decaying plant material, rocks partly covered with moss, shaded, ca. 650 m a.s.l.; 29.X.1993; leg. Schönnmann, Schillhammer & Ji

CWBS loc. 22: **Hunan Province**; Xiangxi Prefecture; Dayong County; Zhangjiajie Forest National Park, Suoxiyü

Nature Reserve, Wulingyuan section (ca. 30 km N Dayong City); ca. 500 m upstream Shuiraosimen bus station; tributary of Jinbian Xi (Gold Whip River), slowly flowing, 0.5 - 1.0 m wide; 30.X.1993; leg. Schönmann, Schillhammer & Ji

CWBS loc. 93: **Jilin Province**; Yanbian Korean Autonomous Prefecture; Antu County; Baihe City, Baohujü District; near Power Plant of Baihe City; unshaded, springfed pools, cold water, ca. 750 m a.s.l.; 19.VIII.1994; leg. Jäch

CWBS loc. 96: **Liaoning Province**; Jinzhou City Region; Beizhen County; Yiwulü Shan; ca. 5 km NW Beizhen City (= Guaning); Toudao Gou He (= 1st Valley River), 2 - 5 m wide, only partly shaded, flowing through *Pinus tabulaeformis* forest, strongly washed out due to heavy spates which occurred 2 weeks before, ca. 200 m a.s.l.; 22.VIII.1994; leg. Jäch, Ji & Wang

CWBS loc. 101: **Liaoning Province**; Jinzhou City Region; Beizhen County; Yiwulü Shan, ca. 15 km W Beizhen City; small stream, ca. 1 m wide, partly through secondary forest, granite, ca. 200 m a.s.l.; 23.VIII.1994; leg. Jäch, Ji & Wang

### *Platambus jilanzhui* sp.n.

Type locality: CWBS loc. 10

**Holotype** ♂ (NMW): "China (10) / 36km NW Peking / Fragrant Hills / 2.7.1992, kl. Bach / leg. Jäch & Ji" [= CWBS loc. 10]. **Paratypes** (NMW, CASS, CWW, NMB): 1 ♂, 4 ♀♀, same data as holotype; 15 ♂♂, 13 ♀♀, CWBS loc. 96; 3 ♂♂, 3 ♀♀, CWBS loc. 101; 2 ♂♂, 2 ♀♀, CWBS loc. 93.

**DIAGNOSIS:** *Platambus jilanzhui* is to be placed near *P. balfourbrowni* VAZIRANI. The anal sternite, the metasternal wings, the prosternal process, the form of the parameres and the penis are reminiscent of this species. However, it can be distinguished from the latter by its smaller size and by the characteristic spines on the ventral side of the penis. Also it is related closely to *P. schillhammeri* sp.n. from which it can be distinguished by its smaller size, the different habitus, the narrower metasternal wings and the different shape of the penis.

**DESCRIPTION:** Habitus: Body regularly oval, moderately convex (Fig. 1).

Length of body: 6.6 - 7.3 mm, breadth: 3.4 - 4.0 mm.

Head: black, with two indistinct, rufous, interocular spots; reticulation distinct; meshes irregular and varying in size but complete; few punctures within some meshes or at intersections; distinct row of punctures alongside eyes; clypeal grooves distinct.

Pronotum: black; reticulation similar to that on head, weakly impressed particularly on disc, more distinctly so near lateral margin; meshes irregular in size, sometimes with one, seldom with two very small punctures within them and with some larger ones on their intersections. Irregular rows of large punctures along anterior margin and on lateral part of posterior margin. Lateral margin distinctly bordered and evenly curved.

Elytra: black with a postmedian and a subapical testaceous spot; reticulation consisting of small, polygonal meshes with one puncture within some; reticulation variable, more impressed in most females. Few larger punctures along suture in apical third; discal, lateral and sublateral rows with sparse punctures, more irregular in apical third. Epipleura black, slightly broadened at base, rather narrowed as far as first sternite and then evenly but slightly tapered as far as apical part.

Ventral side: black. Prosternal process flattened, elongate, distinctly bordered on anterior two thirds, produced into a short, sharp point (Fig. 5). Metasternal wings relatively broad (Fig. 13). Metacoxae longitudinally reticulate, meshes becoming narrower laterally; all sternites indistinctly reticulate. Metatrochanters apically pointed. Metafemora with a row of stout setae at distal posterior angles. Ventral surface of mesotibiae with a row of six punctures along lateral margin.

Male: Pro- and mesotarsi slightly enlarged and with elongated pads on first three joints. Protarsal claws as in female, subequal, outer one slightly shorter. Anal sternite with large punctures on

posterior third, without striae (Fig. 11); posterior margin finely bordered, regularly rounded. Penis, in lateral view, regularly curved, evenly tapered with some stout spines on apical half of ventral side (Fig. 10); in dorsal view, almost symmetrical, almost evenly tapered (Fig. 3). Parameres relatively broad (Fig. 8).

Female: Similar to male; anal sternite as in male; reticulation of upper side of the four female specimens from the type locality as in male but in the two female specimens from CWBS loc. 96 reticulation more strongly impressed and upper surface submat.

DISTRIBUTION: China (Beijing, Liaoning, Jilin).

ETYMOLOGY: Dedicated to Prof. Lanzhu Ji (CASS) who collected some of the type specimens.

### *Platambus schillhammeri* sp.n.

Type locality: CWBS loc. 22.

**Holotype** ♂ (CASS): "CHINA, NW-Hunan 1993 / Wulingyuan, N Dayong / Zangjiajie, 30.10., 500m / leg. Schillhammer (3)" [= CWBS loc. 22]. **Paratypes** (NMW, CWW): 1 ♂, 1 ♀, CWBS loc. 21.

**DIAGNOSIS:** *Platambus schillhammeri* sp.n. is to be placed near *P. balfourbrownei* VAZIRANI and particularly near *P. jilanzhui*. It has in common with the latter species the colour pattern of the elytra, the form of the prosternal process and the presence of spines on the ventral side of the penis. However, it can be distinguished easily by its smaller size, the different habitus and the different shape of the penis.

**DESCRIPTION:** Habit: Body oval, narrowed to apex, moderately convex (Fig. 2).

Length of body: 5.6 - 6.0 mm, breadth: 3.0 - 3.3 mm.

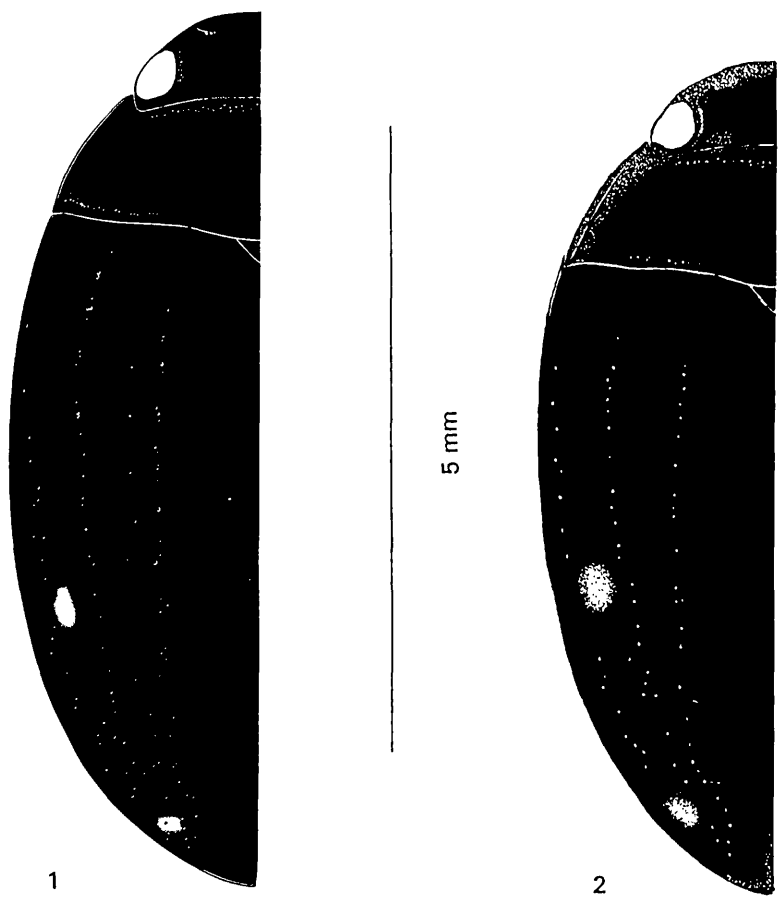
Head: black with anterior margin and two indistinct interocular spots rufous; reticulation distinct; meshes quite large, irregular and complete; several punctures within most meshes; a distinct row of punctures alongside eyes; clypeal grooves distinct.

Pronotum: black, lateral margins rufous; reticulation and punctures very similar to that on head, more distinctly impressed near lateral margin. Irregular rows of large punctures along anterior margin and on lateral part of posterior margin. Lateral margin distinctly bordered, evenly curved.

Elytra: black with a small postmedian and a small subapical testaceous spot; reticulation consisting of quite large, polygonal meshes with one puncture within most; meshes of the reticulation smaller near apex. Discal, lateral and sublateral rows with sparse punctures, more irregular in apical third. Epipleura mostly rufous, slightly broadened at base, rather narrowed as far as first sternite and then evenly but slightly tapering to apical part.

Ventral side: black, prosternal process, metacoxal processes, first and anal sternite partly rufous. Prosternal process flattened, elongate, distinctly bordered on anterior two thirds, produced into a short, sharp point (Fig. 6). Metasternal wings relatively narrow (Fig. 14). Metacoxae longitudinally reticulate; sternites 1 - 4 indistinctly reticulate. Metatrochanters pointed at apex. Metafemora with a row of stout setae at distal posterior angles. Ventral surface of mesotibiae with a row of six punctures along lateral margin.

Male: Pro- and mesotarsi slightly enlarged, with elongated pads on first three joints. Protarsal claws as in female, almost equal. Anal sternite with large punctures on posterior fourth, striate (Fig. 12); posterior margin finely bordered, regularly rounded. Penis, in lateral view, broad, abruptly tapering, with five thick and quite long spines on apical half of ventral side (Fig. 9); in dorsal view slender, almost symmetrical, almost evenly tapering (Fig. 4). Parameres relatively broad (Fig. 7).



Figs. 1 - 2: habitus and colour pattern of 1) *Platambus jilanzhui* sp.n. and 2) *Platambus schillhammeri* sp.n.

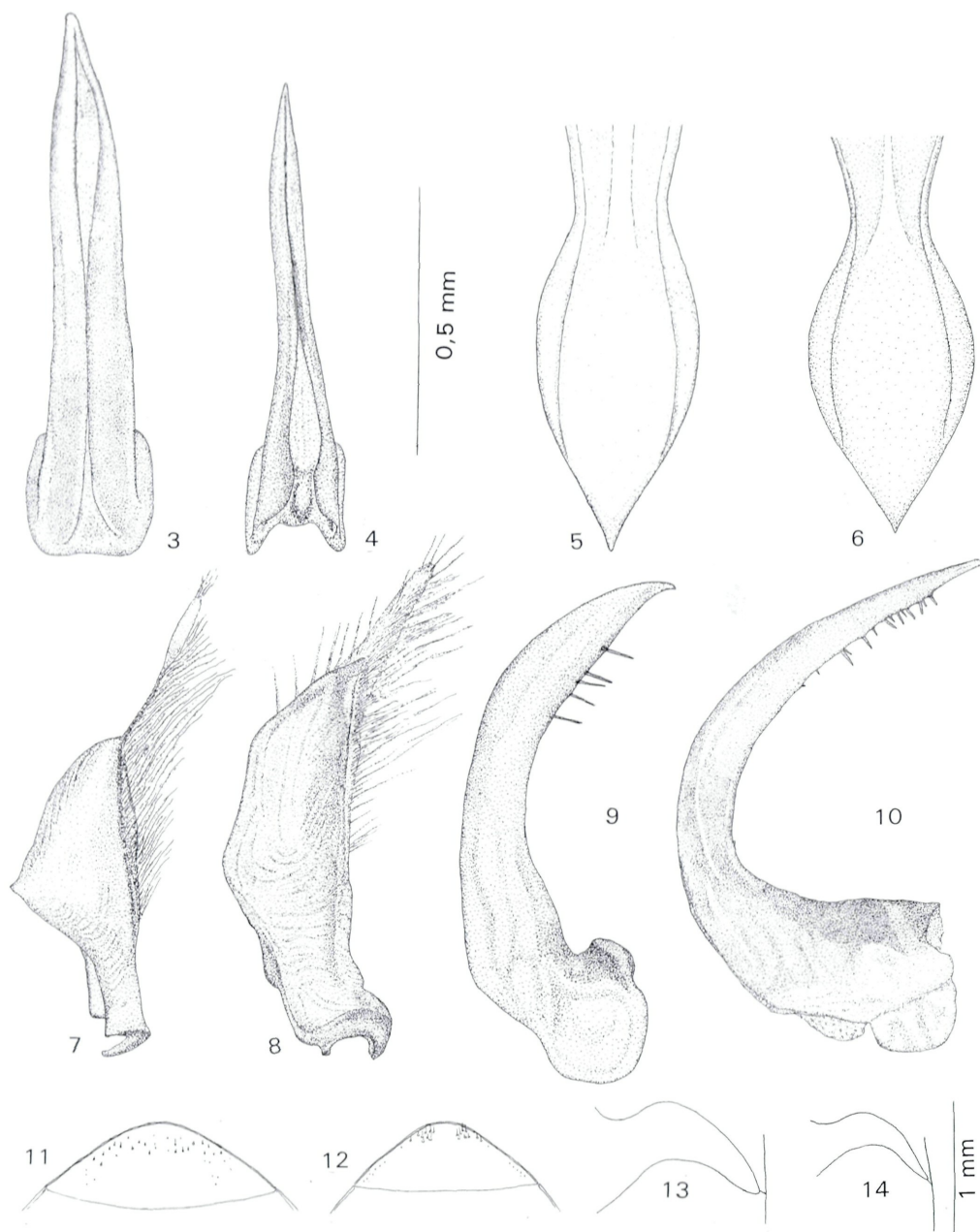
Female: Similar to male.

DISTRIBUTION: China (Hunan).

ETYMOLOGY: Dedicated to H. Schillhammer (NMW) who collected the holotype.

KEY: The key to the related species (BRANCUCCI 1988) should be modified as follows:

- 10 Colour pattern consisting only of a round postmedian patch, or of a subbasal median, and a postmedian round patch. Penis in dorsal view broad, at least at base ..... 11
- Colour pattern consisting of a round postmedian, and a preapical patch. Penis, in dorsal view, narrow along its whole length and pointed at apex.....10a
- 10a Smaller species (5.6 - 7.3 mm); penis, in lateral view, with some stout spines on ventral side..... 10b
- Larger species (8.4 - 9.8 mm); penis, in lateral view, without spines on ventral side.....  
.....*P. balfourbrownnei* VAZIRANI
- 10b Size: 6.6 - 7.3 mm; habitus regularly oval, metasternal wings relatively broad..... *P. jilanzhui* sp.n.
- Size: 5.6 - 6.0 mm; clytra narrowed to the apex; metasternal wings narrow..... *P. schillhammeri* sp.n.



Figs. 3 - 14: prosternal process (5, 6), metasternal wing (13, 14), anal sternite (11, 12), penis, lateral view (9, 10), penis, dorsal view (3, 4), left paramere (7, 8) of *Platambus jilanzhui* sp.n. (3, 5, 8, 10, 11, 13) and *Platambus schillhammeri* sp.n. (4, 6, 7, 9, 12, 14).

***Platambus fimbriatus* SHARP**

Material studied (CWW): **Sichuan**, Emei Shan, 15.6.1993, leg. Benes, 1 ♀.

This species is widely distributed in China (see NILSSON 1995). It is here recorded for the first time from Sichuan.

***Platambus excoffieri* REGIMBART**

Material studied (NMW, CWW): **Yünnan**, Diaolin Nat. Res., 100 km W Kunming 22.6.1993, leg. Jendek & Sausa, 7 ♂♂, 5 ♀♀.

According to NILSSON (1995) this species is known from Gansu, Tibet, Sichuan, Hebei, Shandong, Zhejiang, Guizhou and Yünnan.

***Platambus schaeffleini* BRANCUCCI**

Material studied (NMW, CWW): **Yünnan**, Diaolin Nat. Res., 100 km W Kunming 22.6.1993, leg. Jendek & Sausa, 2 ♂♂.

This species was described from Yünnan and Vietnam: Hoa Binh (BRANCUCCI 1988).

***Platambus balfourbrownei* VAZIRANI**

Material studied (NMW, CWW): **Yünnan**, Diaolin Nat. Res., 100 km W Kunming 22.6.1993, leg. Jendek & Sausa 8 ♂♂, 3 ♀♀; CWBS loc. 12, 2 ♀♀; CWBS loc. 14, 1 ♀.

The species was recorded from India (Uttar Pradesh, West Bengal, Assam) and Nepal (BRANCUCCI 1988). This is the first record from China.

***Platambus punctatipennis* BRANCUCCI**

Material studied (NMW, CWW): **Jiangxi**, W Jinggang Shan, Ciping env. 2. 6. 1994, 2 exs.

This species was described from Fujian (BRANCUCCI 1988). It is here recorded for the first time from Jiangxi.

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Prof. Dr. Günther WEWALKA  
Starkfriedgasse 16, A - 1190 Wien, Austria

Dr. Michel BRANCUCCI  
Entomology Department, Natural History Museum, Augustinergasse 2, CH - 4001 Basel, Switzerland

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