

Two new species of *Parahybos* (Diptera: Empididae) from Tibet

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Abstract: The genus *Parahybos* is newly recorded from Tibet. The following two new species are described: *Parahybos breviprocerus* sp. nov. and *P. longiprocerus* sp. nov.

Key words: Brachycera; Empidoidea; dance flies; taxonomy

CLC number: Q969.451.2

Document code: A

Article ID: 1000-7482(2014)03-0196-05

西藏准驼舞虻属二新种（双翅目：舞虻科）

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摘要: 首次报道西藏准驼舞虻属 *Parahybos*，并记述 2 新种：短突准驼舞虻 *Parahybos breviprocerus* sp. nov. 和长突准驼舞虻 *P. longiprocerus* sp. nov.。

关键词: 短角亚目；舞虻总科；舞虻；分类

Introduction

The genus *Parahybos* Kertész is characterized by the following features: eyes with upper facets enlarged; proboscis longer than head; palpus rather short and thin; Rs rather long; anal cell nearly as long as basal cells; hind femur weakly thickened, without ventral bristles; male genitalia symmetrical (Yang & Yang 2004). It is distributed in the Oriental, Australian and Afrotropical regions with 23 known species. 14 species are known from China. The major references dealing with the Oriental species of *Parahybos* are as follows: Bezzi 1912; Brunetti 1920; Frey 1938, 1953; and Yang & Yang 2004. In the present paper, the genus *Parahybos* is newly reported from Tibet with two new species.

Material and Methods

Specimens were collected by Mr. Wenliang LI and Mr. Xuankun LI with a sweep net in Tibet in 2012. Types are deposited in the Entomological Museum of China Agricultural University (CAU), Beijing. The following abbreviations are used for hairs or bristles: ad—

Received 16 January 2014. Published 25 September 2014

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anterodorsal, av—anteroventral, oc—ocellar, pd—posterodorsal, pv—posteroventral, v—ventral.

Taxonomy

Key to species (males) of *Parahybos* from Tibet

1. All tibiae black; mid tarsomere 1 with weak ventral process at base and short obtuse ventral process at extreme tip.....*P. breviprocerus* sp. nov.
- Mid tibia dark yellow with brown base; mid tarsomere 1 without ventral process at base but with a long finger-like ventral process at extreme tip.....*P. longiprocerus* sp. nov.

1. *Parahybos breviprocerus* sp. nov. (Figs. 1, 2)

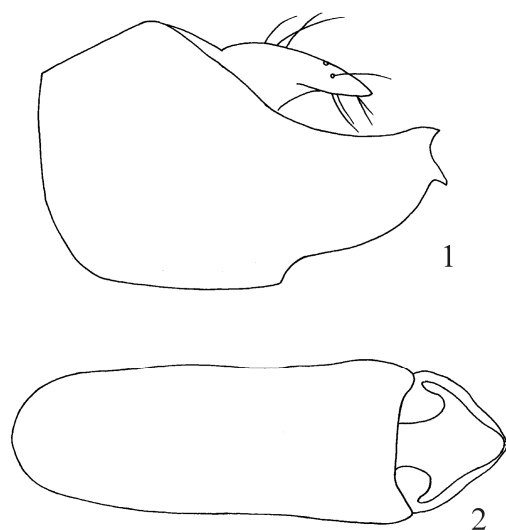
Diagnosis. All tibiae black. Fore femur with about three irregular rows of long av hairs on basal half and one row of very dense, long pv hairs near apex. Mid tarsomere 1 with weak ventral process at base and slightly distinct ventral process at extreme tip. R4+5 and M1 distinctly convergent apically.

Male. Body length 5.0 mm, wing length 4.4 mm.

Head blackish brown with gray pollen. Eyes brown, contiguous on frons for a long distance, with upper facets enlarged and brownish. Hairs and bristles on head black. Ocellar tubercle distinct, with 2 long oc and 2 short posterior hairs. Antenna dark brown; first flagellomere nearly quadrate, with 1 long dorsal bristle. Proboscis slightly longer than head, brown; palpus dark brown with 1 v at middle and 1 bristle at extreme tip.

Thorax blackish brown with gray pollen. Hairs and bristles on thorax black except those on mid-posterior area of mesoscutum long. Scutellum with long marginal hairs and bristles. Legs black except tarsi yellow with fore and hind tarsomeres 4–5 and mid tarsomeres 2–5 brown. Hairs and bristles on legs black except fore and hind tarsomeres 1–2 with brownish yellow hairs. Hind femur not distinctly thickened, 1.15 times as wide as hind tibia. Fore coxa with somewhat dense anterior hairs bristle-like and nearly erect; fore trochanter with 1 ad. Fore femur with about three irregular rows of long av hairs on basal half and one row of very dense long pv hairs near apex. Hind femur without ventral bristles. Fore tibia with 1 very long av and 1 very long pv at tip. Mid tibia thickened toward tip, with a transverse row of 4 very long v at tip. Mid tarsomere 1 longest, with weak ventral process at base and slightly distinct ventral process at extreme tip; tarsomeres 2–4 shortened, tarsomere 2 with thick ventral process, tarsomere 3 furcate ventrally, tarsomere 4 with a finger-like ventral process. Hind tibia weakly thickened apically, with some long dorsal hairs, and with pair of very long brownish yellow pv at extreme tip; tarsomeres 1–2 with several long dorsal hairs. Wing nearly hyaline, stigma long, brown, about 1/3 as long as cell r_1 ; veins dark brown, R4+5 and M1 distinctly convergent apically. Halter dark brown.

Abdomen blackish brown with gray pollen. Hairs and bristles on abdomen black. Tergum 6 with bundle of long straight lateral bristles apically; sternum 4 with a V-shaped incision apically; sternum 5 more or less divided into two lobes, each with a small tuft of 5–6 long bent inner bristles on apical margin. Male genitalia (Figs. 1, 2). Surstylus with 2 short acute apical corners; cercus long and acute apically; hypandrium weakly concave apically; phallus with subapical lateral process distinctly curved.



Figures 1, 2. *Parahybos breviprocerus* sp. nov.

1. Epandrium and cercus, lateral view; 2. Hypandrium and phallus, ventral view.

Holotype. ♂, **China**, Tibet, Medog, 1100 m, 28-VII-2012, Wenliang LI (CAU).

Distribution. China (Tibet).

Remarks. The new species is similar to *Parahybos nanpingensis* Yang et Yang from Fujian, but may be separated from the latter by the following features: antenna dark brown; R4+5 and M1 distinctly convergent apically; mid tarsomere 1 with short obtuse ventral process at extreme tip. In *nanpingensis*, the antenna is yellow, R4+5 and M1 are slightly convergent apically, and the mid tarsomere 1 has a long acute ventral process at tip (Yang & Yang 2004).

Etymology. The specific epithet refers to mid tarsomere 1 having a short obtuse ventral process at the extreme

tip.

2. *Parahybos longiprocerus* sp. nov. (Figs. 3, 4)

Diagnosis. Mid tibia dark yellow with brown base. Fore femur with row of very long ad and long av hairs on basal half and about two close rows of very dense long pv hairs at middle. Mid tarsomere 1 without ventral process at base but with a finger-like ventral process at extreme tip. R4+5 and M1 distinctly convergent apically.

Male. Body length 4.2–4.5 mm, wing length 3.4–3.5 mm.

Head blackish brown with gray pollen. Eyes brownish yellow, contiguous on frons for a long distance, with upper facets enlarged and dark yellow. Hairs and bristles on head black. Ocellar tubercle distinct, with 2 long oc and 2 slightly short lateral hairs nearly in a transverse row. Antenna dark brown; first flagellomere nearly quadrate, with 1 dorsal bristle. Proboscis slightly longer than head, dark brown; palpus dark brown with 1 v at middle and 1 bristle at extreme tip.

Thorax blackish brown with gray pollen. Hairs and bristles on thorax black except those on mid-posterior area of mesoscutum long. Scutellum with long marginal hairs and bristles. Legs black except apex of fore tibia blackish, mid tibia dark yellow with brown base; tarsi dark yellow except fore and hind tarsomeres 4–5 and mid tarsomeres 2–5 brown. Hairs and bristles on legs black except fore and hind tarsomeres 1–2 with brownish yellow hairs. Hind femur weakly thickened, 1.25 times as wide as hind tibia. Fore coxa with somewhat dense anterior hairs bristle-like and nearly erect; fore trochanter with 1 very long ad. Fore femur with row of very long ad and long av hairs on basal half and about two close rows of very dense long pv hairs at middle. Mid femur with 4 short pv spines at base. Hind femur without ventral bristles. Fore tibia with 1 long v at tip. Mid tibia thickened, with 1 long thick av and 1 long

thin pv at tip. Mid tarsomere 1 longest, without ventral process at base but with a finger-like ventral process at extreme tip; tarsomeres 2–4 shortened, tarsomere 2 with thick ventral process, tarsomere 3 furcate ventrally, tarsomere 4 with a finger-like ventral process. Hind tibia weakly thickened apically, with some long dorsal hairs, and with 1 long thin av at extreme tip; tarsomere 1 with 1 long thick ad and 1 long thick pd apically. Wing nearly hyaline; stigma long, brown, filling apical 1/3 of cell r_1 ; veins dark brown, R4+5 and M1 distinctly convergent apically. Halter dark brown.

Abdomen blackish brown with gray pollen. Hairs and bristles on abdomen black. Tergum 6 without bundle of lateral bristles; sternum 4 divided into three lobes (middle one very small, two lateral ones rather large); sternum 5 more or less divided into two lobes, each with dense weak bristles at inner margin apically.

Male genitalia (Figs. 3, 4). Surstylus with 2 apical corners, dorsal corner longer than ventral corner; cercus long finger-like, not acute apically; hypandrium distinctly concave apically; phallus with subapical lateral process strongly curved.

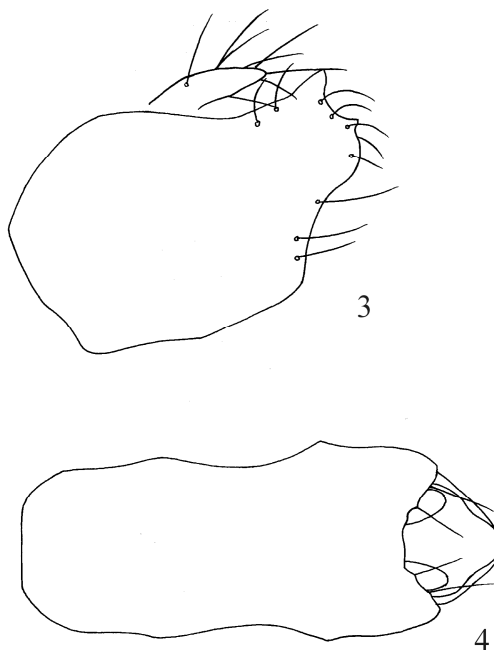
Holotype. ♂, **China**, Tibet, Medog, Beibeng, 700 m, 30-VII-2012, Wenliang LI (CAU).

Paratypes. 2♂, Tibet, Medog, Beibeng, 700 m, 30-VII-2012, Xuankun LI (CAU).

Distribution. China (Tibet).

Remarks. The new species is similar to *Parahybos breviprocerus* sp. nov., but may be separated from the latter by the following features: mid tibia dark yellow with brown base; mid tarsomere 1 without ventral process at base but with a long finger-like ventral process at extreme tip; tergum 6 without bundle of lateral bristles.

Etymology. The specific epithet refers to mid tarsomere 1 having a long ventral process at the extreme tip.



Figures 3, 4. *Parahybos longiprocerus* sp. nov.

3. Epandrium and cercus, lateral view;

4. Hypandrium and phallus, ventral view.

Acknowledgements

We are very grateful to Mr. Wenliang LI and Mr. Xuankun LI (Beijing) for collecting specimens, and to Ms. Chufei TANG (Beijing) for her help during the study. Two anonymous reviewers are thanked for providing useful comments on an earlier draft of this paper. The research was funded by the National Natural Science Foundation of China (31272354).

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