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A contribution to knowledge of the genus *Thaumaglossa* Redtenbacher (Coleoptera: Dermestidae: Megatominae) from China

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Abstract. The following Chinese new *Thaumaglossa* species: *T. hunanica* sp. nov. (Hunan), *T. gutianshanica* sp. nov. (Zheijang), *T. yunnanica* sp. nov. (Yunnan), and *T. zheijanganica* sp. nov. (Zheijang) are described, illustrated and compared with related species. List of *Thaumaglossa* species recorded from mainland of China is added.

INTRODUCTION

The genus *Thaumaglossa* Redtenbacher, 1867 contains 70 known species and subspecies worldwide (Háva, 2015, 2022). The Chinese species were recently described by Háva (2003, 2017) and Herrmann & Háva (2015). Larvae of the species belonged to the genus are developed in oothecae of different species of praying mantes.

In the present article are described four new species recently collected in China provinces Zheijang, Hunan and Yunnan, deposited in author´s collection and collection of Naturkundemuseum, Erfurt, Germany.

MATERIAL AND METHODS

The size of the beetles or of their body parts can be useful in species recognition and thus, the following measurements were made:
total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.
elytral width (EW) - maximum linear transverse distance.

The material studied is deposited in the following collections:
JHAC Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-West, Czech Republic;
NMED Naturkundemuseum, Erfurt, Germany.

Specimens of the presently described species are provided with red, printed labels with the text as follows: „HOLOTYPE (or PARATYPE) *species name* sp. nov. Jiří Háva det. 2022".

Map. 1. Administrative divisions of mainland China with the names of the capitals of each division indicated (modified from Ministry of Natural Resources of the People's Republic of China, http://bzdt.ch.mnr.gov.cn/browse.html?picId=%224o28b0625501ad13015501ad2bfc0272%22).

RESULTS

species group „*T. hilleri*"

Thaumaglossa panda Herrmann & Háva, 2015

Material examined: China, Zheijang, Gutianshan NNR, CSP 10, 670 m, 118°16´E 29°25´N, 2010, local collector, 1 ♀, (NMED); same data but CSP 25, 345 m, 1 ♀, (NMED); same data but CSP 24, 366 m, 1 ♀, (NMED); same data but CSP 11, 674 m, 1 ♀, (NMED); same data but CSP 10, 647 m, 1 ♀, (NMED); same data but CSP 27, 665 m, 4 ♀♀, (2 NMED, 2 JHAC); same data but CSP 12, 620 m, 1 ♀, (NMED); same data but CSP 19, 655 m, 2 ♀♀, (1 NMED, 1 JHAC); same data but CSP 20, 679 m, 1 ♀, (NMED); same data but CSP 18, 569 m, 1 ♀, (NMED); same data but CSP 03, 720 m, 1 ♀, (NMED).

Distribution. Species known from China: Sichuan, Hubei, new for Zheijang Province.

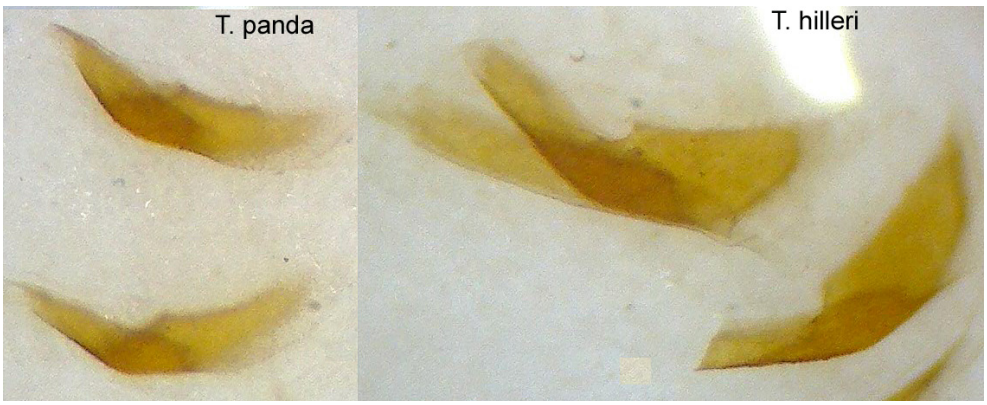


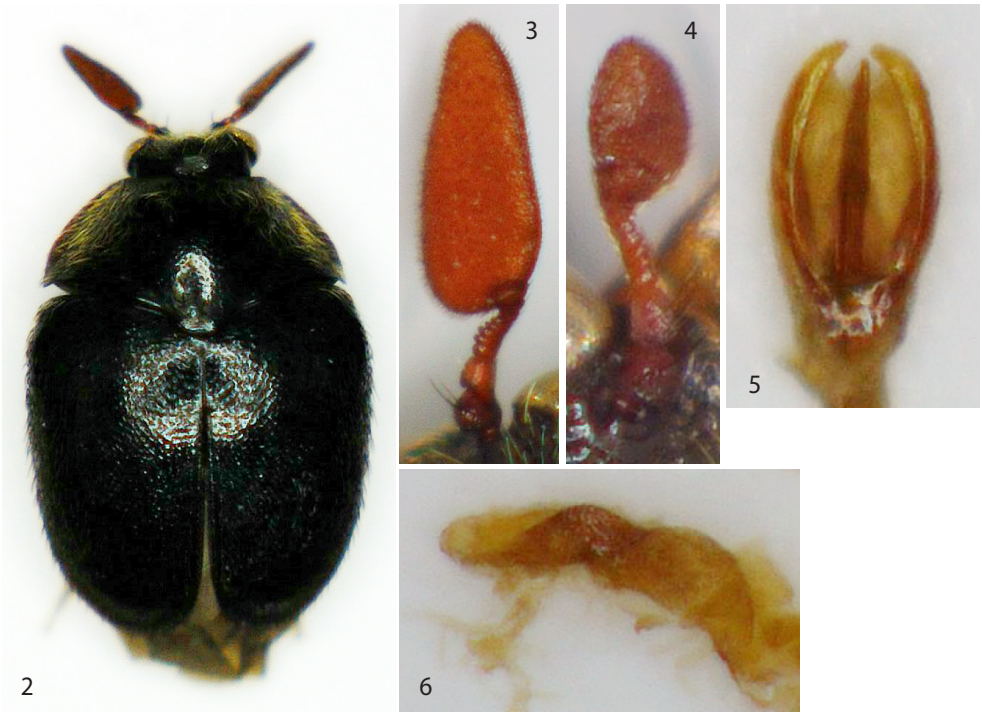
Fig. 1. Sclerites in bursa copulatrix of *Thaumaglossa panda* and *T. hilleri*.

Thaumaglossa yunnanica **sp. nov.**
(Figs. 2-6)

Type material. Holotype (♂): China, S-Yunnan, (Xishuangbanna), 23 km NW Jinghong, Na Ban Village (NNNR), 22°10.04´N 100°39.52´E, 680 m, 05.v.2008, A. Weigel lgt., KF/KL, (NMED). Paratypes: (1 ♀): same data but rubber plant, 22°14.44 N 100°36.24´E, 1080 m, 23.v.2008, (NMED); (2 ♀♀): China, S-Yunnan, (Xishuangbanna), 27 km NW Jinghong, vic. Guo Men Shan, 22°17.91´N 100°38.85´E, 1100 m, 28.vi.2008, L. Meng lgt., (1 NMED, 1 JHAC); (1 ♂): China, S-Yunnan, (Xishuangbanna), 28 km NW Jinghong, vic. An Ma Xi Zhan (NNNR), 22°12´N 100°38´E, 700 m, 26.iii.2009, forest, L. Meng lgt., (JHAC); (1 ♀): China, Yunnan, 100 km W Kunming, Diaolin Nat. Res., 225.-2.4.1993, E. Jendek & O. Sausa leg., (JHAC).

Description. Male: Body (TL: 3.1 mm, EW: 2.4 mm), strongly convex, ovate, widest at humeri, black on dorsal surface; antennae brown, legs brown; body covered with black and yellow setation. Antennae with 11 antennomeres with characteristic morphology: the last (11^{th}) antennomere leaf-shaped, densely covered with light-brown, erect, very short setation (Fig. 3). The remaining segments of antenna narrow and triangular. Antenna occupies the whole cavity of antennal fossa. Antennal fossa completely open along the whole length of lateral margin of the pronotum (hypomeron), occupying all of hypomeron, deeply excavated, floor of fossa microscopically punctate. Frons with median ocellus. Pronotum black, finely punctate on disc, laterally coarsely punctate, covered by long, yellow setation. Elytra black, coarsely punctate on humeri and on first half, other parts densely punctate, covered with black, short setation. Epipleuron black with yellow setation. Scutellum triangular, shiny, visible, without setation. Prosternum intensely punctate on disc, without impunctate median line. Mesosternal disc with large punctation. Abdominal visible ventrites black with yellow setation. Pygidium black, with yellow setation. Male genitalia as in Fig. 5.

Female. Externally similar to male, but terminal antennomere is very small. Body (TL 3.0-3.5 mm). Sclerites in bursa copulatrix as in Fig. 6.



Figs. 2-6. *Thaumaglossa yunnanica* sp. nov.: 2- habitus, dorsal aspect; 3- antenna of male; 4- antenna of female; 5- male genitalia; 6- female sclerites in bursa copulatrix.

Differential diagnosis. The new species belongs to the *T. hilleri* species group, subgroup B, and is similar to species pygidium black with yellow setae; abdominal ventrites black; pronotum covered by yellow setation, but it differs from known species by the structure of antennae and female sclerites in bursa copulatrix.

Etymology. Toponymic, named according to Yunnan Province.

***Thaumaglossa zheijanganica* sp. nov.**

(Figs. 7-9)

Type material. Holotype (♀): China, Zheijang, Gutianshan NNR, Plot CSP08 NE 1, 410 m, 118°11′E 29°24′N, 2010, secondary forest, loc. collector., (NMED). Paratypes: (1 ♀): same data as holotype, (JHAC); (1 ♀): same data but CSP 10, 647 m, (JHAC); (1 ♀): same data but CSP 15, 618 m, (NMED); (1 ♀): same data but CSP 24, 366 m, (NMED); (1 ♀): same data but CSP 01, 522 m, (NMED).

Description. Female: Body (TL: 3.6 mm, EW: 2.7 mm), strongly convex, ovate, widest at humeri, black on dorsal surface; antennae brown, legs brown; body covered with black and yellow setation. Head black covered by yellow, short setation, coarsely punctate. Antennae with 11 antennomeres, densely covered with brown, erect setation (Fig. 8). Antenna occupies the cavity of antennal fossa. Frons with median ocellus. Pronotum black, densely punctate,

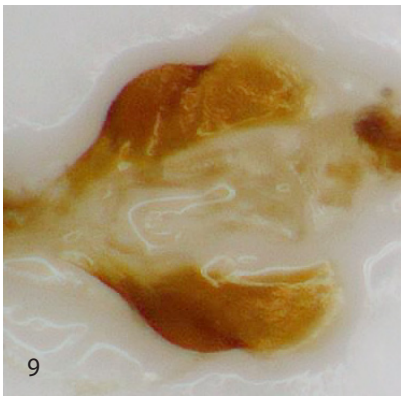
covered by short, yellow setation. Elytra black, coarsely punctate on humeri and on first half, other parts densely punctate, covered with black, short setation. Epipleuron black with short, yellow setation. Scutellum triangular, shiny, visible, without setation. Prosternum intensely punctate on disc, without impunctate median line. Mesosternal disc with large punctation. Abdominal visible ventrites black with yellow setation. Pygidium black, with black setation. Female sclerites in bursa copulatrix as in Fig. 9.

Male. Unknown.

Variability. Body (TL 3.6-4.1 mm).

Differential diagnosis. The new species belongs to the *T. hilleri* species group, subgroup B, and is similar to species pygidium black with yellow setae; abdominal ventrites black; pronotum covered by yellow setation, but it differs from known species by the structure of antennae and female sclerites in bursa copulatrix.

Etymology. Toponymic, named according to Zheijang Province.



Figs. 7-9. *Thaumaglossa zheijanganica* sp. nov.: 7- habitus, dorsal aspect; 8- antenna of female; 9- female sclerites in bursa copulatrix.

***Thaumaglossa hunanica* sp. nov.**
(Figs. 10-12)

Type material. Holotype (♀): China, Hunan SE, Ling Xian env., 26°31´N 113°44´E, 15-18.vi.1994, (JHAC). Paratype: (1 ♀): same data as holotype, (JHAC).

Description. Female: Body (TL: 3.6 mm, EW: 2.7 mm), strongly convex, ovate, widest at humeri, black on dorsal surface; antennae brown, legs brown; body covered with black and

yellow setation. Head black covered by yellow, short setation, coarsely punctate. Antennae with 11 antennomeres, densely covered with brown, erect setation (Fig. 11). Antenna occupies the cavity of antennal fossa. Frons with median ocellus. Pronotum black, densely punctate, covered by short, yellow setation. Elytra black, coarsely punctate on humeri and on first half, other parts densely punctate, covered with black, short setation. Epipleuron black with short, yellow setation. Scutellum triangular, shiny, visible, without setation. Prosternum intensely punctate on disc, without impunctate median line. Mesosternal disc with large punctation. Abdominal visible ventrites brown with yellow setation. Pygidium brown, with yellow setation. Female sclerites in bursa copulatrix as in Fig. 12.

Male. Unknown.

Differential diagnosis. The new species belongs to the *T. hilleri* species group, subgroup C, and is similar to species with pygidium brown with yellow setae; abdominal ventrites brown; pronotum covered by yellow setation, but it differs from known species by the structure of antennae and female sclerites in bursa copulatrix.

Etymology. Toponymic, named according to Hunan Province.

Figs. 10-12. *Thaumaglossa hunanica* sp. nov.: 10- habitus, dorsal aspect; 11- antenna of female; 12- female sclerites in bursa copulatrix.

subgroups of species group „*T. hilleri*“

subgroup A - pygidium black with black setae; abdominal ventrites black; pronotum covered by black setation:

T. hilleri Reitter, 1881	(China; India; Japan; Laos; Nepal; Philippines; Taiwan)
T. panda Herrmann & Háva, 2015	(China: Sichuan, Hubei, Zheijang)
T. chujoi Ohbayashi, 1982	(Indonesia: Maluku: Ambon I.; Japan, Taiwan)

T. mentawaiana Háva, 2020	(Indonesia: Mentawai Is.)
T. parahilleri Kadej & Háva, 2013	(Laos)
T. lineata Háva, 2021	(Laos)

subgroup B - pygidium black with yellow setae; abdominal ventrites black; pronotum covered by yellow setation:

T. jendeki Háva, 2003	(Laos)
T. sausai Háva, 2020	(Laos, Thailand)
T. wittmeri Háva, 2006	(Nepal; India: Sikkim, Uttar Pradesh)
T. yunnanica sp. nov.	(China: Yunnan)
T. zheijanganica sp. nov.	(China: Zheijang)

subgroup C - pygidium brown with yellow setae; abdominal ventrites brown; pronotum covered by yellow setation:

T. hunanica sp. nov.	(China: Hunan)
T. pacholatkoi Háva, 2015	(Malaysia, Indonesia: W Java)
T. pseudohilleri Háva, 2006	(India: Maharashtra)

species group „*T. rufocapillata*“

***Thaumaglossa gutianshanica* sp. nov.**
(Figs. 13-14)

Type material. Holotype (♀): China, Zheijang, Gutianshan NNR, CSP 14, 639 m, 118°14´E 29°25´N, 2010, local collector, (NMED). Paratype: (1 ♀): same data but CSP 25, 345 m, (JHAC).

Description. Female: Body measurements (TL 3.8 mm, EW 3.1 mm), strongly convex, ovate, widest at humeri, pronotum black, elytra black, antennae brown, legs brown; body covered with grey and black setation (Fig. 13). Head black covered by grey setation, coarsely punctate. Antennae with 11 antennomeres, densely covered with grey, erect setation (Fig. 14). Antenna occupies the cavity of antennal fossa. Frons with median ocellus. Pronotum black, densely punctate, covered by short, grey setation. Elytra black, coarsely punctate on humeri and on first half, other parts densely punctate, covered with grey and black, short setation. The white setation forming small spots in other setation. Epipleuron coarsely punctate, black with grey setation. Scutellum triangular, shiny, visible, without setation. Prosternum intensely punctate on disc, without impunctate median line, covered by grey setation. Mesosternal disc with large punctuation, covered by grey setation. Abdominal visible ventrites black with grey setation. Pygidium black, with yellow setation.

Male. Unknown.

Differential diagnosis. The new species belongs to the *T. rufocapillata* species group, and is very similar to species *Thaumaglossa haucki* Háva, 2015 and *T. soror* Háva, 2021 but new species differs from them by the unicolorous grey setation on pronotum and structure of female antennae.

Etymology. Toponymy named after the type locality Gutianshan National Natural Reserve.

Figs. 13-14. *Thaumaglossa gutianshanica* sp. nov.: 13a-b- habitus, dorsal aspect; 14- antenna of female.

LIST OF *THAUMAGLOSSA* SPECIES RECORDED FROM MAINLAND OF CHINA

Thaumaglossa gutianshanica sp. nov.
Thaumaglossa herrmanni Háva, 2003
Thaumaglossa hilleri Reitter, 1881
Thaumaglossa hunanica sp. nov.
Thaumaglossa kundratai Háva, 2017
Thaumaglossa laeta Arrow, 1915
Thaumaglossa panda Herrmann & Háva, 2015
Thaumaglossa rufocapillata Redtenbacher, 1867
Thaumaglossa tonkinea Pic, 1916
Thaumaglossa uninotata (Pic, 1954)
Thaumaglossa yunnanica sp. nov.
Thaumaglossa zheijanganica sp. nov.

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