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Thibetana witti sp. nov. from Tibet (Lepidoptera, Zygaenidae, Procridinae)

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Abstract

A new species of the genus *Thibetana* EFETOV & TARMANN, 1995, *Th. witti* sp. nov., is described from eastern Tibet (China).

Zusammenfassung

Es wird eine neue Art der Gattung *Thibetana* EFETOV & TARMANN, 1995 aus Tibet beschrieben: *Th. witti* sp. nov.

Introduction

The genus *Thibetana* was described by EFETOV & TARMANN (1995: 74) to accommodate 2 species: *Th. sieversi* (ALPHERAKY, 1892) and *Th. delavayi* (OBERTHUR, 1894). The type-species of the genus is *Th. sieversi* (ALPHERAKY, 1892).

While investigating material of the subfamily Procridinae in the collection of the Museum WITT (Munich), one specimen representing a new species of the genus *Thibetana* was found. Its description is provided below. The terminology of the forewing spots in this paper follows the system (Fig. 3) adopted for the genus *Zygaena* FABRICIUS, 1775 (TREMewan 1985: 102, fig. 58).

Thibetana witti sp. nov.

Holotype male with pin-labels (Fig. 6): "Ost Tibet, Serkym La, ost. Seite, 19.6.1996, 3900 m, leg. WESTPHAL"; "OST-TIBET 3900 m, Route from Bayi eastward to Pass Serkym La, 20 km W of Luna, 19.VI.1996, leg. WESTPHAL, MUSEUM WITT" (Museum WITT, Munich).

The specimen has been supplied with a label on red paper: "HOLOTYPUS, *Thibetana witti* EFETOV, K. EFETOV det. 1997".

Length of body 7.5 mm; length of forewing 9.8 mm, breadth 4.2 mm; length of hindwing 7.7 mm, breadth 4.6 mm. Frons yellow; occiput blackish brown; compound eye ringed with yellow. Antenna covered with black scales, bipectinate, tapering towards apex, length of pectination in middle part of antenna 0.8 mm. Proboscis dark brown, well developed. Patagium with blackish brown medial part and yellow lateral part. Tegula yellow. Thorax thickly covered with scales, blackish brown dorsally and yellow ventrally. Upperside of forewing blackish brown with yellow spots (Fig. 1): spot 2 ovoid; spots 3 and 4 more or less rounded; distal spot a kidney-shaped blotch, consisting of spots 5+6; spot 1 absent; fringe yellow. Underside of forewing blackish brown with yellow spots (Fig. 2): spots 1 and 2 ovoid; 3 and 4 more or less rounded, a narrow yellow streak connects middle part of lateral margin of spot 2 with anterior margin of spot 4; distal spot a kidney-shaped blotch, consisting of spots 5+6. Upper- and underside of hindwing yellow with blackish brown border along costa, around apex and along termen; a characteristic, yellow semicircular spot (Fig. 6) situated on dark costal border slightly lateral from middle of anterior margin (same feature present in type-species of the genus - Fig. 7); fringe blackish brown on apex and termen and yellow on inner margin. Legs thickly covered with scales, blackish brown, only inner surface of femur of foreleg yellow; foreleg with long tibial epiphysis, mid tibia with one pair of spurs (apical), hind tibia with 3 spurs (1 medial and 2 apical). Abdomen thickly covered with scales, blackish brown with 7 yellow transverse lines forming rings (2 anterior rings more or less closed, others open on ventral side).

Male genitalia (Fig. 9): Uncus sclerotized, slender, as long as tegumen. Valva triangular with stronger sclerotized dorsal and ventral margins and translucent central part, sacculus without any process. Transtilla with short setae and dentations on dorsal margin, and pointed apex. Juxta long, translucent, with sclerotized anterior part and sclerotized lateral margins on posterior part. Saccus triangular, long (longer than half length of uncus) with obtuse apex. Aedeagus straight, twice length of uncus, narrow (ratio of length to breadth nearly 12), without cornuti.

This species is named in honour of Mr. Thomas WITT.

Differential diagnosis: *Thibetana witti* sp. nov. is close to *Thibetana sieversi* (ALPHÉRAKY, 1892), the type-species of the genus, but differs in forewing pattern (Fig. 4) and genitalia structure (Fig. 10). In *Th. sieversi* spots 2 and 4 of the forewing upperside are fused, forming a streak, and spot 3 is absent, in *Th. witti* sp. nov. spots 2 and 4 are separate, and spot 3 is present. *Th. sieversi* has a comma-shaped transtilla without any dentations and with an obtuse apex, but in *Th. witti* sp. nov. the transtilla is only slightly curved, with dentations on the dorsal margin and with a pointed apex. In *Th. sieversi* the saccus is less than half the length of the uncus, in *Th. witti* sp. nov. the saccus is longer than half the length of the uncus. In *Th. sieversi* the aedeagus is broad (only 5 times longer than broad) with one cornutus, in *Th. witti* sp. nov. it is narrow (12 times longer than broad) and lacks cornuti.

As one of the *Thibetana* species (*Th. witti* sp. nov.) has no cornuti in the aedeagus, the sentence in the generic diagnosis (EFETOV & TARMANN 1995: 74): "... vesica with one cornutus", has to be changed into: "... vesica without cornuti or with one cornutus".

Another species of the genus *Thibetana*, *Th. delavayi* (OBERTHÜR, 1894), also has good differences in habitus and genitalia structure from *Th. witti* sp. nov. (JORDAN 1907: pl. 3; ALBERTI 1954: tab. 29, fig. 9).

Flight period: June.

Distribution: Tibet (China). The type-locality is situated almost 250 km east of Lhasa.

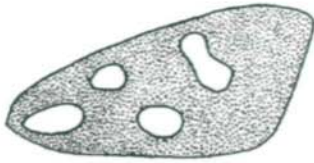


Fig. 1 *Thibetana witti* sp. n.
forewing, upperside

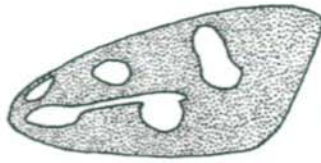


Fig. 2 *Thibetana witti* sp. n.
forewing, underside

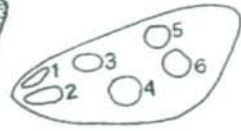


Fig. 3 Terminology of
forewing spots



Fig. 4 *Thibetana sieversii* (ALPHERAKÝ)
China: Sichuan, Kangding.



Fig. 5 *Thibetana witti* sp. n., Tibet, Serkym La,
(Abdomen after dissection) Holotype.

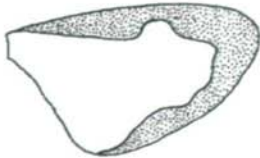


Fig. 6 *Thibetana witti* sp. n.
Hindwing, underside

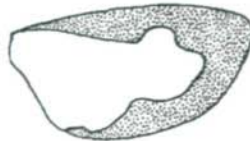


Fig. 7 *Thibetana sieversii* (ALPHERAKÝ)
Hindwing, underside

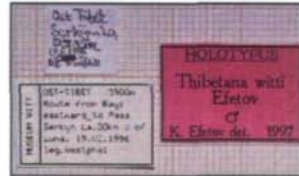


Fig. 8 *Th. witti* sp. n., labels

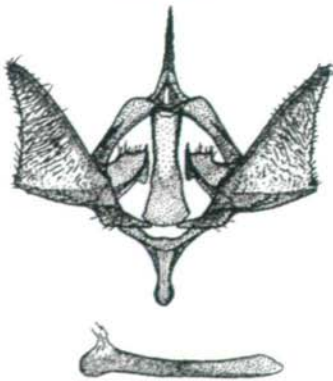


Fig. 9 *Thibetana witti* sp. n.
male genitalia, Holotype

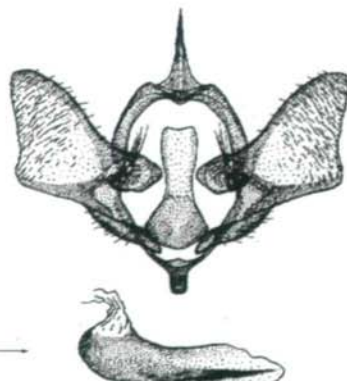


Fig. 10 *Thibetana sieversii* (ALPHERAKÝ)
male genitalia

1 mm

Acknowledgements

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