A new *Idioglossa* species (Lepidoptera, Batrachedridae, Batrachedrinae) from Thailand

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Abstract *Idioglossa thailandica* sp. nov. is described from Thailand on the basis of a male specimen. In colouration, the holotype lies almost within the extent of variation observed in *I. polliacola*, while considerably differing from the other species of the genus. The new species is reliably distinguishable from *I. polliacola* by the structures of the valva and juxta of the male genitalia. It will possibly be separable from *I. polliacola* by the slight difference in the forewing colouration.

Key words *Idioglossa thailandica* sp. nov., Batrachedridae, Indochina, Thailand.

The gelechioid genus *Idioglossa* Walsingham, 1881 was established for a single species from South Africa, *Idioglossa bigemma* Walsingham, 1881. According to Walsingham (1909–1915) and Sugisima & Arita (2000), the genus is currently represented by seven species, recorded from the southern part of Africa, India, Java in Indonesia, Australia, and North America including Mexico and Jamaica, and apparently associated with monocotyledonous plants. The moths of *Idioglossa* are quite easily distinguishable from all other micromoths by the linear hindwings with metallic transverse fasciae and by the proboscis with a conspicuous basal tuft of extremely long scales (Walsingham, 1881; Sugisima & Arita, 2000).

In the micromoth collection of the Entomological Laboratory, Osaka Prefecture University (OPU), Sakai-si, Ōsaka-hu, Japan, I found a male specimen of *Idioglossa* from Thailand, where the genus has never been recorded. In colouration, the specimen from Thailand lies almost completely within the extent of variation observed in *Idioglossa polliacola* Sugisima, 2000, but the male genitalia of the specimen are significantly different from those of *I. polliacola*. As mentioned in the original description, *I. polliacola* can be distinguished from other species of *Idioglossa* by the colouration alone. The specimen from Thailand is, therefore, regarded as representing an undescribed species.

Although *Idioglossa* has been known to occur in Java in Indonesia (Meyrick, 1936: 27) and in northern India (Meyrick, 1913: 77–78), there have been no records of the genus in Indochina. The discovery of the *Idioglossa* species from Thailand fills a blank in the distribution of the genus. It is unlikely that additional specimens of the species will be available in the near future, because the species of *Idioglossa* are generally difficult to find unless their foodplants are known, and also because the light-trap, the most popular method for collecting micromoths, is not suitable for trapping *Idioglossa* moths (K. Sugisima, unpublished). Against these considerations it therefore seems justifiable to describe the species from Thailand as new on the basis of the single specimen.

*Idioglossa thailandica* sp. nov. (Figs 1, 2, 4, 5)

Description. Male (Figs 1, 2, 4, 5). Forewing length 3.7 mm; wing spread 8.0 mm.
Figs 1-3. Photographs and illustrations of Idioglossa species. 1. The holotype of Idioglossa thailandica sp. nov. A: The whole insect before dissection (the abdomen was subsequently dissected and mounted on a slide). In the forewings there are a few damaged areas around basal 1/3. The scales on these areas are mostly removed, and this may make the areas seem true light silvery markings, especially in the photograph. The left wing has one of the areas just beyond the shiny dark fascia, extending from the costal margin to the fold; the right wing has two areas, one in the costal area of the shiny dark fascia and the other on the wing-axis just beyond the fascia. B: Head in frontal view, showing the antennal base and the proboscis-base. 2 & 3. Illustrations of wing colouration of Idioglossa. 2. I. thailandica sp. nov. 3. Typical colouration of I. polliacola Sugisima.

Head and appendages glossy ivory, tinged with chrome-yellow on outer side of third segment of labial palpi and dorsally on antennae, with brownish annulations dorsally on flagellum. Antennae almost as long as forewing, ventrally with a notch covered by a subconical projection close to the base (Fig. 1B). Proboscis well developed, on basal part with a conspicuous dorsal tuft of elongate scales longer than the height of the head (Fig. 1B). Thorax glossy ivory, tinged with chrome-yellow on cephalic part, tegula, and metathorax. Legs glossy ivory, tinged with yellow-ochre; fore tibia chrome-yellowish, grey-brownish on inner side; hind tibia dorsally with long and robust needle-like bristles. Abdomen chrome-yellowish dorsally, glossy ivory ventrally, with each tergite edged with glossy ivory scales; venula and apodeme little developed in the second sternite (Fig. 4); a
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Figs 4–5. Male abdomen and the genitalia of Idioglossa thailandica sp. nov., holotype (slide no. 0492; K. Sugisima). 4. The whole abdomen torn laterally; tergites to the right. 5. The whole genitalia in caudal view, with valvae expanded.

pair of patches of spine-like scales present beneath normal scales on the second to seventh tergites (Fig. 4).

Forewing and its cilia chrome-yellowish, sparsely mottled with dark brownish scales on the wing; a silvery streak lying in basal 1/5, almost along the wing-axis; a shiny dark brownish fascia with a faint purplish lustre present around 1/3, bent outwards, adjacent to the costal margin, distant from the dorsal margin, accompanied dorsally by a group of orange-brownish scales, and edged inwards with a patch of light-coloured scales (whitish rather than silvery) (the area around these markings is damaged in both wings of the holotype; see remarks below as well as the caption of Fig. 1); another shiny dark brownish fascia with a faint purplish lustre present beyond 3/4, almost straight, traversing outwards obliquely throughout the wing, edged inwards with silvery scales, and on each end extending into cilia as a dark grey-brownish band; a silvery spot present midway between the two shiny dark brownish fasciae, distant from the costal margin and reaching the dorsal margin; along dorsal margin a series of long and spatulate scales extending caudally, dark brownish around 1/3 and 2/3 of the wing and whitish around the middle of the wing. Hindwing and its cilia chrome-yellowish, along the dorsal margin around 1/4 of the wing with a series of long and linear dark brownish scales extending caudally; four light silvery fasciae traversing the wing at 1/4, before 2/5, beyond 3/5, and beyond 4/5; these silvery fasciae edged outwards with shiny dark brownish scales possessing a faint purplish lustre, except for the second one that is edged on both sides; the outermost fascia widest, on each end extending into cilia as a dark grey-brownish band; the wing is considerably lighter-coloured
between the base and the first fascia as if the fascia occupied basal 1/4 of the wing; a few dark brownish scales present at wing-tip.

Male genitalia and associated structures (Figs 4 & 5). Intersegmental membrane between the seventh and eighth tergites invaginate, forming a pair of elongate pouches, which are slightly longer than the seventh tergite, and ornamented with many long hairs inside. The eighth sternite sclerotised more strongly than the others, with a pair of short apophyses arising from cephalic angles. Uncus and gnathos articulated with tegumen, forming a beak-like structure. Tegumen strongly sclerotised and thickened around lateral ends along the cephalic margin; a short medial ridge present on the cephalic part. Valva tapering in basal 2/5, thence to basal 4/5 almost parallel-sided, the remainder upcurved towards the strongly sclerotised acuminate apex, which is directed dorsally; apical half sparsely ornamented inside with stout bristles; a spine present at 4/5 of the dorsal margin of valva; a down-curved sickle-blade-shaped projection arising from the base of the dorsal margin of valva, almost equally wide, with its pointed apex reaching the dorsal margin of valva. Juxta represented by a quadrangular sclerotised plate, with its dorsal margin conspicuously arc-indentated. Vinculum very narrow, U-shaped, ventro-medially somewhat thickened, with its dorsal ends distant from tegumen. Aedeagus slightly shorter than valva, dorsally membranous; a sclerotised arm arising from the ventral surface of aedeagus, extending caudally, and strongly articulated with juxta at the apex; cornuti absent.

Female unknown.

Distribution and biology. Poorly known; the holotype was collected in late November, at Kanchanaburi, near the base of the Malay Peninsula, 800 m in elevation.

Specimen examined. Holotype. ♂, THAILAND, KANCHANABURI, Tham Than Lot (ca 800 m); 22–24. XI. 1985, S. MORIUTI, T. SAITO, & Y. ARITA [leg.]; LEPI DOPT. EXPED. TO THAI, 1985, Coll. Ent. Lab., Univ. Osaka Pref.; genitalia slide no. 0492 (K. Sugisima, 1999), deposited in OPU. This was collected during the course of “the Lepidopterological Expeditions of the University of Osaka Prefecture to Thailand”.

Remarks. In colouration, Idioglossa thailandica may be confused with I. polliacola Sugisima, 2000. In the holotype of the new species, the light-coloured patch inwards edging the basal shiny dark brownish fascia of the forewing is much larger and lighter-coloured than that of the typical I. polliacola (compare Figs 2 and 3; see the caption of Fig. 1). Moreover, in the other species of Idioglossa, the corresponding marking is absent or, if present, silvery rather than whitish. The large whitish patch observed in the holotype could actually characterise I. thailandica. However, the area around the patch is heavily damaged in both forewings of the holotype, possibly as a result of the wing-spreading process, and it is very difficult to determine the true outline of the patch. Additional specimens should be examined when available to check whether the patch is a diagnostic feature of I. thailandica.

There are significant differences in the structures of the male genitalia between Idioglossa thailandica and I. polliacola. In I. thailandica, the valva is almost parallel-sided at the middle, with the apex directed dorsally, and with the basal sickle-blade-shaped projection that is almost of constant width and reaches the dorsal part of the valva. By contrast, in I. polliacola, the valva tapers distinctly towards its strongly curved apical part and is not parallel-sided around the middle, with its apex directed cephalo-ventrally rather than dorsally, and with the basal sickle-blade-shaped projection tapering towards its apex and nearly reaching the ventral margin of the valva. In I. thailandica, the juxta is quadrangular, with its dorso-caudal margin arc-indentated, while in I. polliacola the juxta has its ventral
margin round and dorsal margin deeply cleft in a V-shape.

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摘 要

スゴモリキバガ属のタイからの新種 (鱗翅目, ホソキバガ科, ホソキバガ亜科) (杉島一広)

大阪府立大学昆虫学研究室に保管されていたタイ産小蛾類標本の中にスゴモリキバガ属に含まれる1♂の標本を見出した (標本は大阪府立大学による鱗翅類調査調査においてマレー半島基部付近に位置するKanchanaburiにて採集されたものである)。この標本の色彩は日本産のヤブミョウガススゴモリキバガ Idioglossa polliacola Sugisima, 2000の変異の中に含まれていた。しかし、交尾器の構造がヤブミョウガススゴモリキバガのものとは明らかに異なることから未記載種と判断し、Idioglossa thailandica sp. nov.と命名・記載した。

Idioglossa thailandica Sugisima, sp. nov. (Figs 1, 2, 4, 5)

現時点では完模式標本のみが知られている。日本産のヤブミョウガススゴモリキバガを除く同属他種からは斑紋によって区別される。標準的なヤブミョウガススゴモリキバガ (Fig. 3) と比較して、前翅基部1/3付近にある「く」の字型の暗色横帯を基部側から縫取る明色の斑紋が大きくかつ白色に近く (Fig. 2)。これは種の特徴なのかもしれない。しかし、完模式標本ではその周辺が損傷を受けてい るせいで斑紋の形状が完全に確認できなかったため、その斑紋が種を特徴づけるか否かの判断はここでは保留する。♂交尾器において本種の特徴と判断したのは、把握器中央部付近がほぼ等幅であること、把握器基部背面前より生じる鎌状突起がほぼ等幅で、その先端が把握器背面側の縁付近までしか達しないこと、juxtaが四角形で背面側の縁が弧状にくぼむことである。ヤブミョウガススゴモリキバガの♂交尾器では、把握器は先端に向かって急激に細くなり、鎌状突起は先端に向かって急激に細まるとともに先端が把握器腹面側の縁付近にまで達し、juxtaは腹面側の縁が丸みを帯び背面側の縁が深くV字に切れ込む。

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