

New species of scythridid moths (Lepidoptera: Scythrididae) from Southern Siberia

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Abstract. Two new species of scythridid moths collected in mountain territories of Altai are described from Southern Siberia: *Scythris bidzilyai* sp. n. and *S. abruptella* sp. n. The external appearance and male genitalia of the adult are illustrated, and the species diagnosed. The relationships of the new species to similar species are discussed.

Резюме. Описываются два новых вида мрачных молей из Южной Сибири: *Scythris bidzilyai* sp. n. и *S. abruptella* sp. n., собранных в горных районах Алтая. Даются изображения имаго и генитальных структур, обсуждаются взаимоотношения с близкими видами. Типовой материал хранится в коллекции Лаборатории систематики животных и фаунистики Самарского государственного университета (Самара).

Introduction

During the last years the fauna of scythridid moths of Southern Siberia has been intensively explored. As a result annotated lists of species of this territory and descriptions of many new species have been published (Bengtsson 1997a; Bengtsson & Liška 1996; Nupponen 2003, 2005, 2007; Sachkov & Sinev 2001; Sinev 1993, 2001). It has become obvious that the knowledge of Lepidoptera (including scythridid moths) occurring in this territory is far from complete. It can be expected that more new species, as well as new distribution records of already described species will be found from adjacent territories.

Some small but interesting material, mainly collected by Russian entomologist P. Ya. Ustyuzhanin and also by Ukrainian entomologist O. Bidzilya from Altai, has been received and included into the collection of the Laboratory of Animals Systematics and Faunistics of the Samara State University. Examination of this material included two new species that are described here.

Abbreviation

LSSU Laboratory of Animals Systematics and Faunistics of Samara State University, Samara

Scythris bidzilyai sp. n.

Figs 1, 3

Material. Holotype ♂, 'Россия, Алтай | Онгудайский р-н | 15 км ниже с. Иодро | по р. Чуя, 6.08.2000 | А. Бидзиля [Russia, Altai, Onghudai Distr., 15 km downstream of Chuya from Iodro vil., 6.08.2000, A. Bidzilya leg.]' <white rectangle, printed in black ink>, 'HOLOTYPUS | *Scythris bidzilyai* Satshkov sp. n. ♂ | Алтай' <red rectangle, printed in black ink> (LSSU).

Description. A d u l t (Fig. 1). Wingspan 13 mm. Head, antenna, haustellum, collar, tegula, thorax and forewing dark brown with slight bronze tinge, without pattern. Hindwing fuscous. Basal segment of labial palpus with erect pale-coloured scales, second and third segments greyish-brown, basal half of second segment with sparse scattered light-coloured scales. Legs greyish-brown, hindtibia covered by whitish scales and paler than femur, but spurs dark, contrasting with the pale tibia, brush of tibial bristles fuscous.

Male genitalia (Fig. 3). Uncus with two slender long, parallel lobes slightly widening towards tip in ventral projection and pointed in lateral aspect; ventral edge basally with two strongly sclerotized oblique processes. Uncus almost $1.5 \times$ length of tegumen. Tegumen large. Basal plate of gnathos straight with triangular medial process; medial process of gnathos long, straight with pointed tip bent downwards, in distal part with large semicircular process on dorsal edge. Phallus long, slightly sigmoid in basal part. Valva curved, distally broadened and rounded. Vinculum large, X-shaped, caudal lobes larger than proximal lobes, widely rounded; depression between them deep U-shaped, medially with narrow chink-form cut. Tergum VIII subquadrangular, membranous. Sternum VIII elongate, distally bifurcate, deeply (up to $1/3$) split.

Female genitalia. Unknown.

Diagnosis. *S. bidzilyai* sp. n. belongs to the *pascuella*-group (sensu Bengtsson 1997b) and to the *bifissella*-complex embracing *S. bifissella* (Hofmann, 1889), *S. minorella* Sinev, 2001, *S. sibirella* Sinev, 2001, and *S. hemicycliella* Nupponen, 2005. It is separated from all those species by its long lobes of uncus, the shape of basal processes on the lobes and also details of gnathos, the shape of valva and the sternum VIII. By the length of uncus lobes it resembles *S. tabescentella* (Staudinger, 1880) but *S. bidzilyai* sp. n. differs from it by the shape of the gnathos, valva and possibly the smaller size of the imago.

Biology. Unknown. Flight period probably in the first half of August. The holotype was collected in a river valley.

Distribution. Only known from the type locality.

Etymology. The species is named after O. Bidzilya, a Ukrainian lepidopterist who collected the holotype.

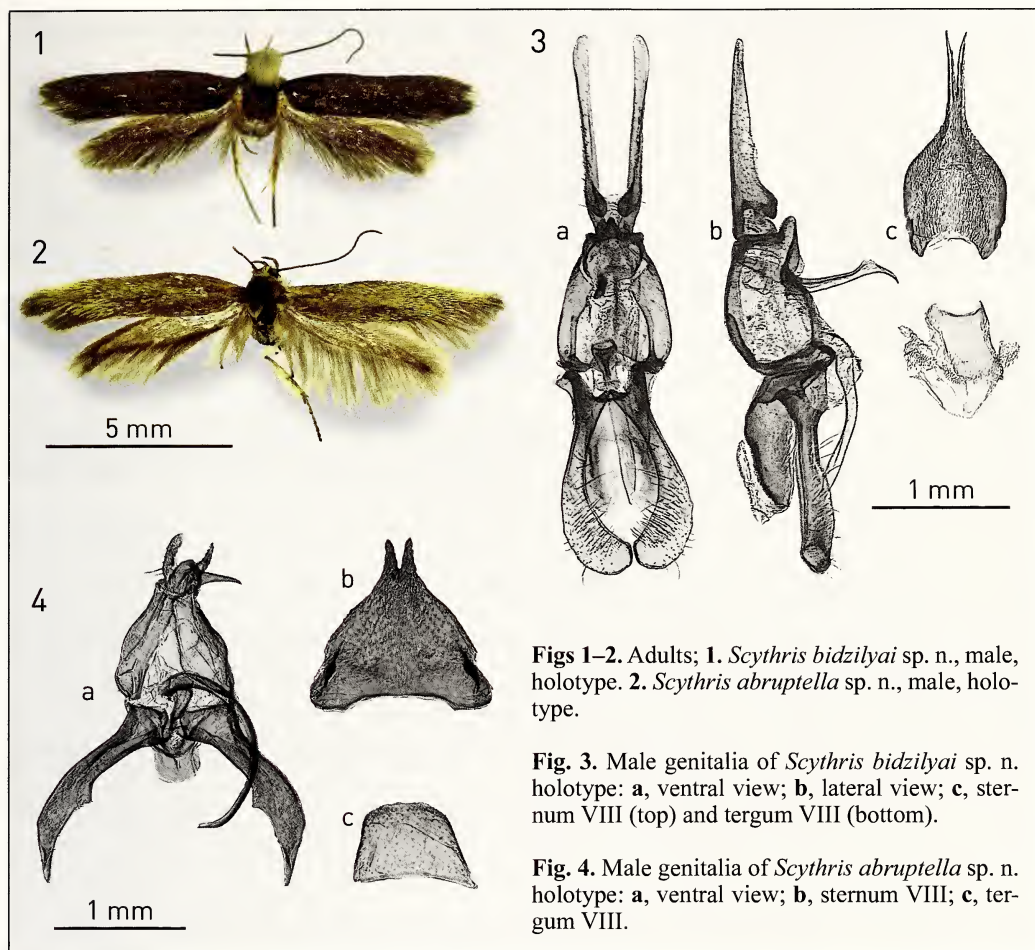
Scythris abruptella sp. n.

Figs 2, 4

Material. Holotype ♂, 'Респ[ублика] Алтай, | Кош-Агачский р-н, | 5 км СВ п. Чаган- | Узун | 9.VII.2007 | leg. Устюжанин П.Я.' <white rectangular in black frame, printed in black ink>, 'HOLOTYPUS | *Scythris abruptella* Satshkov sp. n. ♂ | Алтай' <red rectangular, printed in black ink> (LSSU).

Description. A d u l t (Fig. 2). Wingspan 14 mm. Head, haustellum, collar, tegula, thorax and forewing yellowish-brown; antenna darker. Hindwing pale fuscous, slightly lighter than forewing. Fringe basally darker than in distal part. Basal segment of labial palpus with erect light-coloured scales, other segments pale on upper side and slightly darker on underside. Legs and underside of thorax covered by pale scales.

Male genitalia (Fig. 4). Uncus short, bilobed, almost twice shorter than tegumen. Basal plate of gnathos rounded triangle; medial process of gnathos straight, smoothly



Figs 1–2. Adults; **1.** *Scythris bidzilyai* sp. n., male, holotype. **2.** *Scythris abruptella* sp. n., male, holotype.

Fig. 3. Male genitalia of *Scythris bidzilyai* sp. n. holotype: **a**, ventral view; **b**, lateral view; **c**, sternum VIII (top) and tergum VIII (bottom).

Fig. 4. Male genitalia of *Scythris abruptella* sp. n. holotype: **a**, ventral view; **b**, sternum VIII; **c**, tergum VIII.

tapering to tip, apically slightly down-curved. Phallus arched, smoothly tapering to tip. Valva rather curved, medially broadened, distally elongate, near tip with small sharp process, not reaching top of valva. Inner margin of valva medially with triangular tooth. Vinculum chute-shaped. Tergum VIII trapezoid; sternum VIII triangular posteriorly bifurcate, depth of apical incision 3.8 times shorter than another part of sternum. Female genitalia. Unknown.

Diagnosis. *S. abruptella* sp. n. belongs to the *obscurella*-group (Bengtsson 1997b). From similar species, e.g., *S. hornigii* (Zeller, 1855) and *S. speyeri* (Heinemann, [1876]), the new species differs in male genitalia by the shape of the valva with strongly elongate sharp tip, large medial tooth on the inner margin of the valva, and by the absence of a whitish long streak in the forewing. *S. bengtssoni* Patočka & Liška, 1989 has a small subapical process on the valva near its apex but it lacks a tooth on the inner margin of the valva. The shape of the phallus and sternum VIII also separates *abruptella* and *bengtssoni*, as do the external features.

Biology. Flight period of the imago is in the first third of July.

Distribution. Altai.

Etymology. *Abruptus* (*Lat.*) – unexpected. The species name is based on the unexpected status as a new species after the dissection of genitalia.

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