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## THREE NEW SPECIES OF THE GENUS *SYNCOPACMA* (LEPIDOPTERA, GELECHIIDAE) FROM CENTRAL ASIA

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**Three New Species of the Genus *Syncopacma* (Lepidoptera, Gelechiidae) from Central Asia.** Bidzilya O. V. — *Syncopacma dolini* Bidzilya, sp. n. from Kyrgyzstan (type locality: Southern Kyrgyzstan, Kyzyl-Dzhar near Tash-Kumyr), *S. tadhika* Bidzilya, sp. n. from Tadjikistan (type locality: Kondara) and *Syncopacma altaica* Bidzilya, sp. n. from Altai Mountains (type locality: Kuraiskiy Range near Aktash, upper stream of Jarly-Jary River) are described. All new taxa resemble externally other black *Syncopacma* species with white subapical fascia, but can be distinguished clearly by the male genitalia characters.

Key words: Gelechiidae, *Syncopacma*, new species, Kyrgyzstan, Tadjikistan, Altai.

**Три новых вида рода *Syncopacma* (Lepidoptera, Gelechiidae) из Центральной Азии.** Бидзиля А. В. — Описаны три новых вида: *Syncopacma dolini* Bidzilya, sp. n. из Кыргызстана (типовая местность: южный Кыргызстан, Кызыл-Джар близ Таш-Кумыра), *S. tadhika* Bidzilya, sp. n. из Таджикистана (типовая местность: Кондара) и *S. altaica* Bidzilya, sp. n. из Горного Алтая (типовая местность: Курайский хребет у Акташа, верхнее течение р. Ярлы-Яры). Внешне все виды сходны с другими представителями рода с черными крыльями и белой предвершинной перевязью, надежно отличаясь только строением гениталий самцов.

Ключевые слова: Gelechiidae, *Syncopacma*, новые виды, Кыргызстан, Таджикистан, Алтай.

### Introduction

Genus *Syncopacma* Meyrick, 1925 was revised for the first time by Gozmány (1957) and Wolff (1958). As a result, about 16 species were recognized to be valid in Europe. Subsequently, three new species were described from Uzbekistan and Mongolia (Piskunov, 1979, 1987; Lvovsky, Piskunov, 1989). Chinese species of the genus *Syncopacma* were reviewed by Li (1993), with description of five new taxa. Recently, some additional new species were described from France (Nel, 1995, 1998), Uzbekistan (Bidzilya, 1996) and Transbaikalia (Bidzilya et al., 1998). The European representatives of this genus were recently reviewed with providing of corrections to generic assignment of some taxa (Karsholt, Riedl, 1996; Elsner et al., 1999; Bidzilya, 2002).

Currently, the genus *Syncopacma* comprises at least 35 palaeartic species, about two-thirds of which occur in Europe.

Many *Syncopacma* species are very similar externally that makes difficulties to its correct determination and is resulted in numerous misidentifications, especially among old records. In spite of relatively large number of publications, many species remain undescribed even in Europe (Elsner et al., 1999). Status of some previously described taxa (Caradja, 1920; Amsel, 1935) are unclear, female genitalia of some species are not illustrated.

The type material are deposited in collection of Zoological Museum of Kyiv National Taras Shevchenko University, Kyiv, Ukraine (ZMKU) and Zoological Institute of Russian Academy of Sciences, St.-Petersburg, Russian Federation (ZISP).

### *Syncopacma dolini* Bidzilya, sp. n. (fig. 1, 4)

Material. Holotype ♂, Kyrgyzstan, Tian-Shan, prov. Dzhahal-Abad, distr. Tash-Kumyr, prope Kyzyl-Dzhar, alt. 950 m, 28.05.2003 (Rutjan) (ZMKU). Paratypes: ♂, Kyrgyzstan, distr. Tash-Kumyr, prope pag. Kyzyl-Dzhar, alt. 900 m, 25.07.1999 (Rutjan); ♀, same data as above (gen. prep. 60/03) (ZMKU).



Fig. 1. *Syncopacma dolini*, holotype, ♂.

Рис. 1. *Syncopacma dolini*, голотип, ♂.

**Description.** Wingspan 10–12.5 mm. Head covered with black grey-tipped scales. Labial palpus slender, recurved, cream, segment 3 about length of segment 2, pointed. Scape black, other antennal segments black with white rings. Thorax and tegulae black. Forewing black with very small white spot in middle, subapical fascia slender, weakly angulated apically. Cilia grey. Hindwing and cilia light grey.

**Male genitalia** (fig. 4, 1). Uncus triangular with two lateral patches of long setae. Gnathos hook-shaped. Tegumen long and narrow. Valva evenly curved and broadened apically with rounded apex. Vinculum slender, posterior margin with two lateral processes fused with aedeagus and bilobed distally. Saccus short and broad, apex with broad emargination. Aedeagus large, S-shaped, weakly constricted in middle, distal part flattened, margins strongly sclerotized with 2–3 small teeth at one side and with one very small subapical teeth at opposite side; apex pointed.

**Female genitalia** (fig. 4, 2). Papilla analis rounded, densely covered with setae. Apophyses posteriores twice length of apophyses anteriores. Apophyses anteriores straight, about length of segment VIII. Segment VIII evenly sclerotized. Ductus bursae short, antrum large, broad, funnel-shaped with distinct cingulum. Corpus bursae round, about length of ductus. Signum absent.

**Differential diagnosis.** New species resembles externally many others *Syncopacma* species with white subapical fascia but can easily be recognized by bilobed vinculum processes and the shape of distal part of aedeagus.

**Biology.** Host plant unknown. Adults fly in the end of May and in the end of July, probably two generations.

**Distribution.** Southern Kyrgyzstan.

**Etymology.** Named in memory of prominent Ukrainian entomologist Prof. Dr. Vladimir G. Dolin.

***Syncopacma tadjhika* Bidzilya, sp. n.** (fig. 2, 5)

**Material.** Holotype ♂, «Kondara, Tadjhikistan, 28.8.1976, свет» [at light], (Kuznetsov) (ZISP).

**Description.** Wingspan 12.5 mm. Head, thorax and tegulae grey. Labial palpus recurved, light grey, inner surface of segment 2 lighter, grey-whitish. Segment 3 in two times slender and of equal length of segment 2, pointed. Scapus grey, other antennal segments grey with light rings. Forewing black with white subapical fascia, which curved towards apex and narrowed in middle. Cilia grey. Hindwing and cilia grey.



Fig. 2. *Syncopacma tadzhika*, holotype, ♂.

Рис. 2. *Syncopacma tadzhika*, голотип, ♂.

Male genitalia (fig. 5). Uncus narrow with two lateral patches of long setae, apex rounded. Gnathos hook-shaped. Tegumen long and narrow. Valva triangular, not exceeds the length of uncus, broadened in middle, basal one-third very slender. Vinculum slender, posterior margin with small finger-like processes which form short tube around aedeagus. Saccus short and broad with broad apical emargination. Aedeagus long, weakly broadened in middle, apex narrow, pointed with very thin cornuti.

Female unknown.

Differential diagnosis. New species is similar externally to many others *Syncopacma* species with white subapical fascia. The male genitalia are clearly recognizable by triangular valva and aedeagus with thin apical cornuti.

Biology. Host plant unknown. Holotype was collected in the end of August.

Distribution. Tadzhikistan.

Etymology. Named after the type locality.

### *Syncopacma altaica* Bidzilya, sp. n. (fig. 3, 6)

Material. Holotype ♂, «Алтай, Курайский хребет у Акташа, верхов. [ья] р. [еки] Ярлы-Яры, 2600 м, горная тундра, 23 июня 1974» (Ю. Костюк) [Altai, Kuraiskiy Range near Aktash, upper stream of Jarly-Jary River, 2600 m, mountain tundra, 23.06.1974 (Yu. Kostjuk)] (ZMKU). Paratypes: 2 ♂, same data as above, but 7.07.1974, 25.06.1976; 3 ♀, same data as above, but 26.06.1974, 7.07.1974, 21.06.1976 (ZMKU).

Description. Wingspan 14–15 mm. Head, thorax and tegulae grey, face lighter, off-white. Labial palpus slender, recurved, far protrude over the head; segment 2 white, outer surface whitish-grey; segment 3 about length and some slender then segment 3,



Fig. 3. *Syncopacma altaica*, holotype, ♂.

Рис. 3. *Syncopacma altaica*, голотип, ♂.

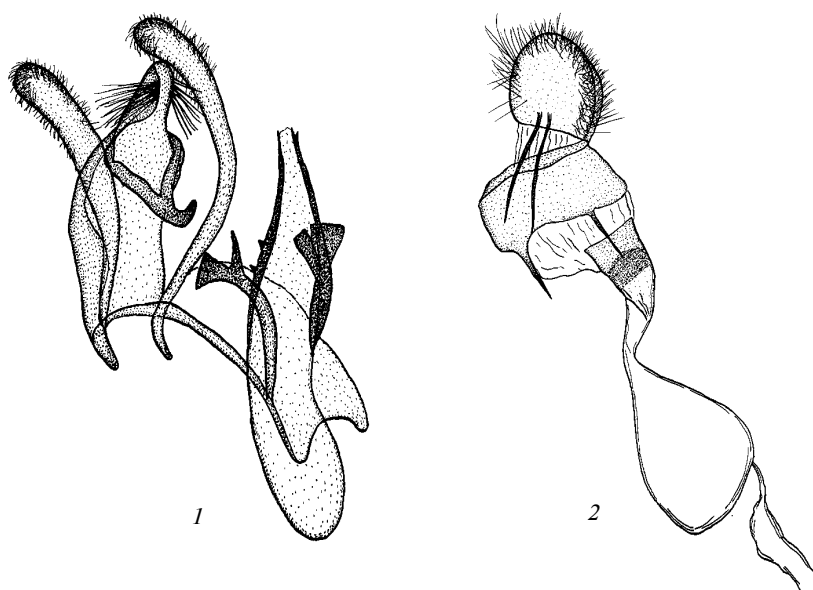


Fig. 4. *Syncopacma dolini*: 1 – male genitalia, holotype; 2 – female genitalia, paratype (gen. prep. 60/03).  
 Рис. 4. *Syncopacma dolini*: 1 – гениталии самца, голотип; 2 – гениталии самки, паратип (gen. prep. 60/03).

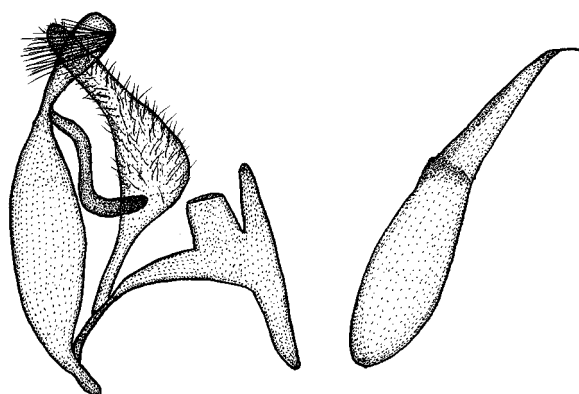


Fig. 5. *Syncopacma tadzhika*, male genitalia, holotype.  
 Рис. 5. *Syncopacma tadzhika*, гениталии самца, голотип.

white, ventrally black. Scapus black, other antennal segments black with light rings at base. Forewing black with white slender subapical fascia, which may be curved towards apex of wing near costal margin. Cilia grey. Hindwing and cilia light grey.

Male genitalia (fig. 6, 1). Uncus short with two lateral patches of long setae, apex rounded. Gnathos short, hook-shaped. Tegumen long and narrow. Valva evenly curved, slightly narrowed in apical one-quarter, weakly exceeds the length of uncus, ventral margin rough, apex rounded. Vinculum slender, posterior margin with long, broad, finger-like distally narrowed and serrated processes. Transtilla projections short, knee-shaped, distal part densely covered with long hair-like setae. Saccus very short. Aedeagus long, weakly curved in middle, evenly narrowed towards apex.

Female genitalia (fig. 6, 2). Papilla analis rounded, densely covered with short setae. Apophyses posteriores about twice length of apophyses anteriores. Apophys-

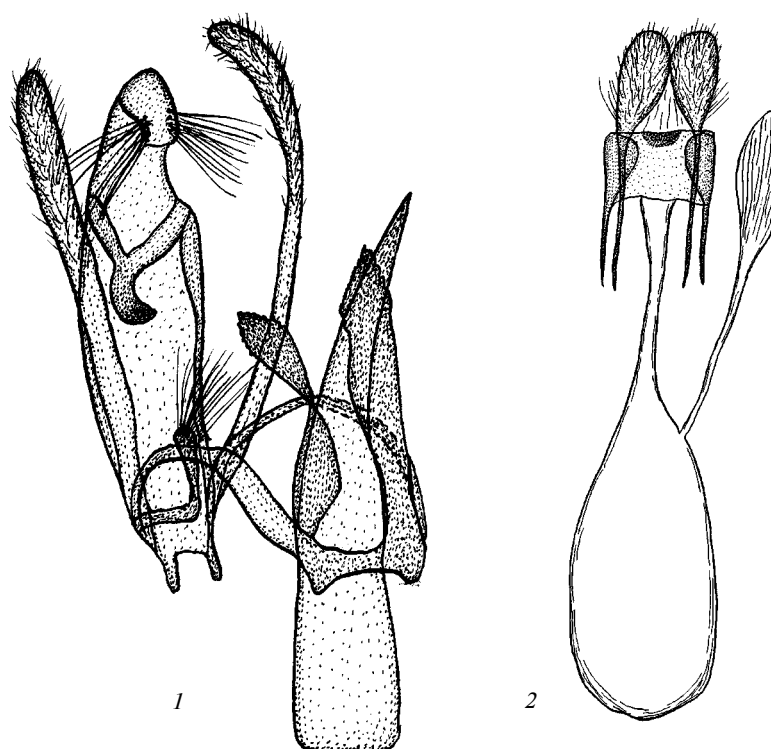


Fig. 6. *Syncopacma altaica*: 1 – male genitalia, paratype; 2 – female genitalia, paratype.

Рис. 6. *Syncopacma altaica*: 1 – гениталии самца, паратип; 2 – гениталии самки, паратип.

es anteriores straight, about length of segment VIII. Segment VIII evenly sclerotized, dorsal surface with small semi-spherical sclerotized plate at posterior margin. Ductus bursae short and slender, antrum indistinct, weakly broadened. Corpus bursae large, sub-oval, about length of ductus bursae. Signum absent.

**Differential diagnosis.** The new species is similar externally to many others *Syncopacma* species with white subapical fascia. The male genitalia resemble those of *S. kutsherenkoi* Bidzilya, 1998, but differ in the knee-shaped rather than sickle-shaped transtilla lobes, which are distinctly smaller and not reaching the gnathos; both species also differ in the shape of valva, which in *S. kutsherenkoi* is distinctly broadened in distal third, whereas those of *S. altaica* sp. n. is almost uniform width and has rough ventral margin.

**Biology.** Host plant unknown. Adults fly in late June – early July in high-mountains tundra.

**Distribution.** Altai.

**Etymology.** Named after the type locality.

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