



A NEW BRYOPHILINAE GENUS AND TWO NEW SPECIES FROM THE HIMALAYAS AND TAJIKISTAN (LEPIDOPTERA, NOCTUIDAE)

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Abstract: A new genus, *Himalobrya* gen. n. and a new species, *H. nepaliria* sp. n. of the subfamily Bryophilinae is described from Nepal. A new species of the genus *Scythobrya* Boursin, 1960, *S. istaravshana* sp. n., is described from Tajikistan.

Key words: Lepidoptera, Noctuidae, Bryophilinae, *Himalobrya*, *Scythobrya*, new genus, new species, Nepal, Tajikistan

INTRODUCTION

The present paper contains the descriptions of a new genus of the Noctuidae subfamily Bryophilinae, *Himalobrya* gen. n. and its second species *H. nepaliria* sp. n., and a new *Scythobrya* Boursin, 1960 species, *S. istaravshana* sp. n., from Tajikistan belonging to the *S. salomonis* (Boursin, 1954) species-group. The diagnostic comparisons of the two new species are made with *Himalobrya nilgiria* (Moore, 1881) and *Scythobrya subliterata* (Filipjev, 1931). The checklist of the *S. salomonis*-group was provided by PEKARSKY et al. (2014).

Abbreviations: HNHM = Hungarian Natural History Museum Budapest (Hungary); LR = slide made by László Ronkay; MNHU = Museum für Naturkunde der Humboldt-Universität zu Berlin (Germany); NHMW = Naturhistorisches Museum Wien (Vienna, Austria); OP = Oleg Pekarisky (Budapest, Hungary).

SYSTEMATIC PART

Himalobrya gen. n.

Fig 1.

Type species: *Bryophila nilgiria* Moore, 1881.

Diagnosis. Medium-sized moths with green-brown forewing colouration and well-developed noctuid pattern. Male antennae ciliate. In the male genitalia, valvae symmetrical, well-sclerotized, elongated, wider at base, narrowing distally, moderately curved, with wide, short clasper and distal apical processes; uncus long, strong and slender, its tip fine; juxta large, well-

sclerotized, almost deltoidal; aedeagus medium-long, wide, carinal extension triangular, elongated; vesica membranous, main chamber small, medial diverticulum larger in size and topped with large, strong, long-based cornutus.

The new genus is closest related, according to the male genitalia structures, to *Stenoloba* Staudinger, 1892, the differential features are the larger size of aedeagus and vesica.

Material. Male (Fig. 1), [India, Tiruchirappalli] Indes Orient, Trichinopoly, RP.J. Castets, slide LR12463m (coll. NHMW).

Distribution. The genus comprises two stenochorous species occurring in South India (*H. nilgiria*) and Central Nepal (*H. nepaliria*).

Etymology. The generic name refers to the Himalayan region where the second species of the genus was discovered.

***Himalobrya nepaliria* sp. n.**

Fig. 2.

Type material. Holotype: Male (Fig. 2), Nepal, Pokhara, VII.2009, slide OP4326m (coll. O. Pekarsky).

Diagnosis. The new species can be distinguished externally from *H. nilgiria* by its cream-white ground colour and smaller orbicular stigma. In the male genitalia, *H. nepaliria* (Fig. 4) differs from its sister species by the bifurcated apical part of valva, larger, wider juxta, much larger, longer medial diverticulum with apical cornutus directed contraclockwise and smaller subbasal diverticulum on vesica, whereas the valva of *H. nilgiria* (Fig. 3) is characterized by a single apical extension, the juxta is smaller, and the medial diverticulum of the vesica is smaller, with the cornutus directed clockwise.

Description (Fig. 2). Wingspan 28 mm. Male antennae ciliate. Head, collar, thorax, tegulae, and abdomen cream-white with sparse dark scales, frons white. Forewing short, narrow, apex finely pointed; outer margin more or less evenly arched, somewhat more oblique in lower part. Ground colour cream white with yellowish patches; wing pattern well developed. Crosslines sharply defined, black: basal line as a small group of black scales, subbasal line bend with streak-like extension medially, antemedial line straight, waved and oblique, medial line traceable, double, postmedial line curved, dentate, subterminal hardly traceable; terminal line a row of black patches. Reniform stigma large, narrowly halfmoon-shaped, incompletely encircled by dark dots, orbicular stigmata small, rounded, diffusely black filled with cream-white scales. Cilia cream-white, chequered with grey scales. Hindwing more or less unicolorous grey-brown, with somewhat paler inner area; discal spot absent; cilia cream-white.

Male genitalia (Fig. 4). Uncus strong, slender, curved at base then straight, its tip finely pointed; tegumen shorter than vinculum; vinculum V-shaped; valva elongated, costal margin moderately curved, valval apex bifurcated; clasper forming small, rectangular plate; juxta subdeltoidal, constricted medially, anterior margin rounded with small pointed tip medially, posterior part slightly incised medio-apically. Aedeagus cylindrical, short, straight, carinal extension sclerotized, triangular, rather bill-like; vesica membranous, its main chamber with large subbasal swelling and very large, wide, rectangular medial diverticulum tipped with long based, strong, thorn-like cornutus. Female unknown.

Distribution. The new species known only from its type locality – Central Nepal.

Etymology. The species name refers to the country name where it was collected.

Genus *Scythobrya* Boursin, 1960

Scythobrya Boursin, 1960, Bulletin Mensuel de la Société Linnéenne de Lyon, 29, 167–174; type-species: *Scythobrya subliterata* Filipjev, 1931 [Tajikistan] Pamir, Khorog.

Scythobrya istaravshana sp. n.

Figs 5, 6.

Type material. Holotype: Male (Fig. 5), Tajikistan, Turkestan Mt. Range, Istaravshan Distr., 15 km SW Ovchi, 2865 m, N39°31'10", E68°55'26", 5–6.VIII.2018, leg. O. Pak & E. Ivanova, slide OP4433m (coll. O. Pekarsky). **Paratypes.** Tajikistan: 3♂♂, 2♀♀, with the same data as the Holotype (coll. O. Pekarsky); 1♀, Gissarsky ridge, riv. Kofernigan, kishlak Yavroz, 31.VIII.[19]91, leg. S.F. Melyakh, slide OP1637f (coll. O. Pekarsky); 1♀, 20 km N Dushanbe, vill. Varzob, 1200 m, 18.VII.2010, leg. O. Pak (coll. O. Pekarsky); 4♂♂, 3♀♀, Darvazsky Mts, 10,45km SW of Padkinov kishlak on Afghanistan-Tajikistan border (Pyandzh river), 1130 m, N38°18'485, E70°36'216, 15.07.2011, leg. S. Korb, slides OP1749m, OP1748f (coll. O. Pekarsky); 8♂♂, 6♀♀, with the same locality and data (coll. S. Korb); 8♂♂, 3♀♀, with the same locality and data, leg. A. Nikolayev (coll. O. Pekarsky); 5♂♂, 2♀♀, 13.VII.2015, Fergansky Mts, S shore of Toktogul reservoir, 1768 m, N41°43.223' E72°57.165'; 2♂♂, 1♀, 27–28.VII.2019, Talas Mts, Kara-Buura river, 31 km S of Kluchevka, 1707 m, N 42.337976, E 71.60727 (coll. S. Korb).

Diagnosis. The new species can be distinguished from the closely related *S. subliterata* by its smaller size (wingspan 24–27 mm), narrower forewings with more oblique termen, less contrasting dark wing pattern and greyish-brown ground colour, and the more unicolorous, darker hindwings, whereas wingspan of *S. subliterata* is 27–33 mm, its wing pattern more sharply defined and better developed, the crosslines are defined with cream-white fascia, the ground colour of forewing is bright greyish-brown, and the hindwings are lighter.

In the male genitalia (Fig. 11), *S. istaravshana* is most similar to *S. subliterata* but differs from it by the slenderer distal third of valva, the narrower and distally curved clasper with narrow base and fine tip, the shorter and narrower uncus, the wider aedeagus with more sclerotized carinal plate, knobbed coecum, and the thorn-like cornutus located on the surface of the main chamber of the vesica. In comparison, the male genitalia of *S. subliterata* (Figs 13–15) are characterized by the less narrowed upper part of valva, the medially curved and wide-based clasper having less acute tip, the longer, medially dilated uncus and the claw-like cornutus topped on a medial diverticulum of the vesica.

In the female genitalia of the new species (Fig. 12) the ventral plate of antrum is narrower than in *S. subliterata*, the ductus bursae is shorter, the lateral sclerotization of posterior part of corpus bursae is larger, and the anterior apophyses are thicker. The female genitalia of *S. subliterata* (Fig. 16) have, in comparison with the new species, wider ventral plate of antrum, longer ductus bursae, less sclerotized posterior part of corpus bursae, and thinner anterior apophyses.

Description (Figs 5, 6). Wingspan 24–27 mm. Male antennae filiform. Head, collar, thorax, tegulae, and abdomen dark grey. Forewing short, narrow, with apex acute; outer margin oblique. Ground colour dark grey-brown; wing pattern well developed. Crosslines sharply defined, black: subbasal line curved, brown, subbasal streak connecting subbasal and antemedial lines thick, antemedial line straight, oblique, medial line traceable, curved, postmedial line bend, subterminal line sinuous, well developed; terminal line a row of small black patches, hardly traceable. Reniform stigma large, orbicular stigma small, barely expressed. Cilia light grey, chequered with light brown scales. Hindwing greyish-brown, with darker greyish outer third; discal spot large, lunulate; cilia light-brown.

Male genitalia (Fig. 11). Uncus strong, medium-long, straight, its tip finely pointed; tegumen ca as long as vinculum; vinculum V-shaped; valva elongated, costal margin slightly curved medially, valval apex pointed, curved outwards; clasper narrow-based, long and thin, curved distally; juxta small, nearly rhomboidal, widened medially. Aedeagus cylindrical, medium-long, straight, coecum knob-like, carina with strongly sclerotized dorsal plate; vesica membranous, its main chamber near quadrangular, its medial part armed by a strong, elongated, thorn-like cornutus.

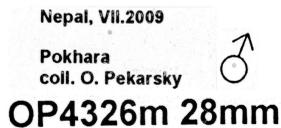
Female genitalia (Fig. 12). Ovipositor wide, covered with thin, short hair-like setae; anterior apophyses long, rather thick, posterior apophyses thin, shorter as anterior apophyses. Antrum broad, ventral plate narrow; subgenital plate (8th abdominal segment) medium-wide, well sclerotized; ductus bursae short; corpus bursae pear-shaped, anterior part membranous, posterior area with lateral sclerotization opposite to appendix bursae; appendix bursae small, membranous.

Distribution. Tajikistan, Istaravshan District.

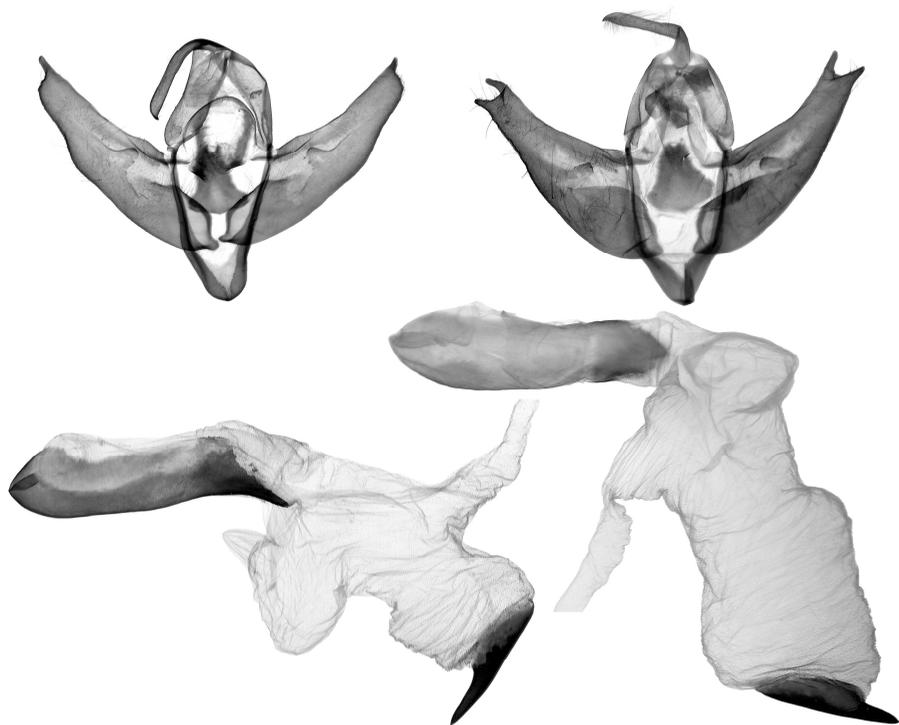
Etymology. The species name refers to the type-locality of the taxon.



1 *H. nilgiria*



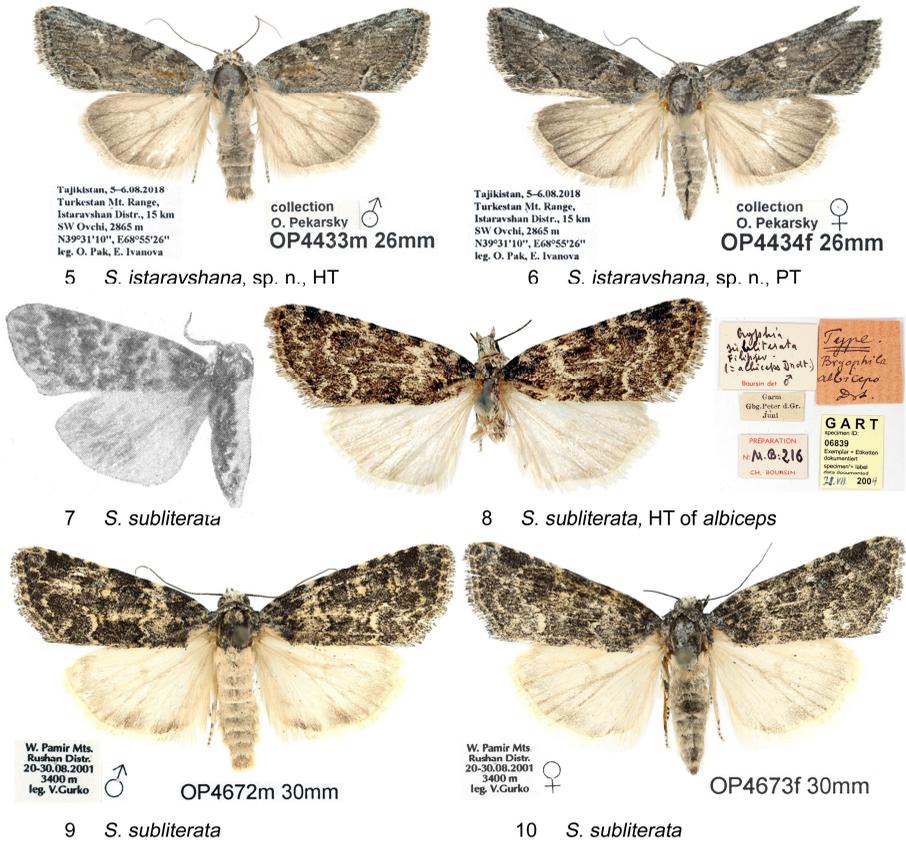
2 *H. nepaliria* sp. n., HT



3 *H. nilgiria*, LR12463m

4 *H. nepaliria* sp. n., HT, OP4326m

Figures 1–4. *Himalobrya* spp, adults & male genitalia. **1.** *H. nilgiria*, male, India, Tamil Nadu, Tiruchirappalli (NHMW); **2.** *H. nepaliria* sp. n., male, Holotype, Nepal, Pokhara (OP); **3.** *H. nilgiria*, male, India, Tamil Nadu, Tiruchirappalli (NHMW); **4.** *H. nepaliria*, male, Holotype, Nepal, Pokhara (OP).

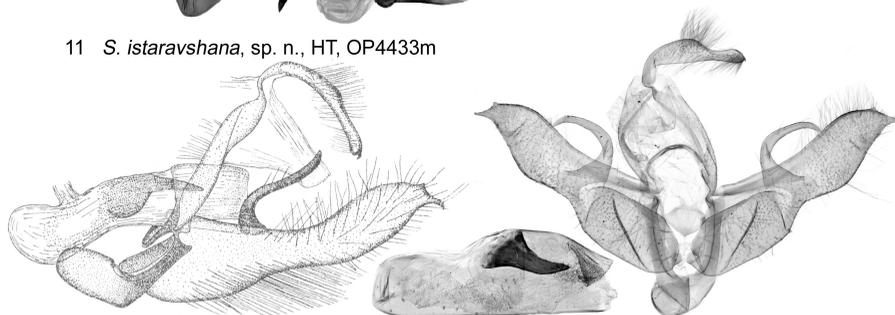


Figures 5–10. *Scythobrya* spp, adults. **5.** *S. istaravshana* sp. n., male, Holotype, Tajikistan, Istaravshan Distr. (OP); **6.** *S. istaravshana* sp. n., female, Paratype, Tajikistan, Istaravshan Distr. (OP); **7.** *S. subliterata*, female, Tajikistan, Khorog (after Filipjev, 1931); **8.** *S. subliterata*, male, Holotype of *Bryophila albiceps* (MNHU); **9.** *S. subliterata*, male, Tajikistan, Rushan Distr. (OP); **10.** *S. subliterata*, female, Tajikistan, Rushan Distr. (OP).



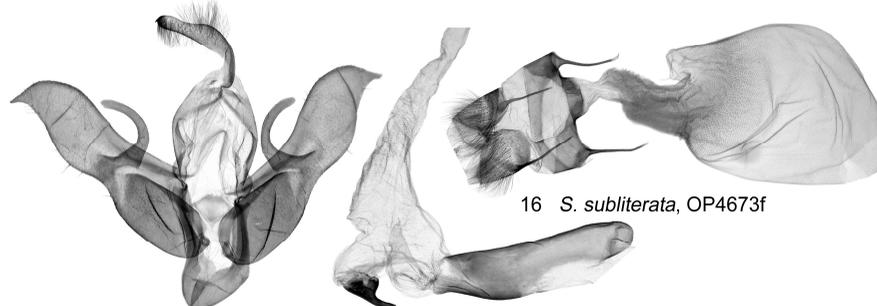
11 *S. istaravshana*, sp. n., HT, OP4433m

12 *S. istaravshana*, OP4434f



13 *S. subliterata*

14 *S. subliterata*, HT of *B. albiceps*, MB216



15 *S. subliterata*, OP4672m

16 *S. subliterata*, OP4673f

Figures 11–16. *Scythobrya* spp, genitalia. **11.** *S. istaravshana* sp. n., male, Holotype, Tajikistan (OP); **12.** *S. istaravshana*, female, Tajikistan (OP); **13.** *S. subliterata*, male, Tajikistan, Khorog (after Filipjev, 1931); **14.** *S. subliterata*, male, HT of *Bryophila albiceps* (MNHU); **15.** *S. subliterata*, male, Tajikistan (OP); **16.** *S. subliterata*, female, Tajikistan (OP).

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