

The description of *Scythris arenicola* sp. n. from the Southern Ural Mountains (Lepidoptera: Scythrididae)

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Scythris arenicola sp. n. from the Southern Ural Mountains is described. Altogether 64 specimens were collected during 29.–30.V.2004 in a sandy steppe near Burannoe village in the valley of the River Ilek. The flora was investigated in the locality as well, and the recorded plants are listed.

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1. Introduction

The scythridid fauna of the Southern Ural Mountains has been intensely studied since 1996. Results of the research, with descriptions of fourteen new species, were published by Nupponen *et. al.* (2000). Since 1999, no additional species to a rich fauna of Scythrididae of the Ural Mountains have been recorded, despite thorough investigations carried out during several trips in the region. As the scythridids are often very local and difficult to observe, it was expected that there still remain undiscovered taxa in the study area. In late May, 2004, a further unknown scythridid was found in the southernmost part of the Urals. The new taxon is described here.

2. Description of the new species

Scythris arenicola sp. n.

Type material. Holotype: ♂ (Fig. 1): Russia, S Ural, 50°58'N 54°25'E, 100 m a.s.l., Orenburg district, near Burannoe village, 29.V.2004, K. Nupponen leg. In coll. Nupponen. Paratypes (45 ♂♂, 18 ♀♀; Fig. 2): Same data as holotype ex-



Fig. 1. Imago (male, holotype) of *Scythris arenicola* sp. n.

cept for dates: 8 ♂♂ 5 ♀♀ 29.V.2004, 37 ♂♂ 13 ♀♀ 30.V.2004. Genitalia slides: K. Nupponen prep. no. 1/02.X.2004 (♂), 2/02.X.2004 (♀). In coll. Nupponen.

Diagnosis. Externally *S. arenicola* sp. n. may be separated from its closest relatives (see Remarks) by long and narrow forewings with an indistinct, longitudinal stripe from base to tip. However, there is some variation in the coloration of the forewings: the ground colour varies from pale brown to blackish brown and the longitudinal stripe from almost invisible to rather distinct. The male genitalia of *S. arenicola* mostly resemble those of *S. erinacella* K. Nupponen, 2003 and



Fig. 2. Imago (female, paratype) of *Scythris arenicola* sp. n.

S. terekholensis Bengtsson, 1997, but differ from those by more sparse pegs and obtuse-angled inner margin of the valvae, as well as by the shape of distal part of the gnathos. Both lateral processes of the tergum VIII are absent in *S. arenicola*, separating the taxon from all known related species excluding *S. terekholensis*. However, the digitate processes of tergum VIII are parallel in *terekholensis*, but diverging in *arenicola*. The female genitalia of *S. arenicola* are closest to those of *S. kullbergi* Bengtsson, 1997 and *S. albisaxella* K. Nupponen, 2000, but differ from those by a rectangular, sclerotized tip of the sterigma and a larger labiate sclerotization of sternum VII.

Description. Wingspan 9–11 mm in male and 10–12 mm in female. Head, thorax, collar, tegula and antenna brown mixed with beige scales. Neck tuft and haustellum pale beige. Labial palp: segment I yellowish white, segments II and III pale beige with few brown scales. Legs: femur dirty white, tarsus and tibia beige. Abdomen dorsally fuscous, ventrally dirty white. Forewing brown with scattered pale scales; a beige, more or less indistinct stripe from base along fold to apex, widening subapically; the stripe is mixed with dirty white scales, sparsely in fold and frequently in apical area.

Male genitalia (Figs. 3–4). Uncus reduced. Gnathos asymmetrical, thick, basally wide, distally strongly sclerotized with extended, blunt tip. Aedeagus thick, straight, basally enlarged, tip slightly tapered. Valvae fused at base, spatular, inner margin with triangular median bulge; posterior half rather densely covered with slender, sclerotized pegs. Sternum VIII subrectangular, membranous. Tergum VIII quadrangular, poste-

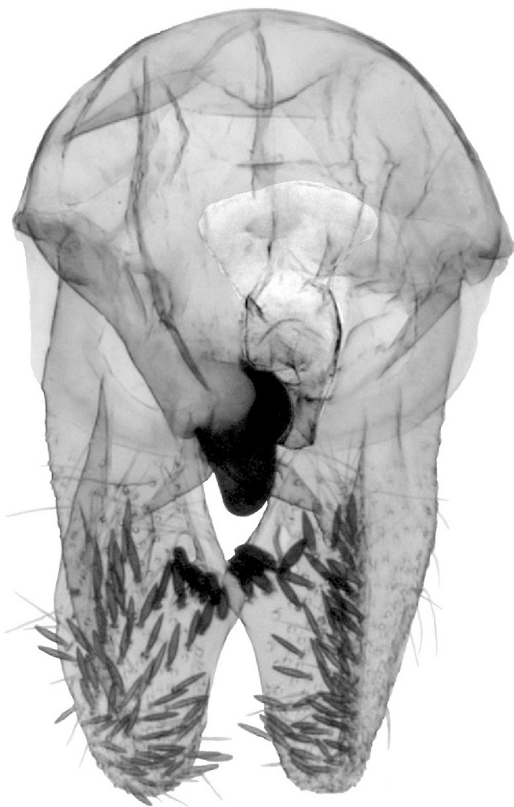


Fig. 3. Male genitalia of *Scythris arenicola* (paratype).

rior margin with two digitate, diverging processes; anterior margin concave; lateral processes absent.

Female genitalia (Fig. 5). Sterigma subrectangular, posterior 0.3 tapered; tip with subrectangular sclerotization; anterior margin straight. Sternum VII subrectangular; posterior margin slightly convex, medially weakly incised and furnished with large, labiate sclerotization.

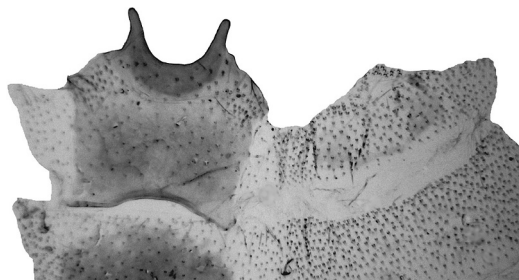


Fig. 4. Tergum VIII (left) and sternum VIII (right) of *Scythris arenicola* (paratype).

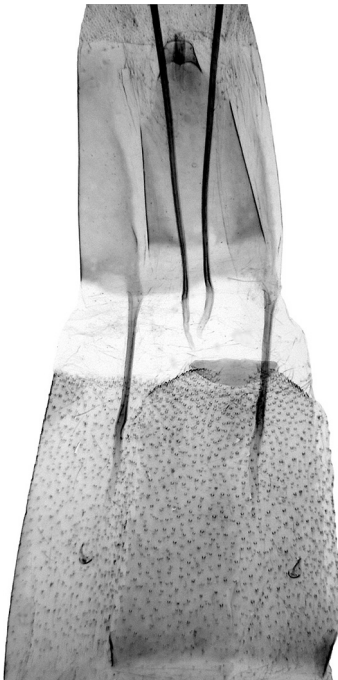


Fig. 5. Female genitalia of *Scythris arenicola* (paratype).

Apophyses anteriores $0.4 \times$ length of apophyses posteriores.

Bionomy. The specimens were collected by sweeping at daylight. The habitat was a sandy steppe with sparse vegetation (Fig. 6; see Remarks). The immature stages are unknown.

Distribution. Russia (S Ural). Only known from the type locality.

Etymology. Lat. *arena* = sand; *colo* = to inhabit. From the habitat. The type locality of a new taxon is a sandy steppe (see Remarks).

Remarks. *S. arenicola* belongs to a complex of closely related, small dark species, all of which have been described recently: *Scythris albisaxella* K. & T. Nupponen, 2000, *S. arkaimensis* Bengtsson, 2000, *S. cervella* K. & T. Nupponen, 2001, *S. erinacella* K. Nupponen, 2003, *S. hamatella* K. & T. Nupponen, 2001, *S. gorbunovi* K. Nupponen, 2003, *S. hebesella* K. Nupponen in litt., *S. kullbergi* Bengtsson, 1997, *S. lagomorphella* Junnilainen, 2002, *S. malozemovi* K. Nupponen, 2003, *S. sinevi* K. Nupponen, 2003, *S. terekholensis* Bengtsson, 1997 (see Nupponen 2003, p. 31). Ten of these species are distributed in the steppe zone of southern Siberia, from southern Urals eastward to Buryatia, and the remaining two taxa occur in central Turkey (see Bengtsson 1997, K. Nupponen *et. al.* 2000, K. & T. Nupponen 2001, Sachkov 2002, Junnilainen 2002, K. Nupponen 2003, K. Nupponen 2005). According to the male genitalia, *S. terekholensis* is the closest known relative of *S. arenicola*.

The vegetation was sparse in the habitat of *S. arenicola*, and almost half of the steppe was covered by exposed sand blotches. The flora was studied in the locality and only 17 species of plants were recorded. The Lepidoptera fauna was poor in this habitat. However, two other species of scythridids were recorded in the place: *S.*



Fig. 6. The habitat of *Scythris arenicola* sp. n., a sandy steppe in Burannoe.

emichi (Anker, 1870) (11 exx.) and *S. flaviventrella* (Herrich-Schäffer, 1855) (2 exx.). A known host plant of the former species, *Gypsophila fastigiata*, was not recorded in the locality. However, a few species of *Gypsophila*, including *G. fastigiata*, are known to occur widely in the adjacent steppes, in Buranoe as well. The following plants were recorded in the locality (Dr. P. Kulikov det.): *Achillea micrantha* Willd., *Agropyron fragile* (Roth), *Artemisia marschalliana* Spreng., *Astragalus varius* S. G. Gmel., *Centaurea carbonata* Klok., *Chondrilla brevirostris* Fisch. & C. A. Mey., *Eremogone biebersteinii* (Schlecht.), *Euphorbia sequieriana* Neck., *Festuca polesica* Zapł., *Helichrysum arenarium* (L.), *Jurinea polyclonos* (L.), *Koeleria glauca* (Spreng.), *Potentilla arenaria* Borkh., *Scorzonera ensifolia* Bieb., *Silene borysthena* (Grun.), *Stipa anomala* P. Smirn., *Syrenia montana* (Pall.).

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