

Scythris richteri sp. n., a new micromoth from Croatia (Lepidoptera: Scythrididae)

Bengt Å. Bengtsson

Abstract . A new species of the microlepidopterous family Scythrididae, *Scythris richteri* sp. n., is described. The type locality is situated in the south of Velebit in Croatia. The new species is externally similar to *Scythris taygeticola* Scholtz, 1997 but lacks the pale spot at the apex. It may also be confused with *Scythris hornigi* (Zeller, 1855) but differs externally by the whitish streak in the forewing not reaching the apex but ending at the termen two millimetres before the tip of wing. The male genitalia differ, for instance, by a straight row of large, stout bristles on the uncus. The type series was found in August at an elevation of ca. 1200 m, but the biology is otherwise unknown.

Samenvatting. *Scythris richteri* sp. n., een nieuwe kleine vlinder uit Kroatië (Lepidoptera: Scythrididae)
Een nieuwe kleine vlinder uit de familie Scythrididae wordt beschreven: *Scythris richteri* sp. n. De type-localiteit bevindt zich in Zuid-Velebit in Kroatië. De nieuwe soort lijkt uiterlijk op *Scythris taygeticola* Scholtz, 1997 maar mist de bleke vlek bij de apex. De soort kan ook verward worden met *Scythris hornigi* (Zeller, 1855) maar is daar uiterlijk van onderscheiden door de witte streep in de voorvleugel die niet tot de apex reikt, maar eindigt aan de buitenrand, 2 mm vóór de vleugeltip. De mannelijke genitalia verschillen o.a. door een rechte lijn grote, stevige doorns op de uncus. De type-serie werd in augustus gevonden op ca. 1200 m hoogte. Voor de rest is van de biologie niets bekend.

Résumé. *Scythris richteri* sp. n., un microlépidoptère nouveau de Croatie (Lepidoptera: Scythrididae)
Une nouvelle espèce de microlépidoptère de la famille des Scythrididae est décrite: *Scythris richteri* sp. n. La localité type se trouve dans le sud du Velebit, en Croatie. Extérieurement, la nouvelle espèce ressemble beaucoup *Scythris taygeticola* Scholtz, 1997 mais elle ne montre pas de tache pâle près de l'apex. Elle pourrait aussi être confondue avec *Scythris hornigi* (Zeller, 1855), mais peut en être distinguée par la strie blanche de l'aile antérieure qui n'atteint pas l'apex, mais qui s'arrête 2 mm avant le bord externe. Les genitalia mâles diffèrent p.e. par une rangée droite de grandes fortes épines sur l'uncus. La série des types fut récolté en août à une altitude de 1200 m, et c'est tout ce qu'on connaît de la biologie.

Key words: Scythrididae – *Scythris* – Croatia – taxonomy – faunistics.

Bengt Å. Bengtsson, Lokeg. 3, S-386 93 Färjestaden, Sweden. bengt.a.bengtsson@gmail.com

Introduction

The European fauna of the microlepidopterous family Scythrididae is comparatively well explored and only a few new species have been found and described after the review of the West Palaearctic Scythrididae by Bengtsson (1997). An interesting exception from this is the number of new species that have been described from the most easterly parts of Europe in or close to the Ural Mountains, and from North Africa and Turkey, from where more than twenty new species have been described (e.g. Nupponen 1999, 2003, 2004, 2005a, 2005b, 2007, 2009, 2010; Nupponen *et al.* 2003; and Nupponen *et al.* 2000).

During 2011 Ole Karsholt at ZMUC, Copenhagen, sent me a damaged scythridid specimen, collected by L. Srnka, with its genitalia in a plastic tube. After remounting the genitalia I observed that the specimen represented an undescribed species. I corresponded with Ignác Richter in Mala' Čausa in Slovakia, who had consulted Ole Karsholt about this taxon, and I was fortunate to receive further specimens from the same collecting area in Velebit, Croatia, regrettably only males. The female is thus still unknown.

Material and methods

The genitalia were mounted according to the method described by Robinson (1976) and Bengtsson (1997). The picture of the imago was produced by a multi-layer technique using a Canon EOS 350D with a 100 mm Canon Macro lens and artificial circular light-tube illumination.

The photographs (about 10) were processed by the software Helicon Focus Version 4.2.8 (10871). The genitalia illustrations were produced in a similar manner with multi-layer technique, using the same camera and a Euromex EB compound Microscope with a plan lens 5/0.18.



Fig. 1.– *Scythris richteri* Bengtsson sp. n. (holotype).

Scythris richteri Bengtsson sp. n.

Holotype: male; CROATIA, South Velebit, 26.8.2011, Lgt. Ignác Richter (white label); Gen. prep. no 1978X, *Scythris richteri*, B Å Bengtsson (yellow label); HOLOTYPE *Scythris richteri* ♂ BENGTTSSON (red label). – In coll. ZMUC [Copenhagen].

16 paratypes: 2 males; data as in the holotype. Genitalia of one male on slide 17571 (in glycerin in a plastic tube on the needle). – In coll. ZMUC.

1 male (specimen very damaged); data as in holotype but 17.8.2007, lgt. C. Srnka. Genitalia on slide BÅB 1971X. – In coll. ZMUC.

13 males; CROATIA, South Velebit (12 km Gracac) 1200 m, 11.8.2010, lgt. C. SRNKA. – In coll. ZMUC, coll. Richter and coll. BÅB.

Diagnosis: *Scythris richteri* sp. n. resembles some other scythridids with brown forewing and a longitudinal, pale streak in fold towards apex. *Scythris taygeticola* Scholtz, 1997 has about the same wingspan but at the tip

a pale, diffuse spot is present, and in the genitalia the uncus is armed with strong spines from two round pads and not from a straight, transverse row as in *S. richteri* sp. n. The gnathos and the valvae are of dissimilar shape, as well. *Scythris hornigii* (Zeller, 1855) also has the same size and coloration but the longitudinal streak runs all the way from the wing base to the wing tip, while in *S. richteri* sp. n. the streak ends about two millimetres before apex. The Moroccan species *Scythris ciliatella* Zerny, 1936 is smaller and has lighter hindwing.

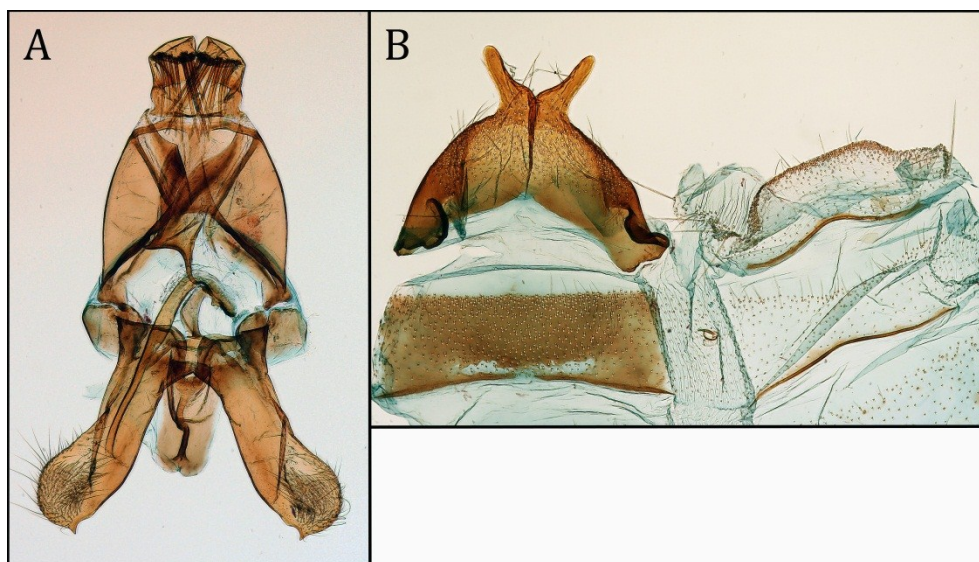


Fig. 2.– A. Male genitalia of *S. richteri* Bengtsson sp. n. Holotype. – B. Sternum 8 (to the left) and tergum 8 (to the right).

Description of imago (Fig. 1): Wingspan 14–17 mm. Head grey with faint brown tinge. Labial palp rather thin, curved upwards, second and third segment as long as eye diameter; basal segment white; second and third segment whitish on inner side, on outer side gradually darker olive brown apically, third segment almost entirely dark olive brown on outer surface. Antenna 0.6 times as long as forewing, dark brownish dorsally, ventrally whitish along a thin line to about middle of flagellum; cilia short, c. one third of flagellum diameter; scape underneath white. Collar cream white but in middle greyish. Tegula contrastingly coloured, whitish in inner half, dark brownish in outer part. Thorax fuscous, laterally and posteriorly slightly paler. Forewing brownish with a distinct, whitish streak from wing base to middle of termen, slightly bent and evenly broad; costa from middle with a thin, cream-coloured streak, apically widening; costal fringes cream-coloured, fringes along termen fuscous, somewhat darkening towards tornus. Forewing underside dark fuscous, from middle of costa a cream line of same shape and coloration as on dorsal side. Hindwing fuscous, width at one third from base about 0.8 of forewing; fringes pale fuscous. Foreleg fuscous externally, internally pale greyish or beige. Midleg coloration as in foreleg but more pale greyish scales on outer surface. Hindleg dirty whitish, outer spur of each pair fuscous, inner spurs dirty whitish; tarsal segments suffused greyish brown and whitish. Abdomen

dorsally greyish with slightly paler hind margins, ventrally cream-coloured; anal brush dark greyish beige.

Male genitalia (Figs. 2A–B): Symmetrical. Uncus a sub-square plate with a medioposterior cleft and a transverse row of, straight stiff bristles at posterior margin directed anteriorly. Gnathos two slightly bent, distally widening bands fused subapically, distal extension at tip shallowly bifurcate with two unequal points, lower one longer, slender and curved at tip. Valvae diverging, each one slightly bent and somewhat constricted in middle, apex round and with short, ventral "beak". Phallus almost straight or slightly curved, insignificantly tapered apically, tip obliquely truncate. Vincular extension (saccus) sub-rectangular with longitudinal reinforcement. Sternum 8 semi-circular with pair of diverging, posterior "horns"; anterior margin of S8 concave. Tergum 8 a flat, subtrapezoid plate with round lateral corners.

Female genitalia: Unknown.

Distribution: Only recorded from the type locality, Velebit in Croatia.

Bionomics: Unknown. Imagines were found in August.

Etymology: *Scythris richteri* sp.n. is named after Ignác Richter, the collector of the holotype and of some paratypes.

Acknowledgements

I am deeply indebted to Ing. Ignác Richter who provided the type series of the undescribed species, and

also to L'. Srnka for providing several paratypes. I also thank Ole Karsholt who forwarded to me the first specimen for determination and at which occasion I was able to confirm the status of the new taxon.

References

- Bengtsson B. Å. 1997. Scythrididae. – In: Huemer P., Karsholt O. & Lyneborg L. (eds.): *Microlepidoptera of Europe* **2**: 1-301.
- Nupponen K. 1999. *Scythris saarelai* sp.n. from southern Spain and further records of *Scythris mariannae* Bengtsson, 1991 with a new synonym (Lepidoptera: Scythrididae). — *Entomologica Fennica* **10**: 161–166.
- Nupponen K. 2001. Records of scythridids from Tunisia, with description of two new species (Lepidoptera: Scythrididae). — *Entomologica Fennica* **12**: 53–58.
- Nupponen K. 2003. Contribution to the scythridid fauna of southern Buryatia, with description of seven new species (Lepidoptera: Scythrididae). — *Entomologica Fennica* **14**: 25–45.
- Nupponen K. 2004. Notes on Scythrididae recorded in the southern Spain during 2003, with description of one new species. (Lepidoptera: Scythrididae). — *SHILAP Revista de lepidopterologia* **32**(125): 31–37.
- Nupponen K. 2005a. Notes on Palaearctic Scythrididae, with description of two new species (Lepidoptera: Scythrididae). — *Entomologica Fennica* **16**: 165–174.
- Nupponen K. 2005b. The description of *Scythris arenicola* sp.n. from the Southern Ural Moun-tains (Lepidoptera: Scythrididae). — *Entomologica Fennica* **16**: 179–182.
- Nupponen K. 2007. Notes on the Scythrididae fauna of the Volgo-Ural region and southern Buryatia, with one new synonym and descriptions of six new species (Lepidoptera: Scythrididae). — *SHILAP Revista de lepidopterologia* **35**(138): 231–249.
- Nupponen K. 2009. *Scythris antisymmetrica* Nupponen, sp.n. from Central Spain, an example of antisymmetric male genitalia in the order Lepidoptera (Lepidoptera: Scythrididae). — *SHILAP Revista de lepidopterologia* **37**(148): 439–444.
- Nupponen K. 2010. *Scythris stalagmitella* Nupponen, sp.n., a new scythridid species from the southern Urals and Turkey (Lepidoptera: Scythrididae). — *SHILAP Revista de lepidopterologie* **38**(150): 215–218.
- Nupponen K., Bengtsson B. Å., Kaitila J.-P., Nupponen T., Junnilainen J. & Olschwang O. 2000. The scythridid fauna of the southern Ural Mountains, with description of fourteen new species (Lepidoptera: Scythrididae). — *Entomologica Fennica* **11**: 5–34.
- Nupponen K., Nupponen T., Saarela E. & Sippola L. 2003. New records on Microlepidoptera from the western Mediterranean region (Lepidoptera: Nepticulidae, Scythrididae, Tortricidae). — *SHILAP Revista de lepidopterologia* **31**(123): 229–233.
- Robinson G. S. 1976. The preparation of slides of Lepidoptera genitalia with special reference to the Microlepidoptera. — *Entomologist's Gazette* **27**: 127–132.
- Scholtz A. 1997. *Scythris taygeticola* sp.n., eine neue *Scythris*-Art aus Griechenland (Lepidoptera: Scythrididae). — *Nachrichtenblatt der bayerischen Entomologen* **46**(1/2): 35–38.
-