

ENTOMOFAUNISTIC NEWS

NOTES ON THE LIST OF LITHUANIAN MACROLEPIDOPTERA. 1.

GIEDRIUS ŠVITRA

Lithuanian Entomological Society, Akademijos 2, LT-08412 Vilnius, Lithuania.

E-mail: giedsvis@gmail.com

Notes

The last checklist of Lithuanian Lepidoptera was published in 2004 (Ivinskis, 2004). After this publication several new to Lithuanian fauna species of Macrolepidoptera have been recorded: *Trichoplusia ni* (Hübner, 1803), *Eupithecia cauchiata* (Duponchel, 1831) (Kazlauskas & Šlėnys, 2007), *Carcharodus alceae* (Esper, 1780), *Athetis lepigone* (Moschler, 1860) (Paukštė, 2009), *Deltote deceptoris* (Scopoli, 1763) (Bačianskas, 2010), *Drymonia velitaris* (Hufnagel, 1766), *Xylomoia graminea* (Graeser, 1889), *Calyptra thalictri* (Borkhausen, 1790), *Notocasis sertata* (Hubner, 1817) (Švitra *et al.*, 2011).

Other changes in the checklist of Lithuanian Lepidoptera should be made due to changes in taxonomy of some species.

In the monograph of the genus *Hadena* Schrank, 1802 (Noctuidae), Hacker (1996) interpreted *H. capsincola* (Denis & Schiffermüller, 1775) as a species distinct from *H. bicruris* (Hufnagel, 1766), providing the re-description of the taxon. Distribution areas of these two species partially overlap, but *H. bicruris* is distributed more in the western and northern part of Europe, while *H. capsincola* – in the eastern part (Hacker *et al.*, 2002). After checking genitalia of specimens from different places in Lithuania, no *H. bicruris* were found – all specimens belonged to *H. capsincola* (Fig. 2), so *Hadena bicruris* should be omitted from the Lithuanian Lepidoptera list until reliable data of occurrence of this species in Lithuania will be obtained. Instead, *H. capsincola* should be included.

Similar situation is with *Pontia daplidicae* (Linnaeus, 1758) and *P. edusa* (Fabricius, 1777) (Pieridae). These butterflies have been distinguished into two taxa on the basis of enzyme electrophoresis (Geiger *et al.*, 1988) and this is accepted in *Fauna Europaea* (Vliegthart *et al.*, 2013). *P. daplidicae* is distributed approximately to the west from the border of Germany and France and *P. edusa* – to the east. So *Pontia daplidicae* should be omitted from the Lithuanian Lepidoptera list and *P. edusa* should be included.

In 1989 *Leptidea sinapis* (Linnaeus, 1758) and *L. reali* Reissinger, 1989 (Pieridae) have been distinguished as different species (Reissinger, 1989). Both species were reported from Lithuania (Ivinskis, 2004). In 2011 on the basis of molecular and karyological studies (Dincă *et al.*, 2011) it was discovered that the supposed single species *L. reali* (defined by the larger genitalia) was itself divided into two distinct genotypes sufficiently different to warrant them being different species. One species is restricted to south-west Europe and retained the name *L. reali*, while the other, inhabiting wide region to the north and east, got the name *L. juvernica* (Williams, 1946), as this

name for the first time was used by Williams to special form of *L. sinapis* from Ireland (Williams, 1946). *Leptidea sinapis* is found throughout Europe and also occurs across much of temperate western Asia. According to this, two species – *L. sinapis* and *L. juvernica* – are present in Lithuania. So *L. reali* in the checklist of Lithuanian Lepidoptera should be replaced with *L. juvernica*.

Aporophyla lutulenta (Denis & Schiffermüller, 1775) and *A. lueneburgensis* (Freyer, 1848) (Noctuidae) are considered to be different valid species. Ronkay *et al.* (2001) describes *A. lutulenta* as Ponto-Mediterranean species with relatively broad sporadic area in the northern Balkans and in the eastern part of Central Europe, while *A. lueneburgensis* – as a widespread Atlanto-Mediterranean species, its area extending from the Iberian peninsula throughout France, the Benelux countries, the British Isles and NW Germany to the Baltic area and SW Scandinavia. According to www.faunaeur.org (Fibiger & Skule, 2013) Lithuanian specimens should belong to *A. lueneburgensis*, so *A. lutulenta* in the checklist of Lithuanian Lepidoptera should be replaced with *A. lueneburgensis*. The appearance of examined Lithuanian specimens correspond to the description of *A. lueneburgensis* as well (Fig. 1). However Georges E. R. J. Orhant after reviewing adults, eggs and larvae as well as DNA bar-coding makes the conclusion that in Europe these two species are really just one (Orhant, 2012). So we should wait until these debates will end.

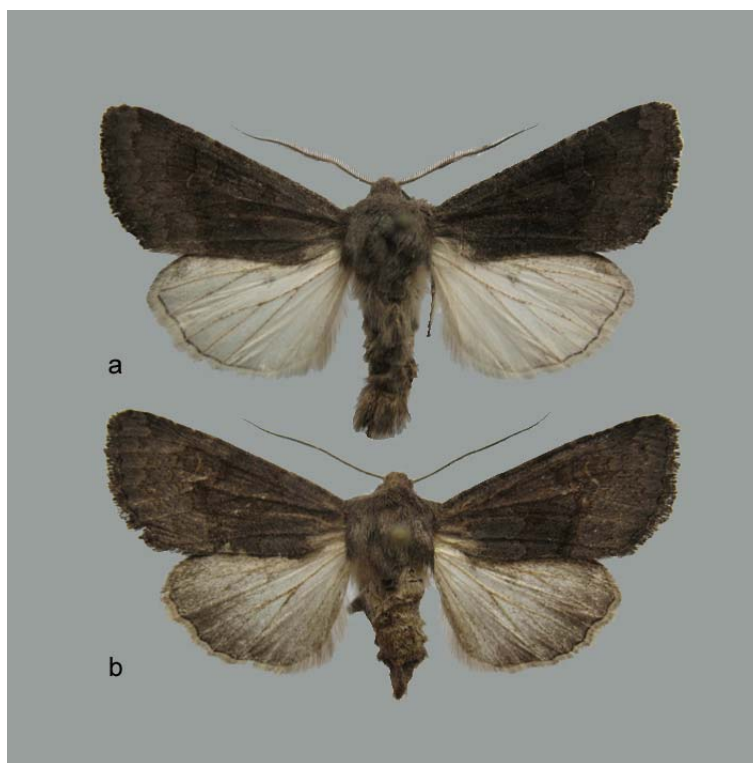


Figure 1. *Aporophyla lueneburgensis* (Freyer, 1848): a – male, b – female (Lithuania, Senieji Trakai, 30 08 2013)

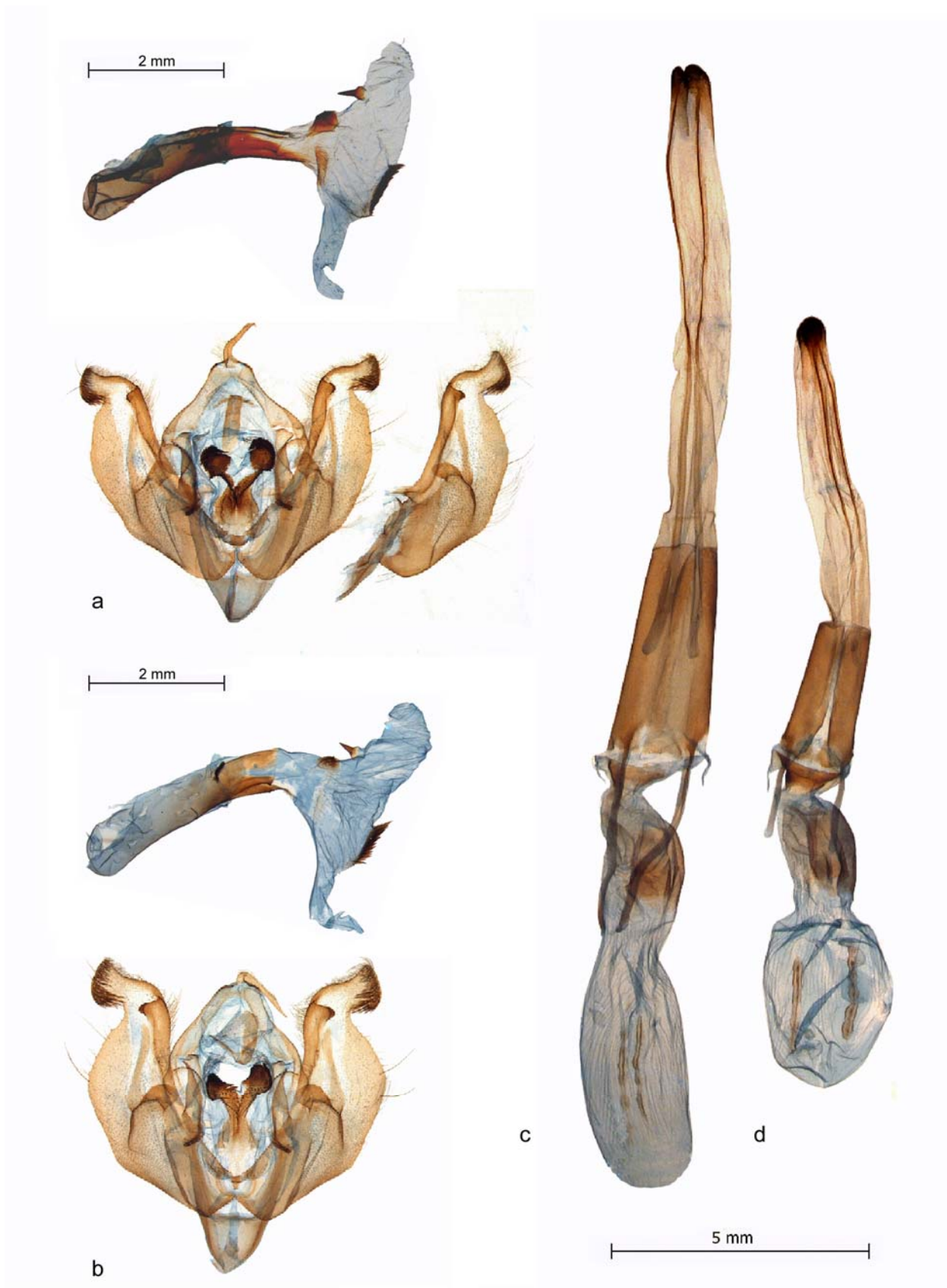


Figure 2. Genitalia structures: a – *Hadenia bicruris* male, fallus everted (Denmark); b – *H. capsincola* male, fallus everted (Lithuania); c – *H. bicruris* female (Denmark); d – *H. capsincola*, female (Lithuania).

References

- Bačianskas V. 2010. One new and eighty-eight rare Lepidoptera species for Lithuania recorded in 2010. *New and Rare for Lithuania Insect Species* 22: 81–90.
- Dincă V., Lukhtanov V. A., Talavera G., Vila R. 2011. Unexpected layers of cryptic diversity in wood white *Leptidea* butterflies. *Nature Communications* 2: 324. DOI: 10.1038/ncomms1329.
- Fibiger M. & Skule B. 2013. *Fauna Europaea: Noctuidae*. In: Karsholt, O., Nieuwerkerken, E.J. van & de Jong, Y.S.D.M. 2013. *Fauna Europaea: Lepidoptera, Moths*. Fauna Europaea version 2.6, <http://www.faunaeur.org>
- Geiger, H., Descimon, H. and Scholl, A. 1988. Evidence for speciation within nominal *Pontia daplidice* (Linnaeus, 1758) in southern Europe (Lepidoptera: Pieridae). *Nota lepidopterologica* 11(1): 7–20.
- Hacker H. 1996: Revision der Gattung *Hadena* Schrank, 1802 (Lepidoptera: Noctuidae). *Esperiana* 5: 7–724.
- Hacker H., Ronkay L. & Hreblay M. 2002. *Noctuidae Europaeae 4. Hadeninae I*. Entomological Press, Sorø, 419 pp.
- Ivinskis P. 2004. *Lepidoptera of Lithuania. Annotated catalogue*. Vilnius: Institute of Ecology of Vilnius University.
- Kazlauskas R., Šlėnys P. 2007. Data on new and rare Lepidoptera species for Lithuania, collected in 1987–2007. *New and Rare for Lithuania Insect Species* 19: 33–34.
- Orhant Georges E. R. J. 2012. *Aporophyla lutulenta* (Denis et Schiffermüller, 1775) et *Aporophyla lueneburgensis* (Freyer, 1848), une seule et même espèce. *Oreina* 18, juin 2012: 4–9.
- Paukštė P. 2009. 2 New and 40 rare for Lithuania Lepidoptera species collected in 2003–2009. *New and Rare for Lithuania Insect Species* 21: 104–108.
- Reissinger E. 1989. Checkliste Pieridae Duponchel, 1835 der Westpalaeearctis (Europa, Nordwestafrika, Kaukasus, Kleinasien). *Atalanta* 20: 149–185.
- Ronkay L., Yela J.L. & M. Hreblay. 2001. *Noctuidae Europaea 5. Hadeninae II*. Entomological Press, Sorø, 452 pp.
- Švitra G., Bačianskas V., Ūsaitis T., Lukoševičius D. 2011. Four new and 153 rare for the Lithuanian fauna Lepidoptera species recorded in 2011. *New and Rare for Lithuania Insect Species* 23: 67–93.
- Vliegenthart A., Verovnik R. & Wiemers M. 2013. *Fauna Europaea: Pieridae*. In: Karsholt, O., Nieuwerkerken, E.J. van & de Jong, Y.S.D.M. 2013. *Fauna Europaea: Lepidoptera, Moths*. Fauna Europaea version 2.6, <http://www.faunaeur.org> (Accessed 14 10 2013).
- Williams H. 1946. The Irish form of *Leptidea sinapis*. *The Entomologist*. Vol.79: 1–2.

Pastabos Lietuvos Makrodrugių sąrašui. 1.*G. ŠVITRA***Santrauka**

Nuo 2004 metų Lietuvos Makrodrugių sąrašas pasipildė 9 naujomis rūšimis: *Trichoplusia ni* (Hübner, 1803), *Eupithecia cauchiata* (Duponchel, 1831), *Carcharodus alceae* (Esper, 1780), *Athetis lepigone* (Moschler, 1860), *Deltote deceptoris* (Scopoli, 1763), *Drymonia velitaris* (Hufnagel, 1766), *Xylomoia graminea* (Graeser, 1889), *Calyptra thalictri* (Borkhausen, 1790), *Notocasis sertata* (Hubner, 1817).

Pasikeitus kai kurių rūšių taksonomijai bei požiūriui į atskirų rūšių vientisumą 2004 metų sąrašas taisytinai: vietoj *Hadena bicruris* (Hufnagel, 1766) sąrašė turėtų būti *Hadena capsicola* (Denis & Schiffermüller, 1775) (Noctuidae), vietoje *Pontia daplidicae* (Linnaeus, 1758) – *P. edusa* (Fabricius, 1777) (Pieridae), vietoje *Leptidea reali* Reissinger, 1989 – *L. juvernica* (Williams, 1946) (Pieridae). *Aporophyla lutulenta* (Denis & Schiffermüller, 1775) (Noctuidae) turėtų būti keičiamas į *A. lueneburgensis* (Freyer, 1848), tačiau šių rūšių savarankiškumas vis dar diskutuojamas.

Received: 16 October, 2013