

Distribution of *Oporopsamma wertheimsteini* (Rebel, 1913) in Central Europe (Lepidoptera: Tortricidae)

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FAZEKAS, I. & LESAR, T.: *Distribution of Oporopsamma wertheimsteini* (Rebel, 1913) in Central Europe.

Abstract: Data are reported on the geographical distribution of *Oporopsamma wertheimsteini* (Rebel, 1913) in Central Europe. Structure of genitalia and morphological characteristics of wings are illustrated by figures. The habitats and Central European distribution of the species are described. With 5 figures.

Keywords: Lepidoptera, Tortricidae, *Oporopsamma wertheimsteini*, distribution, biology, C Europe.

Introduction

Oporopsamma Gozmány, 1954 a monotypical genus. All veins present except for hindwing M1, Rs-M1 separate. According to RAZOWSKI (2002) sexual dimorphism moderate, expressed mainly in shape of forewing which in female is more narrow, more acute than in male. *Oporopsamma wertheimsteini* is a West Palaearctic species, known from Azerbaijan to Pannon biogeographical region, where it is at the western limit of its range. Little information has been given until now on the status of *O. wertheimsteini* in Europe (RAZOWSKI 1959, 1987, 1991, 2001, 2002). It is known mainly in Hungary (GOZMÁNY 1954) with scattered localities in Slovakia (HRUBÝ 1964) and Slovenia (LESAR & HABELER 2005, LESAR & VEROVNIK 2008). A summary of recent distribution of the species in Hungary was given by FAZEKAS (2009). Here, we provide details of a study of the species in a Central European locality. We describe the habitats and we sketch the distribution map.

Abbreviations used: IV-IX: abbreviations of months; ex: exemplar; gen. prep: genital preparation; lt: light trap.

Names of institutions and private collectors: HNHM: Hungarian Natural History Museum, Budapest; SZ= Mr. Csaba Szabóky, H-Budapest; HGY= Mr. Gyula Horváth, H-Győr.

Hungarian names: – homokbuckás: sand dune, – nádas: reedy, – arborétum: arboretum, – fenyves-nyáras: pinewood-poplar plantation, – borókás: juniper, – botanikus kert: botanical garden.

Results

Oporopsamma wertheimsteini (Rebel, 1913)

Cnephasia wertheimsteini Rebel, 1913: *Rovartani Lapok* 20: 228. Type locality: Csételek [Cséhtelek, RO-Ciutelec], 7. VIII. [18]90, (RAZOWSKI 1959). Synonymy: *Oxyteron amseli* Razowski, 1957.

References – BUSCHMANN 2004; FAZEKAS 2009; GOZMÁNY 1954, 1983; HRUBÝ 1964; KARSHOLT & RAZOWSKI 1996; LESAR & HABELER 2005; LESAR & VEROVNIK 2008; OBRAZTSOV 1956; PASTORÁLIS 2007; RAZOWSKI 1959, 1987, 1991, 2001, 2002.

Diagnosis – ♂ ♀ wingspan 18.5–22.5 mm. Forewing ground colour grey, partly whitish, in places more less suffused with pale brownish and with blackish or brown dots. Typical markings brownish, consisting of indistinct basal blotch, concave proximally media fascia and faint apical and terminal suffusions. Hindwing ground colour whitish grey, cilia whitish or brownish white. Uncus of male genitalia short, socius slender and gnathos absent. Sacculus large and valva broad basally, with outer sclerotized pocket post-basally. Aedeagus slender, apex sharp. Sterigma of female genitalia slender and with reduced anteostial part. Bursa copulatrix without sclerites.

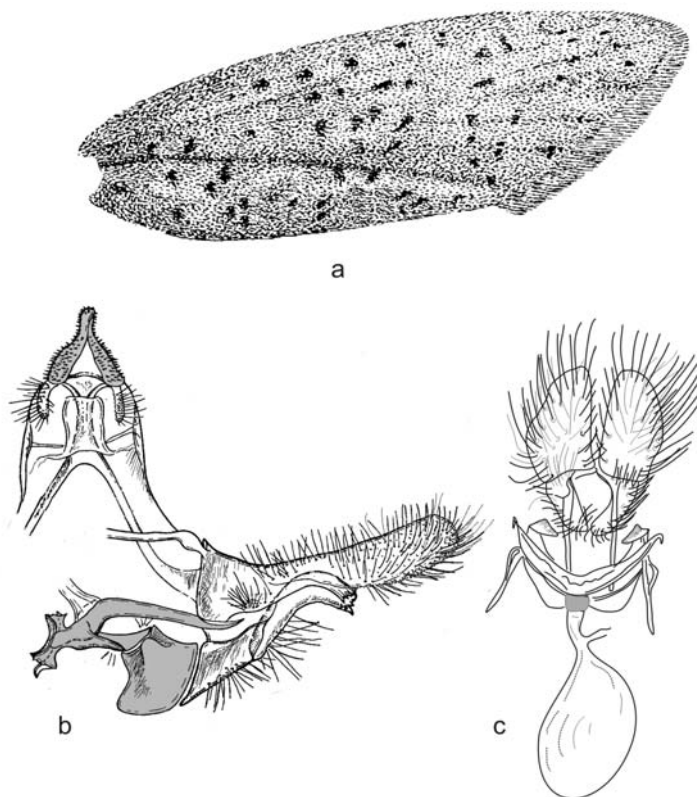


Fig. 1: Forewing (a), male (b) and female genitalia (c) of *Oporopsamma wertheimsteini* (Rebel, 1913) according to FAZEKAS (2009)

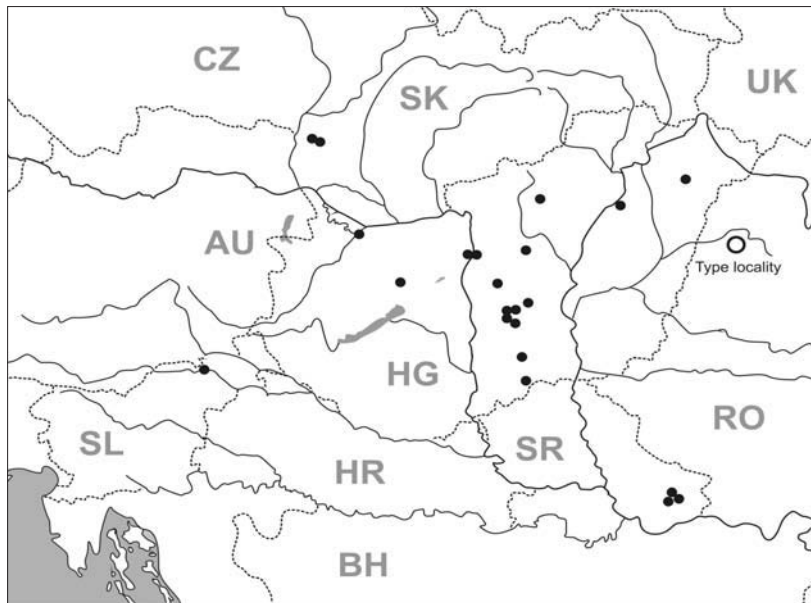


Fig. 2. Distribution of *Oporopsamma wertheimsteini* (Rebel, 1913) in Central Europe (del. Fazekas).

Biology – Larva (IV–V) monophagous on *Chondrilla juncea* L. According to authors (KUZNETZOV 1994, RAZOWSKI 2002) older larvae may be reared on salad and some Asteraceae. Pupation in feeding place where larvae aestivate; hibernation in egg stage. Univoltine species, the moths flying from late August to early October.

Distribution – Widely distributed from Iran, central Asia, Asia Minor and to Balkans, and in favourable localities in Hungary, Slovakia and Slovenia.

Range in Hungary

Examined material (according to the original writing): 11 ex, Ágasegyháza, homokbuckás, 1953. IX. 21. (leg. Dr. Gozmány, gen. prep. 61, Gozmány, in coll. HNHM); – 1 ex, Ágasegyháza, nádas, 1954. IX. 28. (leg. Dr. Éhik, in coll. HNHM); – 2 ex, Ágasegyháza, homokbuckás, 1958. IX. 13. (leg. Dr. Gozmány, in coll. HNHM); – 2 ex, Budatétény, 1960. IX. 18–19. (leg. It, in coll. HNHM); – 4 ex, Bugac, Felsőmonostor, 2000. 09. 07., 2002. 08. 28., 2003. 09. 06., 2005. 09. 16. (leg. Szabóky Cs., in coll. SZ); – 2 ex, Györszentiván, 1993. and 1994. 09. 13. (leg. Horváth Gy., in coll. HGY); – 1 ex, Fülöpháza, KNP bemutatóháza (a volt iskola) 2005. 09. 12. (leg. Szabóky Cs., in coll. SZ); – 1 ex, Hortobágy, Újszentmargita, 1974. IX. 23–25. (leg. Vásárhelyi T. és Mahunka S., in coll. HNHM); – 1 ex, Kállósemjén, 1959. IX. 20. (leg. It, in coll. HNHM); 1 ex, – Kecskemét, arborétum 2003. 09. 11. (leg. Szabóky Cs., in coll. SZ); – 1 ex, Királyszállás, 1933. IX. 22. (leg. Erdős, in coll. HNHM); – 7 ex, Kecskemét, Miklóstelep, 1961. IX. 7, 17, 18. (4 ex), 1963. IX. 10. (1 ex), 1964. IX. 16. (6 ex), 1964. IX. 18. (1 ex), 1964. IX. 27. (1 ex), 1964. IX. 27. (1 ex) (leg. It, in coll. HNHM); – 1 ex, Kiskunhalas, 1939. IX. 17. leg. Szent-Ivány (gen. prep. 4. Gozmány 1952); – 2 ex, Kiskunság NP, Fülöpháza, homokbuckás, 1978. IX. 11. leg. (leg. Sin K. és Mészár Á., in coll. HNHM); – 1 ex, Mátra, Sár-hegy, 1997. 09. 29. (in coll. MM); – 2 ex, KNP Bugac, fenyves-nyáras, 1979. VIII. 23. (leg. Gozmány, Vojnits, Sin, in coll. HNHM); – 1 ex, KNP, Bugac, 1979. IX. 23–25. (leg. Gozmány L., Ronkay L., Papp J., in coll. HNHM); – 1 ex, Nagykáta, Cseh-domb, 2001. 09. 21., (in coll. MM); – 5 ex, Örkény, borókás, 2000. 09. 05., 11., 2002. 09. 07., 2004. 09. 17. (leg. et coll. SZ); – 4 ex, Soroksár, botanikus kert, 2005. 09. 12., 2006. 09. 14., 17. (leg. Szabóky Cs. in coll. SZ); – 1 ex, Tompa, Alsósáskaalapos, 1964. IX. 14. lt, 1 ex, 1974. IX. 23. (leg. It, in coll. HNHM).

O. wertheimsteini is a rare species with very isolated populations in Hungary. Occurs very locally in Great Hungarian plain (a.s.l.m. 75–200 m), and sporadically in some habitats of moderate altitude in the mountains (Transdanubian Mountains; a.s.l.m. 200–756 m). Further west, it is unknown in most other countries. A xerothermophilous species, in Hungary the typical habitats where the moths fly are open sand steppes and lowland dry degraded grasslands, on secondary in rock- and slope steppes and in arboreta and botanical gardens. In the Hortobágy National Park it is found on the extensive grassy "pusztae" and steppe-like grasslands mainly on saline substrata, and the less extensive marshes and lakes as well as the two largest remaining original oak woods. This habitat is unique, not only in Hungary but also in other parts of Central Europe, and a similar vegetational complex occurs, at the nearest, only beyond the Volga desert in the Russia. According to GOZMÁNY (1983), the species is characteristic of sandy areas in the Great Plain in Hungary and the adjoining areas of Romania (Transylvania and the Deliblat desert).

Range in Slovakia

Examined material: According to G. Pastorális (in litt.) little specimen from Záhorská nížina, Šaštín-Stráže desert; 1♀ 20.09.1957. leg. Schwarz, in private coll. Liška (Praha, CZ).

RAZOWSKI (1959) published data earlier from this region, but there are no more recent records. The species is apparently very rare and local in Slovakia, but could be overlooked and therefore careful search is required. The Slovakian populations are a long distance from those in the Hungary. Gene flow is uncertain; the species may be in regression and endangered in Slovakia. The habitat is identical to that in Hungary (see Fig. 4b); locally extensive sand dunes and pannonic sand steppes. There are similar habitats in central Hungary, mainly in Kiskunság National Park.

Range in Slovenia

Examined material: 1 ex Spodnje Konjšiče on Mura River, 2006. X. 27. (leg. Lesar, Jež, coll. Lesar).

Rare species, known only from this specimen. The habitat is lowland mixed woodland on the right bank of the Slovenian-Austrian-border-river Mura. This part of North-East Slovenia belongs to the subpannonian region so the occurrence of this species there was not a very great surprise and further findings in the area are to be expected. At present, this is the most westward known point of its distribution in Central Europe. The species is new for Slovenia (LESAR & VEROVNIK 2008) and was unknown there in 2005, so it is not included in the List of Microlepidoptera for North-East Slovenia (LESAR & HABELER 2005).

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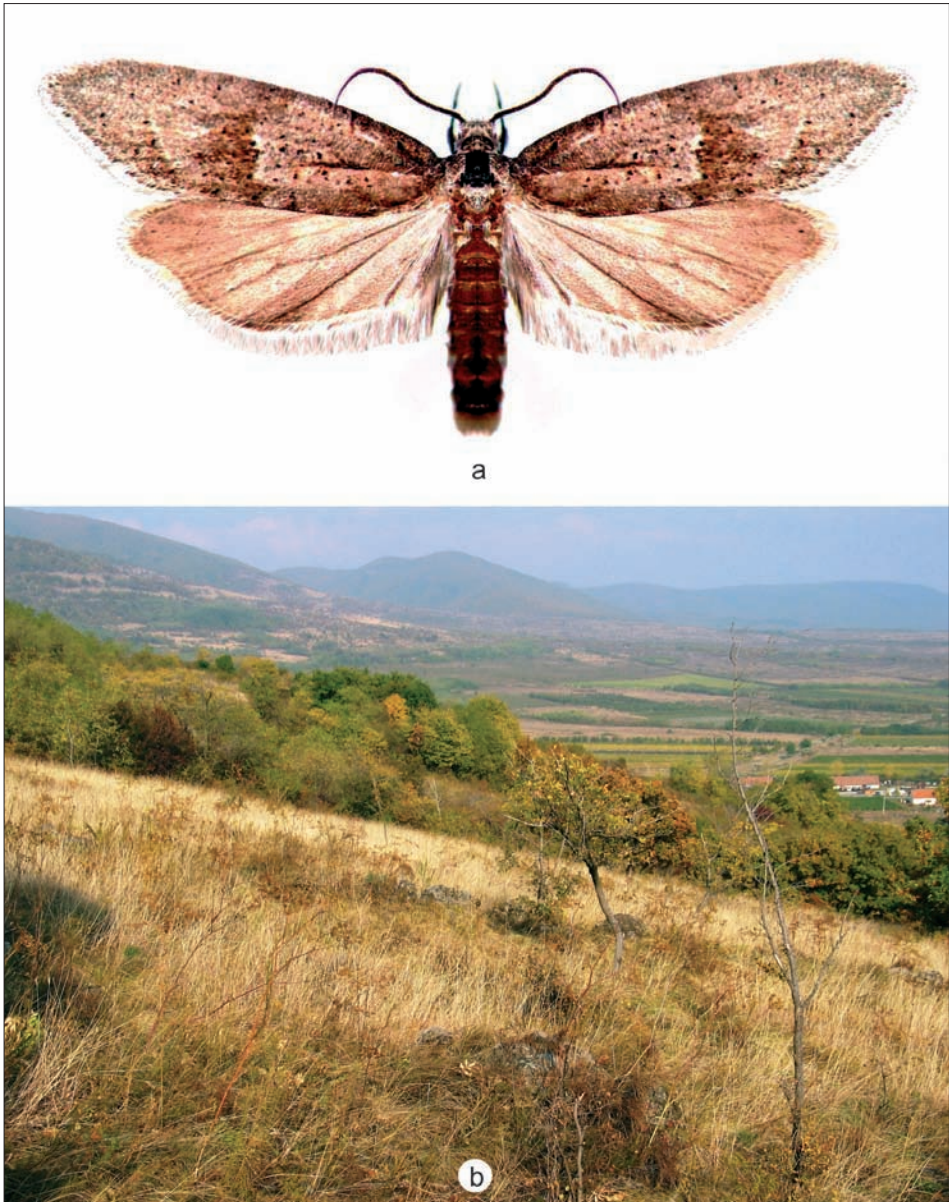


Fig. 3: Adult (a) and habitat (b) of *Oporopsamma wertheimsteini* (Rebel, 1913):
a) H-Gyórszentiván (photo Gy. Horváth); b) H-Gyöngyös, Sár-hegy, sub-pannonic steppic grasslands (photo: T. Baranyi).



Fig. 4. Habitat of *Oporopsamma wertheimsteini* (Rebel, 1913):
a) Hungary, Örkény (photo: G. Pastoralis); b) Slovakia, Šaštín–Stráže (photo: F. Slamka).

References

- BUSCHMANN F. 2004: A Mátra Múzeum molylepke-gyűjteménye II. Limacodidae – Tortricidae. – *Folia Historico Naturalia Musei Matraensis* 28: 219–242.
- FAZEKAS I. 2009: Distribution of *Oporopsamma wertheimsteini* (Rebel, 1913) and *Pelochrista subtiliana* (Jäckh, 1960) in Hungary (Lepidoptera: Tortricidae). – *Acta Naturalia Pannonica* 4 (2): 113–120.
- GOZMÁNY L. 1954: Studies on Microlepidoptera. – *Természettudományi Múzeum Évkönyve* p. 273–285.
- GOZMÁNY L. 1983: Microlepidoptera (excluding Pyraloidea) from the Hortobágy National Park. In MAHUNKA S. (ed.): *The fauna of the Hortobágy National Park*. – Akadémiai Kiadó, Budapest, p. 215–225.
- HRUBÝ, K. 1964: *Prodromus Lepidopter Slovenska*. – *Prodromus Lepidopterorum Slovaciae*. – SAV, Bratislava, 959 pp.
- KARSHOLT, O. & RAZOWSKI, J. 1996: *The Lepidoptera of Europe, A Distributional Check List*. – Apollo Books, Stenstrup, 380 pp.
- LESAR, T. & HABELER, H. 2005: Beitrag zur Kenntnis der Kleinschmetterlinge (Microlepidoptera) von Štajersko und Koroško in Slowenien. – *Natura Sloveniae* 7 (2): 3–127.
- LESAR, T. & VEROVNIK, R. 2008: Prispevek k poznavanju metuljev (Lepidoptera) Slovenije: Štajerska in Koroška-I. – *Natura Sloveniae* 10 (2): 25–46.
- OBRAZTSOV, N. S. 1956: Die Gattungen der Palaarktischen Tortricidae. – *Tijdschrift voor Entomologie* 99: 123.
- PASTORÁLIS G. 2007: Magyarország területén előforduló molylepkefajok jegyzéke. – *Natura Somogyiensis* 10: 219–301.
- RAZOWSKI, J. 1959: European species of Cnephasiini (Lepidoptera, Tortricidae). – *Acta zoologica cracoviensia* 10: 199–343.
- RAZOWSKI, J. 1987: The Genera of Tortricidae (Lepidoptera). Part I: Palaearctic Chlidanotinae and Tortricinae. – *Acta zoologica cracoviensia* 32: 141–355.
- RAZOWSKI, J. 1991: The catalogue of the species of Tortricidae (Lepidoptera). Part I: Palaearctic Chlidanotinae and Tortricinae: Cochylini, Ceracini, Cnephasiini. – *Acta zoologica cracoviensia* 34: 99–162.
- RAZOWSKI, J. 2001: Die Tortriciden (Lepidoptera, Tortricidae) Mitteleuropas. – *Frantisek Slamka, Bratislava*, 319 pp.
- RAZOWSKI, J. 2002: *Tortricidae of Europe, Volume 1. Tortricinae and Chlidanotinae*. – *Frantisek Slamka, Bratislava*, 247 pp.
- RAZOWSKI, J. 2003: *Tortricidae of Europe, Volume 2. Olethreutinae*. – *Frantisek Slamka, Bratislava*, 301 pp.