

## **DEPRESSARIA PYRENAELLA SP. N. – A CONFUSED SPECIES FROM SOUTH-WESTERN EUROPE (LEP. : DEPRESSARIIDAE)**

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### **Abstract**

*Depressaria pyrenaella* Šumpich, sp.n. is described from Spain and France, where it was found at higher elevations of the Pyrenees. The new species is illustrated in colour and compared with similar and related species and its male genitalia are pictured. The first record of *Depressaria cervicella* Herrich-Schäffer, 1854 from the European part of Russia is given.

**Keywords:** Lepidoptera, Depressariidae, *Depressaria pyrenaella*, new taxon.

### **Introduction**

The family Depressariidae contains a number of conspicuous and attractive species but, to date, has not been critically overhauled taxonomically, for the Palaearctic or even in Europe. Many groups of familiar species require a thorough revision or, in contrast, many conspicuous species remain unnamed as a consequence of avoiding the description of a species already defined. During my visit to The Natural History Museum in London in 2008, I had an opportunity to study microlepidoptera collections there. Among others, I noticed a Spanish specimen included, tentatively, with *Depressaria zelleri* Staudinger, 1879, but being remarkably different from the typical form. Several years later I found the same species while studying collections of the Naturhistorisches Museum in Vienna. There it was classed as *Depressaria cervicella* Herrich-Schäffer, 1854 from which it was hard to distinguish. After a comparative study of genitalia in relative and similar species and a revision of available literature it was apparent that this was a new, undescribed species.

### **Material and Method**

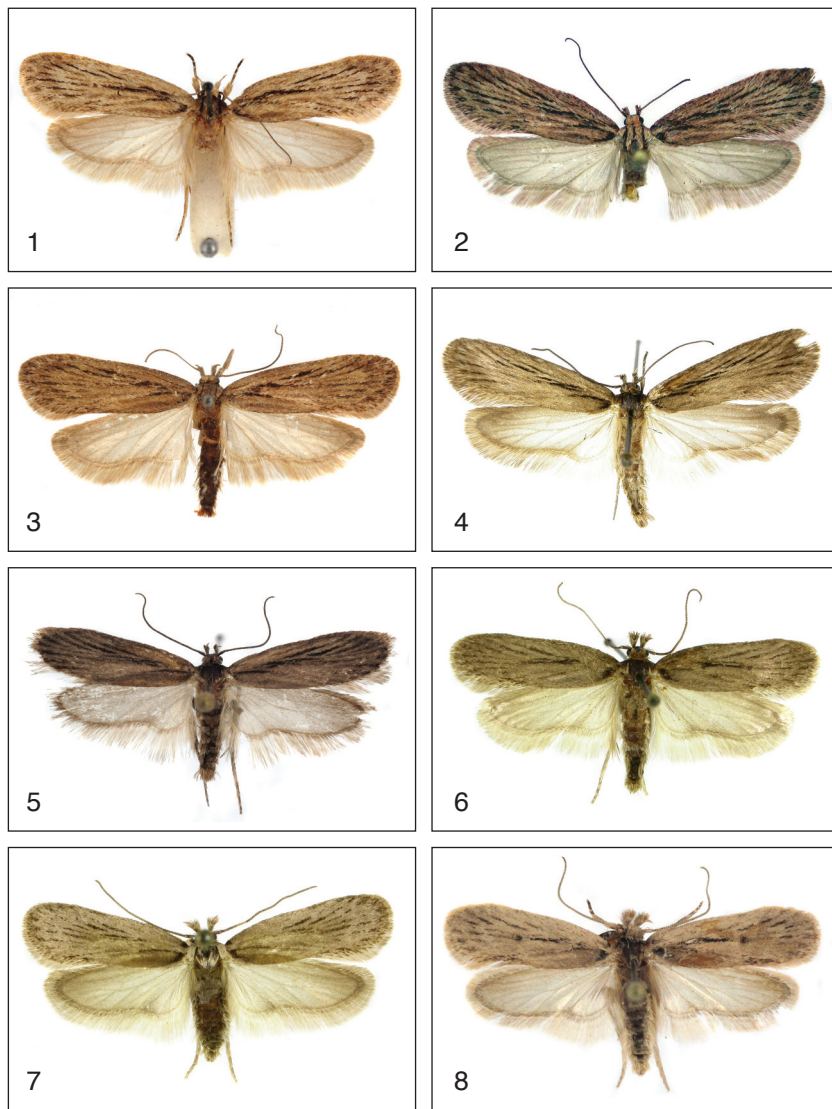
The study material is deposited in collections abbreviated as follows:

BMNH	The Natural History Museum, London, UK
MZMB	Moravian Museum, Brno, Czech Republic
NHMW	Naturhistorisches Museum, Wien, Austria
ZSM	Zoologische Staatssammlung, Munich, Germany
J. Ylla	Barcelona, Spain

### **Results**

#### ***Depressaria pyrenaella* Šumpich, sp. n.**

**Material Spain:** Holotype (Plate 1, fig. 1): ♀, “Jaca-Spain | 10.8.1933 | W. Fassnidge”, “B.M. ♂ | Genitalia Slide | No. 19153” (BMNH). Paratypes (Plate 1, figs 2–3): 1 ♀, Catalonia, Carretera de la Molina a Castellar de n’Hug (Burguedà), 1695 m



**Plate 1.** Figs. 1–8. Adults of *Depressaria* species. 1–3. *D. pyrenaella* Šumpich, sp. n., males. 1. Holotype, 29 mm. 2. Paratype, Spain, 29 mm. 3. Paratype, France, 30 mm. 4–5. *D. cervicella* Herrich-Schäffer, 1854, males. 4. Czech Republic, Mohelno, 1945, D. Povolný leg., coll. MZMB, 27 mm. 5. Russia, southern Ural, Kizilskoe, 19.vii.2011, J. Šumpich leg., det. et coll., 25 mm. 6–8. *D. zelleri* Staudinger, 1879, males. 6. Turkey, Amasia, [18]82, ex coll. Staudinger, coll. BMNH, 25 mm. 7. Italy, Trento, Mte Calisio, ex larva 15.vii.1949, J. Klimesch leg., coll. ZSM, 25 mm. 8. Italy, Verona distr., Monte, 3.vii.2012, J. Skyva leg. et coll., 26 mm.

m, 4.viii.2005, A. Cervelló leg., coll. J. Ylla; 1 ♀, **France**, Pyr[énées]-Or[ientales], Vernet[-Les-Bains], August 1924, Predota leg. (NHMW).

**Description:** Wingspan 29–30 mm. Head and frons covered with creamy scales. Palpi creamy, generally darker than in *D. zelleri*, with an addition of remarkably brown scales, even on the last segment (the last segment unicolourous light cream in *D. zelleri*). The second palpal segment is covered with a fan of scales, which is clearly less feathery than in *D. zelleri*. Antennae brown, filiform, slightly annulate. Thorax rather narrow, appearing less robust than in *D. zelleri*. Forewings narrow, light brown to brown (rather grey in *D. zelleri*), with the venation markedly dusted with black scales, similarly as in *D. cervicella*. In *D. zelleri*, the dusting is usually less apparent and often interrupted, in aberrant specimens even lacking. Hindwings silvery white, darkened at front margin and apex. Cilia of the same shade as wings.

Male genitalia (Fig. 2). Valva very broad, terminating apically with a pointed, slightly deflected projection. Dorsal valval edge with an apparent small rib-like projection medially. The space between the projection and the apex of valva conspicuously convex (indistinctive in *D. zelleri*). Cuiller minute. Clavus short and pointed. Tegumen narrow and high. Gnathos broadly oval (more elongated in *D. zelleri*), socii thin, long (thinner than in *D. zelleri*). Aedeagus thin, twice slightly deflected, pointed at the end, with two groups of cornuti – the first as a fan of spines pointing to the end of aedeagus, the second as a row of short spines crossing the aedeagus (both groups of cornuti are more compact and cramped in *D. zelleri*).

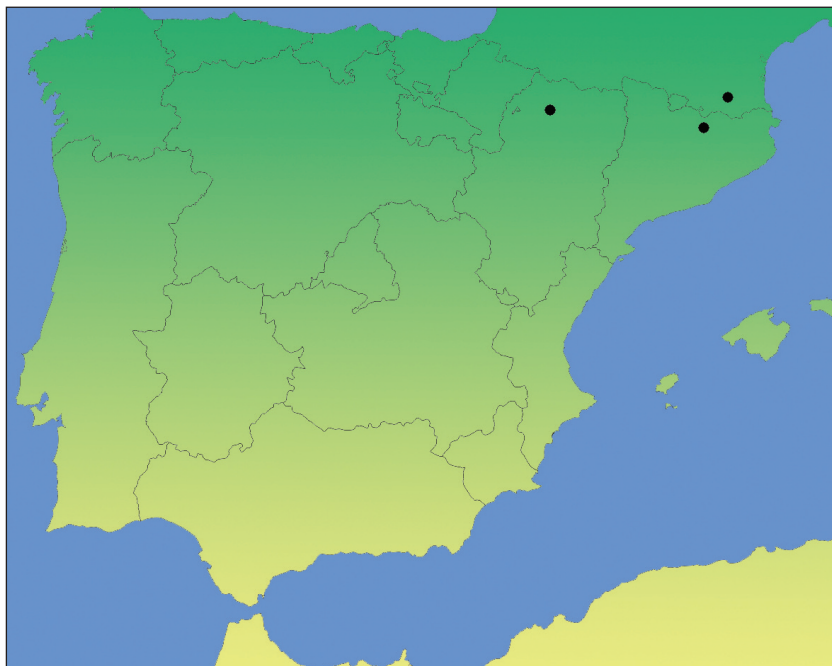
Female genitalia. Unknown.

**Diagnosis:** The new species (Plate 1, figs 1–3) is very similar externally to *D. cervicella* (Plate 1, figs 4–5), from which it is reliably distinguishable by differences in genitalia. *D. cervicella* belongs to the group of species with an undeveloped clavus. It has one strong and elongated cornutus inside the phallus. *D. pyrenaella* sp. n. is closest to *D. zelleri*, with very similar male genitalia, but in *D. zelleri* the front edge of the valva is only slightly rounded, without an apparent projection and the gnathos is elliptical and more elongated. The new species is also markedly bigger than *D. zelleri* (Plate 1, figs 6–8) and its wing venation is dusted more conspicuously.

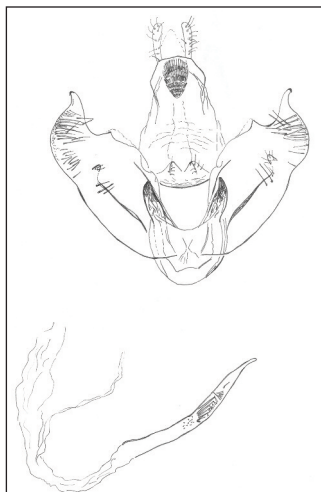
**Distribution:** Pyrenees: Spain (Catalonia, Aragon), France (Region of Languedoc-Roussillon) (Fig. 1).

**Derivatio nominis:** The specific name is derived from the mountains where the type material was collected.

**Life history:** Unknown. The locality of the holotype – Jaca (800 metres asl.) – is situated in a mountainous landscape on the south-western foothills of the Pyrenees where the collector William Fassnidge stayed during language visits combined with entomological research in 1931 and 1933. His collecting activities covered wide areas, mostly at higher altitudes than the town of Jaca (Fassnidge, 1934–1935). The paratype from Spain was captured at 1700 metres. The locality of the French paratype (collected by Karl Predota) close to Vernet-Les-Bains is situated at c.700 metres. All specimens were recorded in August.



**Figure 1.** Distribution map of *Depressaria pyrenaella* Šumpich, sp.n.



**Figure 2.** Male genitalia of *Depressaria pyrenaella* Šumpich, sp. n. (drawing from slide no. 19153 in coll. BMNH).

**Remarks:** *D. zelleri* was described from Turkey (Amasia). Later it was found by J. Klimesch in northern Italy (Klimesch, 1953, as *D. cervicella*) and lately the species was confirmed also from Romania (Lvovsky, 2001) and southern France (Grange et al., 2011), which includes a photograph and drawing of male genitalia of the French specimen, both corresponding with typical Turkish specimens of *D. zelleri*. The occurrence of *D. zelleri* in Spain has to be regarded as unconfirmed, since the specimen published by Ylla & Macià (2008; male genitalia pictured in the paper) actually belongs to the newly described species. The distribution of *D. cervicella* is the most extensive of the three mentioned species and covers Mongolia, Iran, Turkey and the Asian part of Russia (Читинская область) (cf. Lvovsky, 2001); in Europe it is reliably known from the central zone (Czech Republic, Austria, Hungary)

and also from Italy, Croatia (Lvovsky, 2011. <http://www.faunaeur.org/> accessed 24 December 2012) and the European part of Russia (this paper, Plate 1, fig. 5). Spanish voucher specimens identified as *D. cervicella* need revision because of possible confusion with the newly described species. Based on available material it appears that *D. pyrenaella* sp. n. could be endemic for the Pyrenees and their foothills, as are a number of other taxa. To confirm this hypothesis, more material is needed.

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