Linzer biol. Beitr.	30/2	515-521	31.12.1998

A new endemic species of *Acompsia* from the Alps (Lepidoptera, Gelechiidae)

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A b s t r a c t : A new species of *Acompsia*, viz. *A. delmastroella* spec. nova, from the southwestern Alps of Italy is described and figured. The species resembles *A. subpunctella* SVENSSON 1966, from Scandinavia externally, however, the male genitalia are distinct. Male genitalic structures of all Central European *Acompsia* spp. are figured for comparison.

K e y w o r d s : Lepidoptera, Gelechiidae, *Acompsia*, new species, Alps, Italy.

Introduction

The gelechiid genus *Acompsia* is nowadays considered a member of the tribe Dichomeridini (subfamily Dichomeridinae) and its closest relatives are found among *Telephila* MEYRICK and *Helcystogramma* ZELLER (PONAMORENKO 1997). The by far highest portion of species diversity is found in mountainous areas of the palaearctic region. In Europe *Acompsia* includes 8 species (KARSHOLT & RIEDL 1996) some of which were only described during the last 100 years (PETRY 1904, REBEL 1899, SVENSSON 1966). Species recorded from zoogeographical areas outside the palaearctic region (GAEDE 1937) seem to belong to other genera (HODGES 1983, PITKIN 1984).

In 1995 Gianni B. Delmastro from the Natural History Museum in Carmagnola found a species in the southwestern Alps which matches the northern European *A. subpunctella* externally. However, dissection of the genitalia revealed a new species which is here described.

Depositories

MCNC .....Museo Civico di Storia Naturale, Carmagnola (TO), Italy
TLMF.....Tiroler Landesmuseum Ferdinandeum, Innsbruck, Austria
ZMUC.....Zoological Museum, University of Copenhagen, Denmark

Taxonomic part

Acompsia delmastroella spec. nova

Type material. - Holotype ♂: [Italy:] 'MARMORA CN. Colle d'Esischie; m 2300 slm 14.08.1996; G.B. Delmastro & M. M. Saluto leg.' 'GEL 869 ♂ P.Huemer' (TLMF).

Paratypes: 3♂♂, Italy, Cuneo, Bellino, San-l'Anna, Valle di Traversagn, 1950 m, 25.VII.1995, G.B. Delmastro (DELM, TLMF); 11♂♂, ditto, but 2100 m, 8.VII.1994, G.B. Delmastro (DELM, TLMF).

Etymology: The species name refers to the collector of the type-series Mr. Giovanni B. DELMASTRO.

Description/Diagnosis: Adult (Fig. 1). Wingspan 15-16 mm; head greyish-ochre brown, labial palpus greyish-ochre brown, mottled with darker scales on outwards and with lighter scales on inner surface; thorax and tegulae greyish-ochre brown; forewing greyish-ochre brown, with oblique dark brown discocellular and discal spots, plical spot largely reduced, terminal area without spots, fringes greyish-ochre brown; hind wing greyish.

Genitalia ♂ (Figs 2-3, 10-11): Uncus moderately broad; gnathos hook strong; posterior lobes of valva broadly rounded distally, anterior lobes broad with strongly curved outer margin; aedeagus stout, without serrated ridge.

Genitalia ♀: Unknown.

Distribution/Habitat (Fig. 18): Only known from the southwestern Alps (Italy, Prov. Cuneo), an area with a particular high proportion of endemics (HUEMER 1998). The biotope consists of alpine meadows and shrubs such as *Vaccinium*, *Rhododendron* and *Alnus viridis* on siliceous soil, with erratic block.

Ecology: Larval hostplant and habits unknown. The adults have been collected in July at light. Vertical distribution: 1950 - 2300 m.

Differential diagnosis - Discussion

Species of the genus *Acompsia* are in general very similar in genitalic structures and can be identified best by the pattern and colour of the forewings. The most reliable specific character of the genitalia is the shape of the anterior lobes of the valva (Figs 2-9) which are broad with strongly curved outer margin in *A. delmastroella* spec.nova. (Figs 2-3) but of different shape in other European taxa (Figs 4-5, 7-9). *A. maculosella* with somewhat similar lobes (Fig. 6) has a much broader uncus and furthermore strongly differs from the new species by the forewing markings. A further also supraspecifically important character is found in the aedeagus which has a serrated ridge in some species (*A. cinerella*, *A. tripunctella* - Figs 16-17), missing in *A. delmastroella* spec. nova (Figs 10-11). Other structures of the adeagus (Figs 10-17) but also the shape of the valva (Figs 2-9) seem to be of less taxonomic importance and occasionally also vary to a certain extent. Female genitalia, which are quite uniform in *Acompsia*, are not considered here due to the unknown female sex of the new species.

A. delmastroella spec.nova is extremely similar to *A. subpunctella* externally though it differs by the strongly curved outer margin of the anterior lobe of the valva (Figs 2-3)

which is almost straight in *A. subpunctella* (Fig. 4). From alpic relatives such as *A. tripunctella*, *A. maculosella* and *A. antirrhinella* the new species is distinguished by the forewings with oblique markings and without terminal spots along the fringe-line. *A. cinerella* differs by the completely reduced wing markings and the more glossy-brownish colour of the forewings and *A. minorella* by the more greyish forewings with distinct markings. The Pyrenéen species *A. dimorpha* with brachypterous females (PETRY 1904) is distinctly larger, dark greyish and with distinct spots. The identity of *A. müller-rutzi*, which was described from a single specimen from Corse (WEHRLI 1925), remains obscure and the holotype could never be traced (SATTLER in litt.). However, according to the original description it is a dark greyish species with distinct spots on the forewing. Furthermore a conspecifity of this species with *A. delmastroella* spec.nova can be excluded on biogeographic reasons.

The lepidoptera communities of the montane, subalpine and alpine zones are still insufficiently explored and numerous new species were recognized during the last two decades. Most of the endemic fauna is restricted to the southern part of the Alps and largely unexplored areas still make the discovery of new species very likely. Altogether about one third of the endemic species of the Alps was described since 1980 (HUEMER 1998). Species of the genus *Acompsia* seem to have numerous strongly restricted mountainous endemics with only two more widley distributed species (*A. tripunctella* and *A. cinerella*). *A. delmastroella* spec.nova perfectly supports this hypothesis. Other examples with an unproportional high portion of alpic endemics are found e.g. in the genera *Kessleria* NOWICKI (Yponomeutidae), *Sattleria* POVOLNÝ (Gelechiidae) or *Erebia* DALMAN (Nymphalidae).

Fig. 1: *Acompsia delmastroella* spec. nova (holotype).

Acknowledgements

I'm particular grateful to Mr. G.B. Delmastro (Carmagnola) who provided the type-material and much useful information. Furthermore the help with material and various information received by Dr. D. BURCKHARDT (Basel), Dr. L. Kaila (Helsinki), O. Karsholt (Copenhagen), Dr. K. Sattler and K. Tuck (London) is gratefully acknowledged.

Zusammenfassung

Eine neue Art von *Acompsia*, viz. *A. delmastroella* spec. nova, wird aus den Südwestalpen (Italien) beschrieben. Die Art ähnelt habituell *A. subpunctella* SVENSSON 1966, aus Skandinavien, die männlichen Genitalien weisen allerdings deutliche Differenzen auf. Die männlichen Genitalstrukturen aller mitteleuropäischen *Acompsia* spp. werden vergleichsweise abgebildet.

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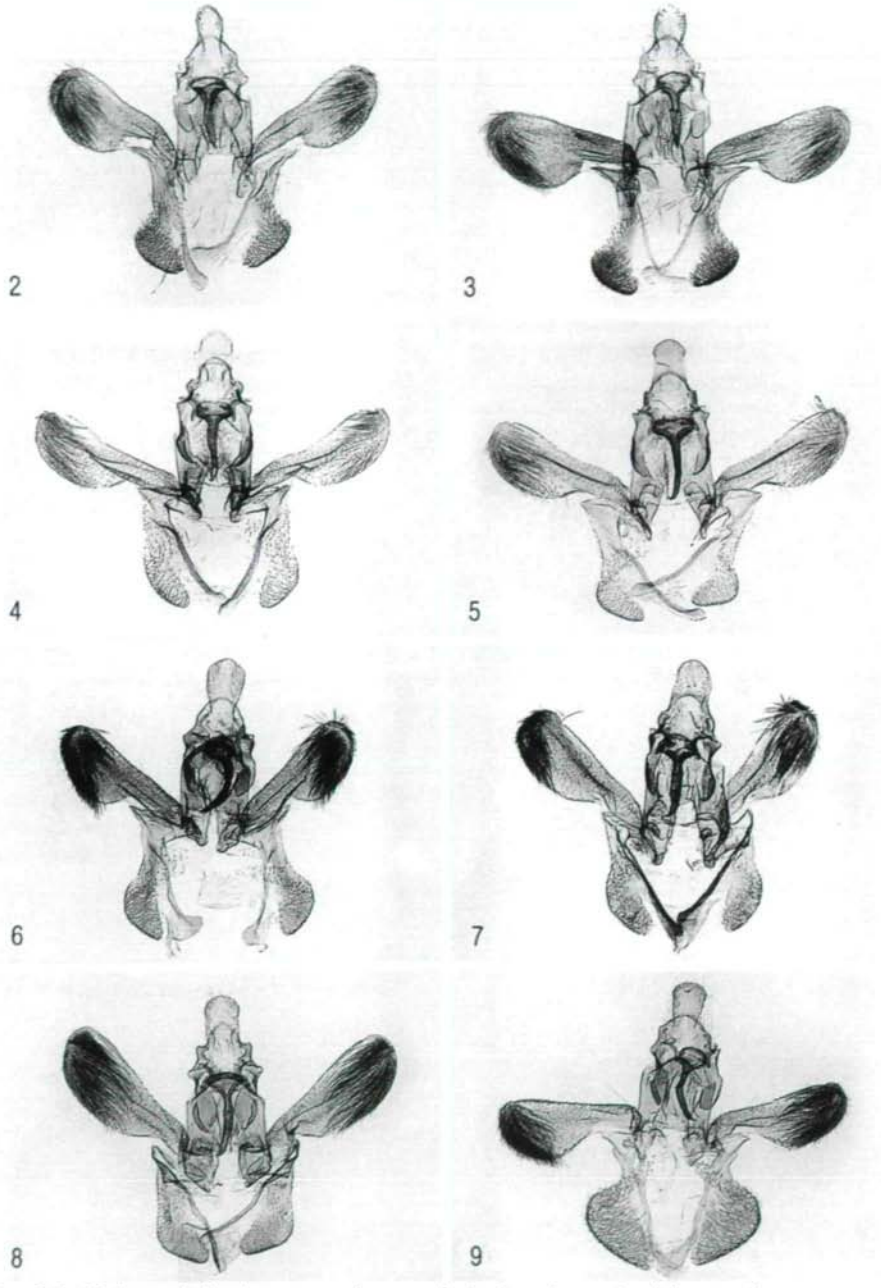
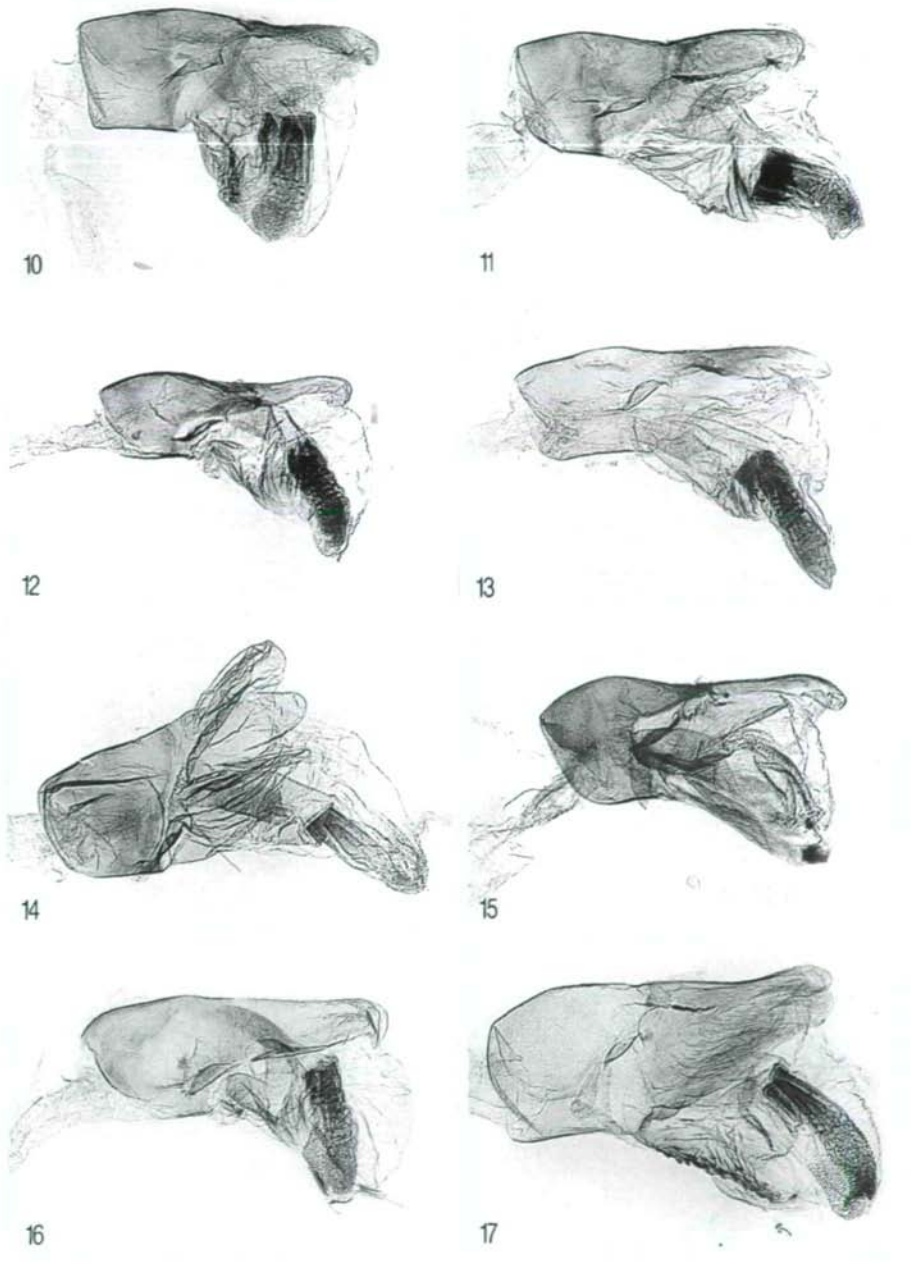


Figs 2-9: Male genitalia (tegumen-valva-complex). **2** - *Acompsia delmastroella* spec. nova (holotype) (slide GEL 869 P. Huemer); **3** - *A. delmastroella* spec. nova (paratype) (slide GEL 864 P. Huemer); **4** - *A. subpunctella* (slide GU 98/818 P. Huemer); **5** - *A. antirrhinella* (slide GU 98/817 P. Huemer); **6** - *A. maculosella* (slide GEL 488 P. Huemer); **7** - *A. minorella* (slide 887 P. Huemer); **8** - *A. cinerella* (slide GEL 881 P. Huemer); **9** - *A. tripunctella* (slide GEL 880 P. Huemer).



Figs 10-17: Male genitalia (aedeagus). **10** - *Acompsia delmastroella* spec. nova (holotype) (slide GEL 869 P. Huemer); **11** - *A. delmastroella* spec. nova (paratype) (slide GEL 864 P. Huemer); **12** - *A. subpunctella* (slide GU 98/818 P. Huemer); **13** - *A. antirrhinella* (slide GU 98/817 P. Huemer); **14** - *A. maculosella* (slide GEL 488 P. Huemer); **15** - *A. minorella* (slide 887 P. Huemer); **16** - *A. cinerella* (slide GEL 881 P. Huemer); **17** - *A. tripunctella* (slide GEL 880 P. Huemer).

Fig. 18: Habitat of *Acompsia delmastorella* spec. nova (photo G.B.Delmastro).