©Societas Europaea Lepidopterologica; download unter http://www.biodiversitylibrary.org/ und www.zobodat.at

*Nota lepid.* 15 (2) : 152-157 ; 31.XII.1992 ISSN 0342-7536

# *Idaea boeklini* von Mentzer, 1990, syn. n. of *Idaea camparia* (Herrich-Schäffer, [1852]) (Lepidoptera : Geometridae)

Valter Raineri

Museo civico di Storia naturale "Giacomo Doria", Via Brigata Liguria 9, Genova, Italy.

**Summary**

*Idaea boeklini* von Mentzer, 1990 is synonymised with *Idaea camparia* (Herrich-Schäffer, [1852]). The original description of *I. boeklini* was based on females of *I. camparia* and males of a different species, probably *Idaea albitorquata* (Püngeler, 1908).

**Résumé**

*Idaea boeklini* von Mentzer, 1990 est synonymisé avec *Idaea camparia* (Herrich-Schäffer, [1852]). La descriptive originale de *I. boeklini* était basée sur des femelles de *I. camparia* et des mâles d'une espèce différente, probablement *Idaea albitorquata* (Püngeler, 1908).

**Riassunto**

Viene sinonimizzata *Idaea boeklini* von Mentzer, 1990, che risulta essere stata descritta su femmine di *Idaea camparia* (Herrich-Schäffer, [1852]) e su maschi di *Idaea albitorquata* (Püngeler, 1908).

Erik von Mentzer (1990) described a new species of *Idaea* which he named *I. boeklini*. The type locality of this species is Taormina in Sicily (southern Italy) and the holotype is a female.

According to von Mentzer's description, this species differs from *Idaea albitorquata* (Püngeler, 1908) by its ochreous to dark brown, rather than snowy-white, collar and by the presence of brown scales on the wings. Although not directly stated, from the descriptions and the figures there could also be differences in the juxta of the male genitalia. Writing of *Idaea camparia* (Herrich-Schäffer, [1852]), von

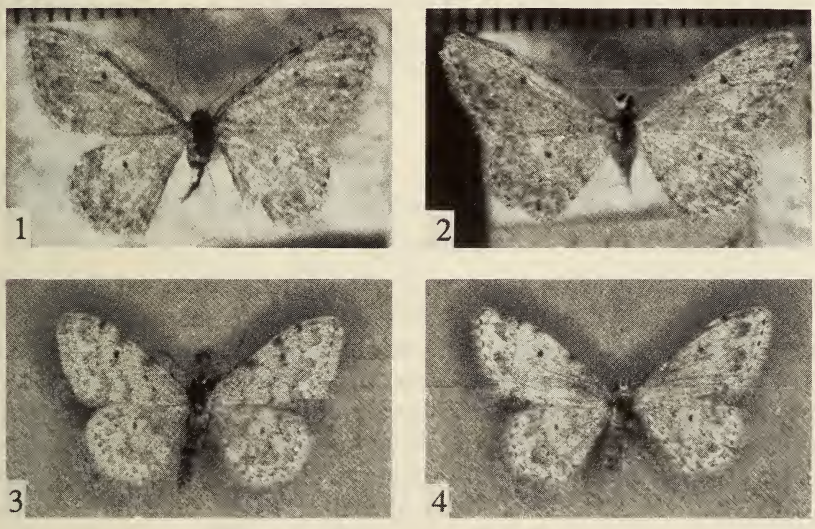
©Societas Europaea Lepidopterologica; download unter http://www.biodiversitylibrary.org/ und www.zobodat.at

MENTZER states that "...the female genitalia (fig.24) are not distinguishable from those of *Idaea boeklini* sp. n. (fig.22)". However, due to the great dissimilarity of the male genitalia of the two species they were not compared further.

Due to the striking situation, that the male genitalia of *I. boeklini* were almost identical to *I. albitorquata* and that the female genitalia were apparently identical to *I. camparia*, I decided to study these three taxa more closely. Mr. VON MENTZER kindly provided some paratypes from Sicily of his species and I was able to compare them with Sicilian material of both *I. camparia* and *I. albitorquata*.

***Idaea boeklini* VON MENTZER, 1990** (Figs 1,2)

MATERIAL EXAMINED : **Italy** : Sicily, Taormina 4.V.1950, leg. & coll. E. v. MENTZER (gen. prep. 7045 ♂), paratypus ; Sicily, Taormina, 7.V.1950, leg. & coll. E. v. MENTZER (gen. prep. 13052 E. v. M. = 1200 prep. RAINERI ♀), paratypus.




Figs 1-4. Adults of *Idaea* spp. 1 — ♀, *Idaea boeklini* VON MENTZER, 1990, Sicilia, Taormina 7.V.1950, leg. VON MENTZER, paratypus ; 2 — ♂, Sicilia, Taormina, 4.V.1950, leg. VON MENTZER, paratypus ; 3 — ♂, *Idaea camparia* (HERRICH-SCHÄFFER, [1852]), Sicilia, Aetna "ex ovo" 14.X.1950 leg. REISSER ; 4 — ♂, *Idaea albitorquata* (PÜNGELER, 1908), Bulgaria SW Ograzden Mts, v. Sestrino 31.V.1986 leg. GANEV. (Figs 1,2 not to same scale as Figs 3,4.)

©Societas Europaea Lepidopterologica; download unter http://www.biodiversitylibrary.org/ und www.zobodat.at

*Idaea camparia* (Herrich-Schäffer, [1852]) (Fig. 3)

Material examined : **Italy** : Sicily, Mistretta (ME) ex ovo 1938 leg. R. Lunak (prep. Raineri 582 ♂) ; Mistretta (ME), ex ovo, 1938 leg. R. Lunak (prep. Raineri 588 ♀) (Naturhist.Mus.Wien) ; Sicily, Palermo 26.8.1901 (prep. Raineri 1152 ♂), Sicily, Aetna, ex ovo, 19.X.1950 leg. Reisser (prep. Raineri 1150 ♂, 1184 ♀) (B.A.U.) ; same locality, 14.X.1950 1 ♂ (B.A.U.) ; same locality, 3.VIII.1950 1 ♀ (B.A.U.) ; Sicily, Mistretta (ME), 1000 m, ex ovo, 12.III.1939 leg. Reisser 1 ♂ ; same locality, 19.III.1939 leg. Reisser 1 ♀ (B.A.U.) ; **Spain** : "Andalusia" (prep. Raineri 1573 ♀) (B.A.U.) ; **Yugoslavia** : Dalmazia, Curzela Insel 18.VIII.1926 leg. Meyer (prep. Raineri 1186 ♀) ; same data, (prep. Raineri 1179 ♂ (B.A.U.)) ; **Greece** : Rhodos Embona, 24.IV.1987, leg. Mikkola (prep. Raineri 1574 ♀) ; Corfù Benitees, 6.III.1978, leg. Varis (prep. Raineri 1575 ♂) ; same data (prep. Raineri 1576 ♀) (Univ. Helsinki) ; **Turkey** : Anatolien (prep. Raineri 1175 ♀) (B.A.U.).

*Idaea albitorquata* (Püngeler, 1908) (Fig. 4)

Material examined : **Italy** : Sicily, Pizzenti (PA) 13.IX.1936 (prep. Raineri 657 ♀) ; Sferracavallo (PA) 5.X.1950 (prep. Raineri 675 ♀) (coll. Campi/ Raineri) ; **Bulgaria** : Ograzden v. Lebnitza 7.VI.1984 leg. J. Ganev (prep. Raineri 563 ♂, 442 ♂) (coll. Campi/Raineri) ; same locality, 1.X.1985 (prep. Raineri 616 ♂) ; Ograzden v. Sestrino 25.IX.1986 1 ♀ ; same locality, 31.V.1986 (prep. Raineri 950 ♀) (coll. Campi/Raineri) ; **Yugoslavia** : Gravosa, Dalmazia ab ovo 21.V.1936 leg. Reisser (prep. Raineri 1207 ♀) (B.A.U.).

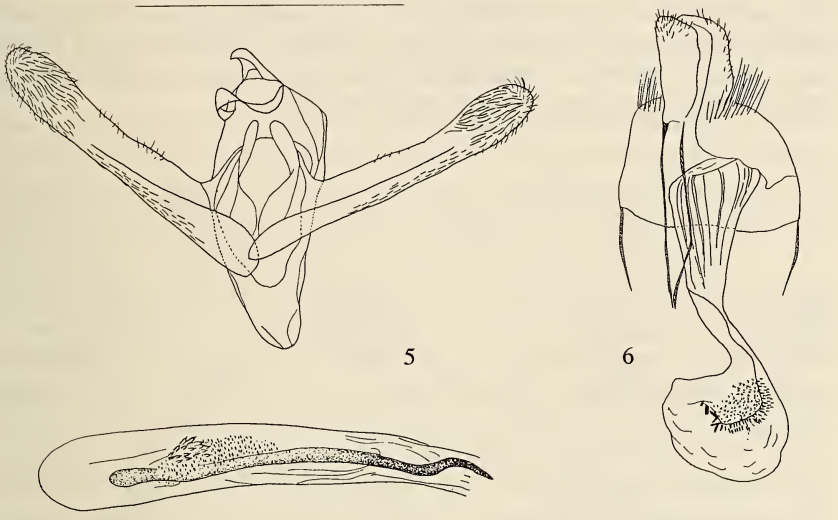
## Results and Discussion

As expected, the male genitalia of *I. boeklini* (Fig. 5) were similar to those of *I. albitorquata* (Fig. 9), whereas the female genitalia (Fig. 6) were similar to those of *I. camparia* (Fig. 8).

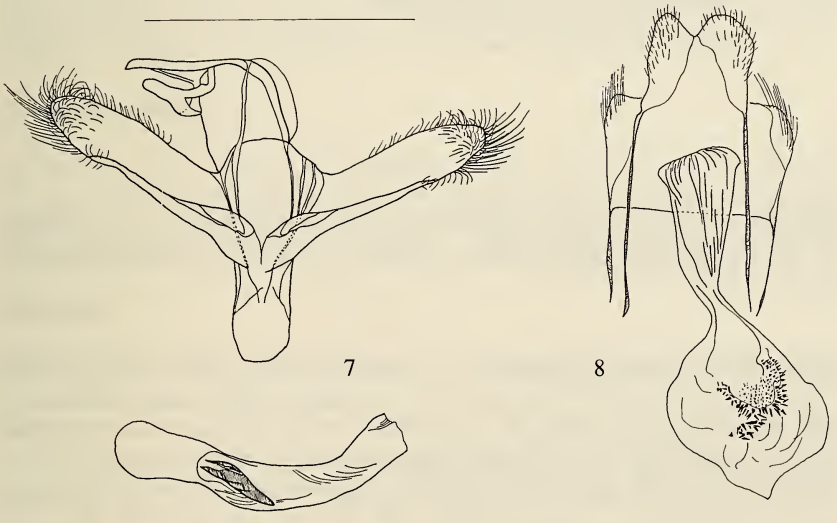
According to the original description, there are two external characters by which one can distinguish *I. boeklini* from *I. albitorquata* : The scales on the body and wings are dark brown in *I. boeklini* and black in *I. albitorquata*, and the collar is pale-ochreous to brown, not snowy-white as in *I. albitorquata*. The type material of *I. albitorquata* was bred "ab ovo" and in the original description the collar was stated as being whitish. The colour of the collar in both species seems therefore to vary and may not be a very good character for identification purposes.

External differences to *I. camparia* were not given by von Mentzer, and from the figures there appears to be little difference in wing pattern. The wing shape of the females is also similar, although the male of *I. boeklini* appears to have more lanceolate wings. Two female specimens

©Societas Europaea Lepidopterologica; download unter http://www.biodiversitylibrary.org/ und www.zobodat.at



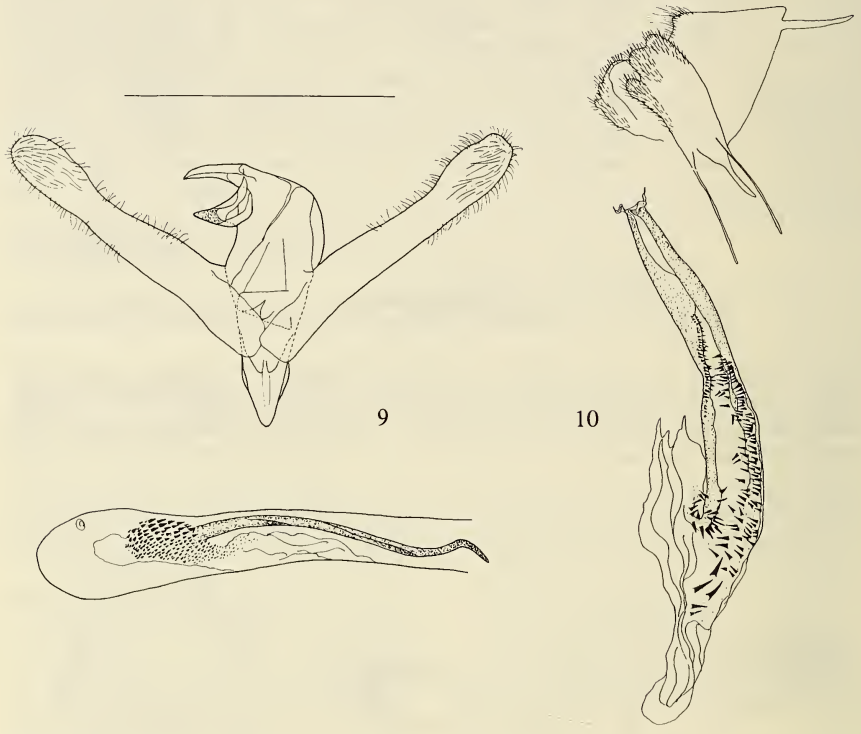

Figs 5,6. Genitalia of *Idaea boeklini* von Mentzer, 1990. 5 — ♂ (aedeagus separate), Sicilia, Taormina 4.V.1950, paratypus, prep. von Mentzer 7045 ; 6 — ♀, Sicilia Taormina 7.V.1950, paratypus, prep. Raineri 1200. Both leg. von Mentzer. Del. M. Pesce ; scale bar 1 mm.




Figs 7,8. Genitalia of *Idaea camparia* (Herrich-Schäffer, [1852]). 7 — ♂ (aedeagus separate), Sicilia, Aetna "ex ovo" 19.X.1950 leg. Reisser, prep. Raineri 1150 ; 8 — ♀, Sicilia, Aetna "ex ovo" 19.X.1950 leg. Reisser, prep. Raineri 1184. Del. M. Pesce ; scale bar 1 mm.

©Societas Europaea Lepidopterologica; download unter http://www.biodiversitylibrary.org/ und www.zobodat.at

of *I. camparia*, from Andalusia and Corfù, that I have studied have brown scales, as in *I. boeklini*. There were also specimens with brown scales among material from Sicily bred "ab ovo". I could find no distinguishing character between these two taxa.




Figs 9,10. Genitalia of *Idaea albitorquata* (Püngeler, 1908). 9 — ♂ (aedeagus separate), Bulgaria SW Ograzden Mts, v. Lebnitza 7.VI.1984 leg. Ganev, prep. Raineri 442 ; 10 — ♀, Sicilia, Sferracavallo (PA) 5.X.1950, prep. Raineri 675. Del. M. Pesce ; scale bar 1 mm.

The male and female genitalia of *I. camparia* and *I. albitorquata* appear to fit together on the "lock and key" principle : the long cornutus of male *I. albitorquata* (Fig. 9) corresponds to the long ductus bursae of the female (Fig. 10) ; likewise, the cornutus in *I. camparia* (Fig. 7) is short and would probably fit in the pocket visible in the short ductus bursae of female *I. camparia* (Fig. 8). On the other hand, it is improbable that the long cornutus of *I. boeklini* (Fig. 5) would fit in the supposed female genitalia (Fig. 6). Comparing Figs 13-24 in the paper by von Mentzer, one can see that the females of species with

©Societas Europaea Lepidopterologica; download unter http://www.biodiversitylibrary.org/ und www.zobodat.at

a long cornutus in the male, i.e. *I. virgularia*, *I. minuscularia*, *I. ibizaria*, *I. albitorquata* and *I. boeklini*, all have an extended ductus bursae and/or corpus bursae, except for *I. boeklini*.

Due to the similarity in the genitalia, the male of *I. boeklini* is most probably conspecific with *I. albitorquata*, but more material is required to be able to confirm this point. Due to apparent differences in the juxta it could represent a different species. Bred series of these taxa from the type locality, Taormina, would be very useful.

In the absence of any clear-cut character to distinguish *I. boeklini* from *I. camparia* and *I. albitorquata*, and on the evidence of the lack of compatibility between the male and female genitalia, one must conclude that the taxa *I. boeklini* is composed of female *I. camparia* and probably male *I. albitorquata*. As the holotype is a female, *I. boeklini* becomes a synonym of *I. camparia* — **syn. n.** We were not able to study the holotype itself, so we must assume that the 5 female specimens from the type locality (taken between 28.IV.1950 and 7.V.1950) are conspecific. Nevertheless, the holotype should be dissected to check this point. Only one male paratype was taken at the type locality. The remaining 3 male and 8 female paratypes were from Greece and Croatia.

It is interesting to note that both species (*I. camparia* and *I. albitorquata*) were recorded from Sicily by Struve, 1885 and Krüger, 1906, and that the genitalia of *I. albitorquata* depicted by Parenzan (1988 : figs. 5c and d) represent *I. virgularia* (Hübner, [1799]).

**Acknowledgements**

My best thanks are due to Prof. Vigna Taglianti and Dr. Piattella (B.A.U.), Dr. Lödl (Natural History Museum Vienna), Mr. von Mentzer (Täby, Sweden), Dr. Kaila (University of Helsinki), Mr. Whitebread (Magden, Switzerland) and Prof. Balletto (Univ. Torino, Dip.Biologia Animale).

**References**

Krüger, G.C., 1906. Zweiter Beitrag zur Lepidopteren Fauna Siciliens. *Naturalista Sicil.* 18(6) : 121-124.

Mentzer, E. von, 1990. *Idaea boeklini* sp.n. from South Europe, with notes on the nomenclature and systematics of the *Idaea virgularia* (Hübner) species group. (Lepidoptera : Geometridae). *Nota lepid.* 12(4) (1989) : 290-302.

Parenzan, P., 1988. Nuove segnalazioni di Geometridae (Lepidoptera) per l'Italia Meridionale. *Entomologica*, Bari 23 : 139-160.

Struve, O., 1885. Notizie lepidotterologiche Siciliane. *Naturalista Sicil.* 5(3) : 49-52.

# ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Nota lepidopterologica

Jahr/Year: 1992

Band/Volume: 15

Autor(en)/Author(s): Raineri Valter

Artikel/Article: Idaea boeklini von Mentzer, 1990, syn. n. of Idaea camparia (Herrich-Schäffer, [1852]) (Lepidoptera : Geometridae) 152-157