

GORTANIA - Atti Museo Friul. Storia Nat.	16 (1994)	203-212	Udine, 31.V.1995	ISSN: 0391-5859
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ON THE LITTLE KNOWN GENUS *Orectis* LEDERER, 1857
(LEPIDOPTERA, NOCTUIDAE)*

NOTE REVISIONALI SUL GENERE *Orectis* LEDERER, 1857
(LEPIDOPTERA, NOCTUIDAE)

Abstract - Following a critical reappraisal of the literature and the examination of material referable to the relevant nominal taxa, two synonymies within the genus *Orectis* LEDERER, 1857, are established: *Orectis proboscidata* (HERRICH-SCHÄFFER, [1851]) (= *Orectis barteli* TURATI, 1907, **nov. syn.**) and *Orectis massiliensis* (MILLIÈRE, 1864) **sp. rev.** (= *Orectis euprepiata* DANNEHL, 1933, **nov. syn.**).

Key words: Synonyms, *Orectis*, Lepidoptera Noctuidae.

Riassunto breve - L'esame di materiale di tutti i taxa nominali descritti nel genere *Orectis* LEDERER, 1857, ed una revisione critica della relativa letteratura permettono di stabilire le seguenti sinonimie: *Orectis proboscidata* (HERRICH-SCHÄFFER, [1851]) (= *Orectis barteli* TURATI, 1907, **nov. syn.**) e *Orectis massiliensis* (MILLIÈRE, 1864) **sp. rev.** (= *Orectis euprepiata* DANNEHL, 1933, **nov. syn.**).

Parole chiave: Sinonimie, *Orectis*, Lepidoptera Noctuidae.

Introduction

In the Mediterranean genus *Orectis* LEDERER, 1857, only three species are currently recognized, namely *O. proboscidata* (HERRICH-SCHÄFFER, [1851]) (= *massiliensis* MILLIÈRE, 1864), *O. barteli* TURATI, 1907 and *O. euprepiata* DANNEHL, 1933 (cf. POOLE, 1989; BERIO, 1991; FIBIGER & HACKER, 1991). Nevertheless, it is fairly clear that on some nominal taxa there are misconceptions due to the particular paucity of the available material. In fact, FIBIGER & HACKER (1991) recently raised the question whether *barteli* from Sicily (Etna region), known only on a few males (BERIO, 1991), is nothing but a melanic form of *proboscidata*.

* Work partly supported by grants of MURST (40 %) and CNR.

Following the examination of adequate material referable to all the nominal taxa, a substantially different arrangement of the species-group names within the genus is here suggested.

On the identity of *Orectis barteli* TURATI, 1907

TURATI (1907) described *Orectis barteli* on the basis of three male specimens from Serra Pizzuta (Sicily), a lateral peak of the volcano Etna. According to TURATI (1919), the remarkable melanism of *barteli* allows an easy separation from the closely similar *proboscidata* (cf. DRAUDT, 1936). Moreover, the author provided a detailed description which, as BERIO's description (1991), only depicts individual features which are unconstant and hence of little use for diagnostic purposes. In fact, the examination of a larger toptotypical series from Etna (14 ♂♂, 1 ♀, in Museo di Zoologia dell'Università di Roma) reveals at what extent the pigment deposition pattern and the wing-markings of *barteli* can vary (fig. 1).

The colour differences between *barteli* and *proboscidata* are, admittedly, striking. Nevertheless, for any lepidopterist with some experience on Sicilian Heterocera the existence on Etna of melanic populations, better camouflaging on the lavic rocks, is a well-known phenomenon ("adjustment to background", cf. FORD, 1972). In fact, a large number of species shows on Etna phenotypes much darker than in the rest of Sicily and Europe (e.g. phenotypes "*thyphoea*" TURATI, 1909, of *Ammoconia senex* (GEYER, [1827-1828]); "*enceladaea*" of *Polymixis rufocincta* (GEYER, [1827-1828]), "*satanas*" BOURSIN, 1940, of *Autophila cataphanes* (HÜBNER, [1813]).

The occurrence of "*barteli*" only on Etna and of normal *proboscidata* elsewhere in Sicily (GUENÉE, in MILLIÈRE, 1873; FAILLA TEDALDI, 1890; TURATI, 1919; 4 exx. Ficuzza, in coll. Turati, Museo Regionale di Scienze Naturali, Torino) (fig. 1) strongly corroborates FIBIGER & HACKER's (1991) hypothesis of *barteli* as a melanic form of *proboscidata*. Interestingly, 4 of 5 specimens of *proboscidata* from Kula Liums, Albania (in Naturhistorisches Museum, Wien) are distinctly melanic and closely similar to the specimens from Etna.

On a morphological basis, BERIO (1991: 510) states in a diagnostic key that *barteli* does not exceed the wingspan of 18 mm while *proboscidata* would be well over 20 mm. However, in the systematic section *barteli* is credited by BERIO himself (1991: 512) of wingspan values of 21-22 mm. As a major diagnostic character BERIO (1991: 510) also indicates the absence in *proboscidata* of the clasper.

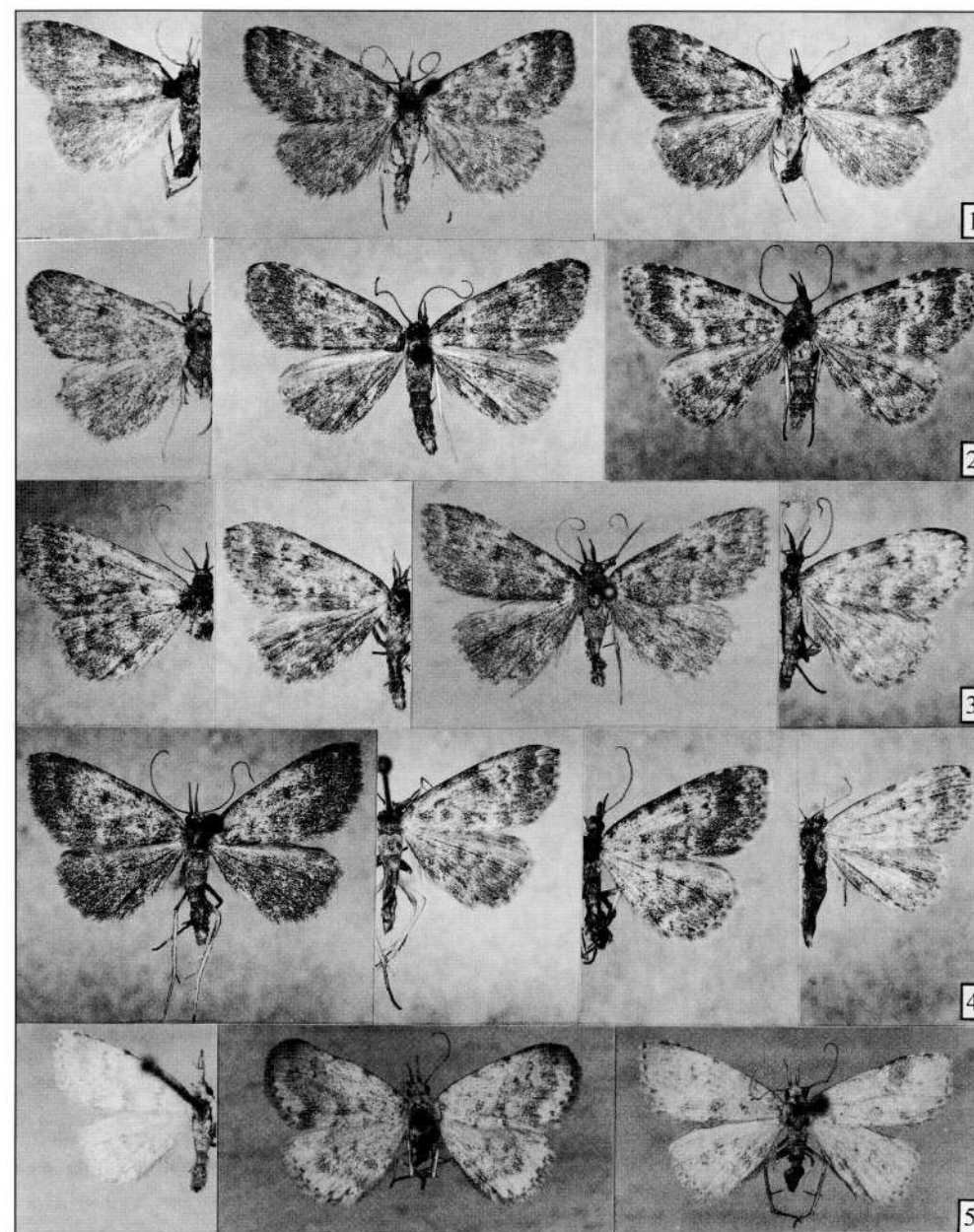


Fig. 1 - *Orectis proboscidata* (HERRICH-SCHÄFFER, [1851]), Sicily (lines 1-4: "*barteli*" phenotypes, Etna; line 5: normal phenotypes, Ficuzza).
- *Orectis proboscidata* (HERRICH-SCHÄFFER, [1851]), Sicilia (righe 1-4: fenotipi "*barteli*", Etna; riga 5: fenotipi normali, Ficuzza).

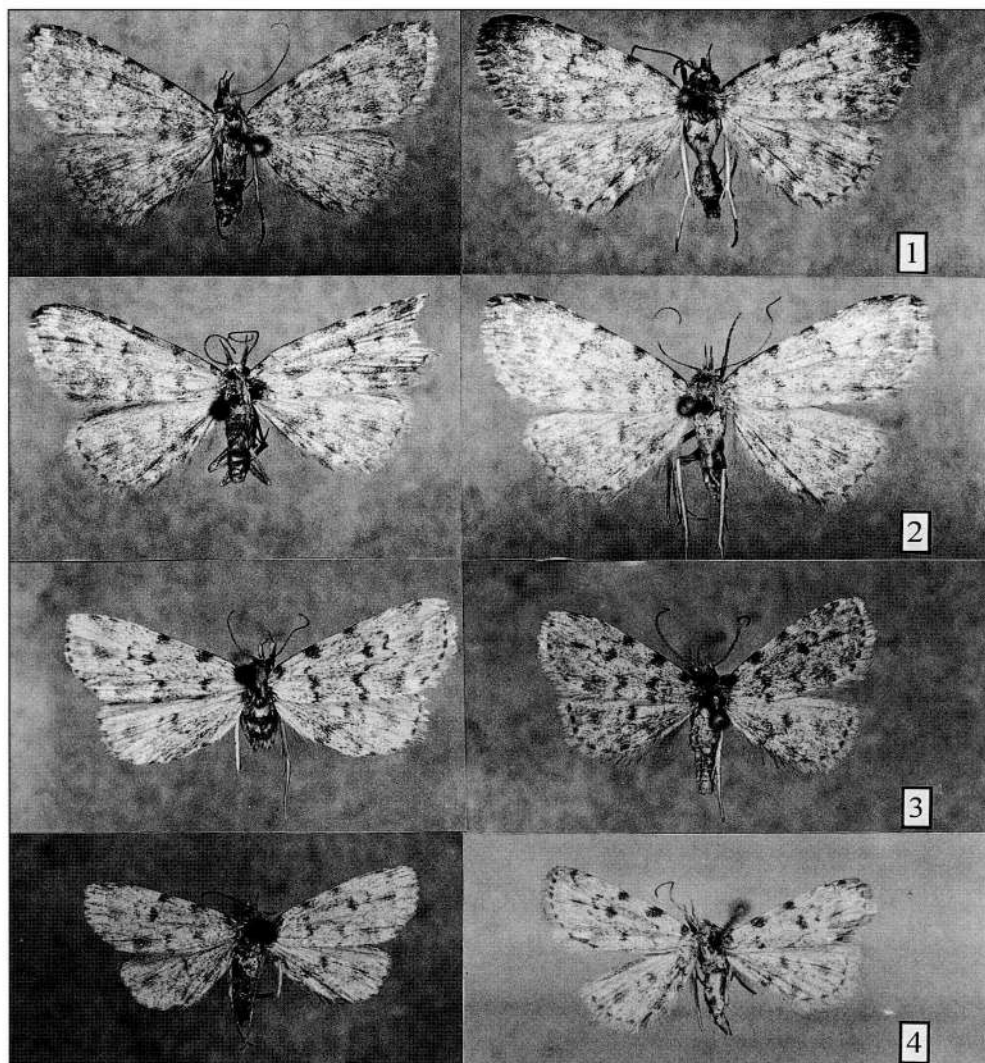


Fig. 2 - *Orectis* spp.: (lines 1-2) *O. proboscidata* (HERRICH-SCHÄFFER, [1851]), North-East Italy; (lines 3-4) *O. massiliensis* (MILLIÈRE, 1864), Central Italy, Liguria (low right).
 - *Orectis* spp.: (righe 1-2) *O. proboscidata* (HERRICH-SCHÄFFER, [1851]), Italia nord-orientale; (righe 3-4) *O. massiliensis* (MILLIÈRE, 1864), Italia centrale, Liguria (in basso a destra).

The clasper of *Orectis* species consists of a simple subtriangular lobe projecting upwards from the lower half of the valva; as it can be very weakly sclerotized, sometimes it fades away in normal genitalia preparations unless it is properly stained. A comparison of a topotype of *barteli* with *proboscidata* not only shows that a clasper is present in

both of them but also that there are minor differences in the male genitalia (figs 3-4). Unfortunately, only one female specimen of *barteli* has seemingly ever been collected, this specimen showing distinct anomalies in the sclerotization of the abdominal tergites. Nevertheless, the genitalic pieces are well preserved and correspond with those of *proboscidata* (figs. 6-7).

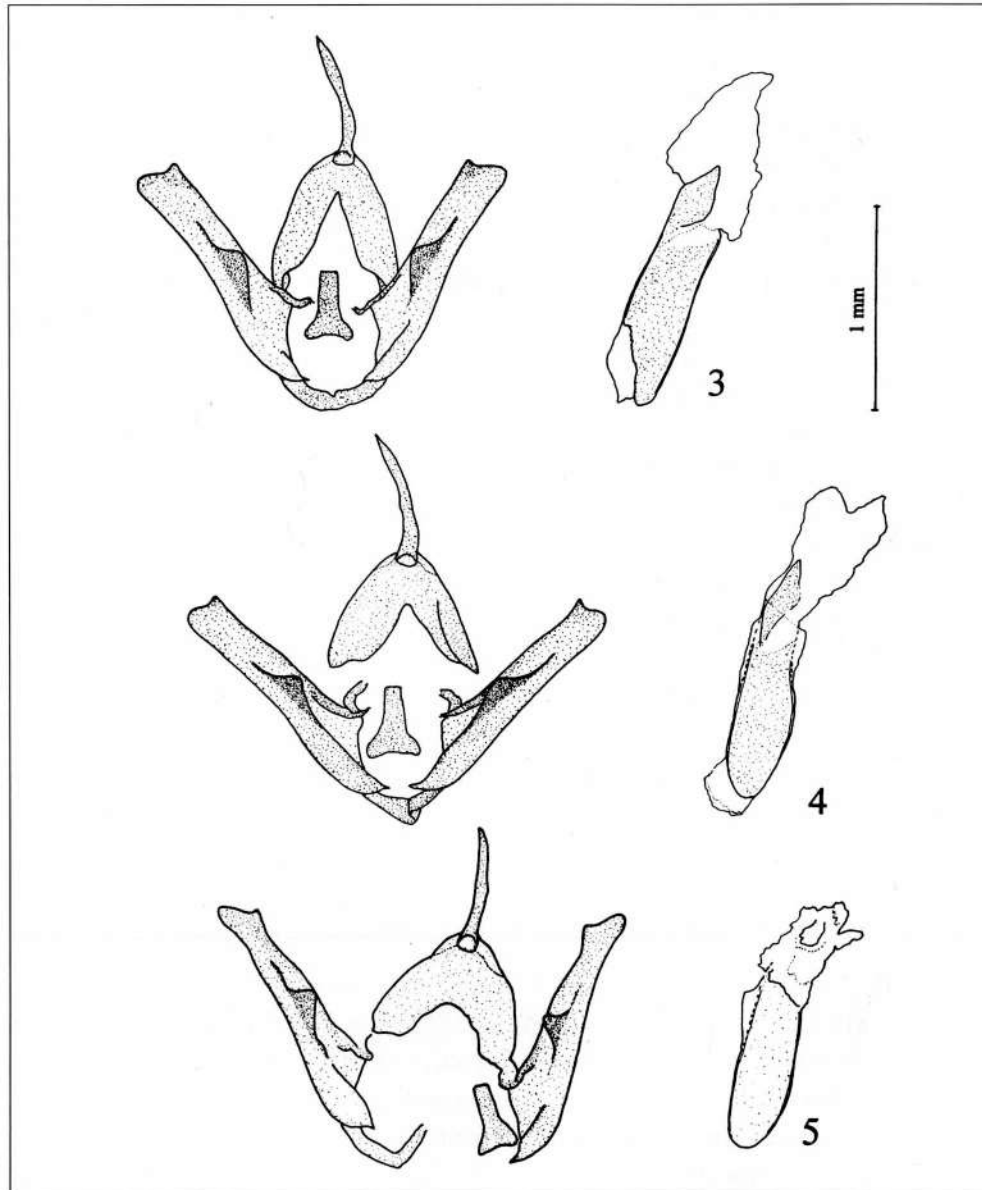
There is therefore evidence that specific status should not be conferred to the populations from Etna, which are hence synonymised with the nominate form: *Helia proboscidata* HERRICH-SCHÄFFER, [1851] = *Orectis barteli* TURATI, 1907 **nov. syn.**

The type series of *barteli* was composed as follows (TURATI, 1907): Serra Pizzuta (Etna) (prov. Catania), 15.X.1906, 1 ♂, 18.X.1906, 2 ♂♂. The material currently preserved in coll. Turati (Museo Regionale di Scienze Naturali, Torino) is as follows: Nicolosi, 5.VI., 1 ♂, Krüger Geo.C.; idem, 20.VI.07, 1 ♂, coll. Krüger, mus. Turati E. [Det. Berio *O. barteli* TUR., Cotypus]; Catania, 1 ♂. The specimen collected in Nicolosi on 20.VI.1907 cannot be considered a cotypus as suggested by BERIO since it was not used for the description (cf. TURATI, 1907: 36, footnote). Seemingly, the only existing specimen belonging to the type series of *barteli* is the lectotype male ([Serra Pizzuta] Nicolosi, 18.X.1906) designated and figured by BERIO (1991).

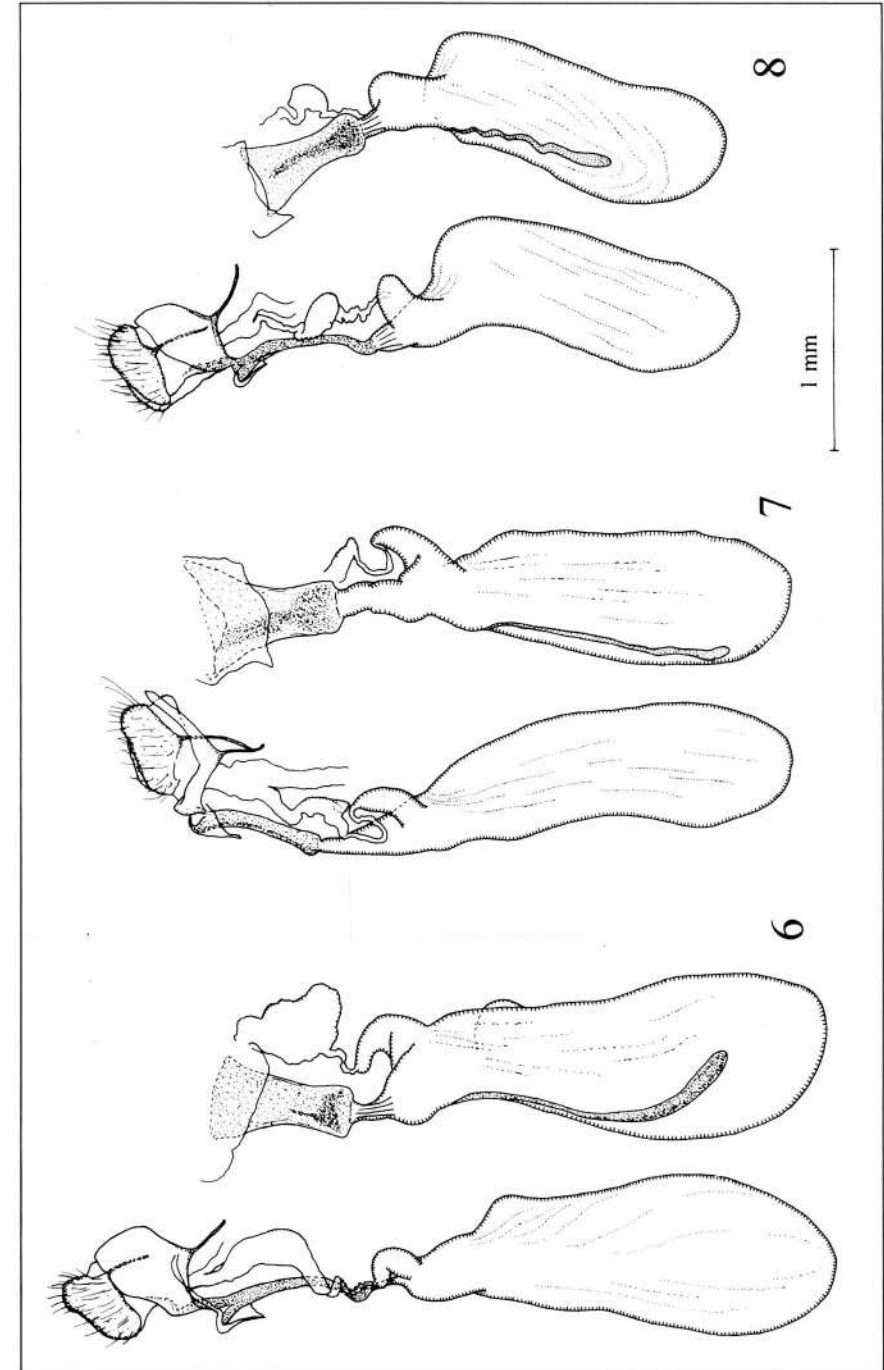
Orectis proboscidata is an at least double-brooded species ranging from the central to the eastern Mediterranean region. In Italy it is decisely rare and with a spotted distribution, except for the north-eastern sector where it is more evenly present. Particularly, in Friuli-Venezia Giulia it occurs quite regularly, as it becomes a characteristic species of the Karst Lepidopteran fauna.

On the identity of *Orectis massiliensis* (MILLIÈRE, 1864)

In his description of "*Nudaria* (?) *Massiliensis*", based on one single specimen from the surroundings of Marseille, MILLIÈRE ([1864]a, 1864b) emphasized several characters of the new taxon, the diagnostic value of which can be nowadays fully appreciated. Forewing markings like the outstanding costal spots in correspondence with the transverse lines, the dot-like reniform stigma, the postmedial line deeply curving inwards below the discal cell, and the sharp dots of the antemarginal line on both wings, are all features not characteristic of *proboscidata* (fig. 2). These and other characters were later substantiated by GUENÉE (in MILLIÈRE, 1873) who compared further material of *massiliensis* from Cannes with *proboscidata*. Nevertheless, *massiliensis* has been usually considered as a synonym of *proboscidata* (e.g. STAUDINGER & REBEL, 1901; WARREN, 1913-1914; LHOMME, 1923-1935; LERAUT,



Figs. 3-5 - Male genitalia of *Orectis* spp.: *O. proboscoidata* (HERRICH-SCHÄFFER, [1851]), (3) Alto Adige, (4) Sicily, Etna ("barteli" phenotype); (5) *O. massiliensis* (MILLIÈRE, 1864), Tuscany.
 - Apparati copulatori maschili di *Orectis* spp.: *O. proboscoidata* (HERRICH-SCHÄFFER, [1851]), (3) Alto Adige, (4) Sicilia, Etna (fenotipo "barteli"); (5) *O. massiliensis* (MILLIÈRE, 1864), Toscana.



Figs 6-8 - Female genitalia of *Orectis* spp.: *O. proboscoidata* (HERRICH-SCHÄFFER, [1851]), (6) Istria, (7) Etna ("barteli" phenotype); (8) *O. massiliensis* (MILLIÈRE, 1864), Latium.
 - Apparati copulatori femminili di *Orectis* spp.: *O. proboscoidata* (HERRICH-SCHÄFFER, [1851]), (6) Istria, (7) Etna (fenotipo "barteli"); (8) *O. massiliensis* (MILLIÈRE, 1864), Lazio.

1980; POOLE, 1989; FIBIGER & HACKER, 1991), despite the fact that it was at least three times clearly re-evaluated (TURATI, 1919; PÜNGELER, in DRAUDT, 1936; BANG-HAAS, 1937). TURATI (1919) examined one specimen from the surroundings of Ventimiglia (West Liguria) (fig. 2), whereas it is unclear whether or not the opinion by PÜNGELER reported by DRAUDT (1936) has been published elsewhere by that author (cf. HELLER, 1927). DRAUDT (1936) and BERIO (1991) also put forward the suggestion of the conspecificity of *massiliensis* with *euprepiata* DANNEHL, 1933, long since considered to be endemic of a restricted area in central Italy (DANNEHL, 1927, 1933; PROVERA, 1978; BERIO, 1991). As a matter of fact *euprepiata* is more widely distributed than previously known, occurring also in the northern Apennines and Peloponnese (HACKER, 1985, 1989; Bertaccini, pers. comm.; Zilli, unpublished).

After the comparison of the ligurian specimen in coll. Turati and topotypical material of *euprepiata* (including two syntypes) with the iconotype of *massiliensis* by MILLIÈRE ([1864]a, 1864b, cf. also 1873), it can be concluded that they belong to the same species. Accordingly, the following synonymy is established: *Nudaria massiliensis* MILLIÈRE, 1864 **sp. rev.** = *Orectis euprepiata* DANNEHL, 1933 **nov. syn.**

Likely, all the records of *Orectis proboscoidata* (HERRICH-SCHÄFFER, [1851]) from southern France (e.g. LHOMME, 1923-1935) should be referred to *Orectis massiliensis* (MILLIÈRE, 1864) which appears therefore as a Mediterranean xero-thermophilous species. Nevertheless, northern records like the one from Royan (Atlantic coast) (cf. LHOMME, 1923-1935) cannot be properly interpreted and require further analysis to ascertain whether or not *proboscoidata* actually belongs to the French fauna. The specimen illustrated by LERAUT (1992) under the name *proboscoidata* is well characteristic of *massiliensis*.

Little is known about the bionomics of *massiliensis* (cf. BERCE, 1878), however from the scanty data available it seems a multi-brooded species living along river and stream valleys in xero-thermophilous mediterranean areas.

The male genitalia of *massiliensis* are little differentiated from those of *proboscoidata*. Nevertheless, the apex of valva, which in *Orectis* species consists of a rounded inferior lobe and a thin superior one, shows differences in the relative length of the two lobes. In fact, the inferior lobe of *massiliensis* (fig. 5) is decisely more projecting distally than the lobe of *proboscoidata* (figs 3-4). In *massiliensis* the valva is also progressively tapering toward the distal end, while in *proboscoidata* it appears more uniformly wide. In the female of *massiliensis* the bursa consists of a bag-shaped corpus (fig. 8), while in *proboscoidata* the corpus bursae is piriform (figs. 6-7).

Manoscritto pervenuto il 15.XI.1994.

Acknowledgments

The author wishes to express his most sincere gratitude to all persons and institutions that allowed the examination of material or provided useful information, namely dr. E. Bertaccini (Forlì), dr. P.M. Giachino and dr. P. Scaramozzino (Museo Regionale di Scienze Naturali, Torino), dr. M. Lödl (Naturhistorisches Museum, Wien), dr. C. Morandini (Museo Friulano di Storia Naturale, Udine), and prof. A. Vigna Taglianti (Museo di Zoologia dell'Università di Roma).

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