

Noctua warreni sp. n.,
a new sibling species
of *Noctua comes* HÜBNER, 1813 from Cyprus
(Lepidoptera : Noctuidae)

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Summary

Noctua warreni sp. n., a sibling species of *Noctua comes* HÜBNER, 1813 is described from Cyprus. All specimens from adjoining areas (mainland Greece, Asia minor and Syria) have so far proved to be *N. comes*. Externally, the new species cannot be distinguished from *N. comes*. The genitalia exhibit considerable differences, as is usual for the genus *Noctua* LINNAEUS, 1758. The name *fumida* WARREN, 1909 in SEITZ (1909-1914), used to describe a form of *N. comes* from Cyprus is considered to be infrasubspecific.

Zusammenfassung

Noctua warreni sp. n., eine Zwillingsart zu *Noctua comes* HÜBNER, 1813, wird beschrieben. Die habituell von *N. comes* nicht zu unterscheidende Art stammt aus Cypern. Aus angrenzenden Gebieten (griechisches Festland, Kleinasien und Syrien) konnte bis jetzt nur *N. comes* nachgewiesen werden. Die Genitalarmaturen zeigen, wie in der Gattung *Noctua* LINNAEUS, 1758 üblich, erhebliche Unterschiede. Der von W. WARREN in SEITZ (1909-1914) für aberrative, cypriotische Stücke von *N. comes* vergebene Name "ab. *fumida*" ist infrasubspezifisch und war daher nicht zu berücksichtigen.

Introduction

Faunistic studies induced the author to examine some Cypriot specimens from the series of *Noctua comes* HÜBNER, 1813 in the collection of the Museum of Natural History in Vienna. The noctuids were found to belong to a new species, despite being externally very similar to the well known and common *N. comes*. The two taxa are markedly different in genital-morphology. It can be considered as a typical sibling-species of *N. comes*. In 1909 W. WARREN, in SEITZ (1909-1914), described a new aberration : "*Rhyacia orbona* HUFN. (= *comes* HBN.) ab. *fumida* nov.". The first opinion of the author was, to preserve the name given by WARREN and revise its status.

However, according to Article 45 (f) and the glossary of the "International Code of Zoological Nomenclature, ed. 3, 1985", a name described as an aberration is unequivocally of infrasubspecific rank if used to denote a number of individuals within a species. Furthermore, as WARREN described other taxa in the same work as sp. nov., ssp. nov., form nov. and ab. nov., he clearly considered his ab. nov. as infrasubspecific. The name does not seem to have been given specific or subspecific rank prior to 1985. The original description reads as follows :

"... lastly, a very distinct *ab. fumida* nov. from Cyprus has a dark fuscous forewing tinged with grey ; the lines and edges of stigmata grey ; the fringe wholly fuscous ; hindwing wholly smoky orange ; Underside with no red tinge ; the forewing dull yellow-grey, the hindwing greyish yellow ...". WARREN in SEITZ, vol. 3 (1909-1914), p. 42 (engl. ed. issued 24.8.1909).

It is interesting to note that in the german edition issued 14.9.1909, this taxon is described as "eine sehr abweichende Form *ab. fumida* form. nov.". It is clear that WARREN did not appreciate the real taxonomic status of the Cypriot populations. To assume the old name "*fumida*" for the new species could cause much confusion in the future. It was therefore decided to give the taxon a new name.

Noctua warreni sp. n. (figs. 1-2)

Holotype : Male : "Cypern, Platraes, Werner, 31.V.35", "GU-Lödl-No. 102 (23.2.1987)" = Mus. Vind. gen. slide No. 13.857. In coll. Naturhistorisches Museum Wien.

Paratypes : 13 paratypes in coll. Naturhistorisches Museum Wien :

Zypern, Troodos Geb., ndl. Troodos, 1500 m, M.u. E. Arenberger (2 ♂ 19.-28.7.81 ; 1 ♂, 1 ♀ 20.7.-1.8.81).

Zypern, Salzsee westl. Larnaca, M.u. E. Arenberger (1 ♀ 15.8.83, Mus. Vind. gen. slide No. 13.859).

Zypern, Troodos Geb., ndl. Ayii Vavatsinias, Kionia, 1400 m, M.u. E. Arenberger (1 ♀ 7.8.83, Mus. Vind. gen. slide No. 13.860).

Cypern, Platraes, Werner (1 ♂, 2 ♀ 28.5.35, Mus. Vind. gen. slides No. 13.854, 13.856, 13.858 ; 1 ♀ 30.5.35 ; 1 ♂, 1 ♀ 31.5.35, Mus. Vind. gen. slide No. 13.853).

Cypern, Nicosia, B. Haas (1 ♀ 5.-6.13, Mus. Vind. gen. slide No. 13.855).

22 paratypes in coll. British Museum (Natural History), London :

Cyprus, Nicosia, J. A. Bucknill (10.6.09).

Cyprus, Nicosia, G. A. Mavromoustakis (3 specimens June 1921 ; Nicosia probably should read "Nicosia").



Fig. 1. *Noctua warreni* sp. n., ♂ Holotype (Cyprus, Platraes) Wingspan 40 mm.

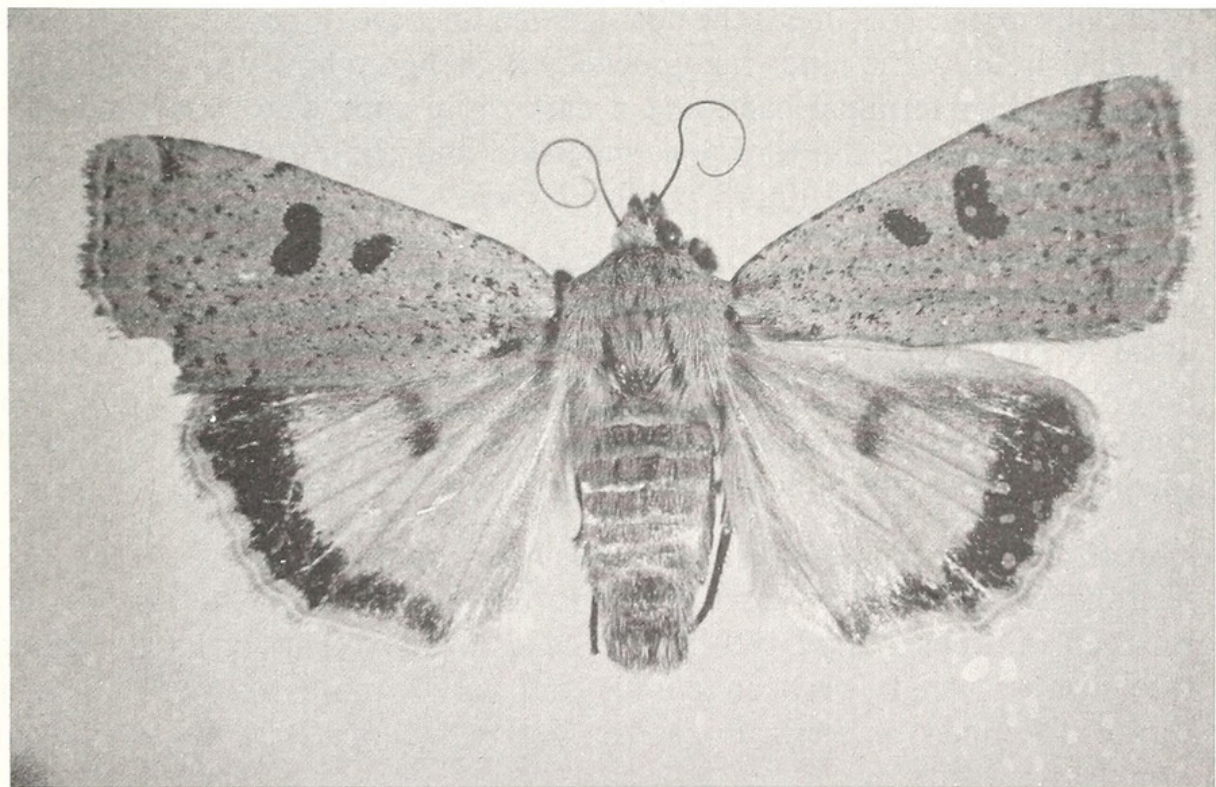


Fig. 2. *Noctua warreni* sp. n., ♀ Paratype (Cyprus, Troodos Mts.) Wingspan 42 mm.

Mts. of Cyprus, D. M. A. Bate (1903).

Cyprus, Stourovoun Mts., G. A. Mavromoustakis (5.22).

Cyprus, Troodos, most specimens coll. G. F. Wilson (16.6.16, 21.6.16, 2 specimens 25.6.16, 26.6.16, 3.7.16, 8.7.16, 25.6.18, 7.7.18, 18.7.18).

Cyprus, Limassol, G. A. Mavromoustakis (10.21, 11.21).

Cyprus, Platres, Hayward (6.21, 2 specimens 30.7.21).

Cyprus, Agric. Res. Inst., W. R. Ingram, m.v. trap (21.5.1971).

1 paratype in coll. E. ARENBERGER (Wien) :

Zypern, Troodos Geb., ndl. Troodos, 1500 m, M.u. E. Arenberger (19.-28.7.81).

1 paratype in coll. LÖDL (Langenzersdorf) :

Zypern, Troodos Geb., ndl. Troodos, 1500 m, M.u. E. Arenberger (19.-28.7.81).

Dedication : The new species is dedicated to the famous British lepidopterist, the late W. WARREN.

Description : Wingspan 36-45 mm. Antenna shortly ciliate. The forewing varies from pale greyish brown to pale red brown, and from dark grey to mottled clay. The reniform and orbicular stigmata vary from being concolorous with the ground colour to nearly black. One female specimen has nearly black stigmata on pale clay-coloured wings (fig. 2, ♀-paratype). In dark specimens the terminal and post-median fascia is of lighter, pale grey tone. Especially in pale specimens the post-median lines are represented by a series of blackish dots. The hindwing-upperside is orange yellow with an irregular dark brown subterminal band and a dark distal spot. The costal and subterminal regions of the forewing underside and the costal margin of the hindwing underside are tinged reddish brown.

Male genitalia : (figs. 3, 5, 7, 9) : Proximal part of valva broad, elbowed along the dorsal margin. Distal end slightly curved and tapered. Ampulla distal to elbow, slim and curved, not club-shaped. Aedeagus short, coecal part cluttered with short scobiform patches. Medial part of aedeagus very finely granulated. Cornutus sclerotized, big and cone-shaped. No area of small sclerotized spines near cornutus.

Female genitalia (figs. 11-12) : Caudal part of ductus bursae long and sclerotized, membranous part short. Proximal end of ductus bursae not enlarged. Corpus bursae well separated from cervix, no definite signum recognizable. Angle between corpus and cervix more than 90°. Ductus bursae 1,9 times as long as cervix. Cervix with patterns of sclerotized wrinkles.



Fig. 3. *Noctua warreni* sp. n., ♂ Paratype (Cyprus, Platraes) ; Valva, Mus. Vind. gen. slide No. 13.853.

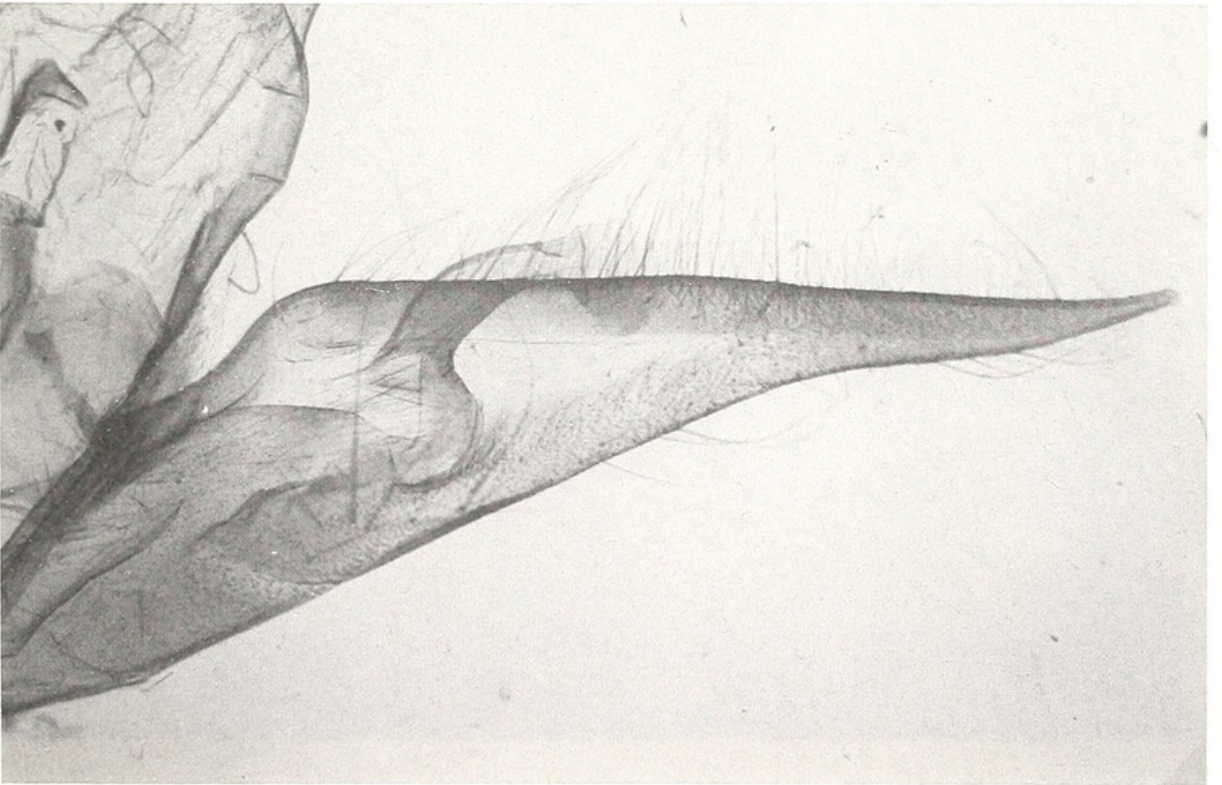


Fig. 4. *Noctua comes* HÜBNER, 1813, ♂ (Corsica) ; Valva ; Mus. Vind. gen. slide No. 13.864.

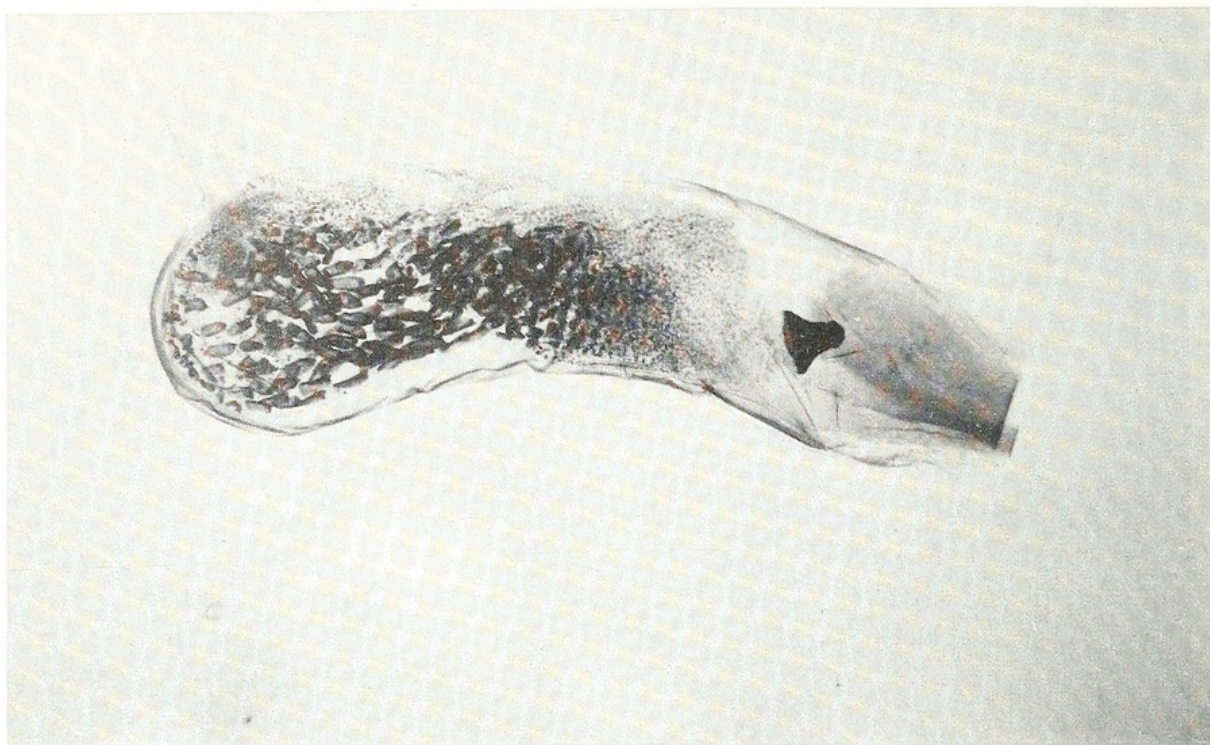


Fig. 5. *Noctua warreni* sp. n., ♂ Holotype (Cyprus, Platraes) ; Aedeagus ; Mus. Vind. gen. slide No. 13.857.

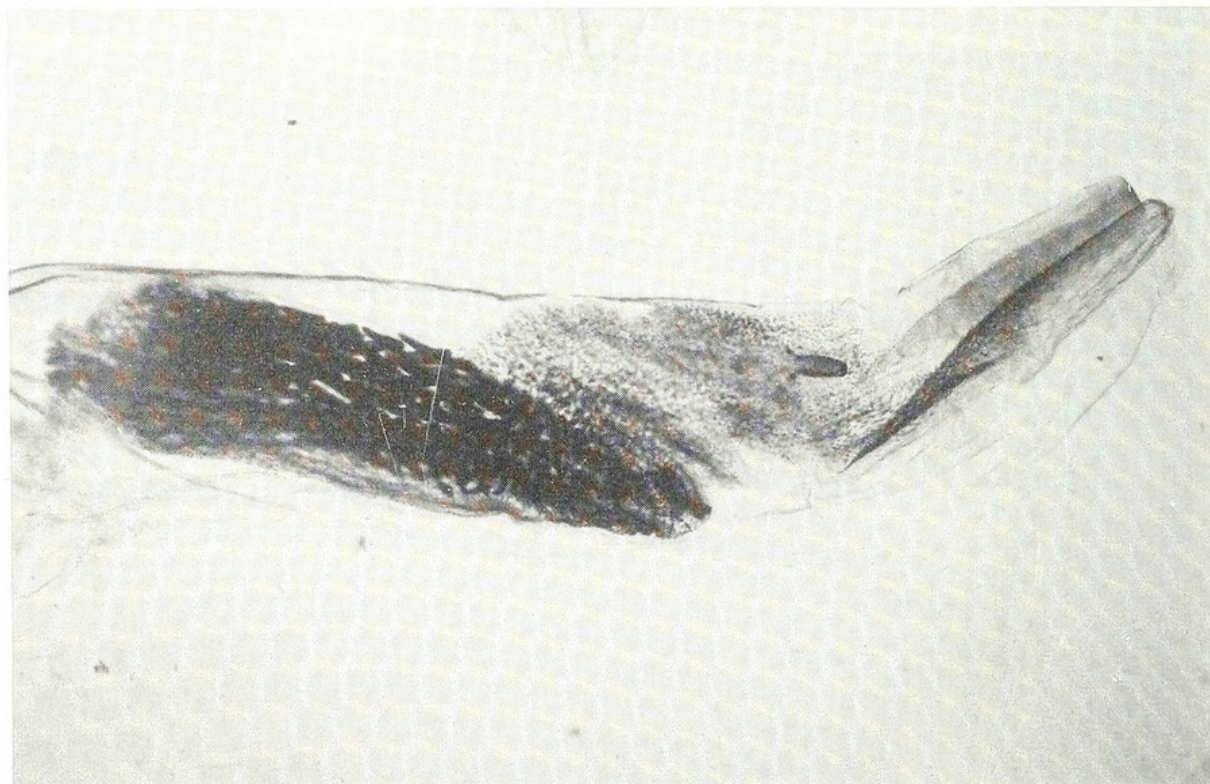


Fig. 6. *Noctua comes* HÜBNER, 1813, ♂ (Albania) ; Aedeagus ; Mus. Vind. gen. slide No. 13.862.

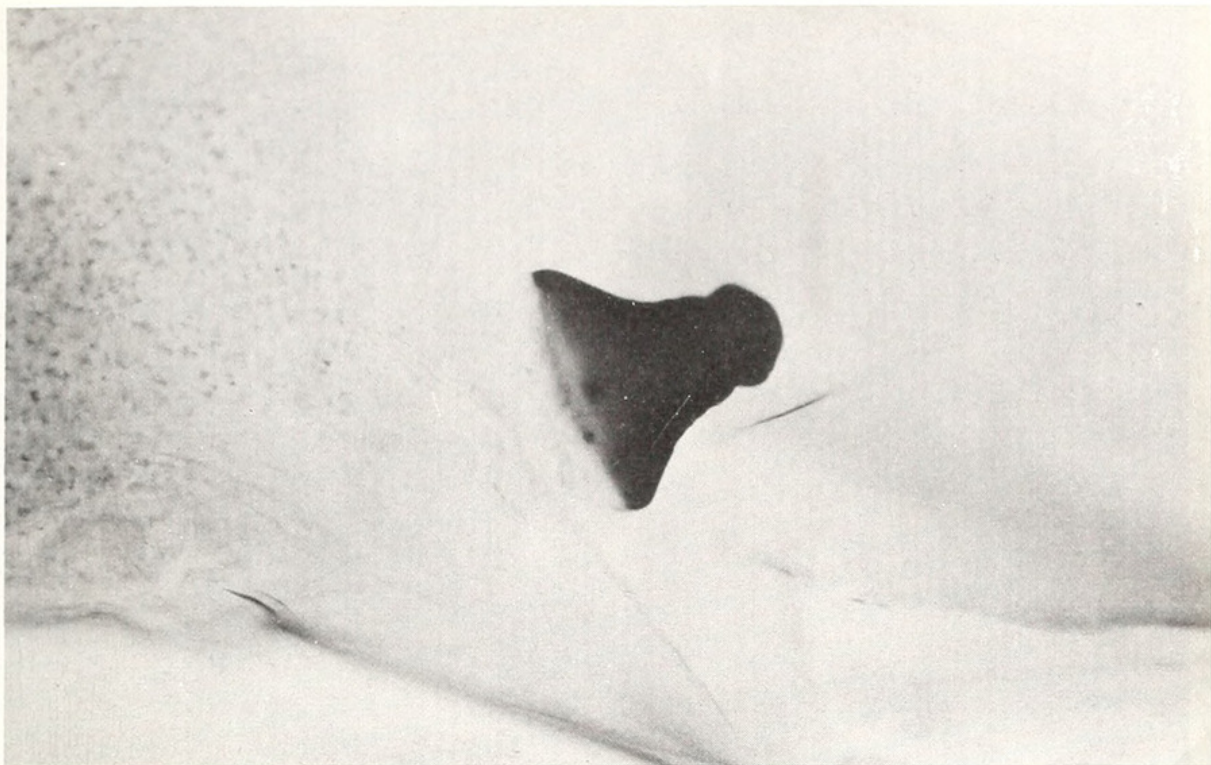


Fig. 7. *Noctua warreni* sp. n., ♂ Holotype (Cyprus, Platraes); Aedeagus detail: Cornutus; Mus. Vind. gen. slide No. 13.857.

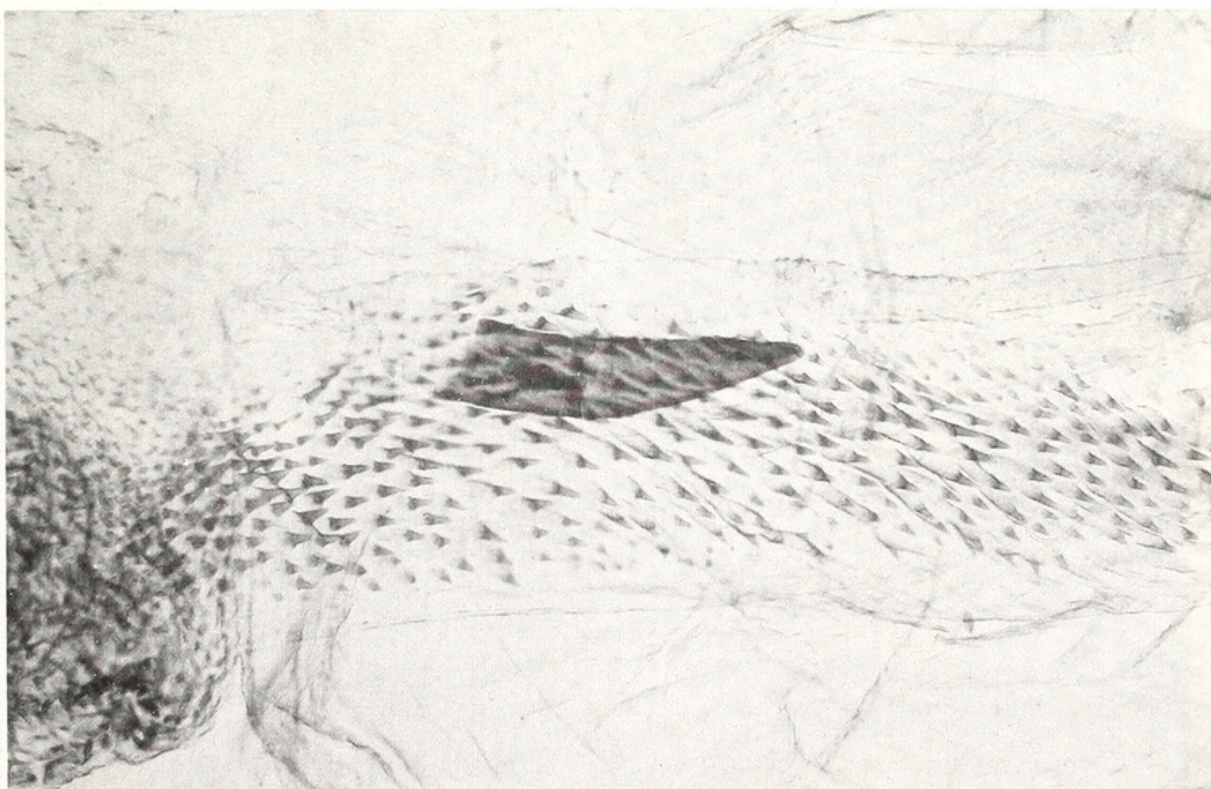


Fig. 8. *Noctua comes* HÜBNER, 1813, ♂ (Corsica); Aedeagus detail: Cornutus; Pin-ker-GU 105/63 (in coll. Naturhistorisches Museum Wien).

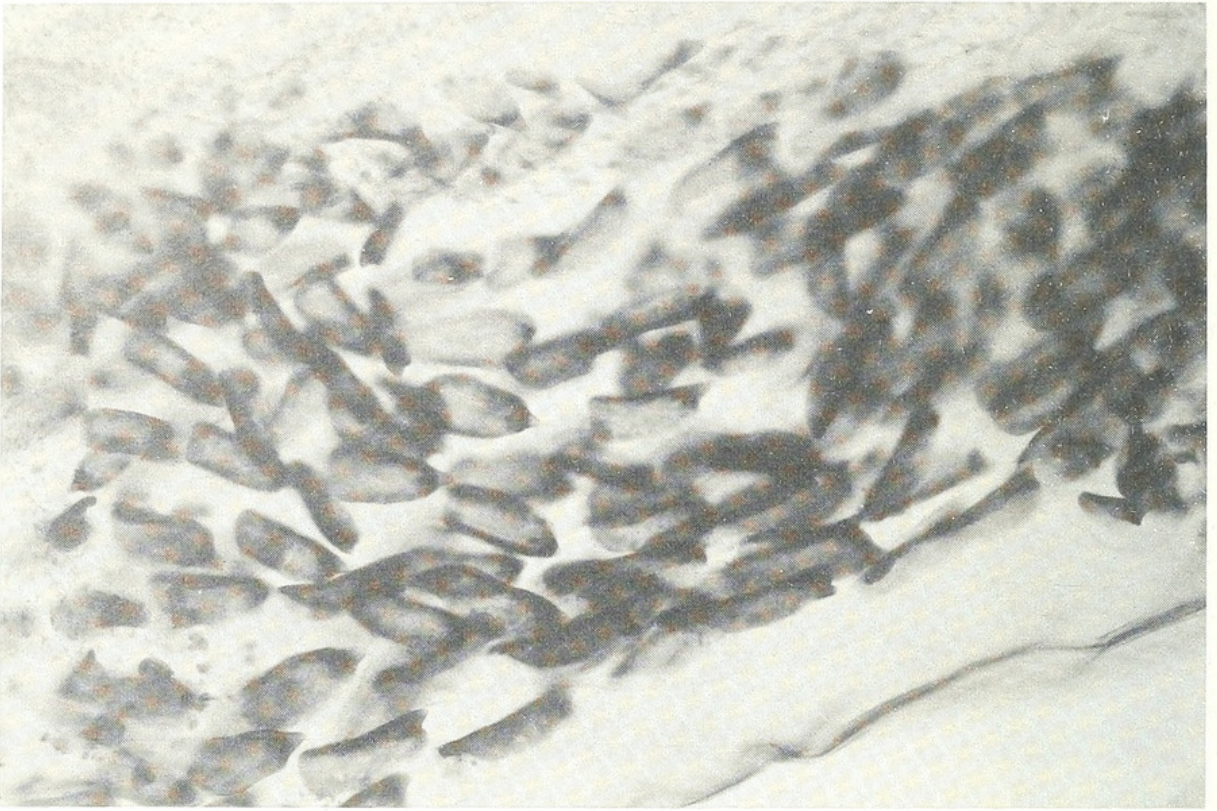


Fig. 9. *Noctua warreni* sp. n., ♂ Holotype (Cyprus, Platraes) ; Aedeagus detail : Coecum with scobiform patches ; Mus. Vind. gen. slide No. 13.857.

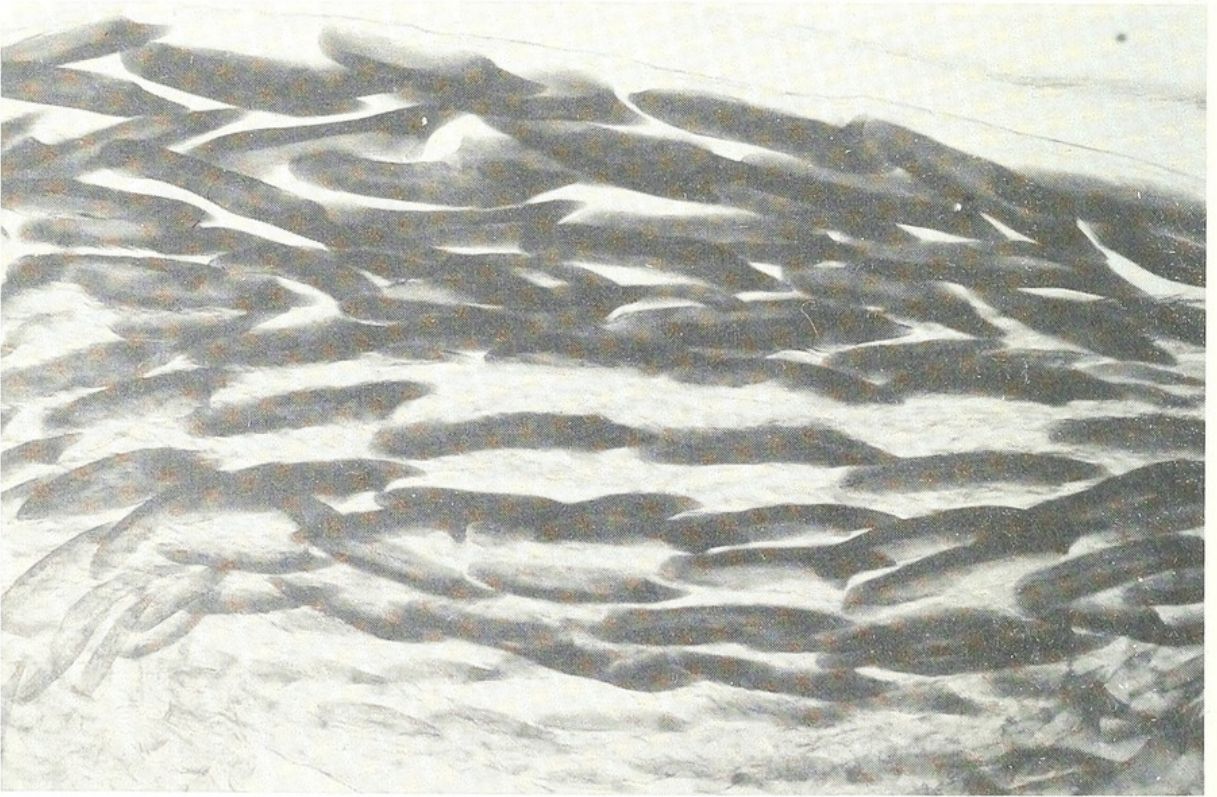


Fig. 10. *Noctua comes* HÜBNER, 1813, ♂ (Corsica) ; Aedeagus detail : Coecum with scobiform patches ; Pinker-GU 105/63 (in coll. Naturhistorisches Museum Wien).

Discussion

A comparison of *N. warreni* with its closely related species *N. comes* demonstrates many remarkable differences. The two species can easily be separated in the male. The author's experience is that *N. comes* exhibits relatively little variation in the male genitalia. As BURMANN & TARMANN (1986) indicate in their publication on a new alpine subspecies of *N. comes*, the valva of all smaller subspecies seem to be shorter than in other subspecies. The male genitalia of these smaller forms are of more compact shape, which might simply be a consequence of the more compact nature of the specimens themselves and are not specific differences. The author of the present publication studied *N. comes*-material from England, Central-Europe, France, Spain, Corsica, Sardinia, Italy, Albania, Greece, Turkey and Syria. The genital-morphology of the populations of Cyprus is quite different, and without doubt of specific value. The proximal part of the valva is much narrower in *N. comes* (fig. 4) than in *N. warreni* (fig. 3). The base of the valva is broad in *N. warreni* and strikingly elbowed on the dorsal margin. The ampulla is club-shaped in *N. comes* and large in relation to the long, narrow and straight distal end of the valva, whereas that of *N. warreni* is slightly curved and rather slim. The distal ends of the valva are slightly curved in *N. warreni*. Remarkable differences can also be found in the aedeagus. Especially striking is the different shape of the cornutus (figs. 7-8, vesica inverted). The strongly sclerotized and big cornutus is cone-shaped in *N. warreni*, without a neighbouring area of small spines. The cornutus of *N. comes* is always shaped like a long tooth, situated near an area of small sclerotized spines. The coecum in both species possesses a dense cluster of scobiform patches, which are long and narrow in *N. comes* (fig. 10), short and compact in *N. warreni* (fig. 11). The angle between corpus bursae and cervix is not so wide in *N. comes* as in *N. warreni*. *N. warreni* shows the corpus and cervix well separated, considered by the author as being two separate organs. The cervix of *N. comes* is larger than that of *N. warreni* (ratio of length of ductus bursae : cervix is 1,3-1,6 in *N. comes*, compared to ca. 1,9 in *N. warreni*). The wrinkles are more strongly sclerotized in *N. comes* and, particularly in the proximal part of the cervix, are remarkably well aligned. The extent of the variation in the external appearance of *N. warreni* seems to be equal to that of *N. comes*.

Distribution : To the best of the authors knowledge, the new species only occurs in Cyprus. It appears therefore to be a further endemic species of this island. *N. comes* could not be found in Cyprus.

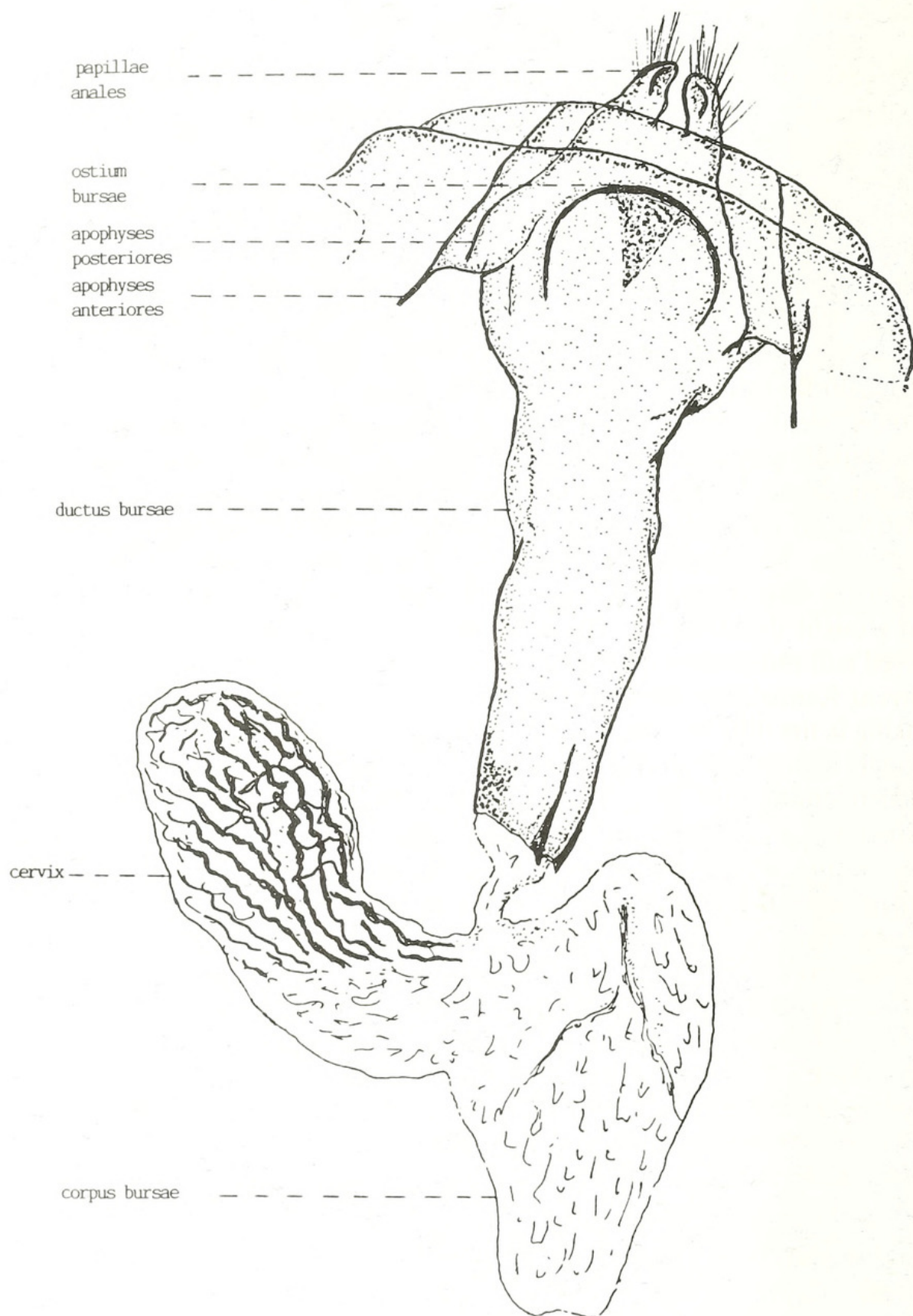


Fig. 11. *Noctua warreni* sp. n., ♀ Paratype (Cyprus, Platraes); Mus. Vind. gen. slide No. 13.856.

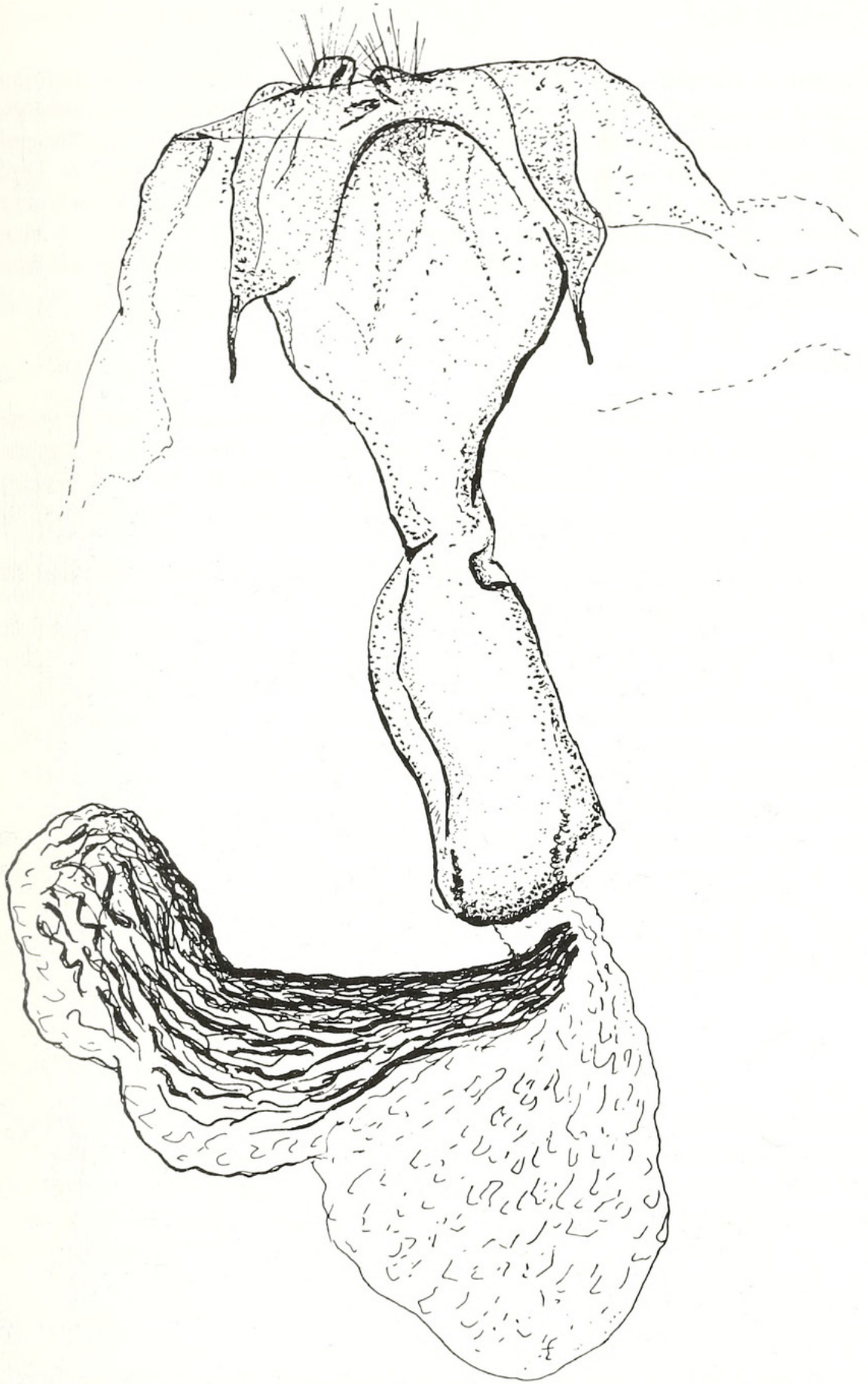


Fig. 12. *Noctua comes* HÜBNER, 1813, ♀ (France) ; Mus. Vind. gen. slide No. 13867.

Acknowledgements

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