

ABOUT SOME AFRICAN AND ASIATIC SPECIES OF THE FAMILY ELACHISTIDAE
(LEPIDOPTERA) DESCRIBED BY E. MEYRICK

Über einige von E. Meyrick beschriebene afrikanische und
asiatische Arten aus der Familie Elachistidae
(Lepidoptera)

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A b s t r a c t : Type material of the following nineteen African and Asiatic species of the family Elachistidae described by E. Meyrick has been examined: *Elachista ithygramma*, *Phthinostoma apathetica*, *Myrrhinitis sporeuta*, *Phthinostoma infumata*, *Phthinostoma pachyzona*, *Elachista epicoena*, *Mendesia secutrix*, *Cryphioxena haplomorpha*, *Elachista nearcha*, *Elachista merimnaea*, *Elachista sparsula*, *Elachista gypsophila*, *Elachista justificata*, *Elachista chelonitis*, *Elachista nymphaea*, *Mendesia inscia*, *Mendesia aganopa*, *Elachista nimbifera*, *Symphoristis ptychospila*.

E. ithygramma perhaps belongs to Hyponomeutidae. *P. apathetica* belongs to the genus *Phyllobrostis* (Lyonetiinae). The genera *Phthinostoma* with *P. infumata* (type species) and *P. pachyzona*, *Myrrhinitis* with *M. sporeuta* (type species) and *Cryphioxena* with *C. haplomorpha* (type species) don't belong to Elachistidae. *E. epicoena* and *M. secutrix* are Scythrididae. *E. nymphaea* and *M. inscia* are members of the genus *Cosmiotes*. *M. aganopa* will be assigned in future to a different genus, even if phylogenetically close to *Mendesia*. *S. ptychospila* is a synonym (*syn.nov.*) of *E. nimbifera*.

Introduction

This study, dedicated to Dr. Josef Klimesch on the occasion of his 85th birthday, is the first of a series of papers concerning the revision of

the extrapalaeartic species of the family Elachistidae.

By the essential co-operations of Dr. L. Vari, head of the Lepidoptera Department, Transvaal Museum (Pretoria), of Dr. V.B. Whitehead, South Africa Museum (Cape Town) and of Dr. G.K. Srivastava, Zoological Survey of India (Calcutta), it has been possible to examine type-material of nineteen species of the family Elachistidae described by E. Meyrick.

Description of species

Elachista ithygramma MEYRICK

Elachista ithygramma MEYRICK 1910, Rec.Indian Mus.(Calcutta) 5: 225. Zoological Survey of India, Calcutta.

N o t e s : The type series of *E. ithygramma* consist of four specimens of two sexes collected at Quilon (Travancore coast). Two females syntypes, both with the label "TYPE" have been examined. *Elachista ithygramma* is not an Elachistidae. In the female genitalia the colliculum bends at about half of its length; the signum looks like a harpoon with few dumpy teeth; on the ventral face of the seventh segment two subcircular areas are occupied by careened scales. Similar structures are present in the female genitalia of *Metharmostis asaphaula* MEYRICK (CLARKE 1965), described on specimens from Nasik (Bombay) and assigned to the family Hyponomeutidae.

Phthinostoma apathetica MEYRICK

Phthinostoma apathetica MEYRICK 1921, Ann.Transv.Mus. 8: 114. Transvaal Museum, Pretoria.

Phyllobrostis apathetica (MEYRICK) (VARI & KROON 1986 Southern African Lepidoptera: p. 158).

N o t e s : With regard to this species Dr. Vari wrote to me: "The study of the type *apathetica* MEYR. confirmed my suspicion that it is not a *Phthinostoma* at all, but proved to be a *Phyllobrostis*, being in its genitalia congeneric with *calcaria* MEYR. However, our *Phyllobrostis* species

might eventual not be congeneric with the type species *daphneella* STAUDINGER that I do not know, but would like to study myself. Although Fletcher considers *Pilotocoma* to be synonym with *Phyllobrostis* the genitalia of its type species *tephroleuca* MEYR. are totally different I found".

Myrrhinitis sporeuta MEYRICK

Myrrhinitis sporeuta MEYRICK 1913, Ann.Transv.Mus. 3: 322. Transvaal Museum, Pretoria.

N o t e s : *M. sporeuta* , type species of the genus *Myrrhinitis*, is not an Elachistidae. Dr. Vari, the well known specialist of the south African microlepidoptera fauna, wrote to me: "Your query on the eventual family of the species *Myrrhinitis sporeuta* MEYR. and the genus *Phthinostoma* present a difficult problem. Although I know the southern African micros families fairly well, I cannot place the above species in any other family to give a more satisfactory grouping."

Phthinostoma infumata MEYRICK

Phthinostoma infumata MEYRICK 1914, Ann.Transv.Mus. 4: 196. Transvaal Museum, Pretoria.

N o t e s : *Phthinostoma infumata* is not an Elachistidae (see the Notes of *Myrrhinitis sporeuta*).

Phthinostoma pachyzona MEYRICK

Phthinostoma pachyzona MEYRICK 1921, Ann.Transv.Mus. 8: 114. Transvaal Museum, Pretoria.

N o t e s : *P. pachyzona* is not an Elachistidae (see the Notes of *Myrrhinitis sporeuta*).

Elachista epicoena MEYRICK

Elachista epicoena MEYRICK 1914, Ann.Transv.Mus. 4: 196. Transvaal Museum, Pretoria.

Proterochyta epicoena (MEYRICK), 1918, Ann.Transv.Mus. 6: 56.

N o t e s : *E. epicoena*, designed by Meyrick as type species of the genus *Proterochyta*, is not an Elachistidae, but it is a member of the family Scythrididae.

Mendesia secutrix MEYRICK

Mendesia secutrix MEYRICK 1914, Ann.Transv.Mus. 4: 196. Transvaal Museum, Pretoria.

N o t e s : *M. secutrix* is not an Elachistidae, but it is a member of the family Scythrididae.

Cryphioxena haplomorpha MEYRICK

Cryphioxena haplomorpha MEYRICK 1921, Ann.Transv.Mus. 8: 123. Transvaal Museum, Pretoria.

N o t e s : *C. haplomorpha*, type species of the genus *Cryphioxena* is not an Elachistidae.

Elachista nearcha MEYRICK

Elachista nearcha MEYRICK 1910, Rec.Indian Mus.(Calcutta) 5: 225. Type locality: India, Puri (Orissa).

L e c t o t y p u s ♀ (here designated): "Ind.Mus.Annandale Balighai near Puri Orissa 23.X.08 at Light", "9470/15", "TYPE", "Ind.Mus.", "M", "*Elachista nearcha* MEY.", "U. Parenti Prep.Gen.N.10358 ♀", "♀ Lectotypus *Elachista nearcha* MEYRICK Teste U. Parenti 1986". Zoological Survey of India, Calcutta.

F e m a l e g e n i t a l i a (Fig. 30): for the general architecture and some particulars as for instance the sclerificated plate of the colliculum and the long signum with a longitudinal indented carina the female genitalia of *E. nearcha* are similar to those of *Elachista jordanella* AMSEL (PARENTI 1973) and of *Elachista zabella* CHRETIEN (PARENTI 1972).

N o t e s : The type series of *E. nearcha* consists of two specimens, a male and a female. The male from Calcutta, has not been examined.

Elachista merimnaea MEYRICK (Fig. 4)

Elachista merimnaea MEYRICK 1920, Ann.S.Afr.Mus. 17: 297. Type locality: South Africa, Matroosberg (Cape Colony).

H o l o t y p u s ♂ (here designated): "Ceres Div. Matroosberg 3500 ft./Lightfoot Nov. 1917", "*Elachista merimnaea* MEYR.", "Type", "U. Parenti Prep.Gen.N. 9540 ♂", "♂ Holotypus *Elachista merimnaea* MEYR. Teste U. Parenti 1983". South African Museum, Cape Town.

M a l e g e n i t a l i a : (Figs. 12, 13, 14, 15)

Elachista sparsula MEYRICK (Fig. 2)

Elachista sparsula MEYRICK 1921, Ann.Transv.Mus. 8: 114. Type locality: South Africa, Pretoria.

L e c t o t y p u s ♂ (here designated): "Pret.North 23.3.1917 C.J.Swierstra", "414", "*Elachista sparsula* MEYR. Type N. 2587", "U. Parenti Prep.Gen.N.9682 ♂", "♂ Lectotypus *Elachista sparsula* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

P a r a l e c t o t y p i : 1) "Pret.North 24.3.1917 C.J.Swierstra", "718", "*Elachista sparsula* MEYR. Cotype N° 2589", "U. Parenti Prep.Gen.N. 9683 ♂", "Paralectotypus ♂ *Elachista sparsula* MEYRICK Teste U. Parenti 1983". Transvaal Museum, Pretoria. 2) "Pret.North 23.3.1917", "716", "*Elachista sparsula* MEYR. Cotype N° 2588", "U. Parenti Prep.Gen.N. 9687 ♂", "Paralectotypus ♂ *Elachista sparsula* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

M a l e g e n i t a l i a (Figs. 16,17): for the general architecture the male genitalia of *E. sparsula* are similar to those of *E. kabuli* PARENTI from Afghanistan (PARENTI 1981), but the short and thick aedeagus is significantly different.

N o t e s : three out of six specimens of the type series have been examined.

Elachista gypsophila MEYRICK (Fig. 9)

Elachista gypsophila MEYRICK 1911, Ann.Transv.Mus. 2: 233. Type locality: South Africa, Beynspoort (near Pretoria).

L e c t o t y p u s ♂ (here designated): "Beynespoort 335 25 km NE Pretoria 14.1.1907 A.J.T.Janse", "4199", "*Elachista gypsophila* M. Type N° 933", "U. Parenti Prep.Gen.N. 9680 ♂", "♂ Lectotypus *Elachista gypsophila* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

M a l e g e n i t a l i a : (Figs. 20, 21).

N o t e s : one of the two specimens of the type series, a female from Pretoria, has not been examined.

Elachista justificata MEYRICK (Fig. 6)

Elachista justificata MEYRICK 1926, Ann.S.Afr.Mus. 23: 340. Type locality: South Africa, Cedarbergen Cape.

H o l o t y p u s ♂ (here designated): "Cedarbergen Cape 4-5000 ft./ K.H.Barnard Sept. 1923", "*Elachista justificata* MEYR.", "Type", "U. Parenti Prep.Gen.N. 9539 ♂", "♂ Holotypus *Elachista justificata* MEYR. Teste U. Parenti 1983". South African Museum, Cape Town.

M a l e g e n i t a l i a (Figs. 18, 19): in the male genitalia of *E. justificata* the digitate processes are absent, as well as in *Elachista chionella* MANN (NIELSEN & TRAUOGOTT-OLSEN 1978).

Cleroptila chelonitis (MEYRICK) (Fig. 8)

Elachista chelonitis MEYRICK 1909, Ann.Transv.Mus. 2: 25. Type locality: South Africa, Van der Merwe Station (Pretoria District).

H o l o t y p u s ♀ (here designated): "Van der Merwe 25 km E. Pretoria 12.12.1906 A.J.T.Janse", "4161", "*Cleroptila chelonitis* M. Type N°942", "U. Parenti Prep.Gen.N. 9678 ♀", "Holotypus ♀ *Elachista chelonitis* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

F e m a l e g e n i t a l i a (Fig. 29): they are characteristic for the small sclerificated plate at the beginning of the bursa and the underlying series of fine thorns.

Cosmiotes nymphea (MEYRICK), comb.nov. (Fig. 5)

Elachista nymphea MEYRICK 1911, Ann.Transv.Mus. 2: 233. Type locality: South Africa, Pretoria.

L e c t o t y p u s ♀ (here designated): "Pretoria 20.10.08 A.J.T. Janse", "646" "*Elachista nymphea* (sic) M. Type N° 934", "U. Parenti Prep. Gen.N. 9679 ♀", "♀ Lectotypus *Elachista nymphea* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

F e m a l e g e n i t a l i a (Fig. 31): they are typical of the representatives of the genus *Cosmiotes*. *C. nymphea* differs significantly from all the other species by the large antrum with the ventral margin reinforced by a sclerificated band.

N o t e s : Meyrick described *E. nymphea* on two specimens, a male and a female. The male has not been examined.

Cosmiotes inscia (MEYRICK), comb.nov. (Fig. 3)

Mendesia inscia MEYRICK 1913, Ann.Transv.Mus. 3: 322. Type locality: South Africa, Barberton.

L e c t o t y p u s ♂ (here designated): "Barberton 7 Dec.1910 A.J. T.Janse", "4940", "*Mendesia inscia* M. Type N° 945", "U. Parenti Prep.Gen.N. 10129 ♂", "♂ Lectotypus *Mendesia inscia* MEYRICK Teste U. Parenti 1984". Transvaal Museum, Pretoria.

P a r a l e c t o t y p u s ♂ : "Barbarton (sic) 1.Jan.1911 A.J.T. Janse", "4951", "*Mendesia inscia* M. Cotype N° 946", "U. Parenti Prep.Gen.N. 10130 ♂", "♂ Paralectotypus *Mendesia inscia* MEYRICK Teste U. Parenti 1984". Transvaal Museum Pretoria.

M a l e g e n i t a l i a (Figs.26, 27, 28): they are similar to those ones of *Cosmiotes amseli* PARENTI of Afghanistan (PARENTI 1981) from which they differ significantly by the more arched uncus lobes, the broad and oval gnathos and the more rounded cucullus.

N o t e s : Only two of the four specimens of the type series have been examined.

Mendesia aganopa MEYRICK (Fig. 1), sp. incertae sedis

Mendesia aganopa MEYRICK 1911, Ann.Transv.Mus. 2: 234. Type locality: South Africa, Rietfontein (NE Pretoria District).

H o l o t y p u s ♂ (here designated): "(Rietf.11.2.05) 11", "*Mendesia aganopa* M. Type N° 947", "4261", "*Mendesia aganope* MEYRICK 4261", "♂ Holotypus *Mendesia aganopa* MEYRICK Teste U. Parenti 1984". Tansvaal Museum, Pretoria.

M a l e g e n i t a l i a (Figs.10, 11): the lateral sistemation of the male genitalia make the interpretation of taxonomically important structures as, for instance, the yuxta, problematic. The morphology of the aedeagus, of the valva, but above all the structure of the gnathos, two spined knobs (see arrows) indicated however that *aganopa* must be assigned to a different genus, even if phylogenetically close to *Mendesia*. Resolutive indications will provided only by means of the examination of new material.

Symphoristis nimbifera (MEYRICK), comb.nov. (Fig. 7)

Elachista nimbifera MEYRICK 1913, Ann.Transv.Mus. 3: 322. Type locality: South Africa, Barberton.

L e c t o t y p u s ♂ (here designated): "Barberton 29.Jan.1911 A.J. T.Janse", "4961", "*Symphoristis nimbifera* M. Type N° 936", "U. Parenti Prep. Gen.N. 9681 ♂", "Lectotypus ♂ *Symphoristis nimbifera* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

P a r a l e c t o t y p i : 1) "Barberton 29 Dec.1910 A.J.T.Janse", "*Symphoristis nimbifera* M. Cotype N° 937", "U. Parenti Prep.Gen.N. 9684 ♂", "Paralectotypus ♂ *Symphoristis nimbifera* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria. 2) "Waternval onder 2 Nov.1910 A.J.T.Janse", "*Symphoristis nimbifera* M. Cotype N° 938", "U. Parenti Prep.Gen.N. 9685 ♂", "Paralectotypus ♂ *Symphoristis nimbifera* MEYR. Teste U. Parenti 1983". Transvaal Museum, Pretoria.

M a l e g e n i t a l i a (Figs. 22-25): they show some affinity with those of the representatives of the genus *Mendesia*. As in *Mendesia* the anellus carries long setae.

F e m a l e g e n i t a l i a : a female of the type series of *S. nimbifera* has been examined, but the genitalia does not seem to be those of

an Elachistidae. New material might permit to solve the problem.

S y n o n y m :

Symphoristis ptychospila MEYRICK 1918, Ann.Transv.Mus. 6: 56. Type locality: South Africa, Pretoria.

L e c t o t y p u s ♂ (here designated): "Pret. North. 23.2.1917 C.J.Swierstra", "543", "*Symphoristis ptychospila* MEYR. Type N° 2494", "U. Parenti Prep.Gen.N. 10132 ♂", "♂ Lectotypus *Symphoristis ptychospila* MEYRICK Teste U. Parenti 1984". syn.nov. Transvaal Museum, Pretoria.

N o t e s : Four out of six specimens of the type series have been examined.

Zusammenfassung

Typenmaterial von E. Meyrick beschriebener neunzehn afrikanischer und asiatischer Arten der Familie Elachistidae sind geprüft worden: *Elachista ithygramma*, *Phthinosstoma apathetica*, *Myrrhinitis sporeuta*, *Phthinosstoma infumata*, *Phthinosstoma pachyzona*, *Elachista epicoena*, *Mendesia secutrix*, *Cryphioxena haplomorpha*, *Elachista nearcha*, *Elachista merimnaea*, *Elachista sparsula*, *Elachista gypsophila*, *Elachista justificata*, *Elachista chelonitis*, *Elachista nymphaea*, *Mendesia inscia*, *Mendesia aganopa*, *Elachista nimbifera*, *Symphoristis ptychospila*.

E. ithygramma scheint der Familie Hyponomeutidae anzugehören. *P. apathetica* gehört zur Gattung *Phyllobrostis* (Lyonetiinae). Die Gattungen *Phthinosstoma* mit *P. infumata* (Typus) und *P. pachyzona*, *Myrrhinitis* mit *M. sporeuta* (Typus) und *Cryphioxena* mit *C. haplomorpha* (Typus), gehören nicht zur Familie Elachistidae. *E. epicoena* und *M. secutrix* gehören zu Scythrididae. *E. nymphaea* und *M. inscia* sind in die Gattung *Cosmiotes* einzugliedern. *M. aganopa* könnte in Zukunft einer anderen Gattung zugeschrieben werden, wenn sie auch phylogenetisch mit der Gattung *Mendesia* verwandt ist. *S. ptychospila* ist ein Synonym von *E. nimbifera*.

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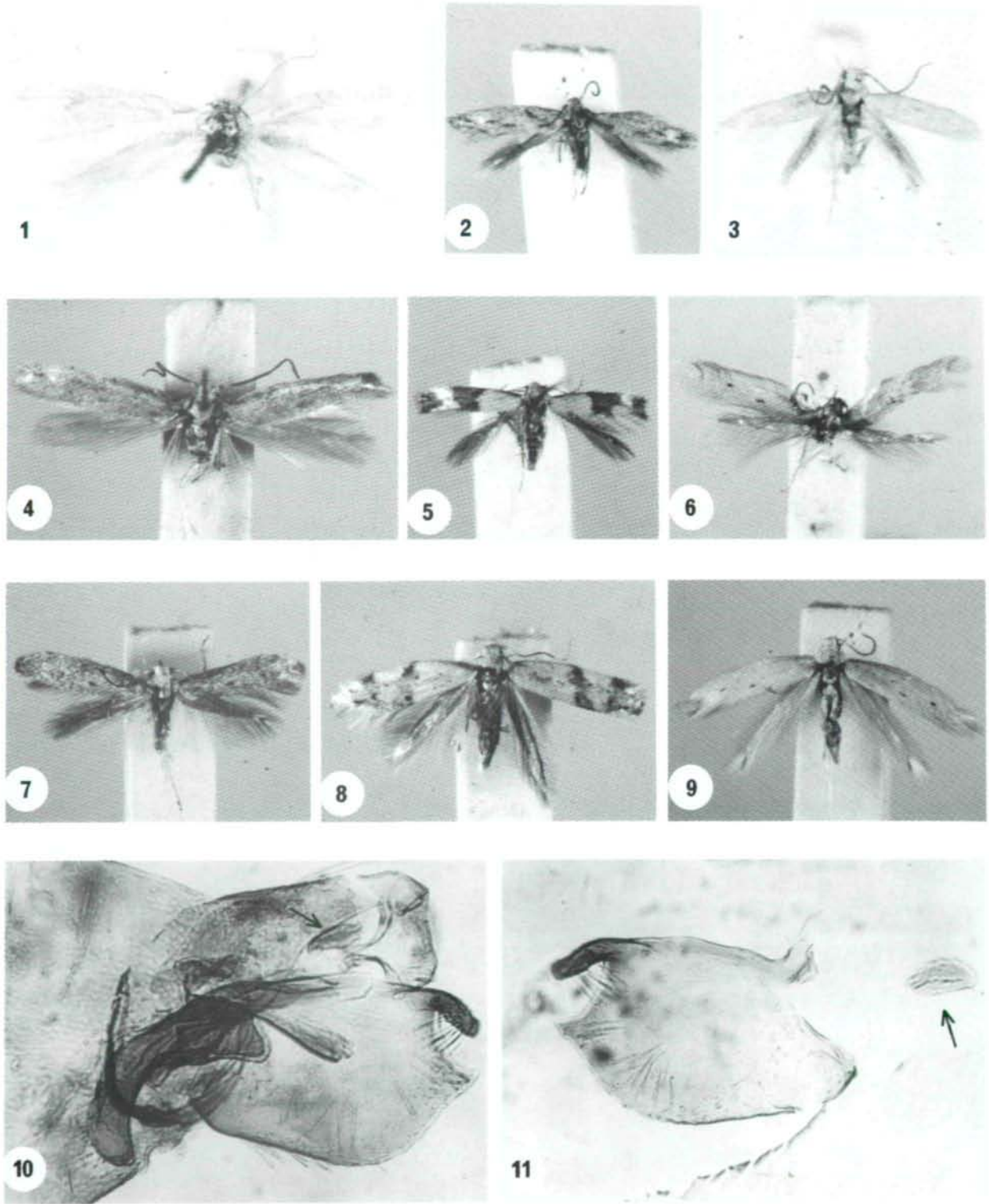


Fig. 1 - *Mendesia aganopa*, holotype; fig. 2 - *Elachista sparsula*, lectotype; fig. 3 - *Cosmiotes inscia*, lectotype; fig. 4 - *Elachista merimnaea*, holotype; fig. 5 - *Cosmiotes nymphaea*, lectotype; fig. 6 - *Elachista justificata*, holotype; fig. 7 - *Symphoristis nimibifera*, lectotype; fig. 8 - *Cleoptila chelonitis*, holotype; fig. 9 - *Elachista gypsophila*, lectotype; fig. 10-11 - male genitalia and right valva of *Mendesia aganopa*, holotype.

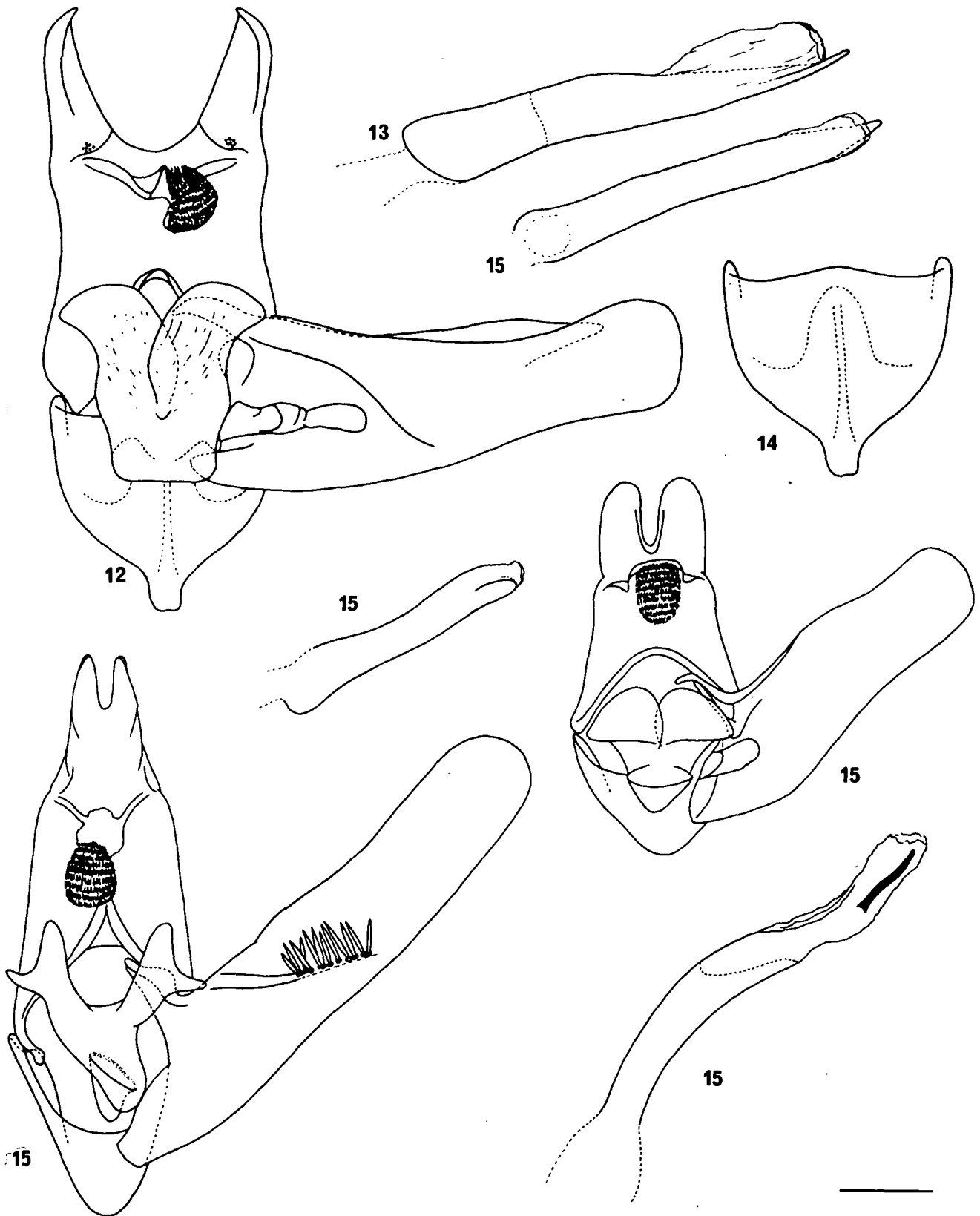
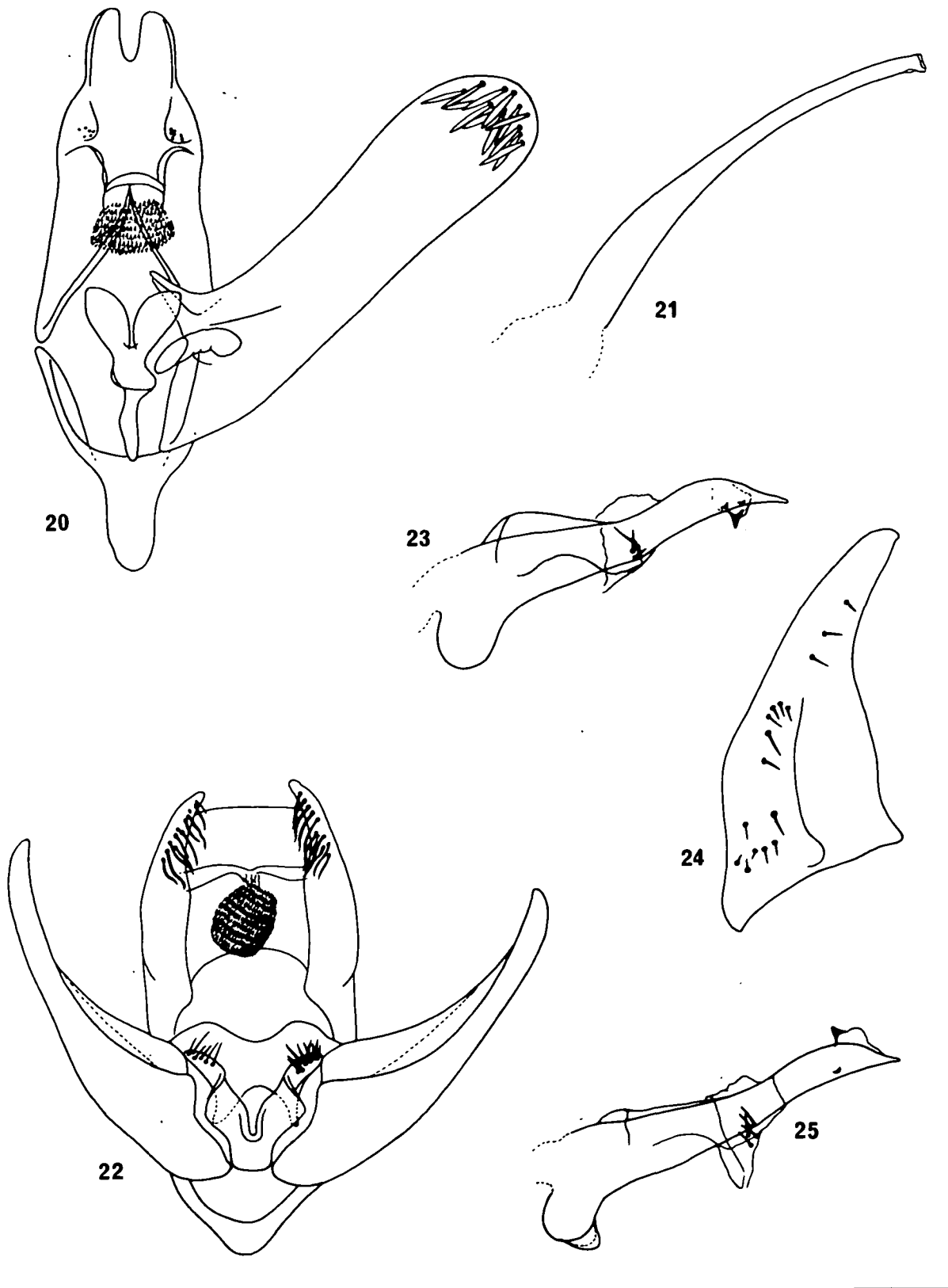
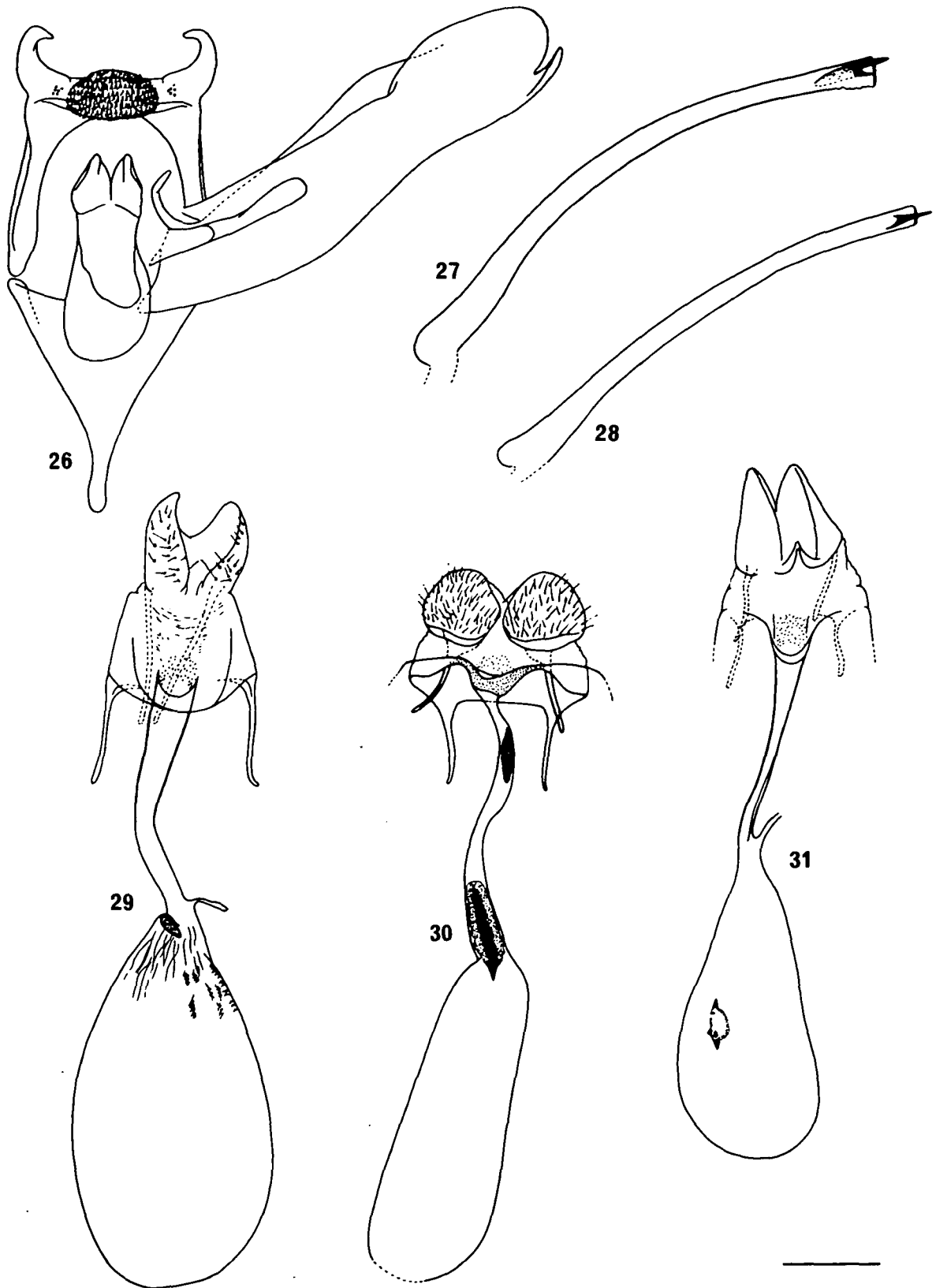


Fig. 12 - *Elachista merimnaea* , holotype, male genitalia; figs. 13 and 15 - *E. merimnaea*, aedeagus, lateral and dorsal view; fig. 14 - *E. merimnaea*, vinculum; figs. 16 and 17 - *Elachista sparsula*, lectotype, male genitalia; figs. 18 and 19 - *Elachista justificata*, holotype, male genitalia.
(Scale line = 0.1 mm)



Figs. 20 and 21 - *Elachista gypsophila*, lectotype, male genitalia; fig. 22 - *Symphoristis nimbifera*, lectotype, male genitalia; fig. 23 - *S. nimbifera*, lectotype, aedeagus; fig. 24 - *S. nimbifera*, lectotype, valva; fig. 25 - *S. nimbifera*, paralectotype N°1, aedeagus. (Scale line = 0.1 mm)



Figs. 26 and 27 - *Cosmiotes inscia*, lectotype, male genitalia; fig. 28 - *C. inscia*, paralectotype, aedeagus. (Scale line = 0.1 mm)
Fig. 29 - *Cleroptila chelonitis*, holotype, female genitalia; fig. 30 - *Elachista nearcha*, lectotype, female genitalia; fig. 31 - *Cosmiotes nymphaea*, lectotype, female genitalia. (Scale line = 0.2 mm)

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