

Descriptions of new Pyraloidea from the Palaearctic Region (Lepidoptera, Pyraloidea, Pyralidae: Pyralinae, Phycitinae, Crambinae)

Jan Asselbergs

Abstract. Four new Pyraloidea species are described: *Phycita characterica* sp. n. (Phycitinae), *Bazaria venosella* sp. n. (Phycitinae), *Euzophera hulli* sp. n. (Phycitinae), and *Talis cabensis* sp. n. (Crambinae). Adults and genitalia are illustrated, distinctive characters for sibling species are given. *Scotomera caesarealis* (Ragonot, 1891) (Pyralinae) is mentioned for the first time for the continental European fauna.

Samenvatting. Beschrijving van nieuwe Pyraloidea uit het Palaearktische gebied (Lepidoptera, Pyraloidea, Pyralidae: Pyralinae, Phycitinae, Crambinae)

Vier nieuwe soorten Pyraloidea worden beschreven: *Phycita characterica* sp. n. (Phycitinae), *Bazaria venosella* sp. n. (Phycitinae), *Euzophera hulli* sp. n. (Phycitinae) en *Talis cabensis* sp. n. (Crambinae). Adulaten en genitalia worden afgebeeld, onderscheidingskenmerken voor gelijkende soorten worden besproken. *Scotomera caesarealis* (Ragonot, 1891) (Pyralinae) wordt voor het eerst uit continentaal Europa vermeld.

Résumé. Description de nouveaux Pyraloidea de la région paléarctique (Lepidoptera, Pyraloidea, Pyralidae: Pyralinae, Phycitinae, Crambinae)

Quatre nouvelles espèces de Pyraloidea sont décrites: *Phycita characterica* sp. n. (Phycitinae), *Bazaria venosella* sp. n. (Phycitinae), *Euzophera hulli* sp. n. (Phycitinae) et *Talis cabensis* sp. n. (Crambinae). Les adultes et les genitalia sont figurés et des caractères diagnostiques sont donnés. *Scotomera caesarealis* (Ragonot, 1891) (Pyralinae) est mentionné ici pour la première fois de la région européenne continentale.

Zusammenfassung. Beschreibung von neuen Pyraloidea aus dem Paläarktischen Gebiet (Lepidoptera, Pyraloidea, Pyralidae: Pyralinae, Phycitinae, Crambinae)

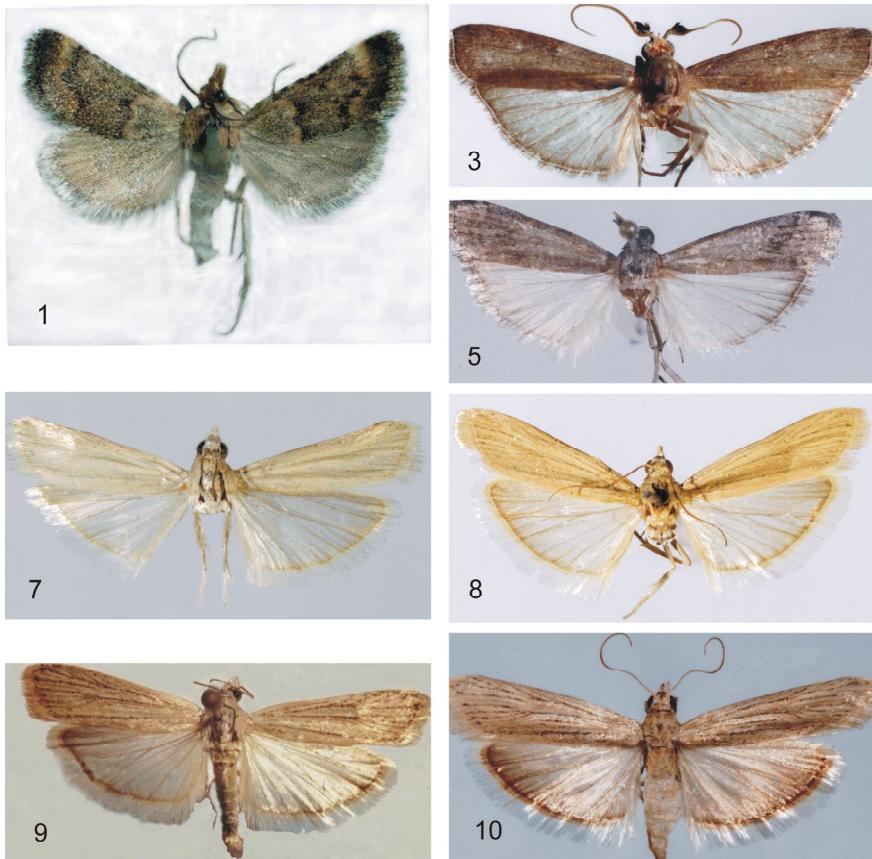
Vier neue Pyraloidea Arten werden beschrieben und zusammen mit den Genitalien abgebildet: *Phycita characterica* sp. n. (Phycitinae), *Bazaria venosella* sp. n. (Phycitinae), *Euzophera hulli* sp. n. (Phycitinae) und *Talis cabensis* sp. n. (Crambinae). Unterscheidungsmerkmale für ähnliche Arten werden diskutiert. Neu für kontinentales Europa ist *Scotomera caesarealis* (Ragonot, 1891) (Pyralinae).

Key words: Pyraloidea – Pyralinae – Phycitinae – Crambinae – new species.

Asselbergs, J.: Neerland 20, NL-4614 GD Bergen op Zoom. The Netherlands.
jef.asselbergs@hetnet.nl

Introduction

The Pyraloidea form a very large superfamily with an estimated number of 16000 species worldwide. It is estimated that the same number of species is still awaiting description. The current knowledge about the occurrence of Pyraloidea species in Europe is summarized by Nuss, M., Segerer, A. & Speidel, W. Although the pyraloid fauna of the Western Palaearctic region is relatively well known, descriptions of new species from the lesser well known parts such as i.e. Turkey, Southern Europe, the Canary Islands and Madeira are not infrequent. In this paper a description is given of 4 new Phycitinae and 1 new Crambinae species. Moreover, *Scotomera caesarealis* (Ragonot, 1891) is mentioned for the first time from continental Europe.



Figs. 1–10: **1.**—*Scotomera caesarealis* (Ragonot, 1891) ♂, Greece, Fokis, Itea, 20.vii.1987, leg. H. G. van der Wolf; **3.**—*Phycita characterica* sp. n., Holotype ♂, Turkey, Antalya, 40 km N Alanya, 1350 m, 6.viii.1998, leg. W. De Prins; **5.**—*Phycita mianella* Amsel, 1949 ♂, Turkey, Mersin, 10 km S Arslanköy, Taurus, 1300 m, 11.vii.1987, leg. M. Fibiger; **7.**—*Bazaria venosella* sp. n., Holotype ♂, Canary Islands, La Palma, Tacande, 11.iii.2007, leg. H. W. van der Wolf; **8.**—*B. venosella* sp. n., Paratype ♂, Malta, Naxxar, 7.iv.1998, leg. A. Seguna; **9.**—*B. venosella* sp. n., Paratype ♂, Tenerife, Tamaimo, 13–23.iii.1999, leg. M. Delnoye; **10.**—*B. venosella* sp. n., Paratype ♀, Canary Islands, Tenerife, Los Christianos, 10–20.iii.1980, leg. J. B. Wolschrijn.

Material and methods

An Olympus stereo microscope type VT-II has been used for the descriptions of the adults. Genital slides were made with a Beck microscope type CBS and the drawings of the genitalia were made with an Olympus microscope CH2 with a drawing tube. Terminology for the morphological structures follow Roesler, (1973, 1993). If not stated otherwise, measurements of the forewing include the fringe.

Abbreviations:

coll.	collection
gen. prep.	genital slide preparation
ZMFK	Zoologisches Forschungsinstitut und Museum Alexander Koenig , Bonn , Germany.
IEEM	Instituto Espanol di Entomología , Madrid, Spain.
LPM	Liverpool Museum , Merseyside , U.K.
ZMA	Zoologisch Museum , Amsterdam , The Netherlands.
BMNH	British Museum of Natural History, London, U.K.

***Scotomera caesarealis* (Ragonot, 1891) (Pyralinae) (Figs. 1, 2) new to the continental European fauna.**

Material: 1 ♂, Greece, Fokis, Itea, 20.vii.1987, leg. H. G. van der Wolf, gen. prep. 2736, Asselbergs, coll. Asselbergs.

Remark. The species was identified by M. Shaffer, BMNH.

Life history. Unknown.

Distribution. Known from N. Syria [present-day Turkey], Marasch (Ostheder 1935); Palestine, Jordan Valley (Zerny 1914); Palaearctic Egypt (Rebel 1939); Europe: Cyprus, Limassol (Rebel 1939); mainland of Greece: Fokis, Itea, (this paper).

***Phycita characterica* sp. n. (Phycitinae) (Figs. 3, 4)**

Material. Holotype ♂, Turkey, Antalya, 40 km N Alanya, 1350 m, 6.viii.1998, leg. W. De Prins, gen. prep. 4313 Asselbergs, ZMA. Paratype ♂, same data, gen. prep. 4371 Asselbergs, coll. Asselbergs.

Description. Forewing length 12.5 mm; alar expanse 27 mm. Head: vertex flatly rounded, covered with adjacent scales. Ocelli and chaemosemata present. Labial palpi 1.5× eye, slender and upturned, 3rd segment straight, 0.5× 2nd segment. Maxillary palpi filiform, 0.25× 2nd segment of labial palpi. Patagium greyish brown as the thorax, necktuft with raised scales. Antenna with a strong sinus and a distinct dark and shiny scalebush, flagellum ciliated. Forewing greyish brown almost without a pattern, except for the postmedian line which originates from the costa at 4/5 and is next running with an outward curve to the inner margin near the tornus. Fringe greyish brown with a white base and a white dividing line. Hindwing pale greyish brown, little hyaline. Base of fringe white followed by a brown dividing line, next greyish.

Male Genitalia: Uncus subtriangular, 1.2× longer than broad, base flat, apex flattened. Gnathos triangular, sharply tapering towards a curved apex, the total length being slightly less than 0.25× uncus. Scaphium rectangular, 5/8× as long as the uncus; lateral gnathos branches oblique, proximally with extensions. Transtilla elements slightly less than 1.5× gnathos, elongate and narrowly triangular. Anellus U-shaped with sclerotized base and slender digitate processes which are distally provided with a few setae. Valva slender, slightly widening towards a rounded cucullus; costa proximally with a globular lump, followed by a semi circular projection and a costal enforcement, ending abruptly and sharply pointed proximally from the cucullus. Vinculum V-shaped, 1.25× longer than

valve, base flat. Length of phallus slightly less than $1.3 \times$ valve and $4/5 \times$ longer than broad. Vesica with a conspicuous big and curved cornutus with an extended base and with a curved part well extending outside the phallus wall; in the middle of the curved part originates a smaller and distally slightly dentate cornutus also extending beyond the phallus wall. Base of culcita centrally concave, at both sides first a short scale bundle of which 1 scale is $2 \times$ longer than the others, followed distally by a scale bundle which is $2 \times$ longer than the valve.

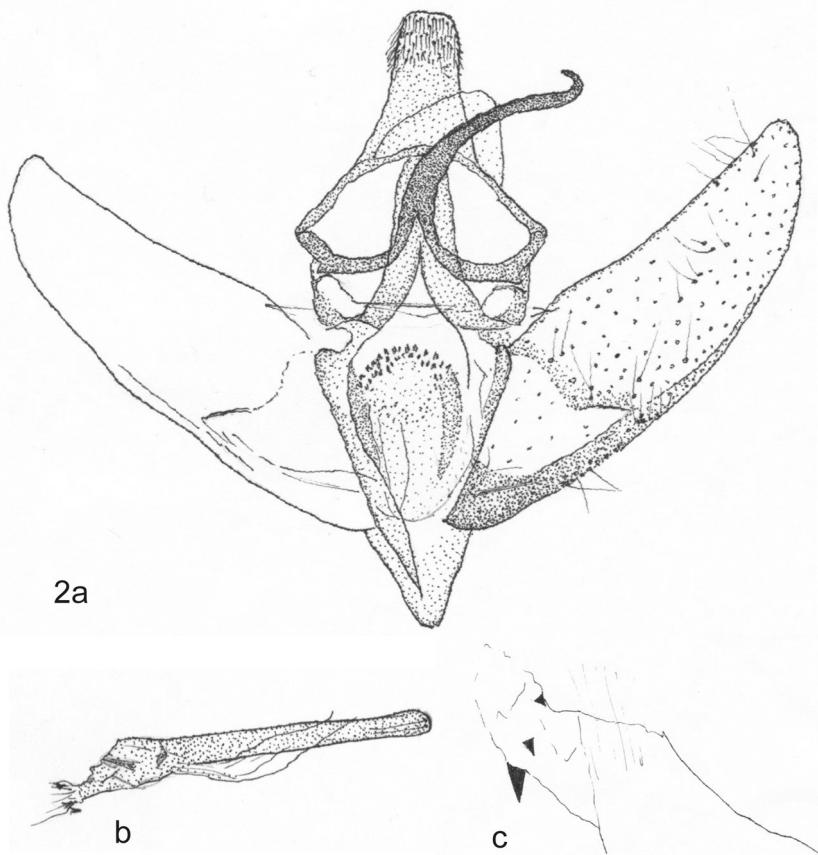


Fig. 2. *Scotomera caesarealis* (Ragonot, 1891), male genitalia; a.—genitalia; b.—aedeagus; c.—everted vesica with cornuti.

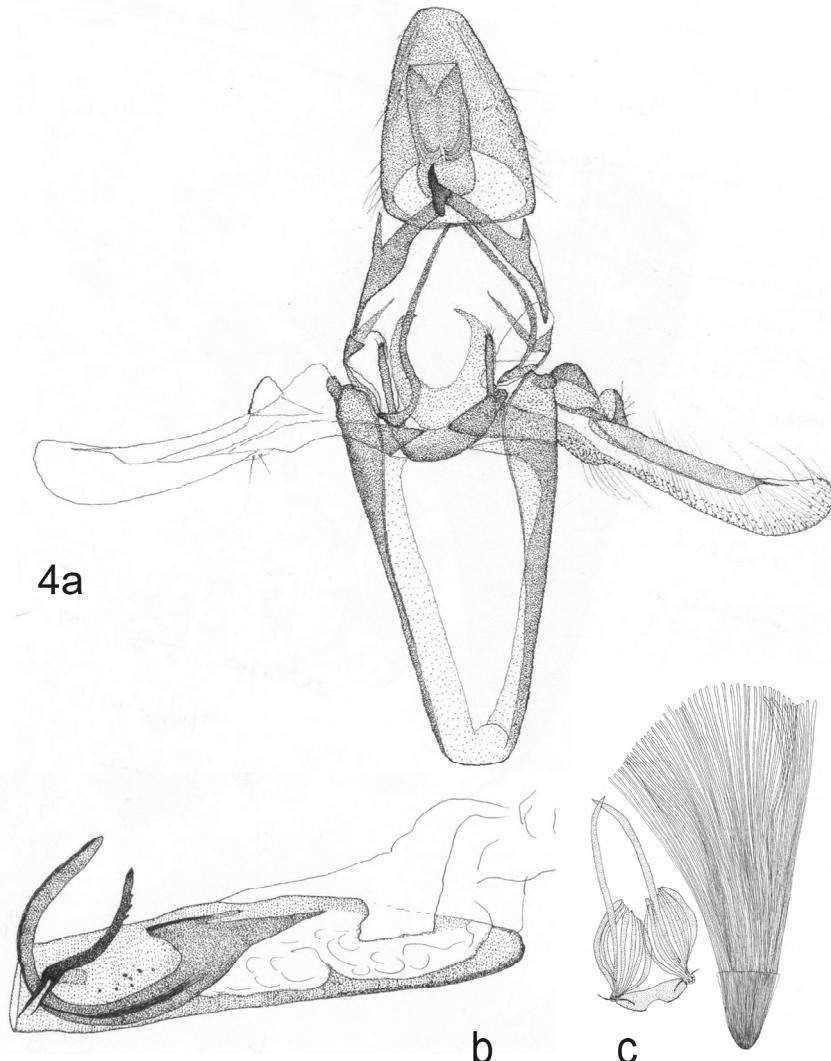


Fig. 4. *Phycita characterica* sp. n.; **a** – genitalia; **b** – aedeagus; **c** – culcita.

Differential diagnosis. Externally, *Phycita characterica* is similar to *P. mianella* Amsel, 1949 (Figs. 5, 6), but the male genitalia are quite different: *P. characterica* has an elongate subtriangular uncus (broadly ovate in *P. mianella*); In *P. characterica* the transtilla elements are slender, basally not expanded (stouter, longer and basally expanded in *P. mianella*); presence of costal projections in *P. characterica* (absent in *P. mianella*); phallus with a big curved

cornutus in *P. characterica* (1 straight cornutus and a bundle of long slender cornuti in *P. mianella*).

Derivatio nominis. Named after the conspicuous cornutus in the vesica.

Life history. Unknown.

Distribution: Only known from the type locality, Turkey, Antalya, 40 km N Alanya.

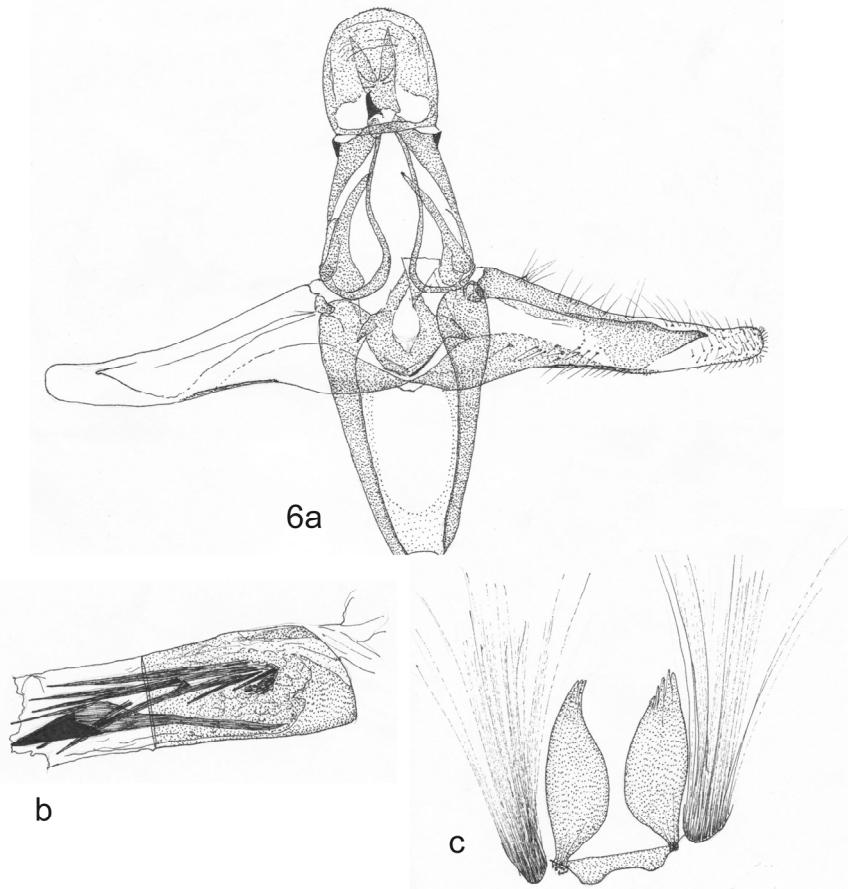


Fig. 6. *Phycita mianella* Amsel, 1949; a.– genitalia; b.– aedeagus; c.– culcita.

Bazaria venosella sp. n. (Phycitinae) (Figs. 7, 8, 9, 10)

Material. Holotype ♂, Canary Islands, La Palma, Tacande, 11.iii.2007, leg. H. W. van der Wolf, gen. prep. 5835 Asselbergs, ZMA. Paratypes, 1♀, Canary Islands, Tenerife, Los Christianos, 10–20.iii.1980, leg. J. B. Wolschrijn, gen. prep. 3917 Asselbergs, coll. Asselbergs; 1♂, Tenerife, Tamaimo, 13–23.iii.1999, leg. M. Delnoye, gen. prep. 4393 Asselbergs, coll. Cox; 1♂, Malta, Naxxar, 7.iv.1998, leg. A. Seguna, gen. prep. 5793 Asselbergs, coll. Seguna.

Description. Alar expanse 19–23 mm, length of forewing 8.5–10.5 mm (males), resp. 21.5 and 10 mm (female). Male: vertex with cream coloured scales surpassing frontal edge of eye with 1/3 eye diameter. Ocelli and chaemosemata present. Labial palps 1.75× eye, cream coloured with a few brown scales at the outside; 3rd segment 0.25× 2nd segment and slightly drooping. Maxillary palps hair-pencil shaped and hidden in a groove of the labial palps. Proboscis normally developed. Scape of antennae 2/5 longer than broad. Sinus flat, segments 3–8 with tiny sclerified thorns, flagellomeres pubescent. Patagia and thorax pale ochreous. Forewing pale ochreous, more or less sprinkled with brown scales along the veins. Fringe as the ground colour, i.e. whitish ochreous till white. Hindwing whitish, fringe white. Female: Antennas without sinus and sclerifications, pubescent. Maxillary palps small, flat and adjacent to frons. Hindwing pale ochreous, a little hyaline and with a terminal brown line. Fringe brown at base, next snow white.

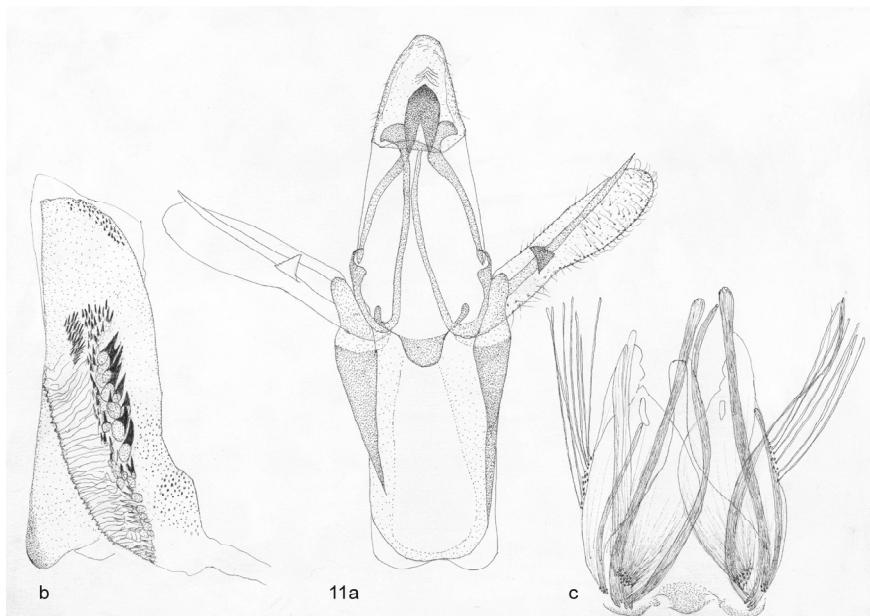
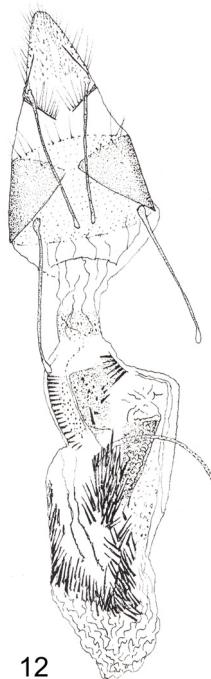


Fig. 11. *Bazaria venosella* sp. n.; a.–genitalia, b.–aedeagus; c.–culcita.

Male Genitalia: uncus triangular, base and apex flattened, greatest width about 7/9 of length, bilaterally with a few hair-like setae. Gnathos 0.5× uncus, ovate. Scaphium not depassing apex of uncus. Tegumen slender. Transtilla components slender, about 4/5× gnathos; they are weakly sclerotized and sometimes invisible. Anellus V-shaped, processes without hair-like setae. Vinculum almost parallel-sided till slightly V-shaped, base flatly rounded. Valva with straight costa, cucullus rounded. Sacculus distally with a sclerified triangular process. Valve below costa with a long sclerotized tapering bar extending till just beyond cucullus. Phallus stout, about 2.3× longer than broad. Vesica with a longitudinal band of cornuti of different size, 2/3 of phallus length. Culcita bilateral with 5 bundles of differently shaped scales, the longest having slightly less than 1.5× valve length.

Female genitalia: Papillae anales triangular, about 1.5× longer than broad, 8th segment 2/3× longer than broad. Posterior apophyses almost reaching proximal edge of 8th segment and about as long as anterior apophyses. Length of ductus bursae 1/7× bursa, proximally scobinate. Bursa about 3× longer than wide and distally with 2 rows of oppositely directed cornuti; the middle part of the bursa has a curved band of cornuti, distally of this band originates the ductus seminalis. The proximal part of the bursa is slightly wrinkled.



12

Fig. 12. *Bazaria venosella* sp. n., female genitalia.

Differential diagnosis. Externally, specimens of *Bazaria venosella* sp. n. with marked veins are not unsimilar to *Ancylosis nervosella* (Zerny, 1914), or to *Ancylosis sulcatella* (Christoph, 1877). The male genitalia resemble those of *Bazaria leucochrella* (Herrich-Schäffer, 1852), viz. Roesler (1993). In *B. leucochrella* the costal enforcement is only partly free from the costa (free from the costa in *B. venosella*); the vesica has 1 long cornutus in *B. leucochrella* (a longitudinal band of numerous small cornuti in *B. venosella*).

Derivatio nominis. Named after the more or less brownish suffusion along the veins.

Life history. Unknown. Specimens were caught at light in March and April.

Distribution. Canary Islands: La Palma: Tacande; Tenerife: Los Christianos, Tamaimo; Malta: Naxxar.

***Euzophera hulli* sp. n. (Phycitinae) (Figs. 13, 14, 15, 16)**

Material. Holotype ♂, Turkey, Kayseri, Sultansazlığı, 1183 m, 4.vii.1995, leg. M. Hull, gen. prep. 5171 Asselbergs, LPM; Paratypes 2♂, gen. prep. 5177 and 5180 Asselbergs, 1♀, gen. prep. 5178 Asselbergs, all same data, coll. Hull and coll. Asselbergs.

Description of the male. Forewing 13–14.5 mm; alar expanse 27–32 mm. Head: vertex flatly rounded. Labial palpi porrect, 2.25× the eye, cream coloured at the inside and reddish brown at the outside. Maxillary palpi 0.8× 3rd segment of labial palpi. Ocelli invisible, chaetosemata present. Proboscis strongly reduced. Scape 1.5 longer than broad, sinus absent. Male flagellum unipectinate. Patagium, tegulae and forewing yellowish ochreous with a few reddish scales. Antemedian line from the costa at 1/5 to the inner margin at 1/4 and only visible by a few reddish scales at the outer border of the line. Postmedian line from the costa at 5/6 to the inner margin at 4/5, the line is faintly edged with reddish scales at the inside. There are 2 brown discal spots, the one most near to the costa slightly displaced in the direction of the wingbase. Fringe yellowish white. Hindwing whitish, dusted greyish brown, except for the costa, the wingbase and the inner margin which are white.

Female: as the male but with pubescent antennae. Forewing with some reddish suffusion.

Male genitalia: Uncus an almost equilateral triangle, apex rounded. Gnathos straight and parallel sided, apically slightly narrower and with a small cleft, staying below distal margin of uncus. Lateral gnathos branches without particularities. Transtilla medially fused, the components expanded proximally. Tegumen slender. Juxta U-shaped, digitate processes apically with a few hair-like setae. Length of valve slightly less than 3× width, distally from sacculus abruptly widening; costal enforcement along the whole of the costa.

Female genitalia: Ovipositor triangular, slightly longer than broad. Length of 8th segment about ¾× width. Length of posterior apophyses about 4/5 of anterior apophyses. Ductus bursae 3/5 of corpus bursae with in the bulging

middle part a group of granulate sclerifications. Bursa ovate with a group of tiny granules just below the origin of the ductus seminalis in the distal part of the bursa.

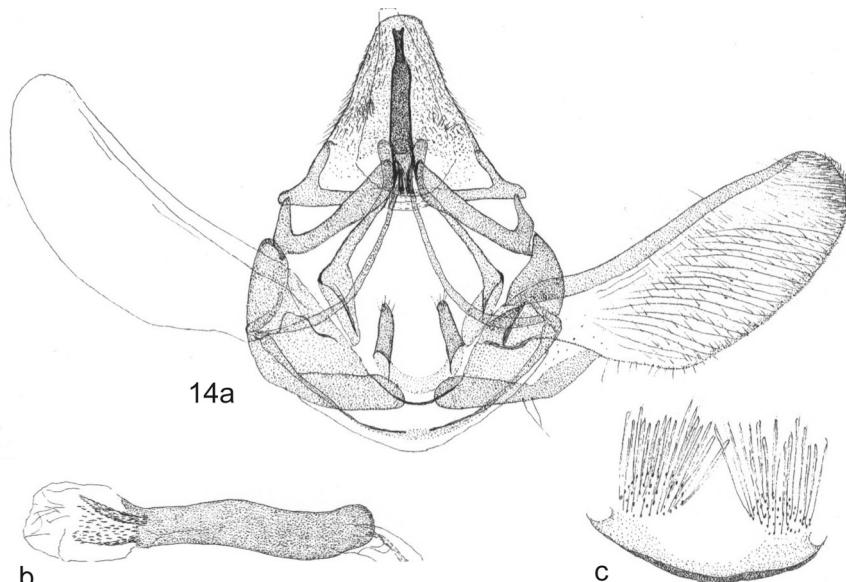


Fig. 14. *Euzophera hulli* sp. n.; a.—genitalia; b.—aedeagus; c.—culcita.

Vinculum proximally rounded and slightly more than 2× broader than long. Phallus 1.7× valve and 5× longer than broad. Vesica terminally with 2 bundles of tiny cornuti. Culcita simple with a flatly rounded basal list and bilateral with a short scale-bundle of about 1/3× valva.

Remark. Although the male and the female genitalia are of the *Euzophera* type, the long and porrect labial palps and the unipectinate antennas in the male are uncommon characters for *Euzophera*, in which *hulli* sp. n. is placed provisionally.

Differential diagnosis. At present, none of the known *Euzophera* species could be confounded with *E. hulli*; superficially there is some similarity with *E. kabulella* Roesler, 1973 which is smaller with a wingspan of 17 mm, with labial palps of 1/3× the eye in the male and with a pubescent flagellum.

Derivatio nominis. Named in honour of Michael Hull, who collected the new species.

Life history. Unknown.

Distribution. Turkey: Kayseri, Sultansazlığı, 1183 m; probably it has a wider distribution.



Figs. 13–19: 13.—*Euzophera hulli* sp. n., Holotype ♂, Turkey, Kayseri, Sultansazlığı, 1183 m, 4.vii.1995, leg. M. Hull; 15.—*E. hulli* sp. n., Paratype ♀, Turkey, Kayseri, Sultansazlığı, 4.vi.1995, leg. M. Hull; 17.—*Talis caboensis* sp. n., Holotype ♂, Spain, Almeria, Cabo de Gata, 11–13.x.2007, leg. A. Cox; 19.—*T. caboensis* sp. n., Paratype ♀, same data.

Talis caboensis sp. n. (Crambinae) (Figs. 17, 18, 19, 20)

Material. Holotype ♂, Spain, Almeria, Cabo de Gata, 11–13.x.2007, leg. A. Cox, gen. prep. 5338 Asselbergs, ZMA. Paratypes, 94♂, 1♀, gen. prep. 5852 Asselbergs; 1♀, same data, coll. Cox, 3♀, same data, coll. Asselbergs; 1♂, Spain, Almeria, Cabo de Gata, 21.x.2003, leg. Viehmann, gen. prep. 5536 Asselbergs, coll. Schmitz.

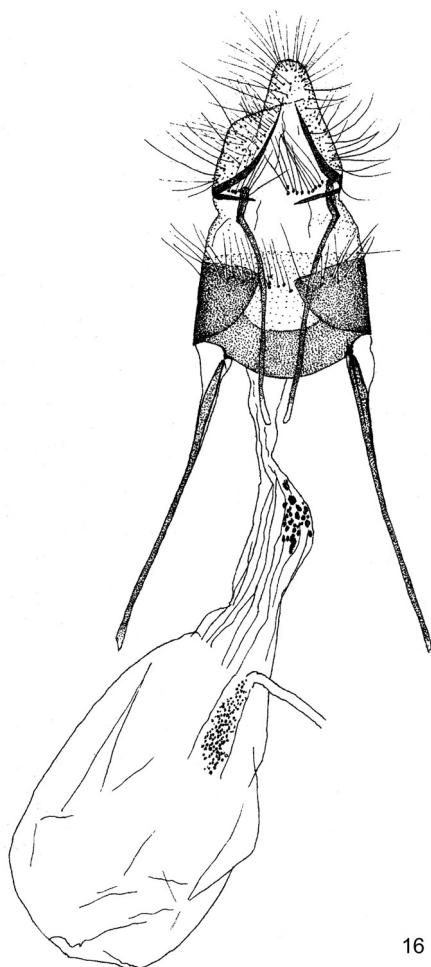
Description. Male: alar expanse 26.5 mm, forewing 12.5 mm. Ocelli and chaemosemata present. Frons strongly porrect, triangular, apex pointed; head and frons covered with brownish scales, at both sides with cream coloured scales. Patagia, tegulae and thorax brownish as the forewings. Proboscis reduced. Labial palpi porrect, 3× the eye, cream coloured at the inside, brown at the outside. Maxillary palpi long and pencil-like, proximal half brown, distal half cream coloured. Proboscis reduced. Frenulum as a long thorn in male and female. Male antennas unipectinate with narrow rhomboid base. Forewings dull brown, sparsely sprinkled with a few half erected black scales. Antemedian line from the costa at 1/2 with 2 outwardly directed angles to dorsum at 2/5. Postmedian line from the costa at 6/7, partly whitish, outwardly convex and with an inwardly directed angle above dorsum to 5/6 on dorsum. Discocellular spot prominent, whitish. Fringe brownish, base white. Hindwings slightly shiny grey-brown. Fringe whitish divided by a greyish line. Female as the male but with filiform antennas.

Male genitalia: Uncus parallel-sided, apex pointed. Gnathos distally drop-shaped. Valva gradually narrowing towards a rounded cucullus. Ventral

margin of valva with a blunt vault. Aedeagus parallel-sided, about as long as valva. Vesica with 1 long slender cornutus slightly longer than half of aedeagus.

Female genitalia: Ovipositor triangular. Apophyses posteriores stout, depassing proximal edge of 8th segment with plm 1/7. Eight segment \pm 5/3× broader than high. Ductus bursae relatively short, gradually transitioning into corpus bursae. Corpus bursae stretched ovoid, distal part wrinkled.

Differential diagnosis. Nearest to *Talis arenella* Ragonot, 1887 and *Talis afra* (Bethune-Baker, 1894), which is known from Egypt, Alexandria, the differences between these three species are shown in the table below:



16

Fig. 16. *Euzophera hulli* sp. n. – Female genitalia.

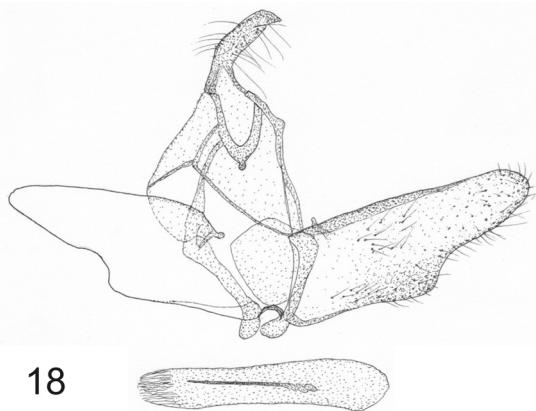


Fig. 18. *Talis caboensis* sp.n., male genitalia.

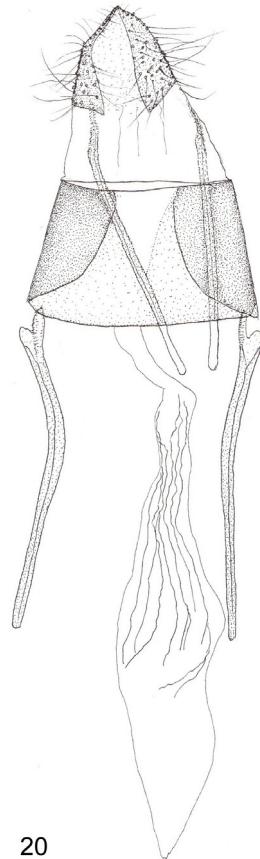


Fig. 20. *Talis caboensis* sp. n., female genitalia.

<i>T. arenella</i>	<i>T. afra</i>	<i>T. caboensis</i> sp. n.
exp. 28–29 mm (males)	exp. 21 mm (males)	exp. 26.5 mm males, 21 mm (females)
valva ventrally with well-defined, rather slender projection	valva ventrally without projection	valva outwardly curved
cornutus in vesica broader	cornutus in vesica slender, slightly bent in middle	cornutus in aedeagus very slender, at base wide, straight

The females of *arenella* and *afra* are unknown.

Derivatio nominis. Named after the type locality.

Life history. Unknown.

Distribution. So far only known from Cabo de Gata in South Spain.

Acknowledgements

For the gift or loan of material the author is much indebted to the following persons: Mr A. Cox (Mook, The Netherlands), Mr M. Hull (Gwynedd, Wales, UK), Mr W. De Prins (Leefdaal, Belgium), Mr W. Schmitz (Bergisch-Gladbach, Germany), Mr A. Seguna (Naxxar, Malta), Mr H. W. van der Wolf (Nuenen, The Netherlands), Mr J. B. Wolschrijn (Twello, The Netherlands), and Mr M. Shaffer (BMNH, London, UK) for the identification of *Scotomera caesarealis*.

References

- Amsel, H. G. 1949. Die Microlepidopteren der Brandt'schen Iran-Ausbeute. I.Teil. — *Bulletin de la Société Fouad I. Entomologie* **33**: 227–269, 4 Taf.
- Bleszynski, S. 1965. Pyralidae, Crambinae. — In: Amsel, H. G., Gregor, F. & Reisser, E. (eds.): *Microlepidoptera Palaeartica I. Crambinae*. — Verlag Georg Fromme & Co., Wien, Textband pp. 1–553, Tafelband Taf. 1–133.
- Nuss, M., Segerer, A. & Speidel, W. 2004. Crambidae, Pyralidae, Thyrididae. — In: Karsholt, O. & Nieuwerken, E. J. van. Fauna Europaea: Lepidoptera, Moths. — *Fauna Europaea version 1.1*, <http://www.faunaeur.org>.
- Osthelder, L. 1935. Lepidopteren-Fauna von Marasch in turkisch Nordsyrien. — *Mitteilungen der münchener entomologische Gesellschaft* **25**: 56–58, 67–90.
- Ragonot, E. L. 1891. Essai sur la classification des Pyralites. Note supplementaire et rectificative. — *Annales de la Société entomologique de France* **11**: 599–662.
- Rebel, H. 1939. Zur Lepidopterenfauna Zyperns. — *Mitteilungen der münchener entomologische Gesellschaft* **29**: 487–564, Taf. 15.
- Roesler, R. U. 1973. Pyralidae, Trifine Acrobasiina. — In: Amsel, H. G., Gregor, F. & Reisser, E. (eds.) *Microlepidoptera Palaeartica Band 4. Trifine Acrobasiina*. — Verlag Georg Fromme & Co., Wien, Textband pp. 1–752, Tafelband Taf. 1–170.
- Roesler, R. U. 1993. Pyralidae, Quadrifine Acrobasiina. — In: Amsel, H. G., Gregor, F. & Reisser, E. (eds.) *Microlepidoptera Palaeartica Band 8. Quadrifine Acrobasiina*. G. Braun Druckerei und Verlage, Karsruhe. Textband pp 1–305, Tafelband Taf. 1–82.
- Zerny, H. 1914. Über Palaearktische Pyraliden des K.K. Naturhistorischen Hofmuseums in Wien. — *Annalen des naturhistorischen Museum zu Wien* **28**: 295–348, Taf. 15–16.