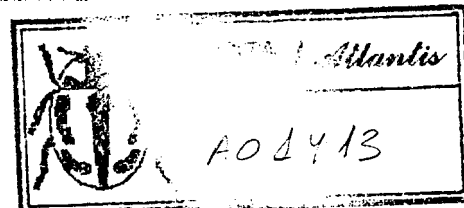


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Studies on *Cochylidae* (Lepidoptera). Part VII. Revision of the group "*Lozopera* STEPH." of the Genus *Aethes* BILLB.

(89 text-figs.)

Materiały do znajomości *Cochylidae* (Lepidoptera). Część VII. Rewizja grupy „*Lozopera* STEPH.” rodzaju *Aethes* BILLB.

Материалы к познанию *Cochylidae* (Lepidoptera). Часть VII. Критический просмотр группы „*Lozopera* STEPH.” рода *Aethes* BILLB.

The genus *Lozopera* was established by STEPHENS in 1829. The first species was described by FABRICIUS in 1871 under the name *Pyralis francillana*. FERNALD (1908) considered *Pyralis francillana* F. as the type of this genus. In the late years of XIX century many new species have been described, especially by WALSINGHAM. Fifteen species are now known as belonging to this group.

Until 1960, *Lozopera* STEPH., was known as a valid genus. In 1943 OBRAZTSOV divided it into two subgenera, namely *Lozopera* s. str. and *Coecaethes* OBR. Typus generis of *Coecaethes* OBR. was an undescribed species named by him *Lozopera mauritanica* WALS. In 1960 in „The genera of Palaeretic *Cochylidae*” I consider *Lozopera* STEPH. only as a subgenus of *Aethes* BILLB., judging by no generic differences in venation of wings and in genitalia. Also OBRAZTSOV's subgenus was affirmed in the above mentioned work. I discussed typus subgeneris cited by OBRAZTSOV, namely *Lozopera mauritanica* WALS. Male genitalia of this species are really distinct from those in a group of specimens allied to *L. francillana* (F.). After examination of several types of species belonging in this group I consider, that OBRAZTSOV's „*mauritanica*” is a new species. It belongs in *Lozopera francillana* — group, and therefore OBRAZTSOV's subgenus must be sunk as a synonym of subgenus *Lozopera* STEPH. To *Coecaethes* OBRAZTSOV belonged two other species, namely *Aethes* (*Lozop.*) *lugellana* (DUP.) and *Ae.* (*Lozop.*) *beatricella* (WALS.), however, only in *Ae.*

Aethes (Lozopera) francillana (FABRICIUS)

- Pyralis francillana* FABRICIUS, 1794, Ent. syst., 3 (2): 264.
Tortrix francillana, HAWORTH, 1811, Lepidopt. Brit.: 401.
Phalaena francillana, DONOVAN, 1820, Nat. Hist. Ins.: 10, pl. 355, fig. 1.
Lozopera francillana, STEPHENS, 1824, Ill. Het., Haust., 4: 189.
Lozopera francillana, WOOD, 1839, Index Ent.: 169, pl. 37, fig. 1152.
Lozopera francillonana WESTWOOD, 1845, Brit. Moths, 2: 177. Nom. emend.
Lozopera francillana, WILKINSON, 1859, Brit. Tortrs.: 312, pl. 2, fig. 11.
Conchylis francillana, SNELLEN, 1882, Vlind. Nederland, Microlep., 2 (1): 244.
Lozopera francillana, MEYRICK, 1895, Handb. Brit. Lep.: 545.
Lozopera francillonana, WALSINGHAM, 1898, Ent. mon. Mag., 34: 71, pl. 2, fig. 1.
Lozopera francillana, REBEL, 1901, Cat. Pal. Lep., 2: 94.
Lozopera francillonana, CHAPMAN, 1902, Proc. ent. Soc. Lond., 1902: XI.
Lozopera francillana, KENNEL, 1913, Zoologica, 21: 232, pl. 11, fig. 32.
Lozopera ferulae, MÜLLER-RUTZ, 1920, Mitt. ent. Zürich, 5: 337. Synon. nov.
Aethes francillonana, PIERCE & METCALFE, 1922, Genit. Brit. Tortrs.: 32, pl. 12.
Lozopera francillana, OBRATZSOV, 1943, Mitt. münch. ent. Ges., 33: 99.
Lozopera francillana, BENANDER, 1950, Svensk Insektf., 10: 52, fig. 7a.
Lozopera francillana, AMSEL in HARTIG & AMSEL, 1951, Fragma. ent., 1: 111, fig. 13.
Aethes (Lozopera) francillana, RAZOWSKI, 1960, Pol. Pis. ent., 30: 307, figs. 25, 27, 131.

Labial palpi (fig. 39) of a normal *Lozopera*-type. Head and thorax yellow. Forewing (fig. 40) more or less elongate. Costal margin slightly arched outward or straight, apex pointed, termen in female more or less oblique. Ground color yellow, more or less pale. Internal fascia usually parallel to termen. A row of brown-rusty spots on costa between wing base and internal fascia. Colour pattern brown, brown-rusty or orange-brownish. Fringes concolorous with ground of wing. Hindwing grey to brownish, paler in basal area. Fringes white to greyish. Length of forewing 8–10 mm.

Variability. I have examined several specimens differing in colour from the typical form. First group of them recorded from Tenerife from WALSINGHAM's collection. Description of these as is given below. Forewing enlarged posteriorly, ground colour yellow-white. Fascias straight, narrow and parallel to each other. Colour of pattern rusty-red (four specimens from La Laguna, Tenerife, one from Sierra Espuna, Spain). To the second group belong the specimens determined by WALSINGHAM as „*Lozopera bilbacensis*”, reported from Malaga (Spain) and Ajaccio (Corsica). Ground colour of forewing of these specimens yellow-brownish, rather dark. Pattern brown. Hindwing dark, grey-brownish. The above mentioned specimens resemble rather *Aethes deaurata* (PEYER.).

Male genitalia (figs. 41–44). Valva large, elongate. Sacculus strongly sclerotized; a large approximately rectangular, ventral projection for half its length is present. Central part of transtilla large, bifurcate posteriorly. Both bifurcate parts are rather large, dentate. Socii long. Aedeagus (figs. 42–44) large, bent, with a long, pointed process in ventral portion. The shape of this process is variable and alters during preparation.

Female genitalia (fig. 45). Lamellae set. Ductus bursae membranous, ended proximally. A large sclerite



28, 39, 45. *Aethes (Lozopera) francillana* (Ajaccio, Corsica, the same specimen, 43). Babonar, Tenerife, ex. L. 1 (siraet).

SICIUS)

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om. emend.

fig. 11.

n. 2 (1): 244.

71, pl. 2, fig. 1.

902: XI.

fig. 32.

Synon. nov.

rtrs.: 32, pl. 12.

33: 99.

fig. 7a.

ent., 1: 111, fig. 13.

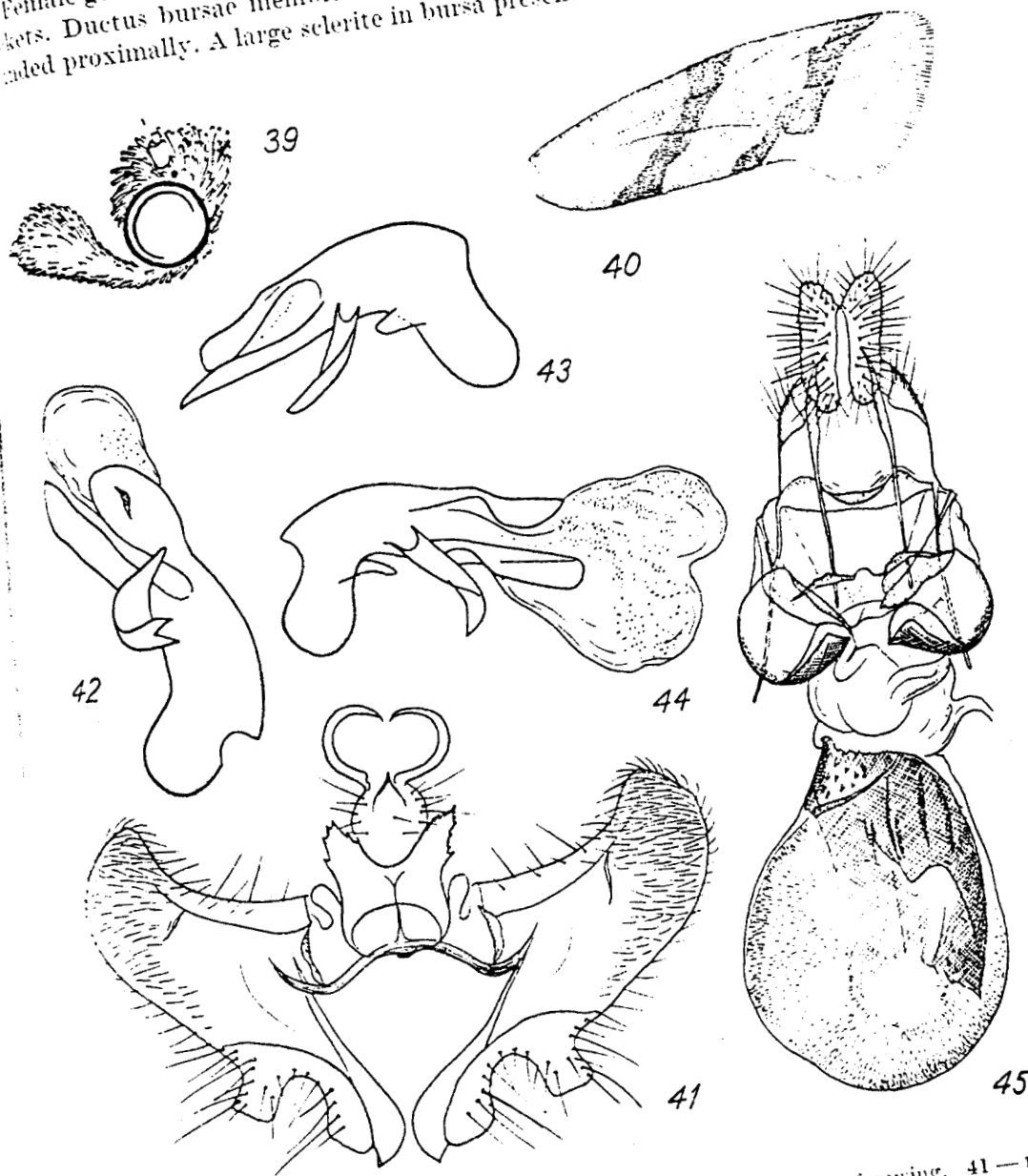
n. 30: 307, figs. 25, 40.

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Female genitalia (fig. 45). Lamella vaginalis large, with two proximal rounded. Ductus bursae membranous, very large. Bursa copulatrix sculptured. ended proximally. A large sclerite in bursa present. Gonapophyses rather long.



25, 39-45. *Aethes (Lozopera) francillana* (F.): 39 — head, 40 — forewing, 41 — male genitalia (Ajaccio, Corsica, ex. S. N. 1896, WALSINGHAM, G. Sl. 5389), 42 — aedeagus of the same specimen, 43 — aedeagus (Thiers, 22. V. 1957, G. Sl. 5405), 44 — aedeagus (Ajaccio, Corsica, ex. L. 12. VII. 1907, WALSINGHAM, G. Sl. 5404), 45 — female genitalia (Siracusa, Sicily, WAGNER, 1-4. V. 1921, G. Sl. 4184)

Biology. Body of larva white-yellowish, head dark brown, anal-shield brownish. It lives in September in seeds, then in stems of *Eryngium campestre* L., *Daucus* L., *Pastinaca* L. and *Angelica silvestris* L. Hibernation in stems (KENNEL 1913). In the examined material I have found new data on larval palpi. WALSINGHAM obtained *Ae. francillana* (F.) from *Placoscelinum meoides* (Morocco) and from *Crithmum maritimum* L. (Spain, Corsica). Above mentioned specimens from Tenerife were bred from *Astydamia canariensis* D. C. In the collection of the Zoological Institute of the Polish Academy of Sciences in Warsaw, there are specimens bred from *Ferula communis* L.

The moth appear from May to August. However, I have seen some specimens collected in September and October (Spain).

Distribution: Tenerife, South and Central Europe, England, North Africa (Morocco, Algeria), North Lebanon.

Aethes (Lozopera) bradleyi sp. nov.

Labial palpi (fig. 46) rather long, median joint triangular, terminal one short. Palpi, head and thorax dark yellow. Costal margin of forewing (fig. 47) usually straight, apex pointed, termen oblique. Ground colour yellow, delicately sprinkled with brownish. Costa from base to internal fascia covered with brown spots. Fascias brownish, well marked. Termen darkened, yellow-brownish. Fringes rather concolorous with the wing ground. Hindwing grey-brownish, fringes grey-whitish. Length of forewing about 8 mm.

Male genitalia (figs. 48, 49). Valva large, feebly hairy; in central area a row of large spikes and several small ones placed irregularly. Sacculus narrow with two ventral long, pointed projections. Transtilla strongly developed; central part concave and dentate distally. Socii long. Aedeagus large, slightly bent (fig. 49). Ventral edge of aedeagus plate-shaped, similarly to the dorsal process. At half length of aedeagus a large, cuneiform projection. In membrana of vesica a lot of very small spikes and slightly sclerotized areas.

Female and biology unknown. Recorded from China.

Holotypus: „Chang Yang, 4000—6000 ft., Ichang, China, VII, 1886, LEECH” (G. Sl. 5397, in the collection of the British Museum (Natural History) in London).

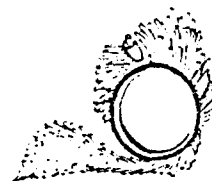
I name this species in honour of Mr. J. D. BRADLEY of London.

Comments. This specimen was cited by WALSINGHAM in the description of *Aethes mauritanica*, however, it was not designated formally as a paratype. Judging by this data (after KENNEL, 1913) OBRATZSOV determined his specimens from Pamir as „*Lozopera mauritanica* WALS.”. All specimens from Pamir are females and OBRATZSOV published only female genitalia. Therefore I cannot compare these with species under consideration. Remarks on OBRATZSOV's specimens as given below.

Spec.?

Lozopera mauritanica OBRATZSOV (NON WALSINGHAM), 1948, Mitt. münch. ent. Ges., 33: 99, fig. 11 (right).

characteristics of female genitalis narrow, linked with *Ae. dilucidana* (STRAUSS) sculptured. In its dist-



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figs. 46, 49. *Aethes (Lozopera) bradleyi* sp. nov. genitalia of holotype (China).

Aeth

Aethes francillana var. *Aethes francillana* var. *Lozopera bilbaensis*, WALSINGHAM
Lozopera bilbaensis, REBEL
Phalaena brepteroidea WALSINGHAM
Lozopera mediterranea REBEL
Lozopera bilbaensis, KENNEL
Aethes mediterranea, RAZOV
bilbaensis (RÖSSLER).