

## Three new Palearctic species of the subfamily Gracillariinae (Lepidoptera, Gracillariidae)

By Paolo TRIBERTI, Verona

### Abstract

In the present paper three new species of Gracillariinae (Gracillariidae) are described, *Parornix hastata*, *P. compressa* and *Acrocercops iraniana*. *A. cocciferella* CHR., a closely related species to the latter, is also figured.

### *Parornix hastata* n. sp.

Holotype ♂, O-Afghanistan, Salang-Pass. N-Seite (Khinjan), 2100 m, 5-11. VII. 1966, H. G. Amsel leg. (Slide Trb 1152, coll. Karlsruhe). Paratypes: 2 ♂♂ labelled as above (Slide Trb 1150 and 1151, coll. Karlsruhe and Triberti); 1 ♂, Afghanistan, Herat, 970 m, 25. IV. 1956, H. G. Amsel leg. (Slide Trb 1423, coll. Karlsruhe); 1 ♂, Afghanistan, Paghman, 30 km NW v. Kabul, 2500 m, 4-8. VIII. 1965, Kasy & Vartian leg. (Slide Jäckh 9920, coll. Wien).

Adult (Fig. 4, A). Wingspan 8 mm. Vertex and frons white, some brownish scales close to scape. Labial palpus white, apical segment slightly marked with brown in middle; maxillary palpus white, extending to about one-half length of second segment of labial palpus. Thorax and tegulae white, with scattered brownish scales. Fore and mid legs whitish, mixed with brown on coxa, femur and tibia; tarsi annulated with brown apically, first tarsal segment also annulated medially and subbasally. Hind legs whitish, tarsi slightly spotted with brownish apically. Forewing white, with scattered brownish scales on whole surface of wing, forming usual indistinct pattern of *Parornix*: about ten strigulae along costa, two subdorsal blotches and a very sharp apical dot are distinguishable only. Cilia around apex of wing white with two blackish lines, and pale grey along dorsal margin.

Male genitalia (Fig. 1, A-F). Valva long, slender, slightly bent downwards at basal 1/3, sacculus hook-shaped. Vinculum with a spatulate process ventrally, posteriorly-directed, about 2/3 as long as valva; saccus small and conical. Aedeagus slender, straight, pointed apically, penial apophysis missing. Lobe on caudal margin of eighth sternite missing.

Female genitalia. Unknown.

Distribution. Afghanistan.

Remarks. The majority of species of *Parornix* are very similar in general appearance and may be distinguished with certainty only by the genital structures. In *P. hastata* they are very peculiar, particularly by the lacking of the caudal lobe of the eighth abdominal segment and the long ventral projection of the vinculum. This projection is also present in *P. cotoneastrella* KUZNETZOV and, less developed, in *P. devoniella* STAINTON. But the former may be recognized by the long and straight distal half of the valva, the aedeagus slightly bent and the projection of the vinculum pointed apically. The latter by the long saccus spoon-shaped, the ventral projection subtriangular and pointed, the aedeagus decidedly bent. Some variability has been noted in male genitalia: valva may be shorter, sacculus much more thin than holotype (fig. 1, D-E); specimen from Paghman with projection of vinculum more dilated apically.

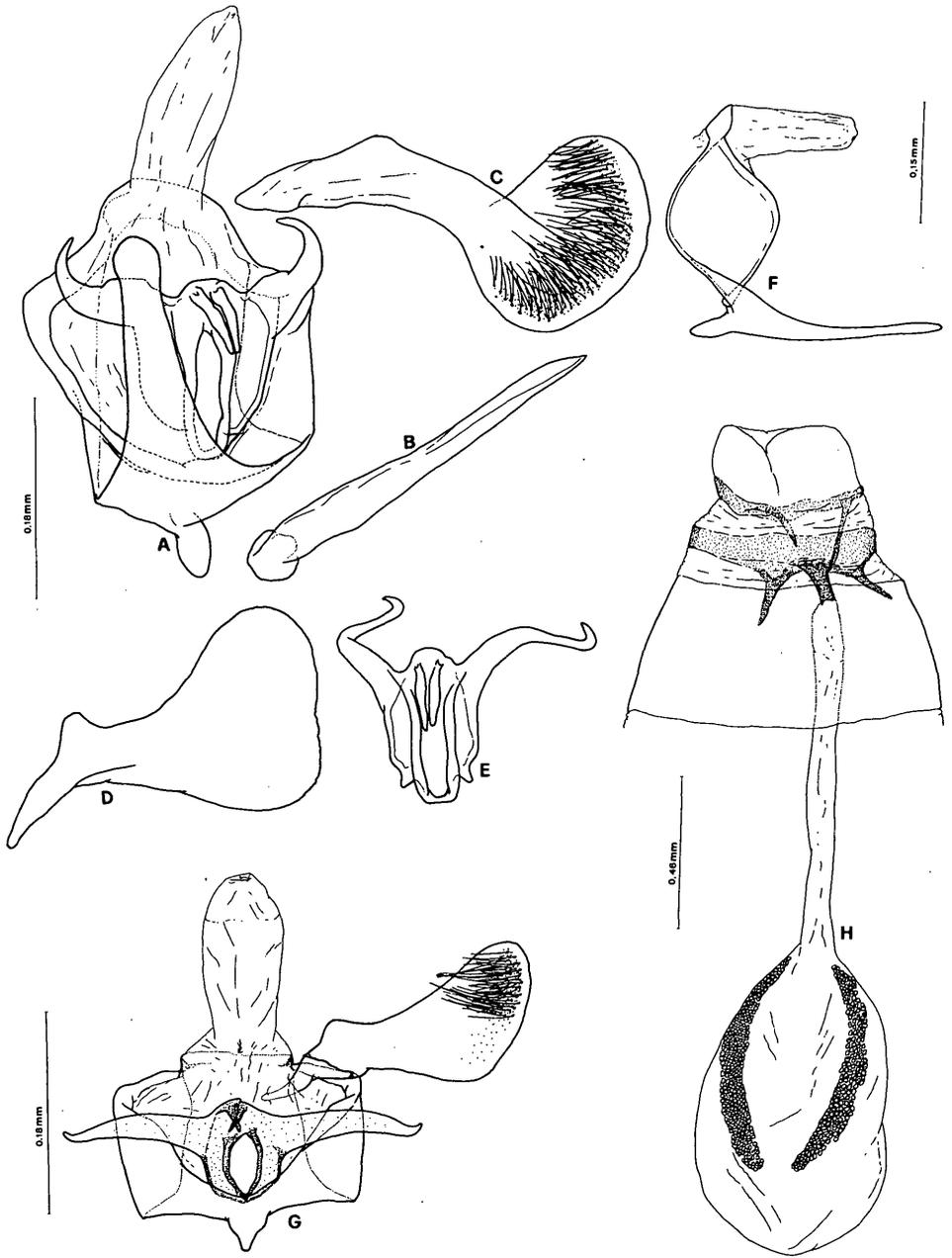


Fig.1. *Parornix hastata* n.sp. Holotype (Afghanistan, Salang-Pass): A, male genitalia; B, aedeagus; C, right valva. Paratype (from the same locality): D, right valva; E, transtilla-sacculus; F, lateral view of male genitalia (aedeagus, valvae and sacculi omitted). – *Parornix compressa* n.sp. Holotype (Pakistan, Quetta): G, male genitalia; H, female genitalia.

*Parornix compressa* n. sp.

Holotype ♂, Pakistan, 15. V. 1965, 80 km NW v. Quetta, 2100 m, Kasy & Vartian leg. (Slide Jäckh 9924, coll. Wien). Paratypes: 2 ♀♀, labelled as above (Slide Jäckh 9925 and 9926), coll. Triberti and Wien; 1 ♀, 25. VI. 1965, Afghanistan, 10 km NW v. Kabul, 1900 m, Kasy & Vartian leg. (Slide Jäckh 9923, coll. Wien).

Adult (Fig. 4, B). Wingspan 7-8 mm. Coloration and external structure similar to *hastata* but labial palpus white; scattered brown scales on forewing more numerous.

Male genitalia (Fig. 1, G). Valva short, bent downwards at basal 1/3, seemingly haired and scaled only in apical half of cucullus. Saccus straight, about 2/3 as long as valva. Saccus short and triangular. Aedeagus not distinguishable in the slide, lobe on caudal margin of eighth sternite missing.

Female genitalia (Fig. 1, H). Postapophyses thin and longer than antapophyses. Antrum sclerotized and ductus bursae membranous, slightly larger than antrum; corpus bursae with two bands consisting of small irregular plates.

Distribution. Afghanistan, Pakistan.

Remarks. As the previous species, *P. compressa* is distinctive from its congeners in lacking the caudal lobe of eighth abdominal segment, the long and straight sacculi, the valva small and slender (similar to *P. anglicella*), the saccus short and conical. Females are characterized by the thin and sclerotized antrum and the signa: similar long bands are also present in *P. szoecsi* GOZMANY, but the sterigma is completely different.

*Acrocercops iraniana* n. sp.

Holotype ♂, S-Iran Pass 80 km westl. Shiraz, Exp. Mus. Vind. (Slide Trb 1598, coll. Wien). Paratypes: 3 ♂♂, 1 ♀, 3 ex. abdomen missing, labelled as above (coll. Wien and Triberti); 1 ♂, S-Iran, 4-7. VI. 1969, Miyan Kotal, 1900 m, östl. Kazerun, H. G. Amsel leg. (Slide Trb 863, coll. Karlsruhe).

Adult (Fig. 4, C). Wingspan 11-12 mm. Vertex yellow-ochre, frons whitish. Antenna brownish, paler beneath, except for four basal segments which are yellow-ochre; scape yellow-ochre with dorso-basal brownish spot; pecten missing. Labial palpus whitish; first segment with a small dorso-basal spot; second with a moderate tuft beneath, brownish on outer surface; third brownish beneath and with a dorso-basal brownish spot. Maxillary palpus whitish, straight and filiform, extending no further than second segment of labial palpus, irregularly spotted with brownish except apex. Thorax and tegulae yellow-ochre, mixed with brownish scales. Forewing of same colour, with four whitish fasciae edged with dark brownish scales; first, at basal 1/3, forming a subdorsal convexity; second outwardly oblique, third and fourth ending in a patch of dark brownish scales apically. Cilia whitish around apex with two ill-defined apical and subapical lines; cilia along termen ochreous and yellow-whitish dorsally. Fore and mid legs whitish, coxae and femora strongly marked with dark brown; tibiae with three blackish rings, tarsi with first segment spotted basally and subapically, second medially, third apically, fourth and fifth almost wholly fuscous. Hind legs whitish, along tibiae with bristly scales above, tarsi as in fore legs but third and fourth spotted medially.

Male genitalia (Fig. 3, A-C). Tegumen slender, about 3/4 as long as valva. Valva pointed, subtriangular, with a comb of 14 teeth. Saccus thin, about 1/3 as long as tegumen. Aedeagus straight, tubular, pointed apically, with three cornuti, two of them distinct and branched apically. Seventh abdominal segment normal in shape, as preceding segments. Eighth sternite deeply notched, tergite with a single triangular apodeme about 1/3 as long as coremata; a pair of coremata about 2/3 as long as seventh abdominal segment.

Female genitalia (Fig. 3, D-E). Apophyses greatly thickened; postapophyses straight and longer than antapophyses, which are slightly curved. Sterigma membranous, lamella ante-

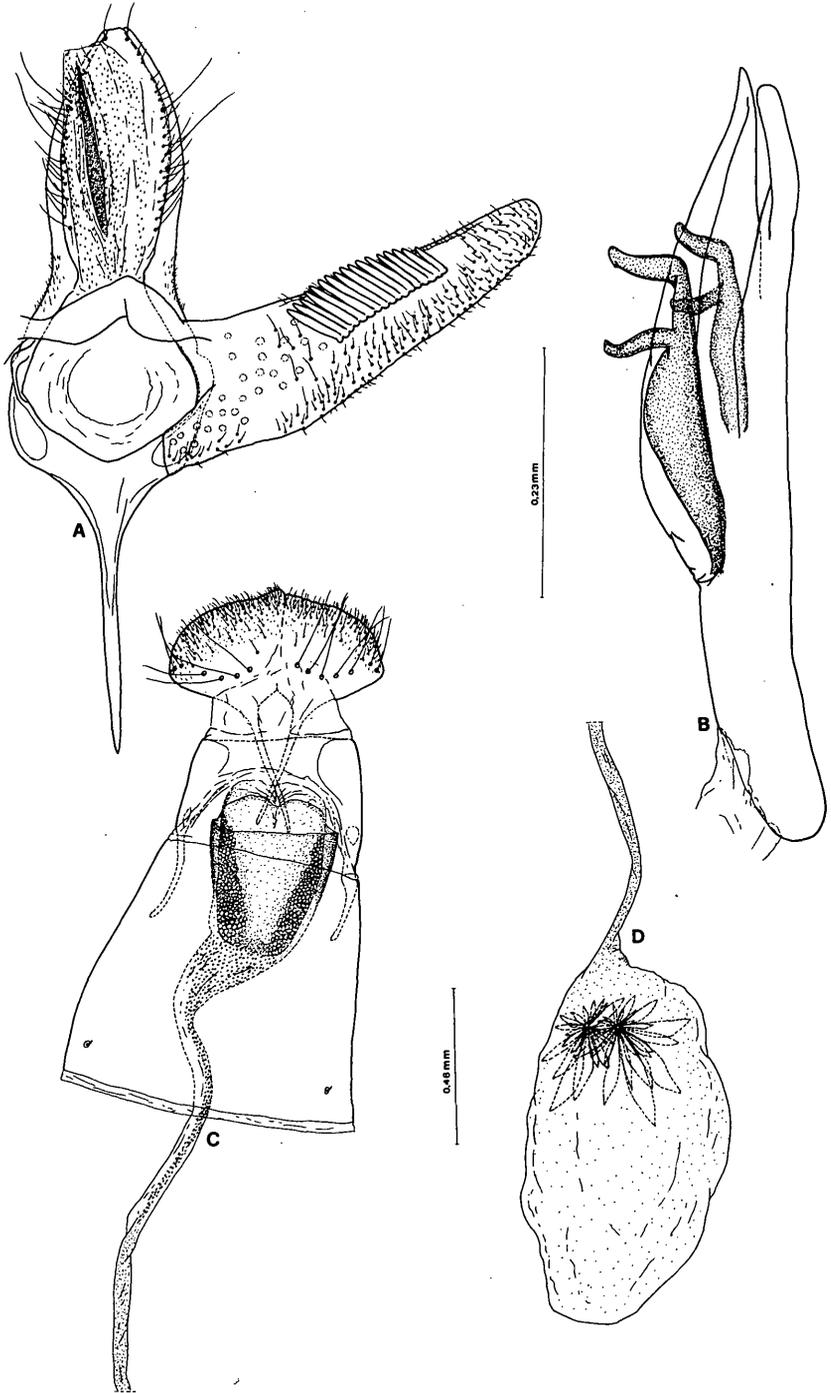


Fig.2. *Acrocercops cocciferella* CHR. (Greece): A, male genitalia; B, aedeagus; C, female genitalia; D, bursa copulatrix.

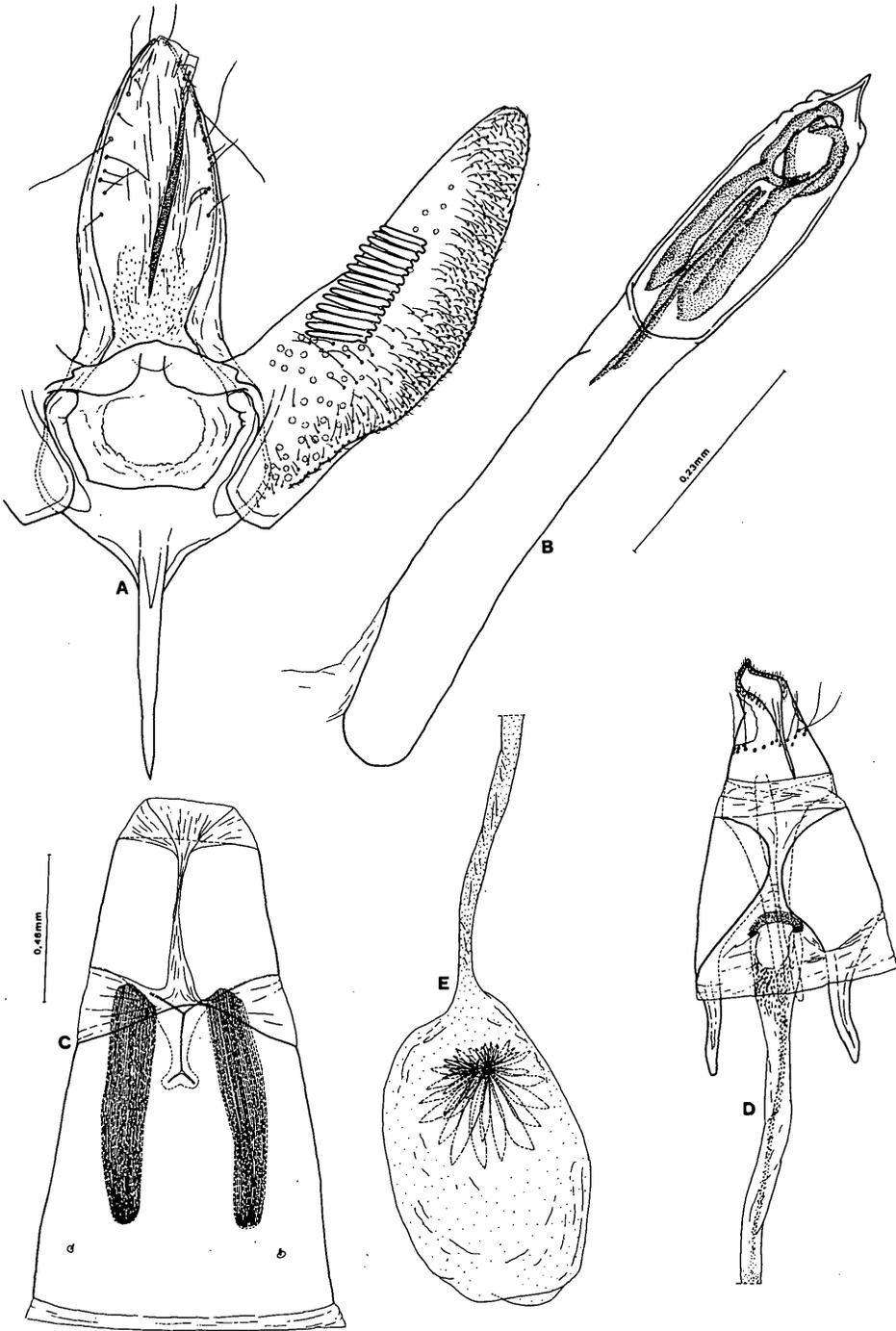


Fig. 3. *Acrocercops iraniana* n.sp. (S. Iran, Pass 80 km westl. Shiraz): A, male genitalia; B, aedeagus; C, ventral view of 7th and 8th abdominal segments (male); D, female genitalia; E, bursa copulatrix.

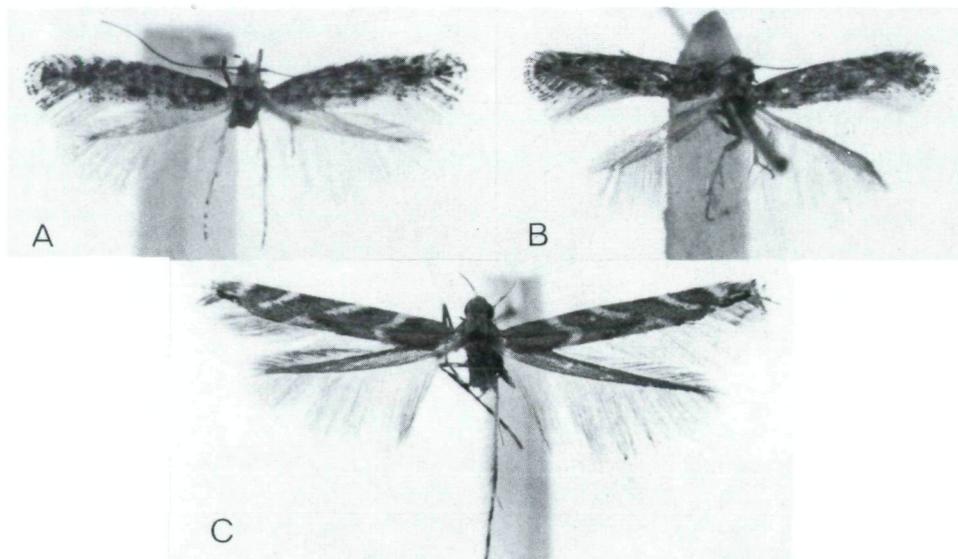


Fig. 4. A: *Parornix hastata* n.sp.; B: *Parornix compressa* n.sp.; C: *Acrocercops iraniana* n.sp.

vaginalis a thin semicircular sclerotization, antrum funnel-shaped, membranous, dorsal wall scobinate; distal half of ductus bursae with a row of microscopic scobinations, basal half and bursa copulatrix finely granulate. Bursa copulatrix ellipsoidal, a pair of asteroid signa with small centre and many lanceolate sclerites of various sizes.

Distribution. Iran.

Remarks. Most closely related to *A. brongniardella* F., *A. cocciferella* CHR. and *A. amurensis* KUZ., but a larger species (wingspan 11-12 mm); the wingspan of the former three species does not exceed 10 mm. The aedeagus of *amurensis* and *cocciferella* has a long dorsal process, absent from *brongniardella* and *iraniana*. The latter species has two cornuti branched apically, whereas in *brongniardella* they are straight, hook-shaped only at the apical end. The antrum of *iraniana* is completely membranous, in the other species always weakly sclerotized.

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Author's address: Paolo TRIBERTI  
Museo Civico di Storia naturale  
Lungadige Porta Vittoria n. 9, I-37129 Verona, Italia.

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