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NIGERIAN GRACILLARIIDAE

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ABSTRACT. Ten gracillariids new to Nigeria are recorded, of which five are newly described. The previously undescribed species are *Epicephala suttoni* n. sp., *Acrocercops pectinivalva* n. sp., *A. fuscapica* n. sp., *Spulerina quadrifasciata* n. sp. and *Phyllonorycter caudasimplex* n. sp. A list of the 16 species now known from West Africa is included. Three species are given as new combinations; they are *Acrocercops bifasciata* (Walsingham, 1891) n. comb., *A. leucostega* (Meyrick, 1932) n. comb. and *Phyllonorycter loxozana* (Meyrick, 1936) n. comb.

A small collection of gracillariid moths from Nigeria has yielded the following new records and new species:

Ectropina sclerochitoni Vári, 1961. 2♀♀, Ibadan, NIGERIA. 15.I.1972, K. Bland [Genitalia, BM(NH) slide 21281. The imago from which this slide was made was later accidentally destroyed; the other ♀ is without an abdomen!] This species has not previously been recorded from Nigeria.

Epicephala suttoni, n. sp.

Description. Alar expanse 8 mm, ♀ (see Fig. 1a). Head with scales appressed on crown, projecting in front; head and face white, mixed with very pale fuscous on crown. Antennae pale ochreous-brown. Labial and maxillary palps white tinged with fuscous. Tegulae ochreous-brown. Thorax whitish. Anterior surface of all legs fuscous; posterior aspect transversely barred fuscous and white.

Forewings pale ochreous-brown tending to chestnut-brown in apical area; three very oblique white lines running outwards from costa at ¼, ½ and ⅔ reaching only ½ across the wing; a curved shiny silver-grey transverse fascia before apical area; dorsum thinly edged white with a short oblique spur just past ⅓; an indistinct curved, oblique, white, double line from just past ½ dorsum to near middle of silver-grey fascia; apical spot chocolate brown, apex edged with same colour and lined inwardly with white; apical cilia white but with dark brown tips above apex. (Hindwings missing.)

Female genitalia (see Fig. 2a). Papillae anales minute, hairless and bluntly pointed: ostium bursae large with a large oblong lamella antevaginalis; posterior margin of latter incurved with a central square indentation: antrum sclerotized, slightly curved and widening posteriorly; ductus bursae and bursa copulatrix membranous; many small pegs at junction of antrum and ductus bursae [Genitalia, BM(NH) slide 21275].

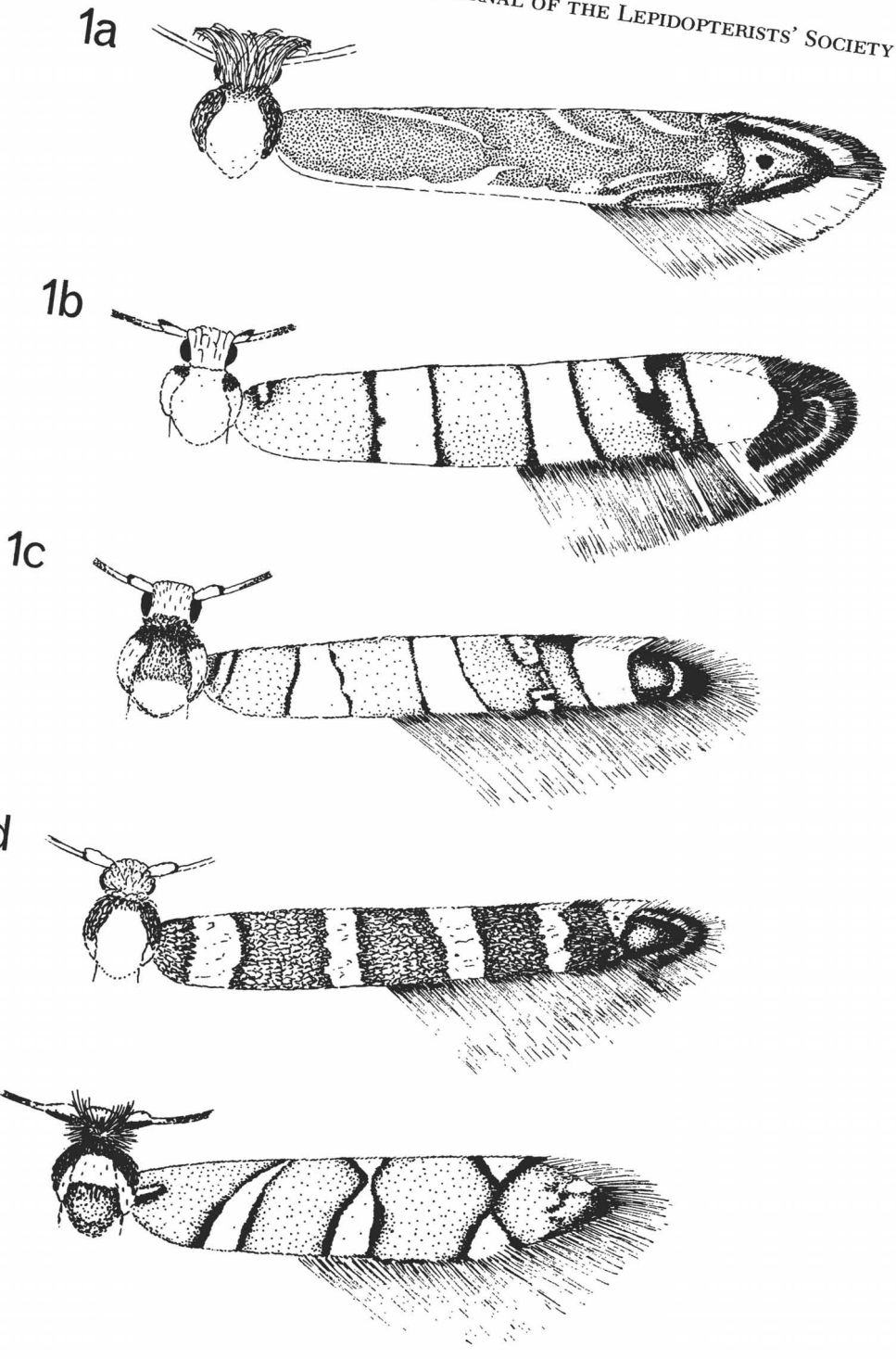
Type specimens. Holotype ♀ only. At light at University College, Ibadan, NIGERIA. 13.I.58, H. J. Sutton. Type in British Museum (Natural History), London.

Remarks. Very similar in wing pattern and genitalia to *E. homostola* Vári, 1961 but readily separated from it by the shape of the lamella antevaginalis.

Aristaea onychota (Meyrick, 1908). 1♂, Ibadan, NIGERIA. 15.I.1972, K. Bland [Genitalia, BM(NH) slide 21282]. This species has not previously been recorded from Nigeria.

Stomphastis conflua (Meyrick, 1914). 11♂♂ & ♀♀, University College, Ibadan, NIGERIA. 3.V.1962, G. H. Caswell [Genitalia slides B181, B189, BM(NH) slide 21286]; 2♂♂, Ile-Ife, NIGERIA. 25.VII.1970 & 15.VIII.1970, J. T. Medler [Gen. BM(NH) slides 21284, 21285]; 1♂, Ibadan, NIGERIA. 8.XII.1971, K. Bland [Gen. slide B236].

The genitalia of the male differ slightly from Vári's figure and description of the type (Vári, 1961) in that the tip of the valve is more falcate and the cornutus on the aedoeagus is forked (see Fig. 3a). In the female the distance of the ostium from the anterior margin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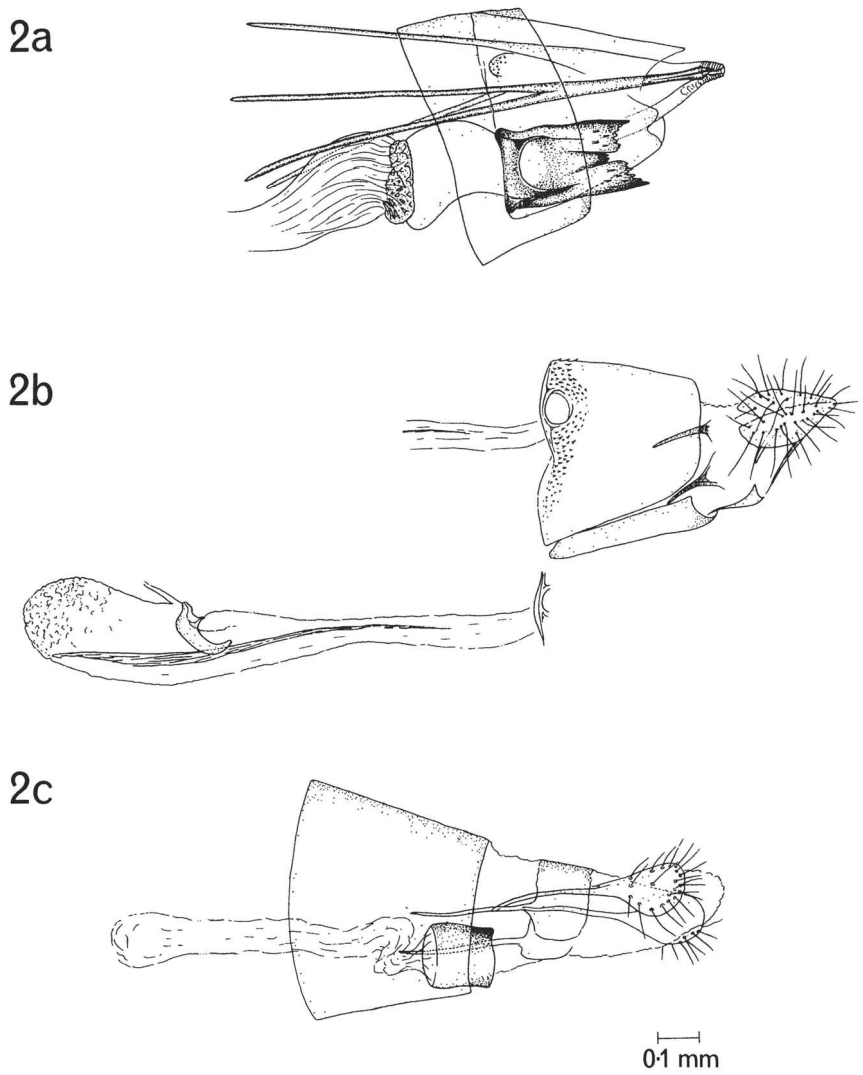

FIG. 2. ♀ Genitalia: **2a,** ventro-lateral view of *Epicephala suttoni* n. sp.; **2b,** dorso-lateral view of *Stomphastis conflua* (Meyr.); **2c,** ventro-lateral view of *Phyllonorycter caudasimplex* n. sp.

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FIG. 1. Head, thorax and right forewing of the new species described in the text. **1a,** *Epicephala suttoni*; **1b,** *Acrocercops pectinivalva*; **1c,** *A. fuscapica*; **1d,** *Spulerina quadrifasciata*; **1e,** *Phyllonorycter caudasimplex.* (Not to scale).

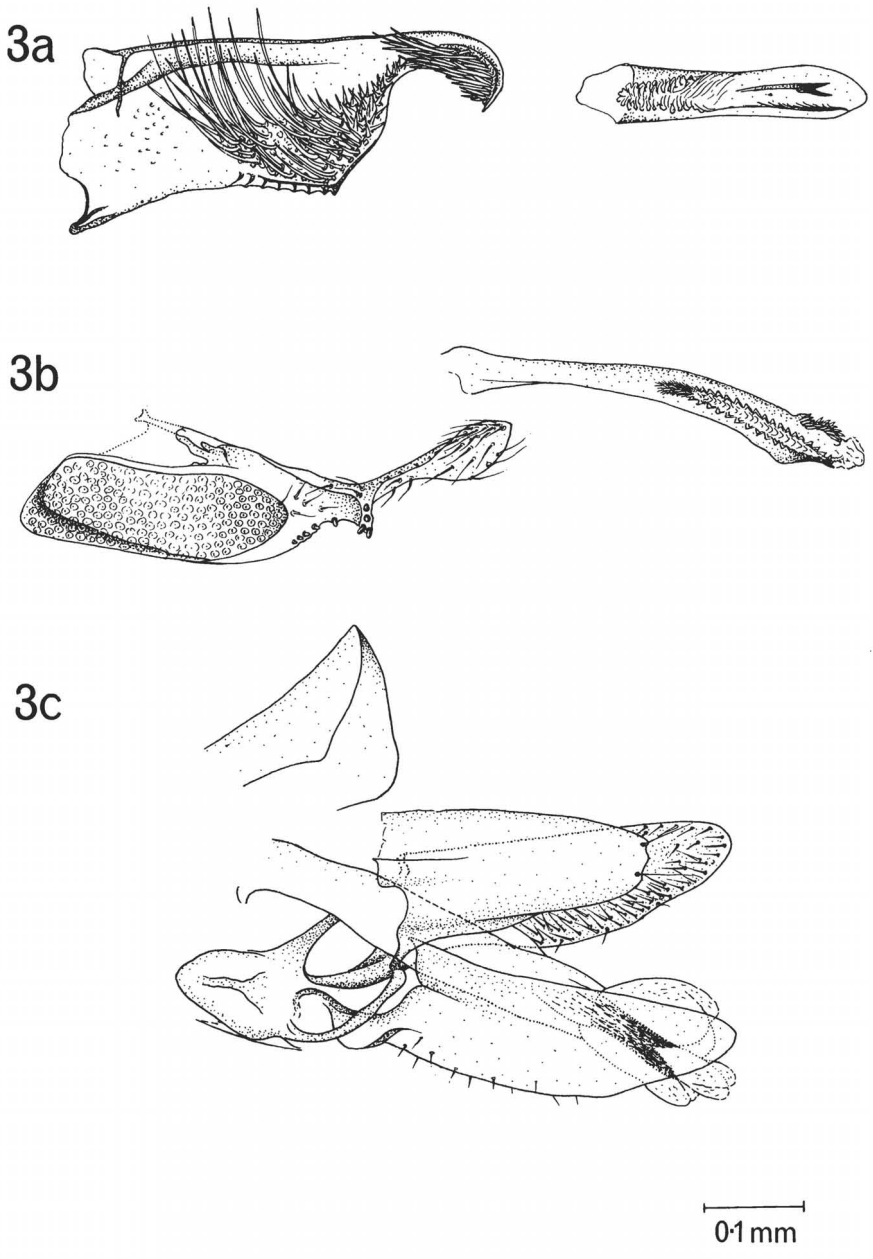


FIG. 3. ♂ Genitalia: **3a,** valve and aedoeagus of *Stomphastis conflua* (Meyr.); **3b,** valve and aedoeagus of *Lamprolectica apicistrigata* (Wals.); **3c,** dorso-lateral view of *Acrocercops bifasciata* (Wals.).

of the segment is shorter and the hooked signum apparently larger in the present specimens (see Fig. 2b). Although not previously recorded from West Africa, these slight differences are probably only geographical variations. One of the two foodplants recorded by Vári (1961), namely *Ricinus communis* Linn. (Euphorbiaceae) is recorded from Nigeria (Thiselton-Dyer, 1913).

Lamprolectica apicistrigata (Walsingham, 1891) 1♂, 1♀, Ibadan, NIGERIA. 28.XII.1971, K. Bland; 1♂, Ibadan. 21.I.1972, K. Bland [Genitalia, BM(NH) slide 21280].

In the ♂ genitalia, the ventral projection of the valve (see Fig. 3b) is not present in Vári's figure or description but is present in Walsingham's type [BM(NH) slide 4036 in British Museum of Natural History, London]; however due to the way the genitalia are mounted it is difficult to discern. This species has previously only been recorded from Gambia and South Africa.

Acrocercops pectinivalva, n. sp.

Description. Alar expanse 7 mm, ♂ (see Fig. 1b). Head white, with appressed scales. Labial palps dark fuscous; apical segment white. Maxillary palps dark fuscous mixed whitish. Antennae pale ochreous-brown distally; whitish basally. Legs white ringed with blackish. **Forewings** brown suffused towards costa with chestnut-brown except basally; three broad white fasciae, edged with dark brown, at ⅓, ⅔ and before apex; first two parallel-sided and slightly outwardly oblique from costa; third occupying most of apical area, extending into the apical cilia and broadest on the costa; extreme apex dark brown; a small white oblique mark on costa nearer to apical than median fascia, continued across wing as a dark brown line; apical cilia dark brown, except opposite fascia, with a white subterminal band from apex to dorsal part of apical fascia. Hindwings dark fuscous, cilia paler.

Male genitalia (see Fig. 4a). Tegumen membranous, with fine hairs on underside; valvae broad at base, then up-curved and parallel-sided; cucullus bluntly pointed; a single comb of teeth extending along posterior half of ventral margin; aedoeagus long, rather stout and produced into a sclerotized point; one pair of long coremata [Genitalia, BM(NH) slide 21276].

Type specimens. Holotype ♂ only. At light on University of Ibadan campus, Ibadan, NIGERIA. 29.I.1972, K. Bland. Type in the British Museum (Natural History), London.

Remarks. Most closely related by genitalia to *A. odontosema* Vári, 1961 to which it shows slight superficial resemblance; the shape of the valve and length of the comb separate it from all other species of the genus.

Acrocercops bifasciata (Walsingham, 1891) n. comb.

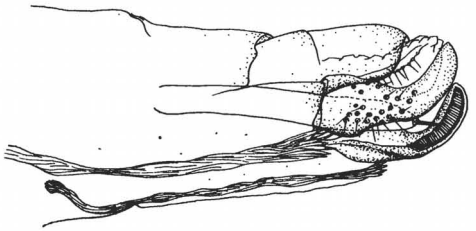
1♂, Ile-Ife, NIGERIA. 17.IX.1971, J. T. Medler [Genitalia, BM(NH) slide 21283]; 2♀♀, Ibadan, NIGERIA. 26 & 28.XII.1971, K. Bland [Gen. slide B114].

Originally described in the genus *Gracillaria* it is now transferred to *Acrocercops*. The ♂ genitalia (see Fig. 3c) agree with those of the holotype from Gambia in the British Museum of Natural History, London [BM(NH) slide 4037]. This species has not previously been recorded from Nigeria.

Acrocercops fuscapica, n. sp.

Description. Alar expanse 6 mm, ♂ (see Fig. 1c). Head white, with appressed scales; crown and lower face shining pale ochreous-brown. Labial palps white tinged darker in parts; tips blackish. Maxillary palps white; dark fuscous apically. Antennae shining pale ochreous-brown, paler basally; basal segment of antenna and scape white; scape dark fuscous distally. Collar white. Tegulae and thorax shining pale ochreous-brown; white caudally. Legs white, banded with dark fuscous. **Forewings** pale orange-brown; three broad white almost parallel-sided fasciae, thinly edged with dark brown,

4a



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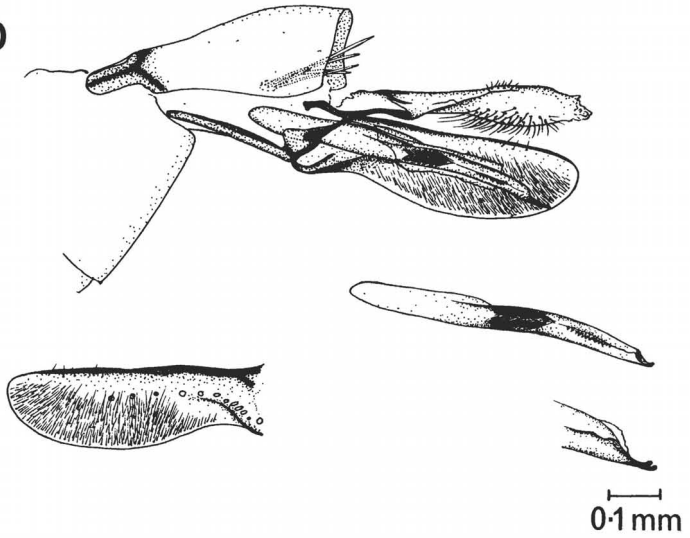

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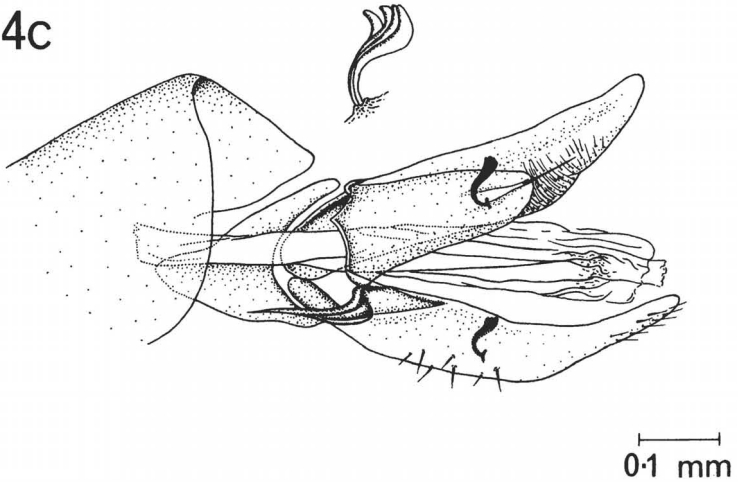

at just over 1/4, 1/2 and at 4/5; an indistinct narrow whitish fascia between the last two and another at the base; apical area and cilia dark brown; apical spot orange-brown edged outwardly with some white scales. Hindwings grey; cilia darker grey.

Male genitalia (see Fig. 4b). Tegumen almost membranous, underside with fine hairs; valva simple, costa straight, apex rounded, ventral margin curved; disc covered with fine hairs; vinculum narrow; saccus rod-shaped and ½ length of valva; aedoeagus long, slender, almost straight; tip extended into a pair of sclerotized prong-like projections; vesica with rough sclerotized area; 8th tergite weakly sclerotized with a sclerotized median prong anteriorly [Genitalia, BM(NH) slide 21277].

Type specimens. Holotype ♂ only. Ile-Ife, NIGERIA. 11.I.1972, J. T. Medler. Type in British Museum (Natural History), London.

Remarks. Superficially very similar to *A. gossypii* Vári, 1961 but the forewings are more orange and the apical fascia is larger. It is readily separated from *gossypii* by the structure of the ♂ genitalia, in which the valves are more rounded and the saccus more elongate.

Spulerina quadrifasciata, n. sp.

Description. Alar expanse 6 mm, ♂ (see Fig. 1d). Head, with appressed scales, ochreous-white; face white becoming more ochreous ventrally. Antennae dark fuscous above, except basally; underside whitish; the broad scape ochreous-white above; underside dark fuscous. Labial palps white with apex of segments 2 and 3 suffused fuscous. Maxillary palps dark fuscous but with apical segment paler. Legs white with broad fuscous rings. **Forewings** purplish-fuscous, mixed ochreous-fuscous; transverse, parallel-sided white fasciae with dark edges, near base, at just over ¼ and ½; another less regular fascia at ¾; an indistinct white triangular patch on costa before apex and another opposite at tornus; apical area dark fuscous; apical cilia fuscous mixed with white, becoming ochreous after tornus. Hindwings and cilia pale fuscous, tinged ochreous.

Male genitalia (see Fig. 4c). Uncus rounded at apex and with a single median spine; valva with ventral margin parallel to costal margin to ⅔ then obtusely angulated; on inner surface at ½, a small comb with 4 lamellae and a very narrow base; aedoeagus rather long and stout, membranous with no cornuti [Genitalia, BM(NH) slide 21278].

Type specimens. Holotype ♂ only. At light at University of Ibadan campus, Ibadan, NIGERIA. 12.I.1972, K. Bland. Type in the British Museum (Natural History), London.

Remarks. Very similar in wing coloration to *S. hexalocha* (Meyrick, 1912) but not in genitalia structure (Vári, *in litt.*). The genitalia show a closer affinity to *S. simploniella* (Fischer von Röslerstamm, 1844) from which they differ primarily in the valves being less produced apically and the comb on the valve having fewer lamellae.

Phyllonorycter caudasimplex, n. sp.

Description. Alar expanse 7 mm, ♀ (see Fig. 1e). Face and palpi shining white; crown of head rough-haired and chestnut-brown. Antennae ringed fuscous and pale ochreous-brown; basal segment white but chestnut-brown dorsally. Collar chestnut-brown. Thorax shining white anteriorly and pale fuscous posteriorly. Tegulae chestnut-brown but white dorsally. Legs white ringed with a mixture of fuscous and chestnut. **Forewings** shining orange-brown; a small white median dash at base, dark edged

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FIG. 4. ♂ Genitalia: **4a,** ventro-lateral view of *Acrocercops pectinivalva* n. sp.; **4b,** lateral view with right valve removed, valve and aedoeagus (enlargement of tip ×2) of *A. fuscapica* n. sp.; **4c,** dorso-lateral view of *Spulerina quadrifasciata* n. sp. with enlargement of comb.

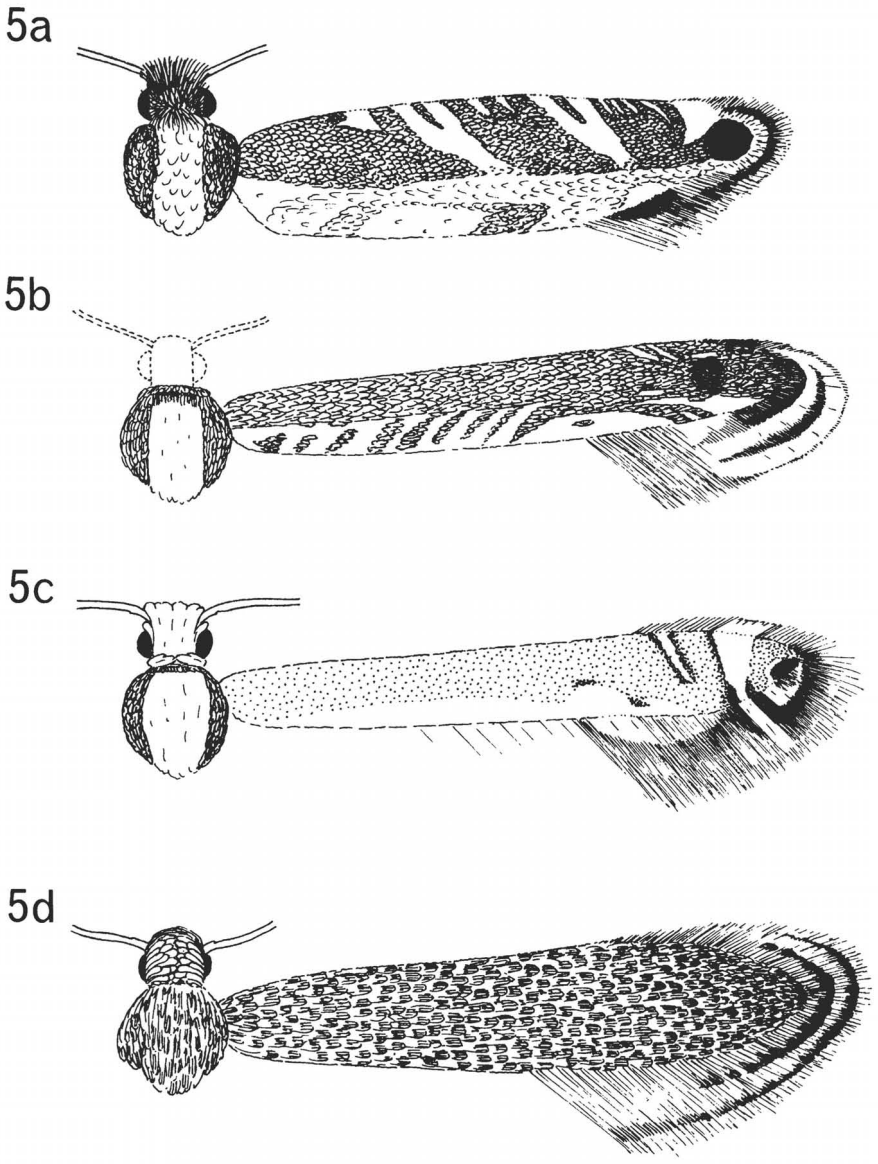


FIG. 5. Head, thorax and forewing pattern of those species not previously illustrated: **5a,** *Acrocercops leucostega*; **5b,** *A. rhothiastis*; **5c,** *A. siphonaula*; **5d,** *Cryphiomystis chalybophanes*. All drawn from holotypes in the British Museum (Natural History), London. (Not to scale).

dorsally; three dark-edged white fasciae at ¼, ½ and ¾ of dorsum; first fascia outwardly curved from dorsum, tapering to become almost obsolete at costa; second fascia, broadest on dorsum, slightly outwardly oblique from dorsum and markedly constricted just before costa; third fascia completely constricted to form two triangles—the smaller one on the costa; apical area chestnut-brown with a few scattered fuscous scales and a small whitish patch costally; apical cilia chestnut-brown. Hindwings and cilia fuscous.

Female genitalia (see Fig. 2c). Papillae anales moderate, rounded and finely haired; apophyses posteriores moderate, slightly sinuate; apophyses anteriores same length as apophyses posteriores, slender, straight and tapering; antrum sclerotized, short and cylindrical; ductus bursae and bursa copulatrix membranous and without signum [Genitalia, BM(NH) slide 21279].

Type specimens. Holotype ♀ only. Ile-Ife, NIGERIA. 30.XII.1971, J. T. Medler. Type in the British Museum (Natural History), London.

Remarks. Closely related and superficially similar to *Phyllonorycter loxozana* (Meyrick, 1936) n. comb. (transferred from *Lithocolletis*), from which it can be easily separated by the shorter and more sclerotized antrum of the ♀ genitalia and the constricted second fascia of the forewings.

These additions and new records bring the West African Gracillariidae to 16 known species. The following list gives these species, the location of illustrations of wing pattern and genitalia, and their known distribution:

Ectropina sclerochitoni Vári, 1961
(Wing, ♂ gen., ♀ gen. in Vári (1961), Pl. 5, fig. 2, Pl. 54, fig. 2, Pl. 81, fig. 5) Nigeria.

Epicephala suttoni n. sp.
(Wing, Fig. 1a; ♀ gen. Fig. 2a) Nigeria.

Aristaea onychota (Meyrick, 1908)
(Wing, ♂ gen., ♀ gen. in Vári (1961), Pl. 4, fig. 7, Pl. 55, fig. 2, Pl. 84, fig. 2) São Tomé, Nigeria.

Stomphastis conflua (Meyrick, 1914)
(Wing in Vári (1961), Pl. 9, fig. 2; ♂ gen., Fig. 3a; ♀ gen., Fig. 2b) Nigeria.

S. thaustica (Meyrick, 1908) [=*plectica* Meyrick, 1912]
(Wing, ♂ gen., ♀ gen. in Vári (1961), Pl. 6, fig. 5, Pl. 46, fig. 6, Pl. 87, fig. 2) Ghana.

Lamprolectica apicistrigata (Walsingham, 1891)
(Wing, ♂ gen., ♀ gen in Vári (1961), Pl. 15, fig. 5, Pl. 60, fig. 3, Pl. 84, fig. 4) Gambia, Nigeria.

Acrocercops bifasciata (Walsingham, 1891)
(Wing in Walsingham (1891), Pl. vi, fig. 68; ♂ gen. Fig. 3c) Gambia, Nigeria.

A. fuscapica n. sp.
(Wing & ♂ gen., Fig. 1c, 4b) Nigeria.

A. leucostega (Meyrick, 1932) n. comb. Originally described as *Tinea leucostega* but transferred to Gracillariidae by Gozmány & Vári (1973).
Placement in *Acrocercops* is tentative as the unique holotype is without abdomen.
(Wing, Fig. 5a) Sierra Leone.

A. pectinivalva n. sp.
(Wing & ♂ gen., Fig. 1b, 4a) Nigeria.

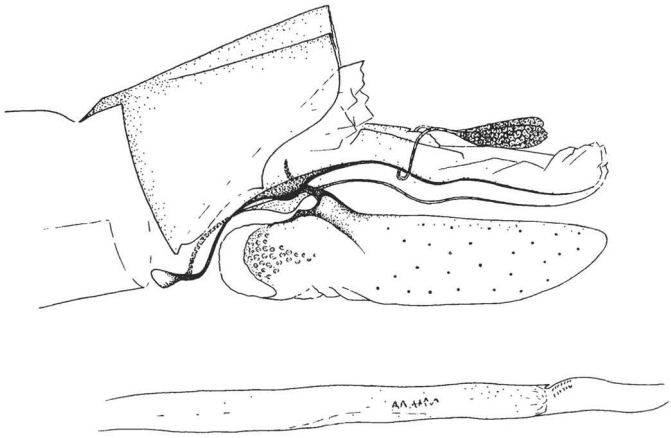
A. rhothiastis Meyrick, 1921. Only holotype known and it is without abdomen.
(Wing, Fig. 5b) Nigeria.

A. siphonaula Meyrick, 1931
(Wing, ♂ gen., ♀ gen., Fig. 5c, 6a, 6b) Sierra Leone.

Spulerina hexalocha (Meyrick, 1912)
(Wing in Vári (1961), Pl. 21, fig. 6) Sierra Leone.

S. quadrifasciata n. sp.
(Wing & ♂ gen., Fig. 1d, 4c) Nigeria.

6a



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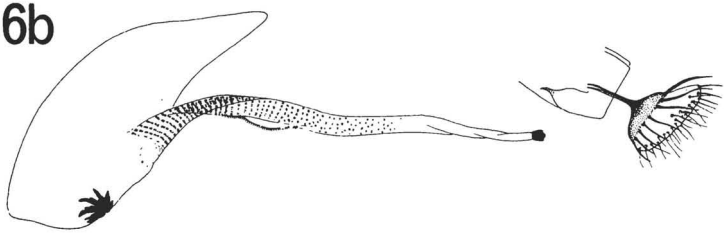

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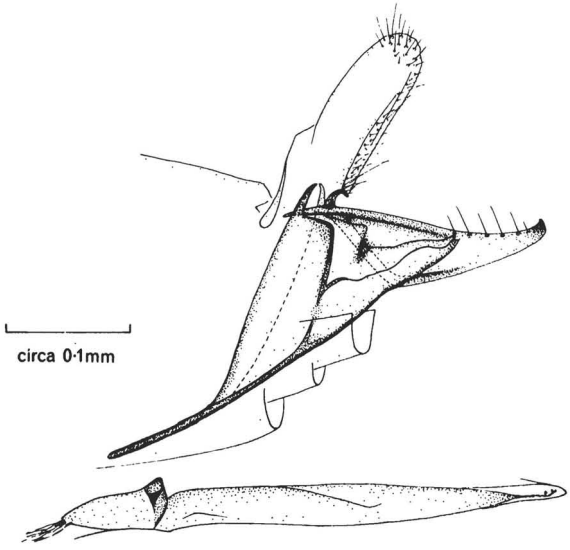

Cryphiomystis aletreuta (Meyrick, 1936) [=*chalybophanes* (Meyrick, 1937)]
(Wing & ♂ gen., Fig. 5d, 6c) Nigeria.
Phyllonorycter caudasimplex n. sp.
(Wing & ♀ gen., Fig. 1e, 2c) Nigeria.

These species probably represent not more than 10% of the West African gracillariid fauna.

ACKNOWLEDGMENTS

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FIG. 6. ♂ & ♀ Genitalia not previously illustrated: **6a,** lateral view of ♂ genitalia of *Acrocercops siphonaula* with left valve removed and aedoeagus shown separately [Holotype, BM(NH) Slide 6083]; **6b,** lateral view of ♀ genitalia of *A. siphonaula* [Allotype, BM(NH) Slide 16039]; **6c,** lateral view of ♂ genitalia of *Cryphiomystis chalybophanes* with left valve removed and aedoeagus shown separately [Holotype, BM(NH) Slide 6082].