

Józef RAZOWSKI & Viktor O. BECKER

**Brazilian Species of *Clarkeulia* RAZOWSKI (Lepidoptera: Tortricidae)**

[With 70 text-figs.]

**Brazylijskie gatunki *Clarkeulia* RAZOWSKI (Lepidoptera: Tortricidae)**

**Abstract.** Thirty-five species of *Clarkeulia* RAZ. collected by the authors in Brazilia are listed, 15 of which are described as new. The holotypes are preserved in the collection of the second author.

*Clarkeulia semantica* RAZOWSKI

The species described from Rio Vermelho, Santa Catarina has been found in the following localities in Parana: Curitiba, Banhado: Quatro Barras, Marumbi, Morro do Meio and Rio Negro at the altitudes 500—800 m flying almost round the year.

*Clarkeulia separabilis* (RAZOWSKI)

Known to date of single male described from Rio Vermelho. Five further males have been collected in Curitiba (II, X and XII). There is also one female of Planaltina, District Federal (1000 m, 19.X.1976) that is almost identical with the males, having somewhat browner dorsum and slight violet hue in tornal area of wing. The female genitalia (figs 45, 46) of this *Clarkeulia* sp. characterise with broad sterigma and rather shallow antrum the ventral portion of which develops a rather weakly sclerotized sack. Corpus bursae elongate; ductus seminalis sublateral.

*Clarkeulia lacrimosa* sp. nov.

Alar expanse, 20 mm. Head brownish grey with slight cream admixture; thorax a little darker with more cream tegula. Ground colour of forewing greyish with delicate darker strigulation; basal triangle pale cream suffused with grey costally, followed by grey suffusion; median fascia

grey, atrophying in dorsal half of wing, subterminal pattern represented by oblique line; pale ochreous cream longitudinal suffusion before median fascia subcostally. Fringes slightly paler than pattern. Hindwing dirty cream, darker, somewhat mixed with ochreous apically; fringes rather concolorous with wing, more whitish anally.

Male genitalia (figs 1, 2): Uncus broad, tapering terminally; free end of socius short; transtilla concave dorsally. Sacculus thick at base, with small but distinct collar, then thin, hardly expanding terminally, without free end. Aedeagus very broad with large, triangular sclerite; coecum penis very short; juxta small.

Holotype, male: "Curitiba, Paraná, Brasil-920 m, 7.V.1975, V.O. BECKER col."

Comments. The new species is very characteristic by grey colour of the forewing and indistinct pattern. Genitally similar to the preceding species, but differing in the shape of the aedeagus and uncus.

*Clarkeulia licea* sp. nov.

Alar expanse, 22 mm. Head brownish; thorax a little darker. Ground colour of forewing pale ferruginous brown, dotted with brown, gradually paler towards median fascia and apex; basal triangle small, cream, suffused costally, followed by dark rust-brown suffusion in dorsal half. Median fascia brown, pale edged anteriorly, diffuse posteriorly; subapical blotch indistinct. Fringes brownish. Hindwing ferruginous brown, rather pale, diffusely spotted towards apex, brownish in anal half, fringes cream with pale brown basal line.

Male genitalia (figs. 3, 4): Uncus broad; socius very short; dorsal edge of transtilla tolerably straight; sacculus thick with subtriangular, slightly concave medially free termination and group of long hair beyond large basal collar. Aedeagus thick.

Holotype, male: "Curitiba, Paraná, Brasil-920 m, 19.X.1974, V.O. BECKER col."

Comments. The differences between this and the preceding species are mainly in the shape of the aedeagus.

*Clarkeulia simera* (RAZOWSKI)

This species was described from the unique female collected in Rio Vermelho. Among eight specimens collected by the second author there are 5 males. The specimens have been taken at Banhado, Quatro Barras (800 m) and Morro do Meio (1 specimen).

Male genitalia (figs. 5—8): Uncus as in preceding species; socius slightly larger, sacculus longer, with longer free termination and long, dispersed hair. Aedeagus very large with large, sculptured lobes.

*Clarkeulia craterosema* (MEYRICK)

This species was described from São Paulo. One of our specimens collected in Joinville, Santa Catarina fits the type (figs. 9, 10), the other (from Brusque, same state) distinctly differs in the male genitalia, e.a. in strongly flattened coecum penis, and probably represents a new species. Unfortunately, the comparison with the figure by CLARKE (1949) is impossible as it is seen ventrally. The aedeagus of the discussed specimen is as on figs. 11, 12.

*Clarkeulia sonae* (CLARKE)

Described from Santa Catarina from single male. CLARKE (1949) suggested the differences to *craterosema* are in deepened colour of brown basal blotch of the forewing and dilated distal end of aedeagus. Our two specimens collected at Rio Vermelho fit externally the CLARKE'S illustration but their genitalia do not differ from those of *craterosema*. Further material is needed to solve this question.

*Clarkeulia semanota* (RAZOWSKI)

Two specimens collected at Banhado, Quatro Barras, at the altitude of 800 m before me. The species was known from Rio Vermelho, Santa Catarina.

*Clarkeulia aerumnosa* sp. nov.

Alar expanse, 22 mm. Specimen badly damaged. The remainders of purple-brown scales allow suppose that the species in question is similarly patterned as *semanota*.

Female genitalia (figs. 47, 48): Lateral lobes of sterigma large, rounded apically; antrum portion rather tubular; scent organ in form of pair of shallow cups fused medially; ductus bursae very short; corpus bursae large; ductus seminalis extending from shallow concavity.

Holotype, female: "Marumbi, PR, 500 mts, Brasil, 16.XII.1969, V.O. BECKER leg."

*Clarkeulia sellata* (RAZOWSKI)

Known from Rio Vermelho (Santa Catarina); 6 further specimens have been taken at Marumbi and Quatro Barras, Parana at the altitudes of 500 and 800 m respectively. This species shows slight genital variation in number and size of the cornuti.

*Clarkeulia exstinctrix* (MEYRICK)

The type locality of this species is São Paulo. Its genitalia (figs. 13, 14) characterise with fairly long sacculus and broad aedeagus provided with dorsal group of cornuti. We have one specimen with identical genitalia collected in Morro do Meio, Parana. Further specimens (12, collected at Banhado, Brusque, Joinville, and Marumbi) differ from the type in much shorter sacculus provided with curved terminal process and longer aedeagus possessing three groups of cornuti forming two rows when seen of dorsal side. The length of the terminal process of the sacculus shows some variation (figs 15—19). We cannot decide whether the mentioned variation is of infraspecific value.

*Clarkeulia excerptana* (WALKER)

The holotype bears the label „Brasil". Its genitalia are figured by CLARKE and the species was compared with *oreographa*.

*Clarkeulia oreographa* (MEYRICK)

Two specimens collected at Curitiba and Paranaguá, Parana match the holotype described from Rio Songo, Bolivia. Unfortunately an exact comparison is impossible as the sterigma in the genitalia slide of the holotype is somewhat altered by the pressure of the covering glass. We figure our specimen for comparison (figs. 49, 50).

*Clarkeulia deceptiva* (CLARKE)

This species was described from Santa Catarina from unique female. In our material it is represented by several specimens taken at Curitiba, Parana (figs. 51, 52). Further specimens collected in some localities in Santa Catarina, Pelotas, Rio Grande do Sul and in Planaltina, Districto Federal differ from those of Curitiba in the shape of the sterigma, coloration of the forewing and development of the scent organ. In Curitiba specimens there is weak double scent organ whilst in other specimens it is either wanting or single. The emarginated portion of the lateral parts of the sterigma is also variable. In some specimens it is densely folded, so they resemble *excerptana*. Unfortunately no male is found to date.

*Clarkeulia bourquini* (CLARKE)

Three females collected in Curitiba, Parana in the material studied. Their coloration agrees with that described by CLARKE. We figure the

female genitalia (figs. 53, 54) for comparison with the following new species.

*Clarkeulia dubia* sp. nov.

Alar expanse, 30 mm. Head pale brownish cream, labial palpus brownish laterally; thorax concolorous with vertex. Forewing broad, termen weakly oblique. Basal triangle paler than thorax, suffused with pale brownish along costa, followed by ferruginous brown suffusion in dorsal half of wing corresponding with distal blotch of thorax. Ground colour cream brown, mixed with rust towards base of wing and in distal half except for apex and costa. Pattern ferruginous brown in form of median fascia the anterior edge of which rounded, more brown. Minute black-brown transverse strigulation all over the wing; fringes pale ferruginous. Hindwing brownish, mixed with ochreous terminally, strigulated with brownish; fringes more cream.

Female genitalia (figs. 55, 56) as in preceding species but larger, with very large folded parts of sterigma and dorsal sclerite of antrum extending towards corpus bursae.

Holotype, female: "Marumbi, Morretes, Paraná, Brasil 500 m, 17.XII. 1969, BECKER & LAROCA."

*Clarkeulia seposita* (RAZOWSKI)

Known of single male collected near São Bento do Sul, Santa Catarina.

*Clarkeulia episticta* (CLARKE)

The type locality of this species is Nova Teutonia. Further 15 specimens have been collected at Rio Vermelho and near São Bento do Sul, also in Santa Catarina, 7 ones in Banhado and 3 in Curitiba, Parana.

Male genitalia (figs. 20, 21) characterise with large, subtriangular basal process of sacculus; the distal portion of sacculus slender. Bunch of rather short bristles above middle of basal process and larger group of longer setae just beyond it. Aedeagus broad, with fairly short coecum penis.

Female genitalia (figs. 57, 58): Lateral lobes of sterigma subtriangular, cup-shaped part broad; ductus bursae fairly long; corpus bursae elongate.

Comments. Apart of the above mentioned examples there is one collected at Sete Lagoas, Minas Gerais that probably represent a distinct subspecies. It differs from typical *episticta* in having smaller, more elong-

ate and directed distally basal process of the sacculus (figs. 22, 23). We do not provide its description until additional material is at hand.

*Clarkeulia sepiaria* (RAZOWSKI)

Described from male taken at Rio Vermelho, Santa Catarina. Further 3 females collected at Banhado, Quatro Barras (Parana) before us. Female genitalia (figs. 59, 60) characterise with large, partially membranous cup-shaped part of sterigma (antrum) and large corpus bursae; ductus seminalis dorsal.

*Clarkeulia dimorpha* (CLARKE)

The holotype was described from Nova Bremen in Santa Catarina. Our specimens are determined by comparison with the paratype deposited in the British Museum (N.H.) and the original description. As there is some doubts in this determination we figure the female genitalia (figs. 61, 62) of the specimen from Curitiba. It characterises with broad incisure and small lateral prominences of sterigma.

Our specimens have been collected in Rio Vermelho, Santa Catarina (7 specimens) and Curitiba and Banhado, Quatro Barras in Parana (14 specimens).

*Clarkeulia conistra* sp. nov.

Alar expanse, 29 mm. Head pale brownish grey, labial palpus brownish laterally; thorax ash grey, ferruginous in middle posteriorly, mixed with blackish grey proximally. Forewing cinnamon brown except for very short basal triangle followed by suffusion extending to middle of costa that are grey. Black-grey, diffuse spots all over the wing. Fringes concolorous with wing. Hindwing cream, somewhat mixed with yellowish ochreous, provided with some brownish spots distributed mainly in anal half of wing; fringes cream.

Female genitalia (figs. 63, 64) as in two preceding species but lateral process of sterigma longer and ductus bursae provided with ventral process.

Holotype, female: "Rio Negro, Paraná, Brasil, 800 m, 22.IX.1970, BECKER leg."

*Clarkeulia semigrapha* (RAZOWSKI)

Known from Rio Vermelho, Santa Catarina; 8 specimens collected in Curitiba (900 m) and Rio Negro, Parana before us. This species is distinctly variable externally.

*Clarkeulia aulon* sp. nov.

Alar expanse, 27 mm. Head and thorax brown, the latter darker in middle distally. Forewing costa bent subterminally, termen straight. Ground colour grey suffused, sprinkled and densely strigulate with red-brown; pattern atrophied; weak ochreous suffusion at disc. Fringes ferruginous. Hindwing cream, delicately strigulated with brownish; fringes cream.

Female genitalia (figs. 65, 66) with broad, rather flat lateral portions and fairly broad ventral incisure; scent organ in form of elongate, somewhat concave plate just below incisure of sterigma. Ductus bursae short.

Holotype, female: "Rio Negro, Paraná, Brasil, 800 m, 22.IX.1970, BECKER leg."

Comments. This species resembles some specimens of the indetermined group near *disjuncta* but differs by the shape of the forewing.

*Clarkeulia spectanda* (RAZOWSKI)

To date known from Parana. The type locality is Rio Negro, additional specimen is from Marumbi, Morretes and was collected at the altitude of 500 m.

*Clarkeulia spadix* (RAZOWSKI)

Known exclusively from the type locality: Rio Vermelho, Santa Catarina.

*Clarkeulia placabilis* sp. nov.

Alar expanse, 17 mm. Head and anterior part of thorax grey-cream, the latter becoming whiter towards medio-terminal ferruginous blotch. Forewing basal triangle cream, mixed with brown-grey at base and costally, becoming more white towards sharp outer edge followed by ferruginous suffusion. Wing, except for dorsum that is darker, pale dorsally, marked with some blackish dots subdorsally and in terminal half of wing. Fringes concolorous with wing. Hindwing whitish mixed with cream on peripheries; fringes whitish.

Male genitalia (figs 24—26): Uncus long, with apical prominence; socius long; sacculus with acute postbasal process and rounded termination, marked with bunch of postbasal bristles and row of long setae in median and subterminal parts followed by group of short bristles. Aedeagus slender, with long coecum penis, curved terminally, with atrophied membranous lobes; juxta broad; caulis armed with pair of acute, curved processes.

Holotype, male: Banhado, Quatro Barras, Paraná, Brasil — 800 m, 28.XII.1970, BECKER & LAROCA"; paratype, male: "Brusque, SC [Santa Catarina], Brasil — 28.XII.1969, V.O. BECKER leg."

Comments. The new species resembling externally the representatives of the specific group of *deceptiva* is distinct by dark immaculation of the forewing and peculiar male genitalia.

*Clarkeulia virga* (CLARKE)

Two specimens examined, one collected in Rio Negro, Parana, the other in Rio Vermelho, Santa Catarina.

*Clarkeulia umbrifera* sp. nov.

Alar expanse, 17 mm. Head and thorax brownish-cream, the latter with brown median blotch distally. Forewing ground colour cream sprinkled with brown, represented by basal triangle suffused along costa with black, dorsal diffuse area reaching median fascia and narrow line limiting proximal edge of the latter; remainders of ground colour in distal part of wing weaker, reticulate with brown; basal blotch followed by rust-brown suffusion not reaching costa and gradually paler towards median fascia. Pattern in form of median fascia, rust-brown, broad in costal half, diffuse distally, atrophying towards dorsum; subapical blotch represented by oblique line. Fringes brownish. Hindwing dirty cream, suffused with greyish distally, delicately strigulated with grey; fringes white cream with greyish median line.

Male genitalia (figs 27—29): Uncus short; socius with long free portion; basal prominence and ventral edge of sacculus dentate, free end rounded apically; bunch of postbasal bristles followed by small group of short setae and several similar median setae. Aedeagus with lateral, sclerotized fold and long coecum penis; top of juxta armed with a pair of long, minutely bristled processes.

Holotype, male: "Curitiba, Paraná, Brasil — 920 m, 25.XII.1974, V.O. BECKER col."; paratypes, 2 similarly labelled males, dated "X.1975".

Comments. This new species is very similar to *virga* externally. In the male genitalia it differs from that species in having two groups of ventral bristles of the aedeagus.

*Clarkeulia mulsa* sp. nov.

Alar expanse, 14—16 mm. Head pale brownish grey, labial palpus browner laterally; anterior part of thorax concolorous with head, distal portion more cream ferruginous terminally. Forewing basal triangle yellowish cream followed by ferruginous-brown suffusion becoming paler

and more cream towards rust-brown median fascia. Distal edge of the latter diffuse; subapical pattern ill-defined; grey-brown spots and strigulae mainly along dorsum; fringes concolorous with distal part of wing. Hindwing dirty cream, weakly suffused with brownish, marked with delicate transverse strigulation of same colour; fringes cream.

Male genitalia (figs 30, 31): Socius long; basal process of sacculus broad, free termination longer than in preceding species; apart of basal bunch of bristles some five long hairs postmedially. Aedeagus with distinct lateral fold; dorsal processes of juxta large, slightly convex beyond base ventrally.

Holotype, male: "Sete Lagoas, MG [Minas Gerais], Brasil — 720 m, IV.1974, V.O. BECKER col." Paratypes, 3 males identically labelled as above, but two ones with dates "X.1974" and "28.II.1969."

*Clarkeulia expedita* sp. nov.

Alar expanse, 20 mm. Head and tegula cream grey, labial palpus dark grey, postmedian part of thorax before rust blotch more cream. Basal triangle of forewing dirty cream suffused as usually along costa and at base with brownish grey, followed by ochreous brown suffusion becoming more cream, spotted with brown towards indistinct median fascia. The fascia pale edged anteriorly, postmedian part mixed with greyish brown; subapical pattern atrophied; terminal part of wing ochreous mixed with cream. Fringes concolorous with distal part of wing or brownish. Hindwing dirty cream, strigulation brownish grey; fringes cream.

Male genitalia (figs 32, 33) as in preceding species but with small, pointed apically basal process and ventrally rounded, densely hairy termination; lateral lobe of aedeagus weaker; processes of dorsal part of juxta very small.

Holotype, male: "Rio Negro, Paraná, Brasil, 800 m, 22.IX.1970, BECKER leg."; paratypes, 4 males one of which with identical label as above, two with labels: "Curitiba PR [Paraná], 900 m, Brasil, 8.II.1970 [and 5.II.1970], T. DAIRIKI leg.", and one collected by V.O. BECKER, also in Curitiba, dated 16.IX.1974.

*Clarkeulia perversa* sp. nov.

Alar expanse, 14 mm. Head and thorax grey-brown, the latter brownish cream anteriorly as far as to rust-brown blotch. Basal triangle of forewing cream, suffused with brown-grey, followed by dark, ferruginous-brown suffusion becoming paler and more cream towards pale edged, almost straight anterior border of median fascia; subapical pattern represented by short line; distal portion of wing concolorous with antemed-

ian area; weak strigulation in posterior half of wing; fringes brownish cream. Hindwing brownish with paler fringes.

Male genitalia (figs 34, 35) with very small basal process of sacculus followed by weakly concave ventral edge and small, rounded free termination; bunch of bristles weak. Left, lateral process of aedeagus large, the opposite fold slender; juxta with indistinct internal prominences in upper portion distally.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 11.IV.1970, BECKER & LAROCA."

*Clarkeulia ardalis* sp. nov.

Alar expanse 18 mm (in female 22 mm). Head and thorax brownish cream, more brown laterally, labial palpus brownish grey, collar somewhat paler, distal blotch of thorax rust-brown. Ground colour incl. basal triangle greyish white with weak brown-pink suffusion; costa slightly mixed with grey, strigulation much darker; postbasal suffusion and remainders of median fascia ferruginous, the latter pale edged anteriorly; black-brown, usually, weak suffusion along postcubital vein in anterior half of wing; subapical pattern in form of oblique line or suffusion. Fringes darker than ground colour. Hindwing greyish brown with slightly paler fringes. Variation distinct: ground colour greyish brown to cream brown, suffusions brown, grey-brown or ferruginous. Pattern often weakly developed.

Male genitalia (figs 36—38): Basal process of sacculus more or less protruding ventrally, dentate; median part of ventral edge somewhat convex; termination fairly short, rounded, concave laterally; bunch of bristles accompanied by numerous strong postmedian setae and some hair in postbasal area. Juxta without processes.

Female genitalia (figs 67, 68): Lateral lobes of sterigma large; cup-shaped portion long, slightly flattened dorso-ventrally.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 4.VII.1970, BECKER & LAROCA" paratypes: 31 males and 1 female collected in same locality, at Marumbi, Rio Negro (Parana) and Rio Vermelho (Santa Catarina).

Comments. Externally this species resembles *expedita* but is much greyer or browner in colour and developed subapical oblique line. Genitally closer to the two following species.

*Clarkeulia fortuita* sp. nov.

Alar expanse, 20 mm. Head and thorax pale brownish cream, antenna grey-brown laterally; distal blotch of thorax small, ferruginous. Basal triangle of forewing whitish suffused with grey anteriorly, followed by ferruginous suffusion becoming ochreous cream towards straight, pale

bordered anterior edge of concolorous median fascia; subapical pattern weak; blackish suffusion along postcubital vein and some weaker dots or strigulae especially along dorsum; similar suffusion at disc. Fringes brownish cream. Hindwing dirty cream with pale brownish grey strigulation; fringes cream.

Male genitalia (figs 39, 40) as in the preceding species but with dentate subterminal prominences of ventral edge of sacculus provided with large row of strong setae. Lateral lobe of aedeagus longer and slenderer.

Holotype, male: "Sete Lagoas, MG [Minas Gerais], Brasil — 720 m, 20.I.1974, V.O. BECKER col."

*Clarkeulia egena* sp. nov.

Alar expanse, 18 mm. Head and anterior half of thorax brownish, median portion more cream, terminal part ferruginous. Coloration as in preceding species but remainders of ground colour darker, suffused with grey; median fascia greyish brown with rather distinct posterior edge; subapical pattern in form of short line; terminal area, especially among the veins, suffused with grey-brown; strigulation weak, grey-brown. Hindwing cream, suffused with brownish grey, with similar but darker strigulation; fringes white cream.

Male genitalia (figs 41, 42) similar to those in preceding species but with less curved sacculus provided with slenderer free termination from before which extends large group of bristles; further differences are in the shape of the lateral prominence of aedeagus.

Holotype, male: "Rio Negro, Paraná, Brasil, 800 m, 25.VIII.1970, BECKER leg."; paratype, also male with label "Curitiba PR [Parana], 900 m, Brasil, 8.III.1971, T. DAIRIKI leg."

*Clarkeulia mediana* sp. nov.

Alar expanse, 18 mm. Head and thorax as in preceding species. Forewing more grey in shade with more cream remainders of ground colour densely sprinkled with brownish grey; median fascia with slightly concave medially, pale bordered anterior edge; subapical pattern in form of long, curved line built of spots. Fringes paler than pattern. Hindwing dirty cream suffused with pale brown-grey, with somewhat darker transverse strigulation; fringes whitish with incomplete basal line. Variation: one paratype with ill-defined pattern, two specimens with slight admixture of ochre. Pattern developed to various degrees, often subapical element wanting.

Male genitalia (figs. 43, 44) as in two preceding species but with broader; more flat termination of sacculus and compact group of bristles situated postmedially. Aedeagus with a pair of lateral prominences.

Female genitalia (figs 69, 70): Lateral emarginations of sterigma forming anteriorly lamella antevaginalis; scent organ developed in form of strong median concavity distinctly sclerotized posteriorly.

Holotype, male: "Curitiba, Paraná, Brasil — 920 m, 6.X.1974, V.O. BECKER col." paratypes 1 male, 3 females (one with abdomen missing) collected in Curitiba and dated 7.V.1975, 5.XI. and 15.XII.1974 and one from Banhado, Quatro, Barras, Parana, 800 m., dated 6.VI.1970.

Institute of Systematic  
and Experimental Zoology  
Polish Academy of Sciences  
Ślawkowska 17, 31-016 Kraków

EMBRAPA, Centro de Pesquisa  
Agropecuária dos Cerrados  
Caixa postal 70-0023,  
73300-Planaltina, DF — Brazil

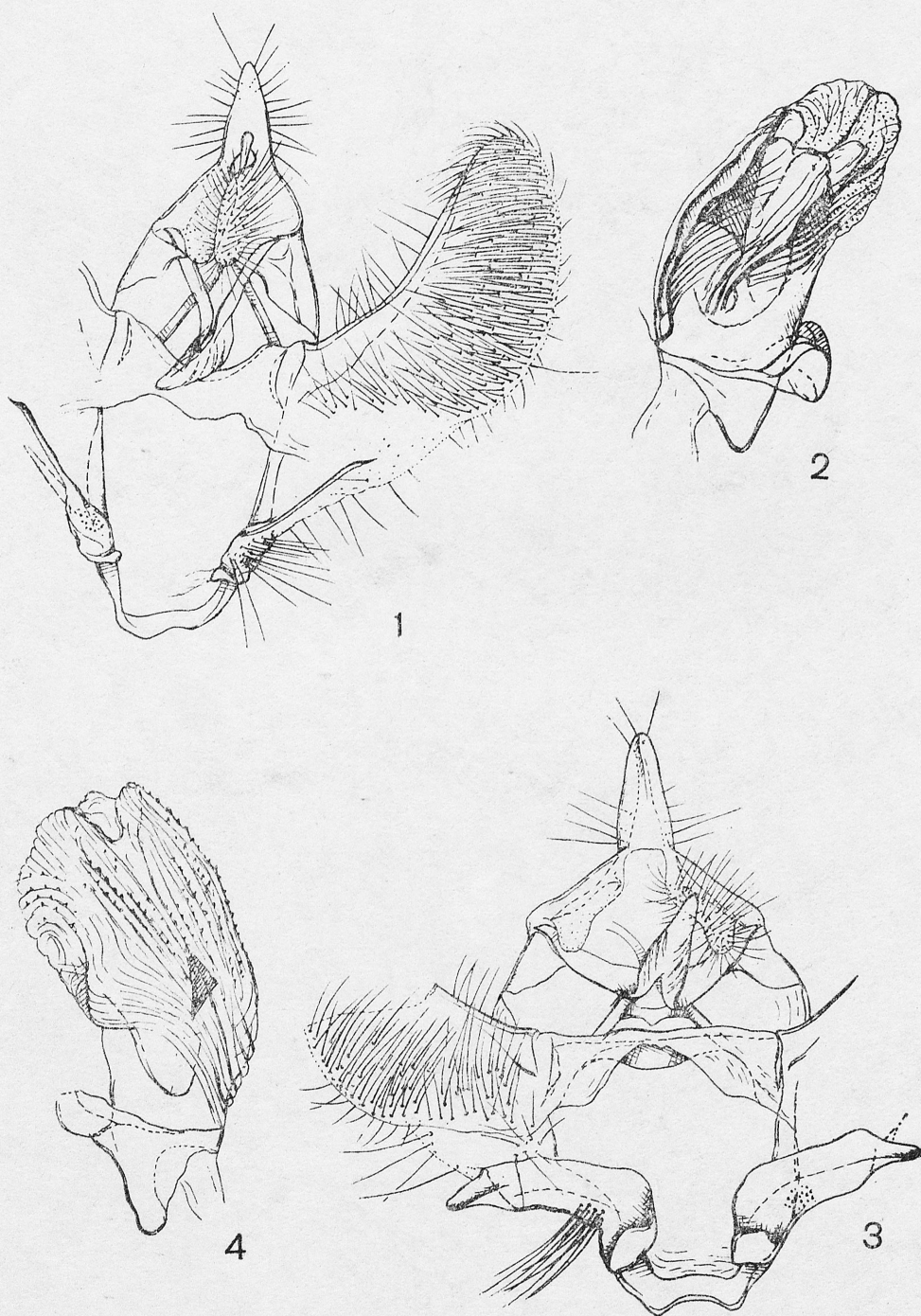
#### REFERENCES

- CLARKE J. F. G., 1949. Notes on South American „*Tortricidae*” (*Lepidoptera*) and descriptions of new species. *Acta zool. Lilloana, Tucuman*, **7**: 579—588.
- RAZOWSKI J., 1982. Redescription of *Deltinea* PASTRANA with descriptions of new species (*Lepidoptera: Tortricidae*). *Bull. Acad. pol. Sci Sér. Sci. biol., Warszawa*, (2) **30** (1—12): 37—45.
- RAZOWSKI J., 1982. Descriptions of the new species of *Deltinea* PASTR. (*Lepidoptera: Tortricidae*). *Ibid.*: 47—52.

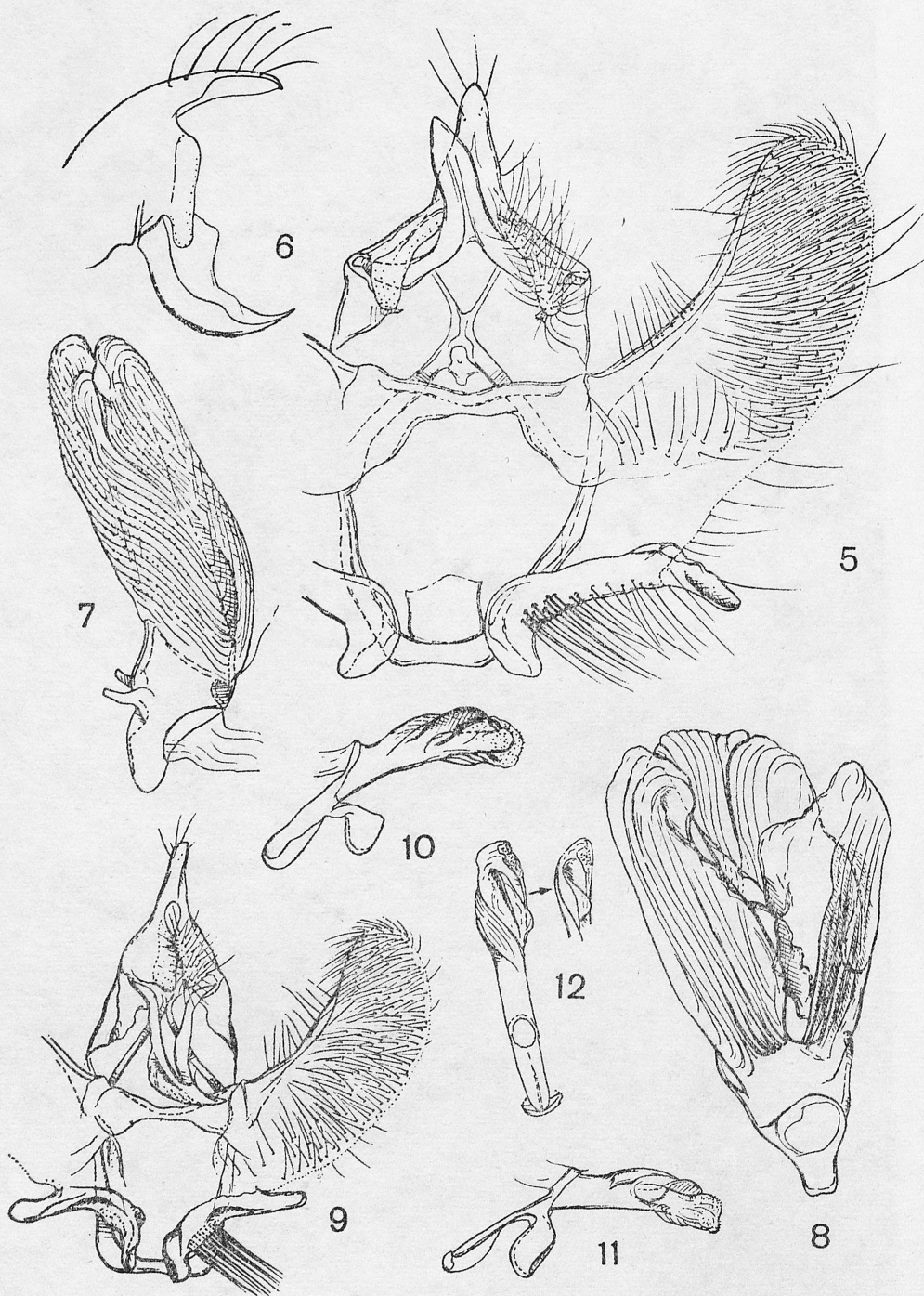
#### STRESZCZENIE

Autorzy wykazali z Brazylii 35 gatunków *Clarkeulia* RAZ., z czego jako nowe zostało opisanych 15 gatunków.

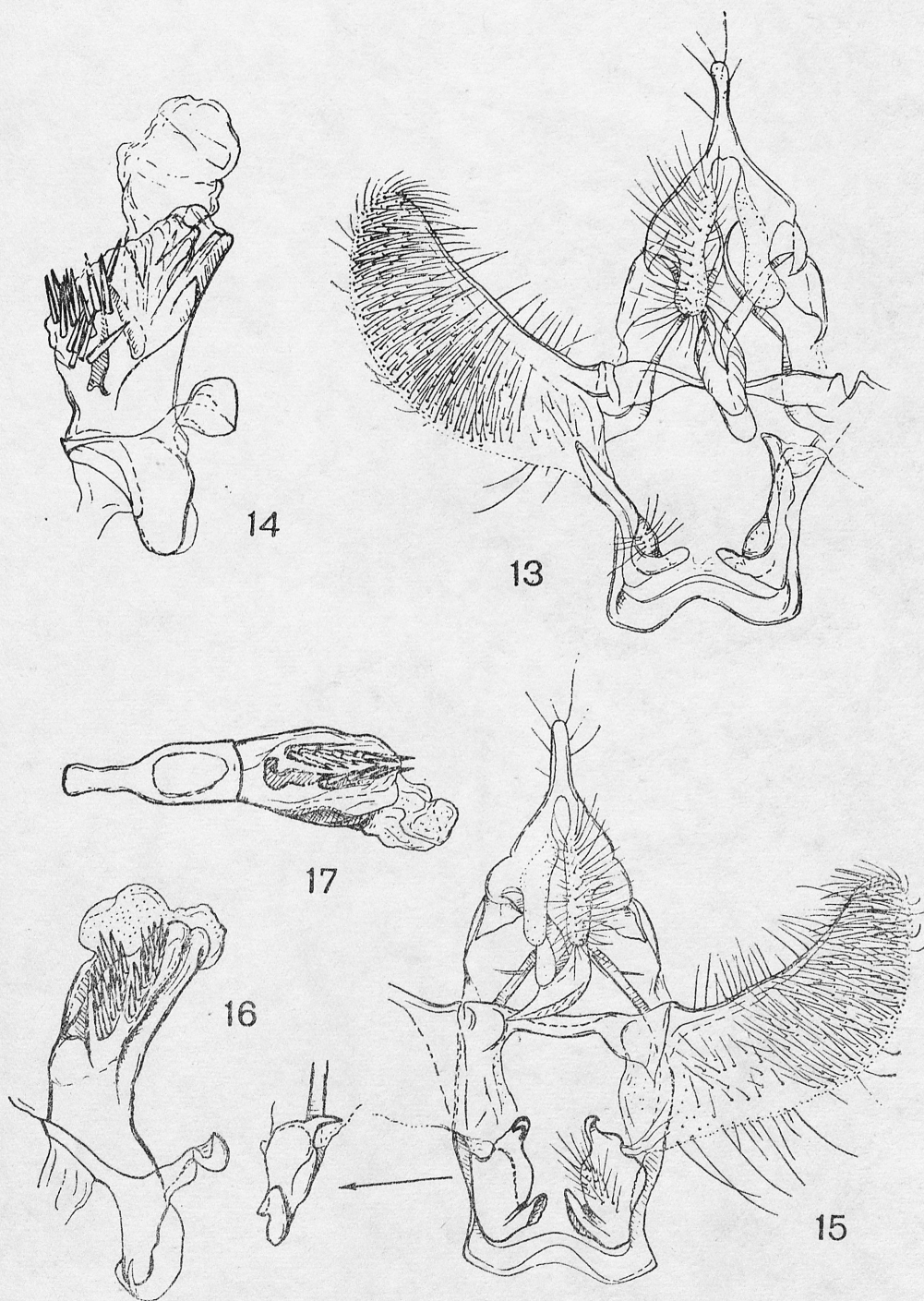
Redaktor pracy: prof. dr A. Krzanowski



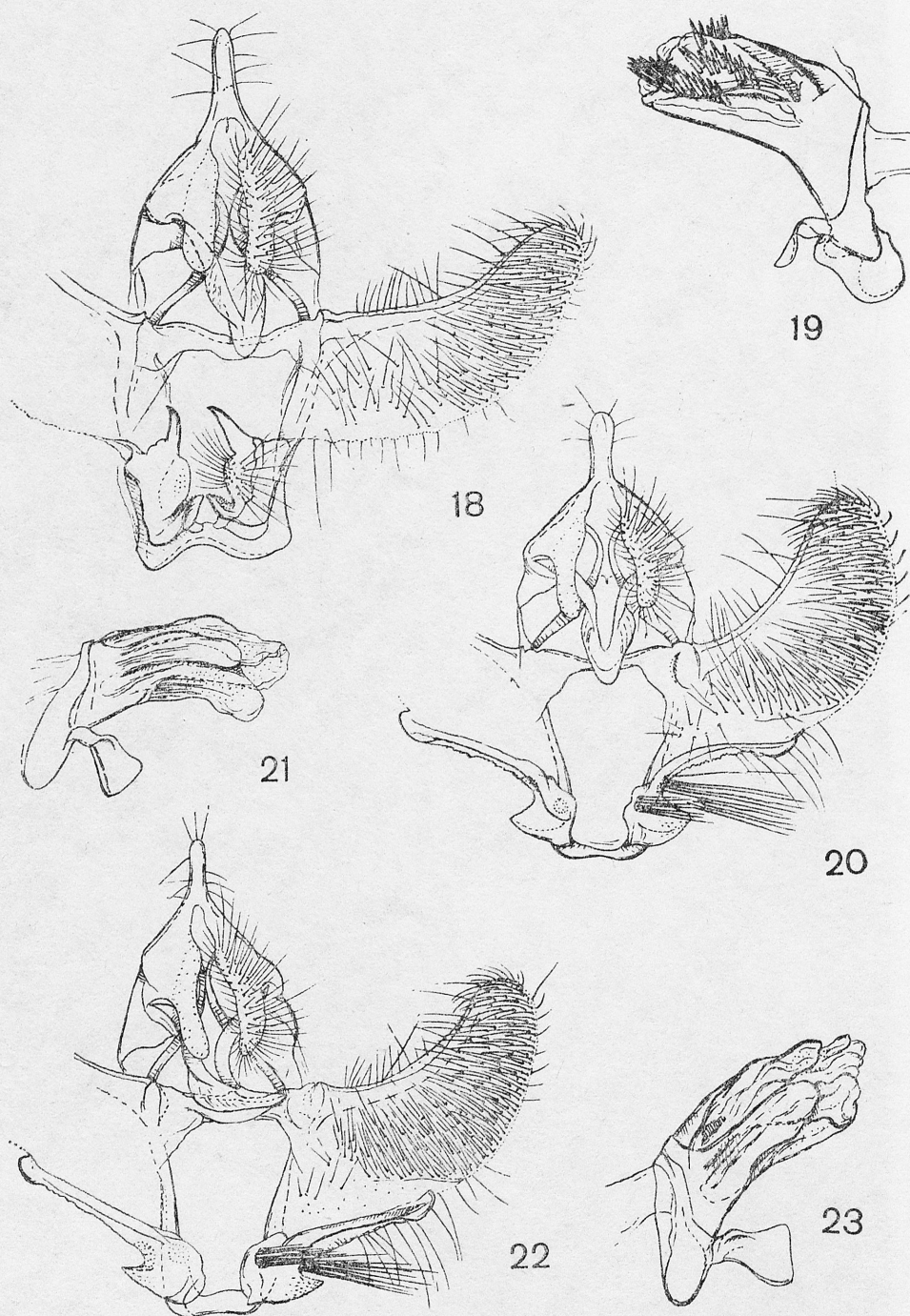
Figs. 1—4. Male genitalia of *Clarkeulia* RAZ.: 1, 2 — *C. lacrimosa* sp. nov., holotype;  
3, 4 — *C. licea* sp. n., holotype



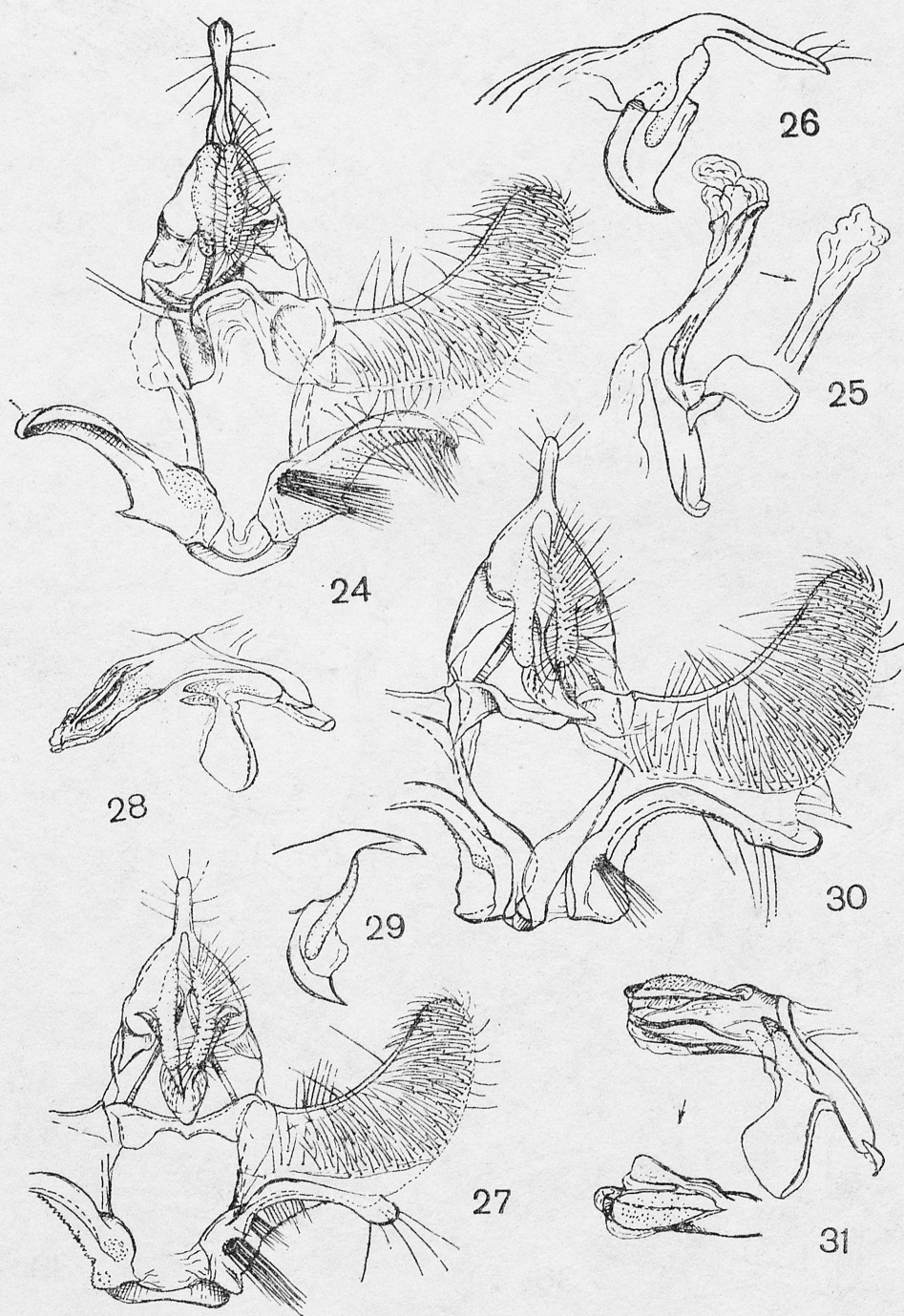
Figs. 5—12. Male genitalia of *Clarkeulia* RAZ.: 5—8 — *C. simera* sp. nov., holotype; (8 — aedeagus, dorsal view); 9, 10 — *C. craterosema* (MEYR.), Joinville; 11, 12 — *C. sp.* near *craterosema*, Brusque (12 — aedeagus, dorsal view)



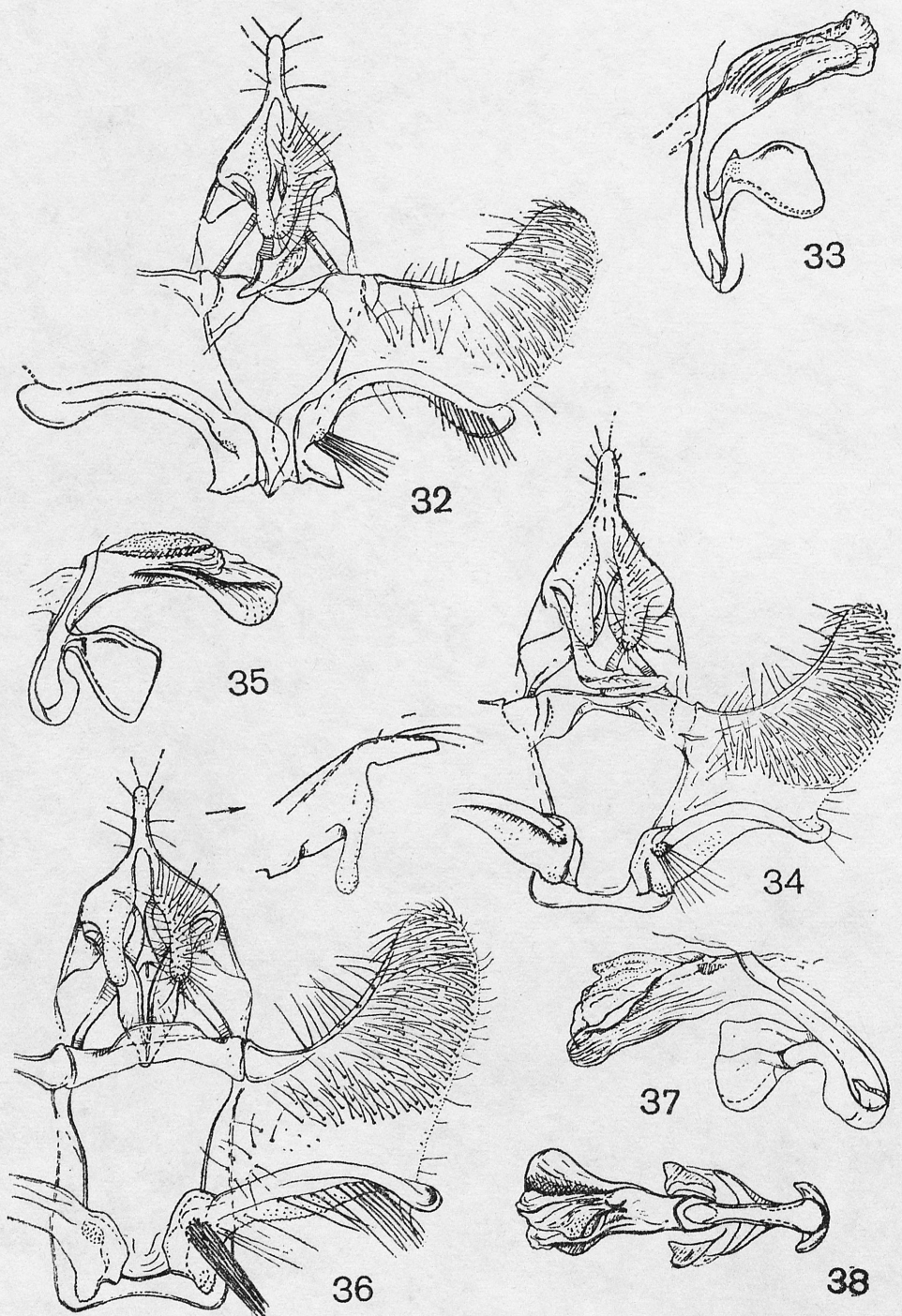
Figs. 13—17. Male genitalia of *Clarkeulia* RAZ.: 13, 14 — *C. exstinctrix* (MEYR.), holotype; 15—17 — *C. sp.* near *exstinctrix*, Marumbi (17 — aedeagus, dorsal view)



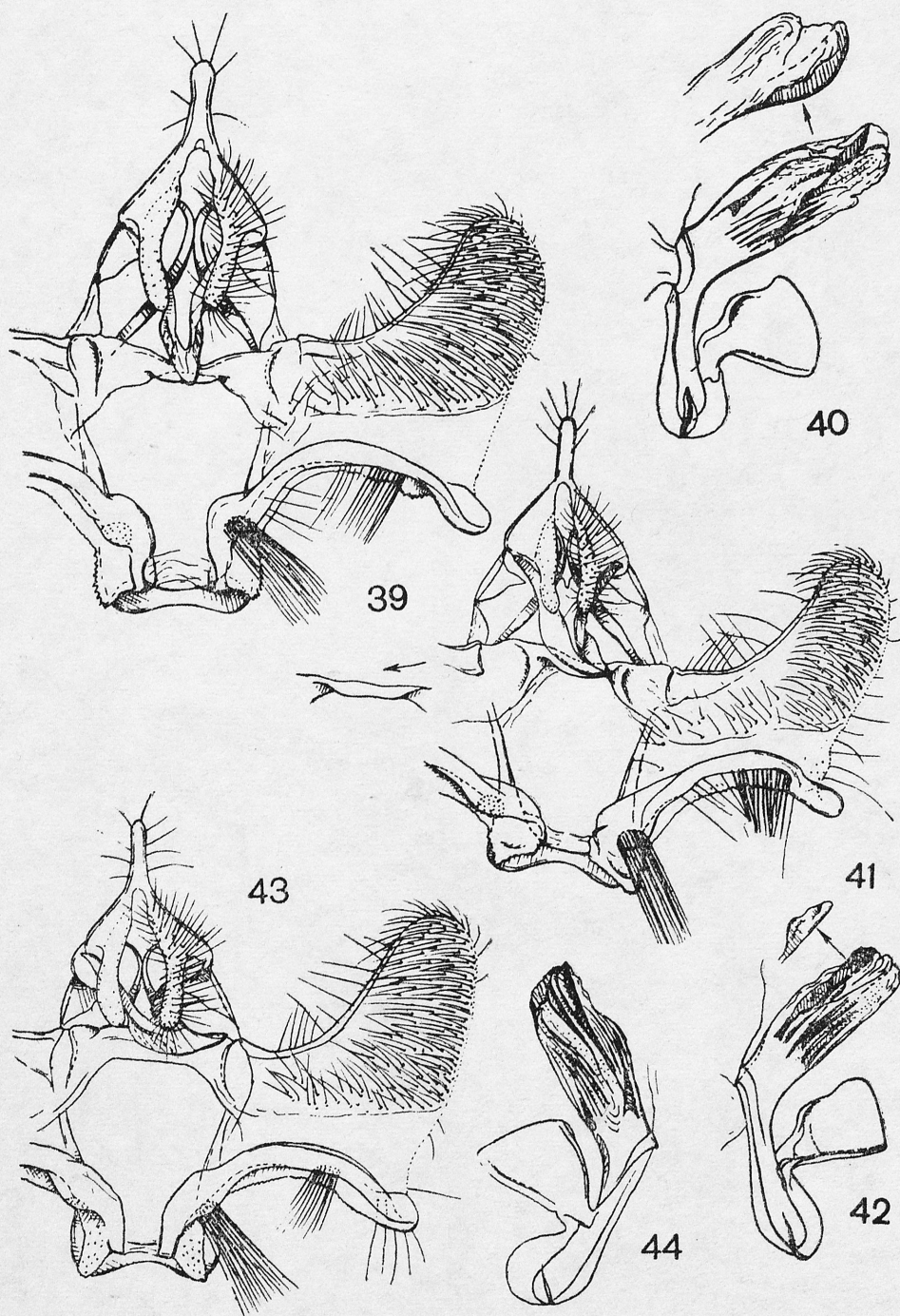
Figs. 18—23. Male genitalia of *Clarkeulia* RAZ.: 18, 19 — *C. sp. near exstinctrix*, Brusque;  
20, 21 — *C. episticta* (CLARKE), Curitiba; 22, 23 — *C. sp. near episticta*, Sete Lagoas



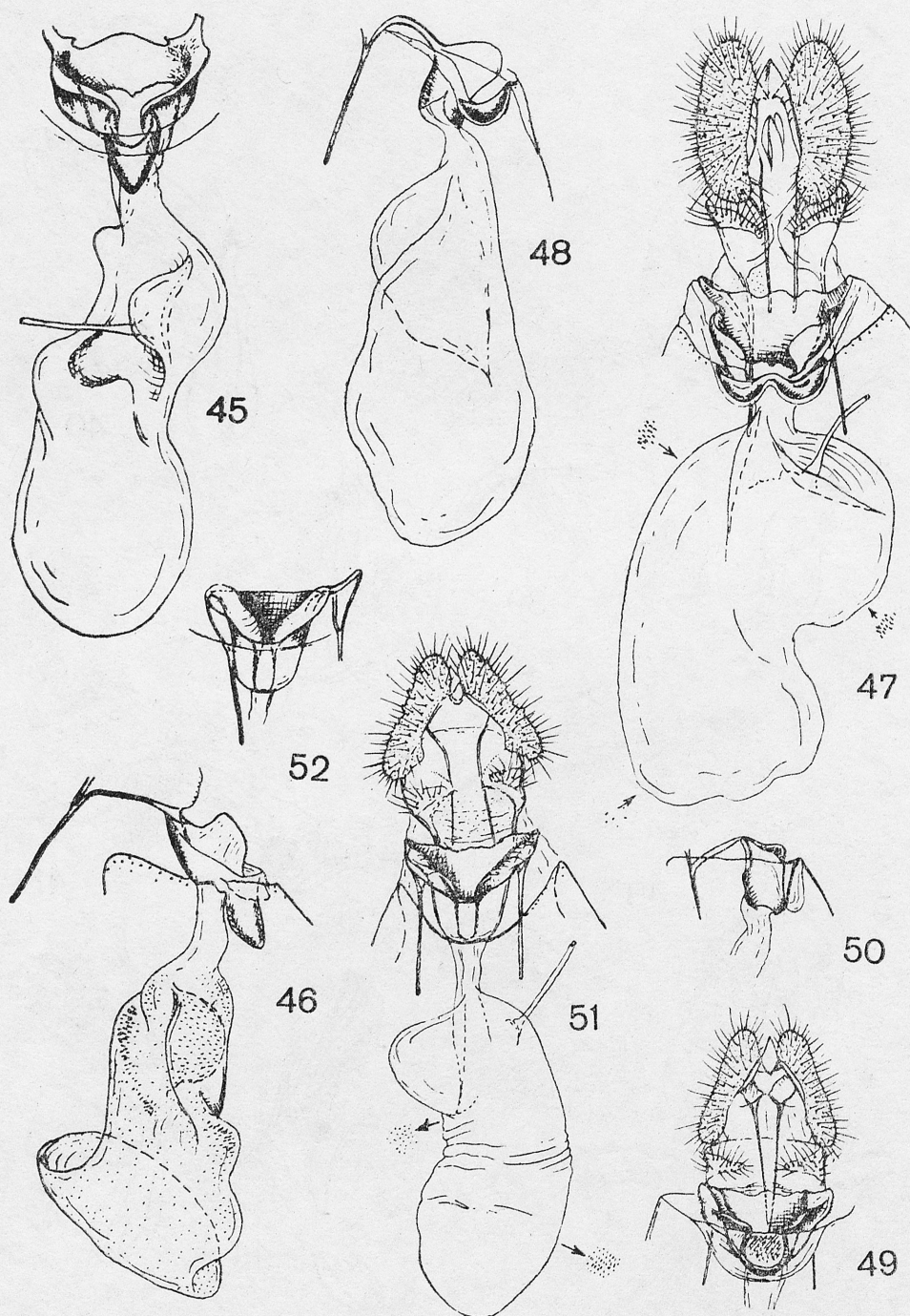
Figs. 24—31. Male genitalia of *Clarkeulia* RAZ.: 24—26 — *C. placabilis* sp. nov., holotype; 27—29 — *C. umbrifera* sp. nov., holotype; 30, 31 — *C. malsa* sp. nov., holotype; 26, 29 — distal part of tegumen, laterally



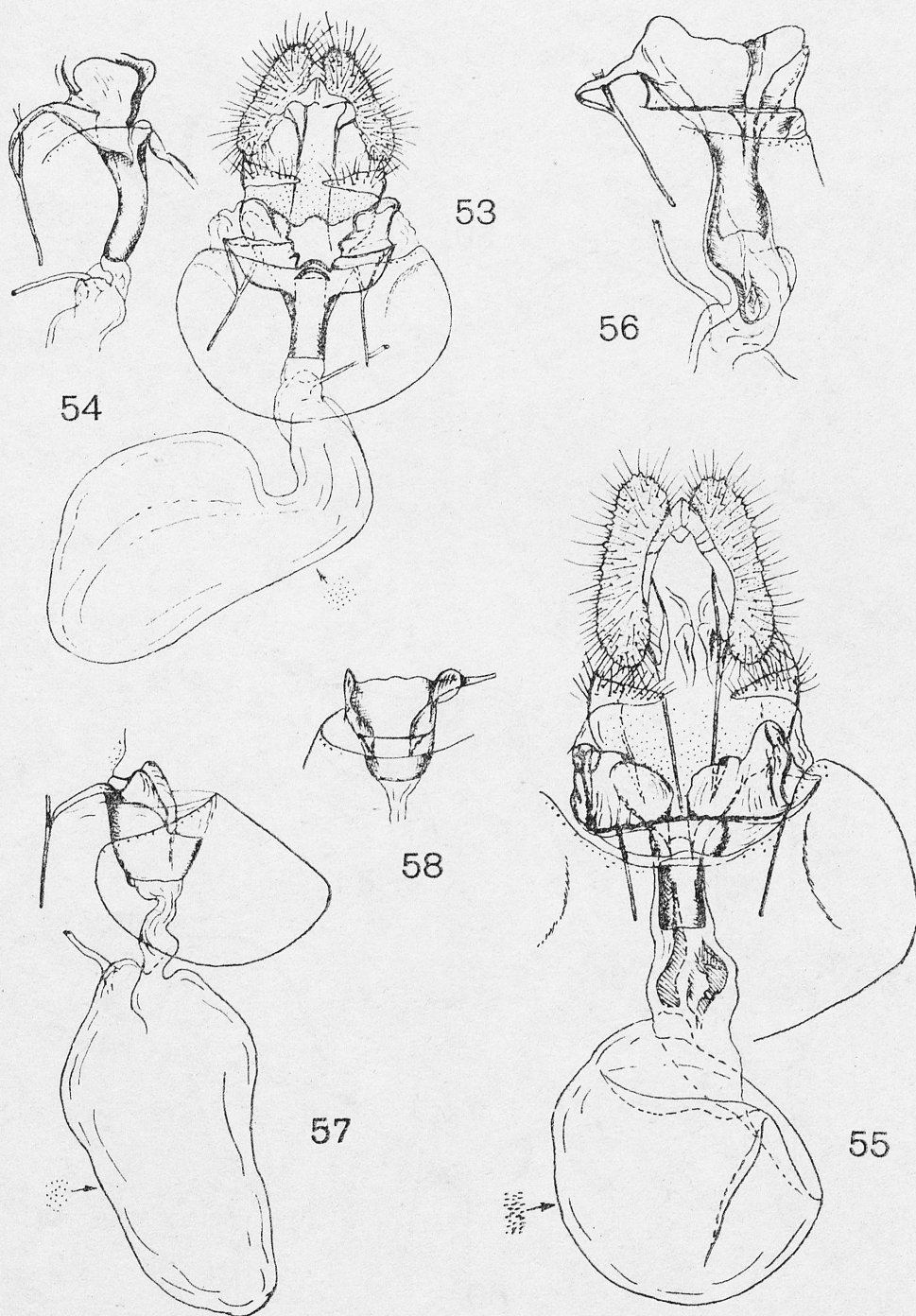
Figs. 32—38. Male genitalia of *Clarkeulia* RAZ.: 32, 33 — *C. expedita* sp. nov., holotype; 34, 35 — *C. perversa* sp. nov., holotype; 36—38 — *C. ardalio* sp. nov., holotype (38 — dorsal view of aedeagus)



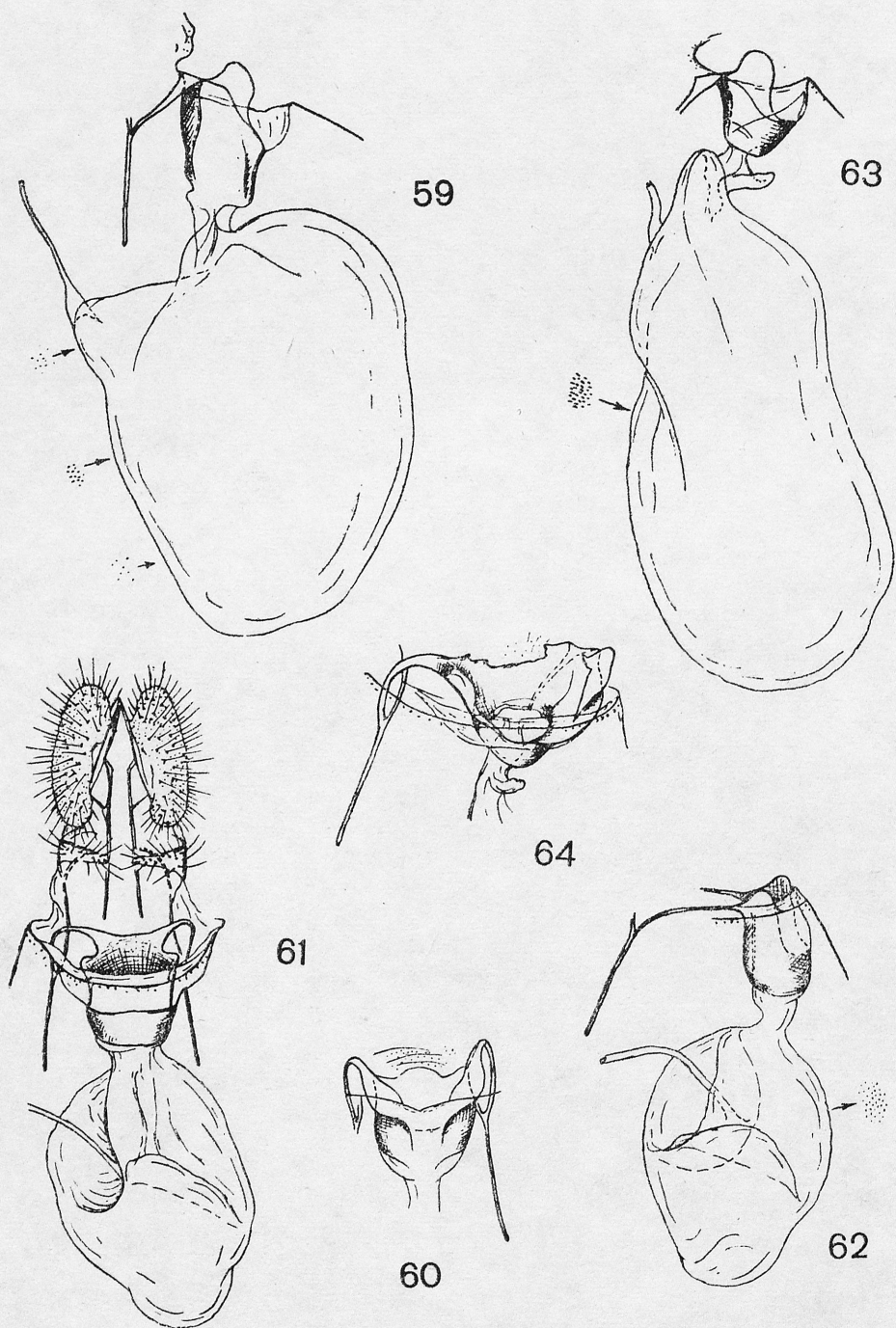
Figs. 39—44. Male genitalia of *Clarkeulia* RAZ.: 39, 40 — *C. fortuita* sp. nov., holotype;  
 41, 42 — *C. egena* sp. nov., holotype; 43, 44 — *C. mediana* sp. nov., holotype



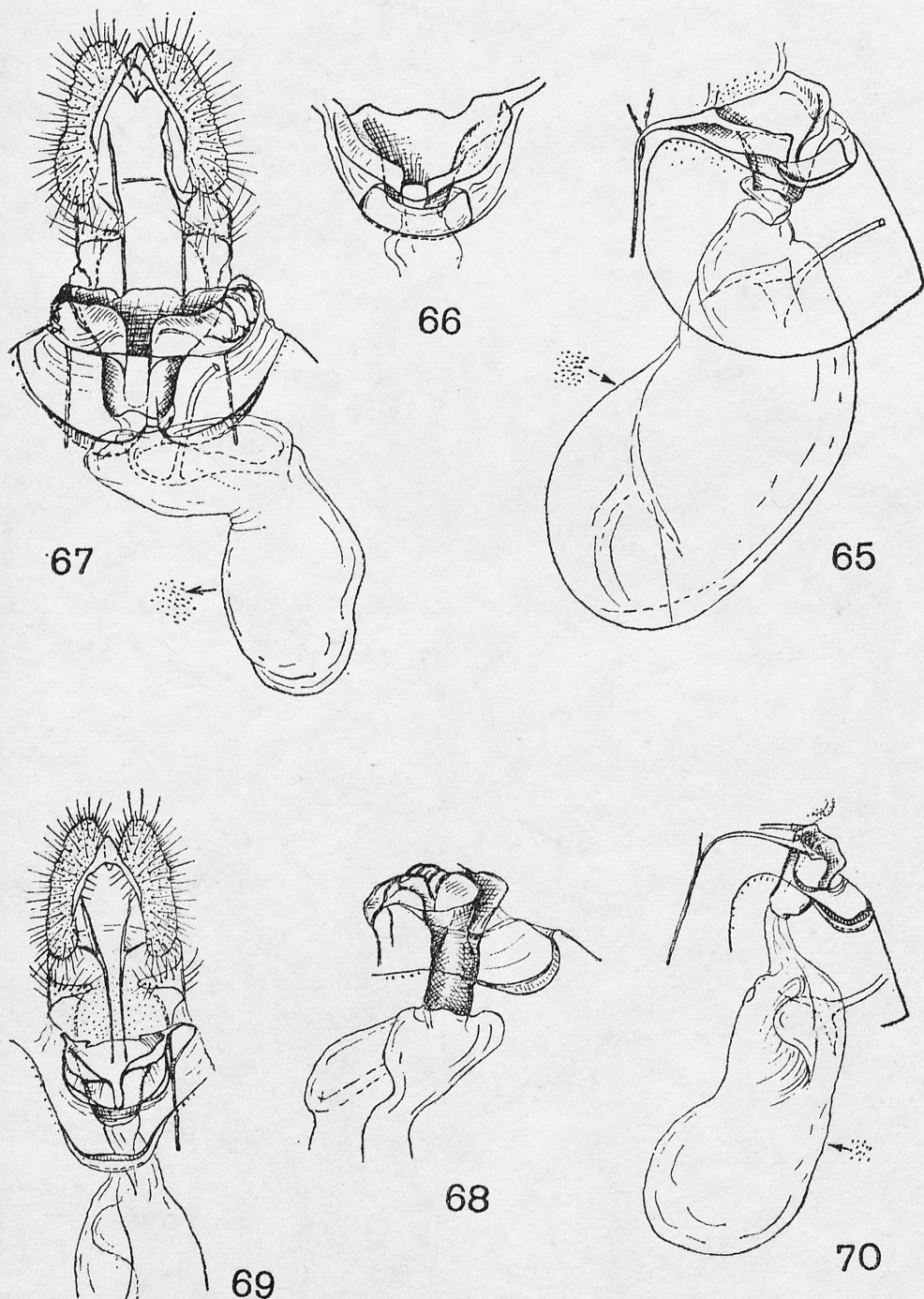
Figs. 45—52. Female genitalia of *Clarkeulia* RAZ.: 45, 46 — *C. sp.* near *separabilis*, Planaltina; 47, 48 — *C. aerumnosa* sp. nov., holotype; 49, 50 — *C. oreographa* (MEYR.), Paranaguá; 51, 52 — *C. deceptiva* (CLARKE), Curitiba



Figs. 53—58. Female genitalia of *Clarkeulia* RAZ.: 53, 54 — *C. bourquini* (CLARKE), Curitiba; 55, 56 — *C. dubia* sp. nov., holotype; 57, 58 — *C. episticta* (CLARKE), Curitiba



Figs. 59—64. Female genitalia of *Clarkeulia* RAZ.: 59, 60 — *C. sepiaria* (RAZ.), Banhado; 61, 62 — *C. dimorpha* (CLARKE), Curitiba; 63, 64 — *C. conistra* sp. nov., holotype



Figs. 65—70. Female genitalia of *Clarkeulia* RAZ.: 65, 66 — *C. aulon* sp. nov., holotype; 67, 68 — *C. ardalis* sp. nov., paratype; 69, 70 — *C. mediana* sp. nov., paratype

