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Brazilian Cochylidii (Lepidoptera, Tortricidae)

[with 129 text-figs.]

Brazylijskie Cochylidii (Lepidoptera, Tortricidae)

Abstract. The Brazilian *Cochylidii* are revised with exception of the genus *Irazona* RAZ. Of total number of 45 discussed species 34 are described as new. The paper contains also the descriptions of 6 new genera.

INTRODUCTION

The present paper is the first revision of the Brazilian Cochylidii. The hitherto data have been published in three papers, viz., in those by Meyrick (1932), Razowski (1967) and Clarke (1968). Those publications provide the descriptions or distribution data of 15 species. Three of them belong in the genus Irazona Razowski (I. dolorosa (Meyrick), comb. nov. from Jaragua, Santa Catarina, I. serena (Clarke), comb. nov., from Nova Teutonia, Santa Catarina and I. penthinana Razowski from Petropolis, Rio de Janeiro), six other species have been found in our material and they are listed in the present paper and six ones (Saphenista aetheria (Razowski), comb. nov. from São Paulo; Aethes jonesi Razowski, Ae. austera Razowski, Spinipogon trivius Razowski, Cochylis olivana Razowski all from Castro, Parana and Lorita abornana Busck discovered in Obidos, Santarem and Para) have not been recorded now. One species, viz., Cochylis argentinana Razowski recorded now from Mato Grosso was mentioned by Razowski (1967) from Rio de Janeiro but in this case the determination was most probably incorrect (c. f. p. 434).

The Brazilian Cochylidii are still insufficiently known as only more complete collections have been done in a few localities in Parana and Santa Catarina. Besides some collection have been realised in the Federal District and in Mato Grosso. Very few specimens have been taken in São Paulo and in Amazonas. Judging on the number of the species discovered in Parana and Santa Catarina one can suppose that the Cochylidii should be represented in Brazil by at least 150—200 species.

The material studied has been collected during several years by the second author mainly in Parana and by Aniela Razowska and the first author in 1973 and 1975/1976 mainly in Santa Catarina. The holotypes are deposited in the collection of the second author.

Saphenista nauphraga sp. nov.

Labial palpus ca. 1.5, pale cream; head and thorax rather concolorous. Forewing 4—5 mm, slender, slightly broadening medially; costa somewhat convex, mostly in middle; termen oblique, weakly convex. Ground colour whitish to cream, with pearl gloss; pattern pale yellowish brown to brownish, often marked with brown at the veins or along costal edges consisting of dorso-basal, slender triangle, two longitudinal blotches in median area of wing, one in median cell, another subdorsally, accompanied by slender costal triangle extending from beyond middle of costa. Oblique fascia from 2/3 of costa to before tornus, tapering terminally. Elongate, indistinct shades beyond two median blotches. Fringes darker than ground colour; hindwing brownish grey with greyish cilia.

Variation: In dark specimens ground colour among the pattern elements suffused with brownish and the pattern distinct. In pale examples pattern showing a tendency to reduction but median blotches usually remain distinct.

Male genitalia (figs. 1,2): Socii long, situated on tegumen sublaterally, top of tegumen rounded, convex; median portions of vinculum distinctly expanding proximally. Valva strong, upcurved; sacculus slender. Aedeagus slender, with distinct terminal projection; caulis postmedian; cornutus slightly bent, almost half a length of aedeagus.

Scent organ (fig. 3) in form of pair of ventral prominences of sixth sternite.

Their terminal portions sack-shaed, long hairy.

Female genitalia (fig. 75, 76): Papilla analis large; antrum short; sterigma in form of dorsal sculptured sclerite terminating in distinct ribs connecting apophyses anteriores. Ductus bursae hardly differentiating; corpus bursae sculptured except for anterior, tapered portion; ductus seminalis dorso-proximal; accessory bursa dorsal, from juncture of corpus bursae and ductus bursae rather medially.

Holotype, male: "Brusque, Santa Catarina, Brasil, 28. 12. 1969, V. O. Becker col.", G. S. 21593. Paratypes: 13 males and females of which 8 labelled identically as the holotype, 3 from Banhado, Quatro Barras, Paraná, collected by V. O. Becker on altitude of 800 m, the 9. V. and 7. II. 1970 and 22. V. 1971. One paratype from Rio Vermelho, Santa Catarina collected 2. III. 1973 on altitude of 968 m by A. & J. Razowski and one from São Paulo collected by E. D. Jones in 1895, the latter in the collection of the BM (NH).

Comments. The new species is very close to S. multistrigata WALSINGHAM known from Vera Cruz, Mexico differing from it mainly in slenderer aedeagus

and cornutus.

Saphenista consona sp. nov.

Labial palpus ca. 1.5, orangeous, cream distally; head and thorax orangeous front white-cream. Forewing 5 mm in male, 7 mm in female, slightly expandin, terminally, with costa bent at 3/4; termen oblique, hardly convex. Groung colour glossy cream suffused with orangeous; pattern dark orange mixed brownish or rust especially in distal third of wing. Costa suffused to beyond middle, dorso-basal triangle diffuse, reaching median blotch, dorsal blotch typical, mixed with brown (distinct especially in female); rust spots or shades between median markings and oblique subterminal fascia. Fringes rather concolorous with pattern. Hindwing orange cream, cream towards base; fringes cream, mixed with brownish at apex.

Variation probably slight. Male paratype with brownish shades and suffusions in dorsal area of forewing, female paratype characterized with strong, brownish dorsal blotch. Pattern more or less distinctly edged with refractive silver scales.

Male genitalia (figs. 4—6) as in the preceding species but socii shorter, more broadening apically, top of tegumen slenderer and longer, valva slenderer, with smaller sacculus and with well sclerotized edges of pocket like structure of internal wall situated near base. Aedeagus with broader termination; cornutus slenderer. Transtilla characterized with long central part terminated with smaller than in nauphraga terminal prominences.

Scent organ in from of unpaired, ventral prominences of sixth and seventh (smaller) segments. Fifth sternite with hardly visible prominence.

Female genitalia (fig. 77): Sterigma membranous except for distal portions connecting the apophyses; antrum somewhat broader than ductus bursae, membranous except for distal portion where somewhat more strongly solerotized and sculptured. Sack-shaped process before middle length of ductus bursae partially hidden in solerotized ventro-lateral concavity; corpus bursae elongate, membranous, densely scobinate. Accessory bursa consisting of long duct and small corpus, from basal portion of ductus bursae dorso-laterally; ductus seminalis from beyond middle of corpus bursae dorsally.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil, 800 m., 27. II. 1971, Becker & Laroca", G. S. 21581. Paratypes: male: "Guaraquecaba, PR [Parana], 7. XII. 1970, V. O. Becker col." and female labelled as the holotype but dated 29. V. 1970.

Saphenista cordifera (MEYRICK), comb. nov.

The determination of this species is doubtful. In 1967 I have determined the specimens from Parana as cordifera on basis of a comparison of the holotype of this species. Unfortunately it lacks the abdomen. Now I have found that the males of this group of species do not show any genital differences while their females are easily distinguished. Before additional, larger malerial is

available I cannot decide whether the previous determination was correct or the Brazilian population represents a distinct species. The redescriptions of the genitalia of the specimens from Parana are as follows.

Male genitalia (figs. 7, 8): Basal halves of socii fused; proximal portion of vinculum expanding, ventral parts very long. Valva slender; sacculus stout with flattened process extending from costal area of valva. Aedeagus with long terminal portion; cornutus long, slender, curved. Lateral parts of transtilla broad, central part long, expanding apically; juxta small.

Female genitalia (figs. 78, 79): Papilla delicate; sterigma consisting of broad lateral sclerites fused with median membranous area in middle of which two ovate, minutely spined patches are present. Immediately below them, at the end of ductus bursae extends flat, curved sack. Ductus bursae slender, built of thick, lengitudinally folded membrane, membranous in distal part dorsally, marked with small ventral prominence before the end ventrally. Corpus bursae rounded, densely spined, somewhat produced in middle ventrally, with ductus seminalis extending from middle of this prominence.

About 100 specimens collected in Banhado, Quatro Barras (Parana) in February, April, May and June, and some in Guaraquecaba, also Parana in December.

Saphenista squalida sp. nov.

Labial palpus about 1.5, pale ochreous cream, remaining parts of head and thorax rather concolorous. Forewing 4 mm, slender, with weakly convex costa and oblique termen. Ground colour pearl cream, darkening towards base of wing, pale, distinctly shining between median and subterminal markings. Pattern ochreous, diffuse; median fascia divided into three parts, subterminal fascia reduced to costal spot. Brown dots on pattern at disc and subterminally. Fringes slightly paler than pattern. H ndwing pale brownish with cream fringes.

Variation. In pale specimens pattern almost completely diffused, in dark examples often median fascia represented by two or three longitudinal markings of which the median is the darkest, brownish. Subterminal fascia often distinct, reaching end of termen, variable in shape. Brown dots occasionally distinct. Forewing in the largest specimens 5 mm long.

Male genitalia (figs. 9, 10): Socii fused almost to the tops, slightly tapering postbasally; top of tegumen small, subtriangular, long hairy. Vinculum arm slender, short. Valva with tolerably straight costa; sacculi rather asymmetrical, convex ventrally, provided with dorso-terminal arch-shaped sclerites. Central part of transtilla broad, subtriangular in basal half, thin distally. Juxta small. Aedeagus thick, sharp ventro-apically; cornutus weakly bent.

Scent organ in form of indistinct unpaired median prominences of posterior edges of fifth and sixth sternites.

Female genitalia (fig. 80): Antrum cup-shaped, followed by small, distinctly sclerotized dorsal diverticle. Ductus bursae short, membranous; corpus bursae

with large, sclerotized folds and dorso-lateral preminence provided with long spines surrounding median concavity. Duetus seminalis subventral; accessory bursa dorso-lateral.

Comments. The new species is very close to S. ochracea (RAZOWSKI), comb. nov. from Ecuador differing mainly in the shape and size of the aedeagus and cornutus.

Heletype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 7. II. 1970, V. O. Becker col.", G. S. 21588. Paratypes: 2 males and 3 females labelled identically as the holotype; 1 male: "Curitiba, Paraná, Brasil — 920 m, 5. II. 1970, V. O. Becker col." and 10 males labelled: "Brazylia, Santa Catarina, Rio Vermelho, 968 m, 20. II. 1973, A. & J. Razowski".

Saphenista pellax sp. nov.

Externally very similar to the preceding species but forewing scmewhat slenderer and termen more straight and distinctly oblique. Ground colour more whitish, pattern more ochreous cream but median marking of median fascia mixed with brown. Subterminal fascia slender but distinct, broadening costally, followed by some spots; oblique suffusion between median markings and subterminal fascia. Fringes somewhat darker than ground colour. Hindwing greyish with paler fringes.

Male genitalia (figs. 11, 12): Socii similar to those in the preceding species but with deeper apical incisure and stronger dorsal sclerite situated postbasally. Sacculi asymmetrical: right sacculus larger, strongly convex ventrally, terminating in long process, left sacculus more flattened ventrally, with very short terminal process. Base of central part of transtilla subtriangular, short, its slender portion much longer than in squalida, terminating similarly as in it in two minute spines. Aedeagus slender.

Comments. The new species is easily distinguished by its genitalia and externally differs from the former in lack of pale portion of the ground colour between median and subterminal pattern. The female remains unknown.

Heletype, male: "Benhado, Quatro Barras, Paraná, Brasil — 800 m, 7. II. 1970, V. O. BECKER col.", G. S. 21590.

Saphenista unguifera (RAZOWSKI), comb. nov.

In the original description the shape of the socii was incorrectly interpreted (demaged in the helotype) and in the female of the ductus seminalis and accessory bursa not mentioned. The redescription of the genitalia is as follows.

Male genitalia (figs. 13, 14): Socii shorter than in the preceding species, indistinctly incised distally, tapering towards tegumen. Valva long, sacculus rounded apically, with distinct dorsal fold extending beyond valva as a sharp process. Central part of transtilla thin, long. Aedeagus bent; cornutus proportionally short.

Female genitalia (figs. 81, 82): Sterigma broad with rounded median portions of distal lobes; antrum short; ductus bursae membranous; corpus bursae provided with ventro-lateral sclerite and small subdorsal fold. Ductus seminalis from distal part of corpus bursae, latero-ventrally; accessory bursa from base of ductus bursae, dorsally.

This species was described from Castro, Parana and São Paulo. New distribution data are as follows: Banhado, Quatro Barras and Curitiba (Parana) and Brusque and Rio Vermelho (Santa Catarina). The moths were collected

from February to December. About 20 specimens.

Saphenista luminosa sp. nov.

Externally very similar to S. pellax sp. nov. but with light pinkish hue of glossy ground colour. Shape of pattern rather irregular, black scales of distal edge of median fascia and subterminal pattern variably developed and

arranged.

Male genitalia (figs. 15—17): Tegumen broad, with distal portion arranged horizontally; socii long, directed ventro-distally. Valva broad basally, slender in distal half; sacculus slender, weakly convex; transtilla thick medially with long central part; vinculum producing ventro-proximally, with arms connected by means of strong membrane or almost completely fused to form weak saccus. Aedeagus extremely large, somewhat flattened laterally, tapering apically, with distinct coecum; cornutus very large, swung; caulis subterminal.

Scent organ (fig. 18) in form of large, bifurcate process of sixth sternite

directed distally.

Comments. The new species is closely allied to Saphenista heterophaea

(CLARKE), comb. nov. known from Colombia.

Holotype, male: "Brusque, Santa Catarina, Brasil, 28. XII. 1969, V. O. BEC-KER col.", G. S. 21585; paratype, male, identically labelled.

Saphenista ficta sp. nov.

Head and thorax whitish cream, labial palpus except for distal portion rust laterally. Forewing as in preceding species but with more oblique termen. Ground colour whitish cream suffused with yellowish, glossy, in dorsal and terminal parts of wing suffused with ferruginous, with indistinct violet shine. Pattern rust-brown in form of strong, oblique subterminal fascia reaching before middle of termen. Median pattern atrophied, marked by some blackbrown dots medially. Fringes whitish cream with pale ochreous basal line. Hindwing with long apical portion, brownish grey; fringes whitish.

Variation. Some specimens with pale ground colour and ochreous suffusion in median and distal parts of wing, one example with dark shades and rust

remainders of median fascia and similar costal suffusion.

Male genitalia (figs. 19, 20) as in precedings species but with broader base of socii and thicker vinculum the arms of which are connected by weaker membrane. Valva slenderer; central part of transtilla shorter, gradually tapering spically. Aedeagus much shorter, broader, with very small cornutus.

Scent organ (fig. 21) as in preceding species, however, the processes are shorter.

Female genitalia (figs. 83, 84): Sterigma distinctly produced ventrally and laterally, minutely spined; antrum broadening medially, producing in middle ventrally, with rather weakly sclerotized median area. Corpus bursae with flat dorso-posterior prominence edged with spines, marked with smaller spines in ventral area; ductus bursae short, somewhat sclerotized ventrally beyond base of ductus of the accessory bursa; ductus seminalis from dorsal prominence of bursa copulatrix.

Holotype, female: "Curitiba, Paraná, Brasil — 920 m, 14. X. 1974, V. O. Becker col."; paratypes: one female identically labelled as the holotype, male and female with labels "Banhado, Quatro Barras, Paraná, Brasil — 800 m, V. O. Becker col.", collected 28. XII. 1970 and 7. II. 1970 and 3 females labelled "Brazylia, Santa Catarina, Rio Vermalho 968 m, 19 [and 20]. II. 1973, A. & J. Razowski".

Saphenista dyas sp. nov.

Labial palpus and front cream (remaining parts of head damaged), thorax brownish. Forewing 4 mm, with costa rather uniformly convex; termen oblique, slightly curved outwards. Ground colour grey-cream, glossy, suffused and sprinkled with grey-ochreous. Median fascia ill-defined, ochreous, diffuse, terminal pattern consisting of brownish strigulae. Fringes paler than terminal part of wing. Hindwing greyish with paler fringes.

Male genitalia (figs. 22, 23): Base of socii tapering proximally; socius directed ventrally, fairly long. Arm of vinculum broadening subterminally; saccus small. Valva slender; sacculus delicate, weakly convex; central part of transtilla broad especially in basal half. Aedeagus slender, with asymmetrical termination; cornutus absent.

Holotype, male: "Brusque, Santa Catarina, Brasil, 28. XII. 1969, V. O. Bec-Ker col.", G. S. 21623; one paratype, also male, identically labelled.

Saphenista astricta sp. nov.

Head, thorax and forewing as in preceding species, but pale cream in colour. Ground colour sprinkled with ochreous; costa and partially termen dotted with grey, base of wing weakly suffused with ochreous cream. Pattern pale brownish cream, median fascia divided into two or three parts, the dorsal of which atrophying; subterminal fascia distinct costally, diffuse at tornus.

Fringes concolorous with ground colour. Hindwing pale brownish grey; fringes whitish.

Variation: median fascia occasionally weakly developed, preserved in costal area of wing.

Male genitalia (figs. 24, 25) as in preceding species but socius longer, central part of transtilla slenderer and longer and aedeagus with symmetrical end.

Female genitalia (fig. 85): Distal edge of sterigma weakly sclerotized but with distinct median cup-shaped sclerite directed dersally; apophyses delicate; antrum cup-shaped, membranous dorsally; ductus bursae very short; corpus bursae rather ovate, partially spined and weakly sclerotized dorso-laterally above weak feld of right side. Delicate, membranous fold surrounding convex, spined area situated beyond middle dorsally, from behind which both ducts arise.

Helotype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 26. III. 1971, Becker & Laroca", G. S. 21592; Paratypes, male and female also from Banhado, female taken the 5. VI. 1970, male the 7. II. 1970 by V. O. Becker, 3 males labelled "Brazylia, Santa Catarina, Rio Vermelho, 968 m, 20. II. 1973, A. & J. Razowski" and 1 male with label "Brazylia, Parana, Rio Negro, 900 m, 9. II. 1973, A. & J. Razowski".

Saphenista horrens sp. nov.

Labial palpus as in preceding species; head and thorax somewhat browner; forewing more ochreous, with ground colour strigulated and spotted with ochrecus-brown; pattern brown at costa, paler, more ochreous in median and dersal parts of wing except for subterminal fascia which is uniformly coloured, dark scaled on edges, followed by some three apical spots. Fringes concolorous with ground colour, divided with brown to mid-termen. Hindwing brownish with slightly paler, more cream fringes.

Female genitalia (figs. 86—88) as in the following species but with shorter antrum and more strongly sclerotized sterigma provided with scmewhat larger cup-shaped concavity; ductus bursae longer, with larger sclerite entering far into corpus bursae; the latter partially sclerotized, with numerous small thorns; ductus seminalis broad basally, extending from middle of dorsal area of corpus bursae; no convex, spined area characteristic for *S. fatua* sp. nov.

Helotype, female: "Brazylia, Santa Catarina, Rio Vermelho, 968 m, 19. II. 1973, A. & J. RAZOWSKI", G. S. 21629.

Saphenista fatua sp. nov.

Very similar to the preceding species but more ochreous brownish in shade. Ground colour suffused, pattern marked with some groups of brown scales. Hindwing brownish with paler fringes.

Female genitalia (figs. 89-91). Sterigma with sclerotized, cup-shaped con-

cavity in middle of distal edge; antrum cup-shaped, membranous dorsally; ductus bursae tapering distally, produced towards antrum dorsally; corpus bursae marked with weak sclerotizations and distal folds situated ventrally. Large, obliquely transverse fold developed, accompanied by a smaller, incomplete emargination situated just before base of ductus seminalis. Ductus of accessory bursa extending from ductus bursae, rather medially.

Ormments. The pattern of this species is very similar to that in three preceding species in which the coloration is rather variable. Brown suffusion of dorsal half of the proximal edge of the median fascia is probably characteristic of the species in question.

Holotype, female: "Brazylia, Santa Catarina, Rio Vermelho, 968 m., 20. II. 1973, A. & J. RAZOWSKI"; G. S. 21628.

Saphenista brilhanteana sp. nov.

Labial palpus as in all preceding species, cream, more ochreous brownish laterally, front cream, remaining parts of head more olive-brown, thorax concolorous. Forewing slightly broader; ground colour cream with admixture of olive-grey and with somewhat darker suffusions. Pattern ochreous-olive, subterminal fascia strong, costal portion of median fascia short, both wedge-shaped; remaining parts of median fascia elongate, the central arranged vertically, the subdorsal rather oblique marking beyond the disc reaching almost end of subterminal fascia. Fringes darker than ground colour. Hindwing brownish grey with paler fringes.

Female genitalia (figs. 92, 93). Medio-terminal, cup-shaped sclerite of sterigma smaller than in two preceding species; antrum much broader; ductus bursae short, membranous; corpus bursae broad with fairy strong local sclero-tizations, distinctly convex along middle ventrally, with deep dorsal concavity postmedially; ductus seminalis and accessory bursa extending at the end of dorsal concavity.

Helotype, feminale: "Rio Brilhante, M. Grosso, Brasil, 24. X. 1970, BECKER leg.", G. S. 21591.

Saphenista remota sp. nov.

Labial palpus ca. 2, cream, mixed with ochreous laterally except for terminal portion; remaining parts of head and thorax concolorous but tegula with ochreous scales. Forewing ca. 6 mm, somewhat expanding terminally, with costa weakly convex and with tolerably straight costal half of termen. Ground colour pale yellowish cream with more organge-ochreous suffusion; pattern somewhat darker than suffusions, with some addition of brown. Median fascia distinct except for dorsal third, marked with group of brown scales in middle; subterminal fascia slender, rather weak; small costal marking ad wing base.

Fringes concolorous with suffusions; hindwing broad, cream, grey on peripheries; fringes cream with greyish median line.

Male genitalia (figs. 26—28): Tegumen short; vinculum arms not coalescent ventrally; socius small, rounded, weakly expanding ventro-distally. Valva broad to middle, tapering terminally, with strong base of costa. Central part of transtilla thin, curved; basal portions very long, expanding ventrally. Aedeagus flattened dorso-ventrally, with short coecum penis, dorsally opened until short membranous area following the opening for ductus ejaculatorius. No cornuti in vesica. Caulis extremely short; juxta short, with extending dorso-lateral portions.

Comments. The species in question is distinct externally differing from all preceding species in the shape of the socii which are very short and directed ventro-distally.

Holotype, male: "Cambuí, M.[ato] G.[rosso], 8. VI. 1970, V. O. BECKER col.", G. S. 21609.

Saphenista paliki sp. nov.

Labial palpus ca. 2; head and thorax yellow-brown. Forewing ca. 6 mm, subtriangular; costa tolerably straight; termen straight, oblique; ground colour brownish yellow, dorsum more cream; yellow-brown transverse strigulation and some black costal dots present, similarly coloured dot near middle of termen. Fringes concolorous with ground colour, with black scales beyond apex. Hindwing pale brownish grey with similar fringes.

Female genitalia (figs. 94, 95): Papilla analis strong, armed with distinct protuberances; apophyses short; dorsal wall of sterigma well sclerotized, lateral portions dentate, directed ventrally; ostium bursae protected by ventral membrane forming sublateral flat pockets; antrum fairly well sclerotized; ductus bursae flattened dorso-ventrally, bent near middle, provided with some longitudinal folds; corpus bursae partially well sclerotized, spined, marked with distinct postmedian pocket-shaped fold of ventral side and smaller, longitudinal dorsal fold. Ductus seminalis extending form most proximal portion of corpus bursae; accessory bursa originating from medio-lateral part of ductus bursae, ventrally.

Comments. The present species is very characteristically coloured and distinct by female genitalia. It is named in honour of Mr. Edward Palik, the lepidopterist of Cracow.

Holotype, female: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 24. IV. 1971, BECKER & LAROCA", G. S. 21626.

Saphenista paranae sp. nov.

Labial palpus over 2; head and thorax grey (damaged). Forewing 5 mm, slender; costa weakly convex; termen oblique, slightly convex. Ground colour pale cream grey, distinctly suffused with grey beyond median fascia, strigu-

lated and sprinkled with brownish grey. Median fascia indistinct, brown-grey in costal portion, well developed, brown in dorsal part forming distinct dorsal blotch. Subterminal marking in form of costal blotch and subterminal shade both concolorous with costal part of median fascia, the latter scaled with black posteriorly. Fringes darker than ground colour with brown scales and greybrown median line. Hindwing greyish, darker on peripheries; fringes pale grey.

Male genitalia (figs. 29, 30). Valva slender; sacculus short, rounded ventrally. Socii very short, situated on plate almost completely separated from tegumen. Central part of transtilla very strong, bifurcate terminally. Aedeagus bent; caulis large; cornutus swung, scmewhat curved.

Comments. The new species is very similar to S. assector (RAZ.), comb. nov. but differs in the shapes of the socii and the transtilla and in the length of the cornutus. The female is unknown.

Holotype, male: "Mandurituba, PR [Parana], 29. II. 1969, V. O. BECKER col.", G. S. 21627.

Saphenista dubia sp. nov.

Labial palpus as in preceding species, more ochreous laterally, remaining parts of head and thorax more cream. Forewing 6 mm, weakly expanding terminally; termen rather oblique. Ground colour cream with weak ochreous admixture, suffused with ochreous towards base costally and between median and subterminal pattern. Median fascia ochreous olive with grey suffusions in costal half and pale rust in middle area of dorsal portion; subterminal pattern in form of weak, uniformly broad fascia concolorous with costal half of median fascia. Fringes rather concolorous with ground colour. Hindwing brownish grey with paler fringes.

Female genitalia (figs. 96, 97): Sterigma weakly sclerotized, membranously connected with apophyses; antrum partially membranous; ductus bursae with dorsal sclerite fused with sclerites of corpus bursae of which a hoop like one is situated postmedially; major part of corpus armed with capitate spines. Accessory bursa originates near middle of ductus bursae ventrally, ductus seminalis dorsal, from middle of corpus bursae.

Comments. This species is also closely allied with *S. assector* and differs in the coloration and the proportions of the elements of the ductus bursae and antrum. The apophyses are in the new species much shorter than in assector.

Holotype, female: "Rio Brilhante, Mato Grosso, Brasil, 25. X. 1970, Becker leg.", G. S. 21625.

Saphenista mystica sp. nov.

Labial palpus ca. 3, broad, brownish grey; remaining parts of head and thorax concolorous, sprinkled with brown. Forewing 7 mm, hardly expanding terminally; costa almost straight; termen weakly oblique, straight. Ground

colour brownish grey, sprinkled with brown, similarly coloured suffusions and strigulation present. Pattern dark brown, represented by oblique dorsal blotch and much paler, diffuse subterminal marking. Fringes brownish. Hindwing pale brownish grey, more smoky on peripheries, with similar fringes.

Variation: Head, thorax and ground colour of the forewing more or less densely strigulated and suffused with brown. Male paratype pale, with ill-defined brown strigulation and yellowish brown dorsal blotch. Subterminal blotch showing a tendency to atrophy.

Male genitalia (figs. 31, 32) as in *S. paranae* sp. nov. but with much longer aedeagus, proportionally shorter cornutus, longer central part of transtilla and different shape of the socii.

Female genitalia (figs. 98, 99) as in the preceding species but with much shorter apophyses, proportionally shorter antrum and differently shaped sclerites of corpus bursae.

Comments. The differences among this species, S. assector and two preceding species are rather small. The males differ mainly in the shapes of aedeagus and cornutus, the females in the sclerites of the bursa copulatrix, antrum and apophyses. The food plant is known only in the species in question as some speciment have been bred on Parthenium hysterophorus.

Holotype, female: "Corumbá, MG [Mato Grosso], Brasil, 20. VIII. 1975, P. Mc Fadyen col.", G. S. 21600. Paratypes: 2 females labelled as above and 2 females and 1 male with labels: "MS [Mato Grosso], Corumbá, on *Parthenium hysterophorus*, Clyde H. Wild" dated 28. Sept. 1978, 11. Oct. 1978 and April, 1979.

Saphenista fusifera (MEYRICK), comb. nov.

This species was described from São Paulo, then I have recorded it (RAzowski, 1967) from Castro, Parana. Now we have found it in Banhado (Quatro Barras), Marumbi (Morretes), Mandirituba, Maringá and Curitiba in Parana. In Santa Catarina it has been found only in Brusque. Besides the above mentioned material there are at hand several specimens collected in Sete Lagoas, Mato Grosso but they show some genital differences with other speciens which, however, can be of infrasubspecific importance. The illustrations of their genitalia (figs. 33, 34, 100—102) are given for comparison.

Banhadoa gen. nov.

Type-species: Banhadoa luculenta sp. nov.

Allied to Saphenista Walsingham but with very strong semicircular, vinculum doubly-emarginated proximally and reduced ventral portion of valva. Cornutus peculiar, probably built of two fused thorns connected with lateral wall of aedeagus.

Banhadoa luculenta sp. nov.

Labial palpus over 1, ochreous, remaining parts of head more ferruginous but front cream; thorax ferruginous suffused with brown. Forewing 4 mm, broad, expanding terminally; ground colour yellowish suffused with ochreous. Base of wing, costal portion of median fascia and subapical fascia golden ferruginous, dorsal part of median fascia rust-brown; dorsum partially suffused with grey, tornal area with black-grey; distinct refractive silver fascias across post-basal area, along edges of median fascia and in tornal part of wing. Fringes yellowish to mid-termen, black-grey in dorsal half. Hindwing brownish grey with similar fringes.

Male genitalia (figs. 35—37): Tegumen slender; base of socii tapering proximally; dorsal part of valva broad; sacculus slender, strongly sclerotized, concave ventrally, provided with ventro-apical termination. Central part of transtilla slender, strongly curved dorsally, bifurcate apically. Aedeagus strong with small antemedian caulis.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 24. IV. 1971, BECKER & LAROCA", G. S. 21618.

Cochylis mimohospes sp. nov.

Labial palpus ca. 2, yellowish with slight admixture of brown laterally; remaining parts of head and thorax similar in colour but vertex and tegula mixed with brown. Forewing 5 mm, slender, not expanding terminally; termen oblique. Ground colour yellowish cream, delicately suffused with pale ochreous dorsally and terminally, with brownish in basal half of costa; pattern consisting of median fascia dorsal half of which is indistinct, brownish yellow, diffuse, costal half strongly suffused with grey and black; subterminal marking weak, brownish yellow. Fringes concolorous with ground colour. Hindwing pale brownish, more cream towards base; fringes paler than median part of wing.

Variation. Sexual dimorphism weak, forewing in male expanding terminally. Pale specimens with whitish head, cream thorax and somewhat darker, delicately spotted ground colour of forewing. In those specimens pattern developed in form of diffuse brownish yellow suffusions in basal part of costa and before apex and more brown costal portion of median fascia, occasionally marked with brown, grey or black. In dark specimens costal part of median fascia large, subsquare or subtriangular, fused with basal suffusion of costa, often with refractive grey scales among black and rust suffusions. Length of forewing varies from 4—6 mm.

Male genitalia (figs. 38—40): Socii on plate fused medially with tegumen; vinculum delicate, not fused ventrally; valva broad at base, with slender dorsal portion and strongly sclerotized sacculus terminated in thick dent accompanied by some minute thorns. Central part of transtilla slender, bifurcate apically; ¹³ — Acta Zoologica Cracoviensia XXVI/8—17

aedeagus broad to middle, then curved, slender, pointed ventro-apically; caulis large, with pair of apical prominences at fusion with large iuxta.

Female genitalia (fig. 103): Sterigma very large, shield-shaped, concave near ostium and laterally, with rounded ventral corners; ductus bursae slender, rather well sclerotized; corpus bursae delicately sculptured, membranous; inception of ductus seminalis from distal part of corpus bursae, that of accessory bursa from anterior part of ductus bursae, both ventrally.

Comments. This species is closely related to C. hospes Walsingham from

North Carolina. Its generic position is rather unclear.

Holotype, female: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 27. XI. 1970, Becker & Laroca", G. S. 21571. Paratypes: 20 males and females of which 9 are labelled as above but dated 7 and 26. III., 5. VI., 29. VIII. and 27. XI. 1970; 5 specimens from same locality but collected by V. O. Becker and dated 7. II. and 9. V. 1970; 2 specimens from Curitiba collected at the altitude of 920 m by same author and dated 14. XI. and 20. XII. 1974; 1 specimen from Campo de Tenente, also Parana, 800 m, collected 21. I. 1974 and 3 specimens from Brusque, Santa Catarina collected by V. O. Becker, 28. XII. 1969.

Cochylis argentinana RAZOWSKI

This species was described from Argentina, however, one specimen with abdomen missing was recorded from Rio de Janeiro, Brazil. Most probably it belongs to the following species. Six specimens from Sete Lagoas and Rio Brilhante, Mato Grosso before us.

Cochylis securifera sp. nov.

Labial palpus 1.5, broad, whitish, mixed with ochreous laterally; remaining parts of head and thorax whitish, collar more cream. Forewing 5.5 mm weakly expanding terminally, with rather straight costa and weakly oblique, indistinctly convex termen. Ground colour white delicately sprinkled and suffused with greyish especially in basal third of wing, pale ochreous suffusion beyond disc and in dorsal area; pattern brownish, brown scaled; median fascia consisting of dorsal blotch and costal spot; subapical pattern in form of subtriangular blotch accompanied by some irregulars pots. Fringes pale ochreous, cream at tornus, mixed with brown at apex. Hindwing brownish cream to cream with paler fringes.

Variation: Some specimens pale, with ill-defined pattern, other examples with distinct suffusions and marginal spots. Apical area occasionally ochreous

with more or less distinct brown markings.

Male genitalia (figs. 41—44) as in *C. argentinana* RAZ. but ventral edge of sacculus strongly expanding postbasally, minutely dentate; large, sharp

apically plate-shaped sclerite subventrally. Aedeagus provided with pair of lateral processes situated near distal edge postmedially; caulis postmedian; cornuti: short spines arranged in two groups accompanied by a group of spines situated dorsally.

Female genitalia (figs. 104, 105) very similar to those in mentioned species but with longer sclerite of ductus bursae. Inner surface of ventral sack sclerotized, outer surface membranous. Ductus seminalis extending rather from middle of corpus bursae ventrally, ductus of accessory bursa dorsally from end of ductus bursae.

Comments. This species shows some genital variation. Some males characterize with thin, smooth ventral process of the sacculus, less distinctly curved inwardly than in the holotype. Also the dentation of the remaining part of the edge of the sacculus is more or less distinct and the spines of the outer surface of sacculus may be at least partially atrophied. However, some intermediate shapes of the sacculi are found (figs. 45, 46). The number of the cornuti and their size are also variable (fig. 47). The female genitalia are also variable and that variation seems to be larger than the differences between securifera and argentinana (cf. figs. 106, 107). We do not include those females in the description of this species.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 26. III. 1971, Becker & Laroca", G. S. 21561. Paratypes: 19 males and females labelled as the holotype and dated 7, 27, 28 and 29. III. 1970, 27. III. 1971, 1 and 29. VIII. and 27. XI. 1970; 3 specimens from same locality collected by V. O. Becker 7. II. 1970; 4 specimens from Curitiba, Parana collected by 8ame author 5, 7, and 13. III. 1970 and 10. II. 22. VIII and 6. IX. 1975.

Cochylis sagittigera sp. nov.

Very similar to the preceding species but slightly darker and with weaker, less oblique dorsal fascia and browner costal spot opposite to it; pattern of distal portion of wing rust-brown on ochreous suffusion. Hindwing and fringes of both pairs of wings as in securifera.

Variation. One paratype almost unicolorous, whitish cream with dispersed brown scales, weak ochreous suffusion of distal third of wing and paler suffusion in midd-dorsum.

Male genitalia (figs. 48, 49): Valva slenderer than in preceding species, with less producing sacculus and with strong, horn-shaped sclerite of base of valva situated just above ventral edge of sacculus. Aedeagus thick; over 20 cornuti and group of spines in vesica.

Helotype, male: "Rio Brilhante, Mato Grosso, Brasil, 25. I. 1971, V. O. Becker col.", G. S. 21615; paratypes, 2 males, one labelled identically as the holotype the second with label "Rio Brilhante, Mato Grosso, Brasil — 600 m, 23—27. I. 1971, V. O. BECKER col."

Cochylis obtrusa sp. nov.

Head missing; thorax yellowish; forewing 8 mm, indistinctly expanding terminally, with oblique, hardly convex termen. Ground colour yellowish cream suffused with ochreous and brownish. Median fascia dark brown consisting of subtriangular dorsal blotch and slenderer costal fascia; subapical and pretornal blotches brown, connected by much paler, mixed with ochreous diffuse fascia. Some brown dots along costa. Fringes concolorous with ground colour. Hindwing brown-grey with paler fringes.

Female genitalia (fig. 108): Sterigma complicated, consisting of large lateral ear-shaped plates situated beyond ostium and smaller more ventral anterior sclerites. Ductus bursae tubular, weakly broadening towards small, membranous corpus bursae, rather distinctly sclerotized except for anterior and terminal portions. Ductus of accessory bursa extending dorsally from sclerite situated before ostium; ductus seminalis ventral, from middle portion of ductus bursae.

Holotype, female: "Morro de Meio, S. J. Pinhais, Paraná, Brasil, 8. I. 1970, BECKER & LAROCA," G. S. 6180.

Cochylis torva sp. nov.

Labial palpus over 2, olive-brown with slight admixture of ochreous, thorax and remaining parts of head rather concolorous. Forewing 7 mm, not expanding terminally, slender, with costa indistinctly convex; termen oblique, hardly convex. Ground colour olive-cream, sprinkled with brown, suffused with ochreous mainly in median portion of wing; pattern brown-grey consisting of postbasal fascia, median fascia followed by black-brown discal streak and subapical markings consisting of some spots and shades; some brown dots along costa. Fringes damaged, probably concolorous with ground colour. Hindwing brownish with paler fringes.

Female genitalia (figs. 109, 110): Eighth tergite elongate; sterigma membranous, represented by convex ventral lobes limiting a concavity beyond ostium bursae; semicircular sclerite in middle of concavity protecting inception of ductus seminalis; antrum broad, strongly sclerotized, invaginated in distal portion of corpus bursae, with large dorsal process from which extends ductus of accessory bursa.

Holotype, female: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 28. XII. 1970, BECKER & LAROCA", G. S. 21576.

Spinipogon spiniferus RAZOWSKI

One specimen has been collected in Sete Lagoas, Mato Grosso (23. III. 1969, altitude of 720 m). The species was described from Santarem, Para.

Spinipogon thes sp. nov.

Labial palpus ca 1.5, pale ochreous brown, remaining parts of head paler, front whitish; thorax pale ochreous cream. Forewing 4.5 mm, slender, with costa weakly convex and termen oblique. Ground colour pale brownish cream suffused with brownish. Costa suffused with brown, dotted to before apex; pattern brownish, diffuse, consisting of ill-defined median fascia and subapical blotch accompanied by some spots. Fringes damaged, probably concolorous with ground colour. Hindwing pale, brownish with more cream fringes.

Male genitalia (figs. 50—52): Tegumen rather slender; saccus broad; socii short on large, rounded plate. Basal portion of valva broad with well developed costa; sacculus short, convex; distal portion of valva slender. Central part of transtilla slender, armed with apical dents. Aedeagus curved, thin distally, with submedian caulis and short coecum penis.

Holotype, male: "Brusque, Santa Catarina, Brazil, 28. XII. 1969, V. O. BEC-KER col.", G. S. 21622.

Spinipogon atrox sp. nov.

Labial palpus 2, cream brown, brownish laterally, remaining parts of head rather concolorous, front more cream; thorax pale brownish. Forewing ca. 7 mm, weakly expanding terminally, termen oblique, somewhat convex. Ground colour pale brownish cream, weakly suffused with ochreous brown; pattern ochreous brown, brown at costa. Median fascia interrupted subcostally, mixed ferruginous in subdorsal area, followed by large suffusion extending towards tornus and forming indistinct blotch. Subterminal blotch slender, reaching termen. Fringes concolorous with ground colour, divided with brownish or brown-grey. Hindwing brownish, paler towards base, indistinctly strigulated with brown; fringes pale brownish.

Variation concerns intensity of pattern the edges of which are occasionally marked with black-brown. Median fascia developed to various degrees, postmedian suffusion often distinct; subterminal fascia followed by additional, parallel marking or by some spots. Ground colour more or less glossy especially in distal third of wing.

Male genitalia (figs. 53, 54): Socius subtriangular terminally; saccus strong; valva with basal portion of costa strong; sacculus provided with postbasal process directed ventro-distally, followed by flat emargination. Central part of transtilla long, incised medially at the end, provided with minute dents. Aedeagus long, curved, tapering terminally, provided with very thin cornutus.

Female genitalia (figs. 111, 112): Eighth tergite elongate; apophyses posteriores long. Sterigma with broad lateral arms and hairy prominences lateral to ostium bursae; antrum broad with dorsal sclerite. Sublateral sclerites developed in intersegmental membrane separated from proximal thin sclerite extending from ventral edge of lateral arm of sterigma by membranous groove.

Ductus bursae short, membranous, with some longitudinal folds; corpus bursa marked with lateral convexity surrounded by a spined area from dorsal part of which extends ductus seminalis; horn-shaped, distinctly sclerotized process from dorso-lateral part of ductus bursae. No typically developed accessory bursa present.

Holotype, female: "Marumbi, Morretes, Paraná, Brasil — 500 m, 21. XI. 1970, Becker & Laroca", G. S. 6179. Paratypes: 2 females labelled as above but dated "17. XII. 1969" and 2 males with labels "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 27. XI. 1970, BECKER & LAROCA".

Marylinka gen. nov.

Type species: Marylinka mimera sp. nov.

Male genitalia: Tegumen broad; socii short, situated at the end of dorsal plate membranously connected with anterior part of tegumen; vinculum not coalescent ventrally; processus basalis of valva strong. Transtilla plate-shaped with broad median fold situated proximally. Aedeagus slender; caulis postmedian; cornutus similarly shaped as in Saphenista.

Comments. The new genus is closaly related to Saphenista but differs from it in the shape of the transtilla. The female remains unknown.

Marylinka mimera sp. nov.

Labial palpus 1.5, brown-cream, front whitish cream, remaining parts of head and thorax mixed with ochreous brown. Forewing 4.5 mm, not expanding terminally; costa indistinctly curved outwards; termen oblique, hardly convex. Ground colour in basal area ochreous cream mixed with ferruginous towards eqsta, darker beyond median fascia dorsally, glossy, with silver-pink hue in distal portion of wing. Median fascia rust-brown with black suffusions at concave anterior edge; discal spot dark brown followed by brownish suffusion; subterminal marking in form of a fascia tapering in distal third and reaching tornus; three spots in apex area. Fringes brownish. Hindwing brownish with paler fringes.

Variation. The specimens from Banhado are more or less dark with diffuse pattern and often with pale, cream basal area. Some dark specimens characterize with suffused distal half of wing. Two examples from Rio Vermelho are pale with pale vellow-brown ground colour and brown pattern. Basal area of wing is in those specimens not differentiated.

Male genitalia (figs. 55-58): Basal portion of valva very broad, distal part slender; up-curved terminally; sacculus marked with two convexities of ventral edge and group of strong bristles. Aedeagus slender with well developed coecum penis; cornutus slender.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil - 800 m, 7. II. 1970, V. O. BECKER col.", G. S. 21573. Paratypes: 8 males identically labelled as above, 4 specimens from same locality collected 28. III. 1970 and 11. IV. 1970 by V. O. Becker, 5 specimens labelled "Curitiba, Paraná, Brasil—920 m, V. O. Becker col." with dates "3. II. 1970, 7. III. 1970, X. 1975 and 20. XII. 1974" and 3 specimens collected in Rio Vermelho, Santa Catarina, 20. II. 1973 by A. & J. RAZOWSKI.

Mielkeana gen. nov.

Type speces: Mielkeana gelasima sp. nov.

Male genitalia as in Saphenista and its allies but tegumen elongate, socius in form of lateral hairy lobe folded ventrally extending distally into thin, curved ventrad apical process; vinculum arms not fused ventrally; valva with strong sacculus. Aedeagus and cornutus resembling that in Saphenista. Scaphium distinct. Abdominal scent organs developed on 5 th and 6 th sternites.

Female genitalia characterize with large additional sack of bursa copulatrix. The new genus is named in honour of our friend Dr. Olaf. H. H. MIELKE of Curitiba.

Mielkeana gelasima sp. nov.

Labial palpus ca 1.5, ochreous cream terminally; front pale cream, remaining parts of head brownish; thorax brownish, brown beyond head. Forewing 4 mm, weakly expanding terminally; termen oblique, rather straight. Ground colour in basal area pale ochreous, mixed with rust costally, in distal portion of wing limited to irregular spots of similar colour among which metallic refractive markings are present. Median fascia brownish, concave proximally, divided into three parts of which costal is dark, subsquare, median thin, marked with black vertical streak and dorsal large, diffuse, sprinkled with black. Subterminal markings typical of this group of genera. Fringes brownish. Hindwing brown with semewhat paler fringes.

Variation. Males with more or less dark median fascia showing a tendency to atrophy in dorsal and median portions and usually with dark terminal part of wing and more or less distinct discal dot. Females much darker than males with brownish front and browner median joint of labial palpus. Basal area of wing pale ferruginous, median fascia brownish ochreous sprinkled with black, with distinct median streak and not differentiated costal part. In dark specimens terminal portion of wing dark brown with weak ochreous parts of ground colour but with distinct refractive markings which may occur also on the edges of median fascia.

Male genitalia (figs. 59—61). Central part of transtilla very strong, minutely dentate apically. Vinculum arms broad; costa of valva strongly developed to middle; sacculus thick, with distinct terminal angulation. Aedeagus slender

with short coecum penis and long terminal, tapering portion; caulis postmedian, fairly large; cornutus long.

Scent organ (fig. 62): Fifth sternite with short median prominence of distal edge, following sternite with strong process distal edge of which is slightly concave and lateral portions weakly extending, hairy.

Female genitalia (figs. 113, 114): Sterigma delicate, weakly sclerotized; antrum long, sclerotized ventrally and laterally; bursa copulatrix elongate, membranous in proximal third, concave before additional sack ventrally; ductus seminalis originating from distal prominence of the latter just above broad opening for its base; accessory bursa ventral, on level of the latter.

Holotype, male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 9. V. 1970, V. O. Becker col", G. S. 21577. Paratypes: 3 specimens labelled as above but dated "7. II. 1970"; 5 specimens collected in same locality by Becker and Laroca and dated "26. III. 1971, 11. IV. 1970 and 5. VIII. 1970" and 2 specimens from Rio Vermelho, Santa Catarina collected 20. II. 1973 by A. & J. Razowski.

Mielkeana competitrix sp. nov.

Labial palpus shorter than in preceding species, cream, front paler; thorax dirty cream; forewing 4 mm, rather uniformly broad throughout with costa weakly bent postmedially and termen distinctly oblique. Ground colour cream sprinkled and suffused with brownish; pattern consisting of ochreous spot at costa, brownish median fascia atrophying towards dorsum and rather concolorous subterminal marking mixed with black postmedially. Postmedian suffusion indistinct; fringes concolorous with ground colour. Hindwing pale brownish grey with more cream fringes.

Female genitalia (figs. 115, 116): Sterigma well developed; antrum weakly differentiating from sclerotized ductus bursae distal part of additional sack extending ventro-laterally from distal portion of the latter consisting of sclerotized ductus and membranous corpus; ductus seminalis originating in proximal portion of ductus bursae laterally.

Comments. The systematic position of this species is doubtful as the male remains unknown. The subgenital tergite is highly specialized to from a flattened sack extending distally.

Heletype, female: "Brusque, Santa Catarina, Brasil, 28. XII. 1968, V. O. BECKER col.", G. S. 21621.

Mourecochylis gen. nov.

Type species: Mourecochylis ramosa sp. nov.

Externally resembling the representatives of Saphenista. Male genitalia: socii fused, tapering distally, with weak grooves along middle dorsally and ventrally and minute apical incisure. Arms of vinculum broadening terminally,

separate from one another; sacculus long, spined apically; aedeagus long with capitate cornutus and strong caulis opposite to opening for ductus ejaculatorius.

Similarly as the preceding genus *Mourecochylis* is probably allied to *Saphenista*. Is is dedicated to Dr. Jesus Moure, the professor of the Parana University, Curitiba.

Mourecochylis ramosa sp. nov.

Labial palpus 1.5, ochreous, paler distally; front more cream; remaining parts of head and thorax ochreous. Forewing ca. 4 mm, with costa weakly convex and oblique, tolerably straight termen. Ground colour pale cream with pearl gloss, weak ochreous suffusion in dorsal area of wing and indistinct pinkish hue in costal portion postmedially. Pattern ferruginous consisting of costal blotch situated submedially, median fascia represented by costal and median blotches and subapical fascia terminating in dorsal third of termen; weak ochreous suffusion beyond disc. Fringes concolorous with ground colour. Hindwing pale brownish grey with paler fringes.

Male genitalia (figs. 63—65): Tegumen broad anteriorly, strongly tapering distally, terminating in a complex consisting probably of fused socii and uncus. Transtilla strong, with distinct central part. Valva (damaged) membranous with weak costa and very strong arm-shaped sacculus. Juxta broad, emarginate proximally. Otherwise as described for the genus.

Holotype; male: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 26. III. 1971, BECKER & LAROCA", G. S. 21589.

Carolella aphrobapta (MEYRICK)

This species was described from this country from Esprito Santo, Guandú. Two specimens collected in Planaltina, Distr. Federal at the altitute of 100 m in October examined.

Carolella selecta (MEYRICK)

This species described from Paraguay (Asuncion) was then recorded by the first author (Razowski, 1967) from Brazil (Castro, Parana and La Soledad, Entre Rics). It is widely distributed as one can suppose of the following list of localities: Lapa and Curitiba (Parana), Planaltina (Distr. Federal), Sete Lagoas and Rio Brilhante (Mato Grosso). Twentyseven specimens examined. Externally they are rather variable as some specimens are pale, with ground colour cream or pale ochreous cream and pattern brownish to pale olive brown. In dark specimens ground colour is suffused with olive brown or olive grey and in one example the ground colour is brownish yellow. The most distinct elements of the pattern are median fascia (or only dorsal blotch) and a fascia along termen, occasionally there occurs a slender fascia connecting disc and tornus.

Male genitalia varying mainly in size, however, the breadth of central part of transtilla is inconstant.

Female genitalia (figs. 117, 118) unknown to date are characterized as follows: Papilla analis and apophyses long, the latter not fused with distal rib of sterigma; antrum short; ductus bursae bulbous at antrum; corpus bursae elongate, minutely spined with distal prominence and lateral fold from below which the ductus of accessory bursa extends; ductus seminalis from anterior portion of corpus bursae, similarly as the latter situated ventrally.

Carolella molybdanthes (MEYRICK)

This species has been known from São Paulo (type locality) and Castro, Parana. Our specimens have been collected in Banhado, Quatro Barras, Morro de Maio, Marumbi and Rio Negro in Parana and near São Bento do Sul in Santa Catarina. The female genitalia (fig. 119) characterize with ventral position of ductus seminalis and accessory bursa.

Anielia gen. nov.

Type species: Anielia paranica sp. nov.

Externally distinct by pattern. Male genitalia characterized by rudimentary uncus, long, dorso-terminal socius strongly sclerotized dorsally and doubly folded transtilla extending dorsally. Vinculum arms coalescent ventrally; vesica armed with numerous small thorns.

The female is unknown. The new genus is named in honour of Mrs. Aniela Razowska, the collector of many Brazilian *Tortricidae*.

Anielia paranica sp. nov.

Labial palpus over 2, ochreous, scaled with black, with terminal joint black-brown, cream apically; remaining parts of head grey-brown, front with cream scales; thorax blackish brown. Forewing 6 mm, weakly expanding terminally, with costa weakly convex, sharp apex and oblique, almost straight termen. Ground colour cream diffusely strigulated with pale ochreous; costa at base dark ferruginous with some black scales, similar black spots before and beyond grey-black trapezoid in shape costal marking; paler, more brown subterminal fascia limiting small apical area reticulate with brown and indistinctly spotted with grey. Fringes damaged. Hindwing brownish cream with delicate brownish strigulation; fringes paler than wing.

Male genitalia (figs. 66—68): Socius hairy; valva elongate; sacculus weakly convex ventrally, thin spines in median area of internal surface of valva. Transtilla slender, straight in median part; juxta elongate. Aedeagus thick, with

large coecum penis, postmedian caulis and short, sharp ventral termination; numerous small cornuti in vesica.

Holotype, male: "Morro de Maio, S. J. Pinhais, Paraná, Brasil, 15. V. 1970, Becker & Laroca", G. S. 6159.

Acarolella gen. nov.

Type species: Euxanthis steropis Meyrick, 1931

Male genitalia: tegumen with differentiated posterior portion, membranous beyond base laterally; socius long of *Eugnosta* type; vinculum fully developed; valva with subcostal bristled prominence; transtilla thin, arch-shaped sclerite membranously connected to ventral membrane of tegumen and to very large processus basalis of valva; aedeagus slender with very short coecum penis and postmedian caulis.

Female genitalia: Accessory bursa extending from anterior part of ductus bursae ventrally; ductus seminalis from distal portion of corpus bursae dorsally.

Comments. The new genus is close to *Anielia* gen. nov. and belongs in the group of genera closely related to Holarctic *Eugnosta* HÜBNER and *Carolella* Comstock of the New World. Main differences are in the structure of the transtilla and valva.

Acarolella steropis (MEYRICK)

The species in question was described from Argentina (Chaco du Santa Fé) and recently has been discovered in Planaltina (Distr. Federal). Three specimens has been collected at the altitude of 1000 m in November.

The male genitalia were illustrated by the first author (RAZOWSKI, 1964) but the female has been unknown to date. To complete the description of the male genitalia we provide the drawings 65—67. The description of the female genitalia (figs. 120—122) is as follows: Ovipositor rather elongate; apophyses long; sterigma in major part membranous, consisting of large, somewhat asymmetrical distal part and large anterior portion forming together and with weakly differentiated antrum large cup-shaped complex; ductus bursae membranous in distal half, sclerotized to the opening for accessory bursa situated ventrally; base of ductus bursae protected by semicollar sclerite of dorsal area of corpus bursae; ductus seminalis in a concavity just before the former.

Acarolella obnixa sp. nov.

Labial palpus 3, dirty yellowish, remaining parts of head and thorax concolorous. Forewing 7 mm, slender, rather uniformly broad throughout; costa indistinctly concave medially; termen strongly oblique, hardly convex. Ground colour yellowish cream, mixed with pale ochreous along median cell, with

ill-defined median fascia developed in form of brownish diffuse dorso-median blotch marked with some brown scales. Fringes damaged, probably at least partially brownish. Hindwing pale brown-grey; fringes whitish, with brownish grey basal line.

Female genitalia (figs. 123—124): Papilla analis long; apophyses very thin; sterigma consisting of short basal plate situated ventrally and large, membranous, minutely spined dorsal area; antrum broad, semewhat expanding distally, weakly sclerotized; ductus bursae short, membranous; accessory bursa proportionally large, with broad ductus; ductus seminalis from distal portion of corpus bursae ventro-laterally; belt-shaped sclerite from before base of ductus seminalis to end of base of accessory bursa; no sculptures on corpus bursae.

Comments. The new species resembles externally Carolella selecta (MEYR.). Unfortunately the male remains unknown and the systematic position of obnixa is rather doubtful.

Holotype, female: "Curitiba, Paraná, Brasil — 920 m, 10. I. 1975, V. O. Becker col.", G. S. 6181.

Aethes mordax (MEYRICK)

MEYRICK described this species from Argentina (at Parana River), then it has been mentioned from Petropolis, Brazil (RAZOWSKI, 1967). Our three specimens have been taken in Curitiba, Parana (10. I. — 12. III., at the altitude of 920 m).

Aethes planaltinae sp. nov.

Labial palpus 2.5, brownish scaled with cream, remaining parts of head, especially front with stronger admixture of cream scales; thorax much darker. Forewing 8 mm, broad; costa convex; termen weakly oblique, scmewhat convex. Ground colour cream densely suffused and sprinkled with brownish especially in costal and terminal portion of wing. Pattern brownish with olive-grey hue, consisting of costal spots at 1/3 and beyond middle, the latter being a remainder of median fascia; indistinct, paler fascias from both spots towards dorsum, bent at disc; subterminal pattern in form of subapical spot. Fringes concolorous with ground colour divided with brownish grey. Hindwing broad, with small apical portion, dirty cream with dense brownish strigulation; fringes cream with brownish basal line.

Male genitalia (figs. 72, 74) distinctly asymmetrical; central part of transtilla tapering terminally, curved, pointed at the end; right valva broad with long, strongly sclerotized sacculus distinctly broadening before the end dorsally, provided with small prominence of median portion of ventral edge and large, bristled terminal process; left sacculus much smaller, with weaker ventral

concavity, without median prominence and with very short, rounded terminal process. Juxta also asymmetrical, with extending left corner. Aedeagus large, with distinct terminal portion and ventro-lateral process.

Comments. The new species belongs in the group of Ae. mordax (Meyr) to which is similar in pattern and coloration. The asymmetry of the male genitalia is, however, much stronger than in mentioned species and than that in Ae. jonesi Razowski and Ae. inexpecta Razowski.

Holotype, male: "Planaltina, DF [Distrito Federal], Brasil, 1000 m, 11. XI. 1976, V. O. BECKER col., 15°35' S, 47'42' W", G. S. 6154.

Aethes evanida sp. nov.

Labial palpus over 2, pale brownish; front cream, remaining parts of head brownish cream; thorax concolorous with vertex. Forewing 6 mm, slender, expanding terminally; costa straight; termen oblique, hardly convex. Ground colour greyish cream in basal half of wing, glossy cream in distal portion, marked with some brownish strigulae especially along costa. Postbasal pattern rudimentary, brownish, similarly coloured median fascia incomplete, marked with black streak in middle and with brown scales at costa; subterminal marking in form of fascia not reaching termen followed by two costal spots, brownish in colour, darker edged; paler, more ochreous shade extending from disc to tornus, marked with brown medially. Fringes whitish cream (damaged). Hindwing rather slender, brownish cream with paler fringes.

Female genitalia (fig. 125): Membranous parts of ovipositor and apophyses posteriores very long; sterigma with distinct antevaginal plate and large, trapezoid distal pocket-shaped portion provided with terminal bristles; median area dorso-distal of ostium bursae ovate, convex; antrum not differentiated; base of short ductus bursae with dorsal fold; corpus bursae elongate, densely spined; ductus seminalis from middle of dorsal concavity.

Ocmments. Single specimen known; the systematic position of this species is uncertain as the male remains unknown.

Holotype, female: "Banhado, Quatro Barras, Brasil — 800 m, 1. VI. 1970, BECKER & LAROCA", G. S. 21567.

Aethes grandaeva sp. nov.

Head missing; thorax pale brownish grey; forewing ca. 8 mm, slender, not expanding terminally; costa tolerably straight; termen distinctly oblique, somewhat convex. Ground colour whitish, in dorsal third of wing suffused with pale brownish grey; costa spotted with brown-grey, similarly coloured but paler transverse stringulation of almost whole wing surface developed; pattern indistinct in form of postbasal, diffuse fascia concolorous with dorsal suffusion, and paler costal spot representing median fascia; subterminal markings

represented by oblique fascia limiting apex area and accompanied by some weaker lines or spots. Fringes concolorous with ground colour suffused with grey at apex and with some similarly coloured divisions. Hindwing greyish cream, pale basally, distinctly stringulated with brownish grey; fringes whitish.

Female genitalia (fig. 126): Ovipositor short; apophyses thin; antrum broad, distinctly sclerotized, cup-shaped followed by membranous, shallow invagination; in dorsal portion of sterigma broad, minutely sculptured sclerite present; ductus bursae large, marked with numerous longitudinal sclerites provided with spines ventrally and laterally and distinctly convex, membranous dorsally; that dorsal swollen area is membranous, only partially spined; corpus bursae indistinctly differentiated, membranous, sculptured, with characteristic shallow concavity of ventral, surface from middle of which extends accessory bursa composed of long ductus and very small corpus; ductus seminalis dorso-laterally from swollen part of ductus bursae.

Comments. The systematic position of this species is doubtful. Externally it is very characteristic and somewhat similar to the species of the *mordax* group.

Holotype, female: "Banhado, Quatro Barras, Paraná, Brasil — 800 m, 5. VI. 1970, BECKER & LAROCA", G. S. 6182.

Aethes mirifica sp. nov.

Labial palpus ca. 2, whitish with some brownish scales laterally; remaining parts of head and thorax whitish. Forewing 9 mm, slender, not expanding terminally; costa slightly convex; termen oblique, tolerably straight. Ground colour greyish white suffused and diffusely strigulated with olive-grey; costa marked with some somewhat darker spots the largest of which represents atrophied median fascia. Fringes whitish mixed with grey, with weak greyish basal line. Hindwing whitish mixed with brownish grey on peripheries, distinctly strigulated with similar colour; fringes white.

Female genitalia (fig. 127) very large; papilla analis proportionally very small; apophyses strong; sterigma ill-defined, marked by three convexities covered with minute spines; antrum broad, well sclerotized; distinct membranous sack at ventral edge of antrum; ductus bursae short, almost entirely membranous, with accessory bursa extending ventro-proximally; distal half of corpus bursae elongate, provided with many longitudinal sclerotized folds, the largest of which situated laterally characterizes with dense marginal spines; proximal, rounded part of the corpus membranous, minutely spined; ductus seminalis broad basally, extending from middle of dorsal concavity.

Comments. Similarly as in two preceding species the male is unknown and the systematic position of this species is uncertain.

Holotype, female: "Planaltina, DF [Distrito Federal], Brasil — 1000 m, 21. IV. 1977, V. O. BECKER col.; 15°35′S, 47°42′N", G. S. 6183.

Aethes portentosa sp. nov.

Labial palpus ca. 2, brownish, remaining parts of head similarly coloured but front more ochreous; thorax brownish, scaled with ochreous. Forewing ca. 4 mm, uniformly broad throughout with costa somewhat convex; termen weakly oblique, slightly convex. Ground colour cream mixed with pale ochreous; pattern ochreous brownish consisting of postbasal fascia, broad median fascia with diffuse edges and some brown scales distally and dorsally and broad subterminal fascia being the darkest element. Fringes ochreous. Hindwing brown with slightly paler fringes.

Female genitalia (figs. 128, 129): Papilla analis small, short bristled; base of apophysis posterior large, flat; sterigma weakly sclerotized not coalescent with apophysis anterior, convex and hairly sublaterally; antrum sclerotized, with distinct dorsal incisure distally; ductus bursae very long, bulbously expanding subterminally, marked with slender longitudinal folds in anterior half; corpus bursae minute, rounded, completely membranous; ductus seminalis dorsal, from middle of subterminal broadening of ductus bursae, base of accessory bursa ventral, from distal portion of that broadening.

Comments. This species does not resemble genitalically any other Neotropical cochylid-moth and its systematic position cannot be fixed before the male is examined.

Holotype, female: "Planaltina, DF [Distrito Federal], Brasilia, 1000 m, 14. XI. 1970, V. O. BECKER col.; 15°35′S, 47°42′W", G. S. 21574.

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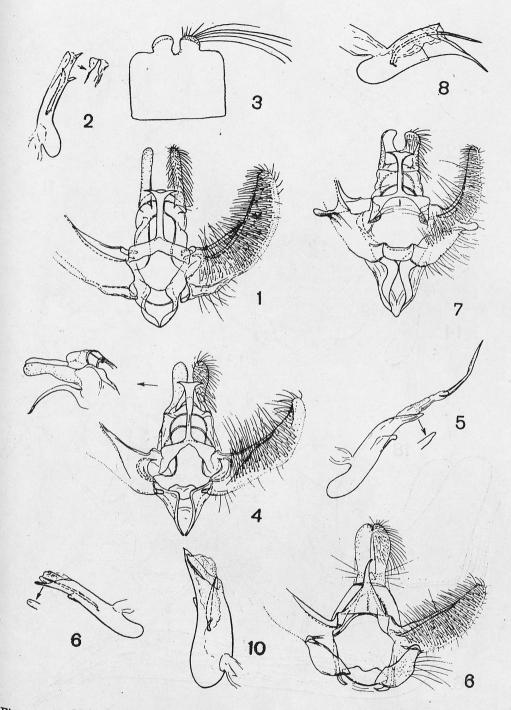
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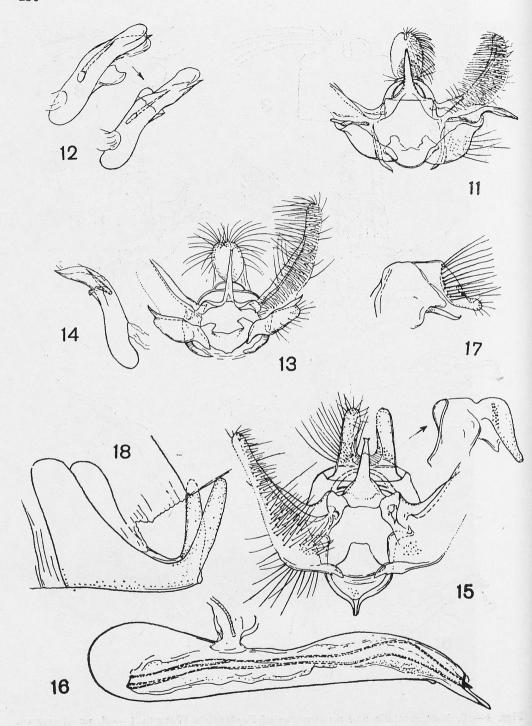
Praca stanowi pierwszą rewizję brazylijskich *Cochylidii* z wyłączeniem rodzaju *Irazona* RAZ. Dotychczas znanych było z Brazylii 15 gatunków *Cochylidii*, a obecnie liczba ta powiększyła się o 36 gatunków, z czego 34 zostały opisane jako nowe. Ponadto praca zawiera opisy 6 nowych rodzajów.

Redaktor pracy: doc. dr A. Krzanowski

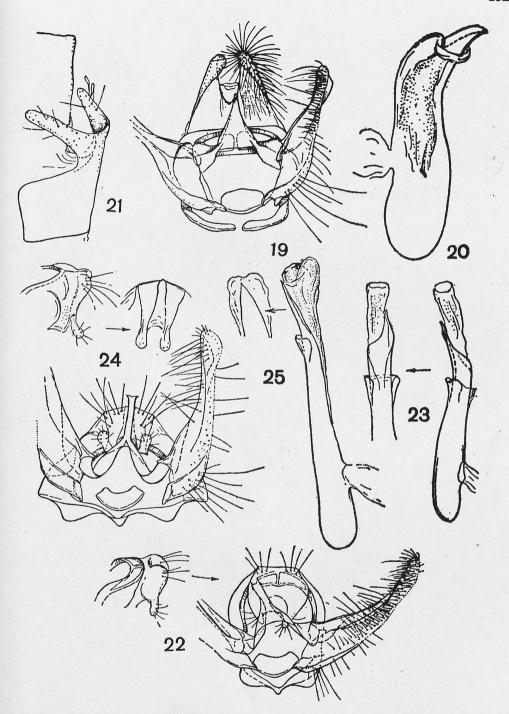


Figs. 1—10. Male genitalia and scent organ of Sapheenista Walsm.: 1—S. nauphraga sp. nov., holotype, 2— aedeagus of same specimen, 3—scent organ of same specimen, 4—S. consona sp. nov., holotype, 5—aedeagus of same specimen, 6—aedeagus of paratype, coll. nr. 11437, 7—S. cordifera (Meyr.), Banhado, Quatro Barras, 8—aedeagus of same specimen, 9—S. squalida sp. nov., holotype, 10—aedeagus of same specimen

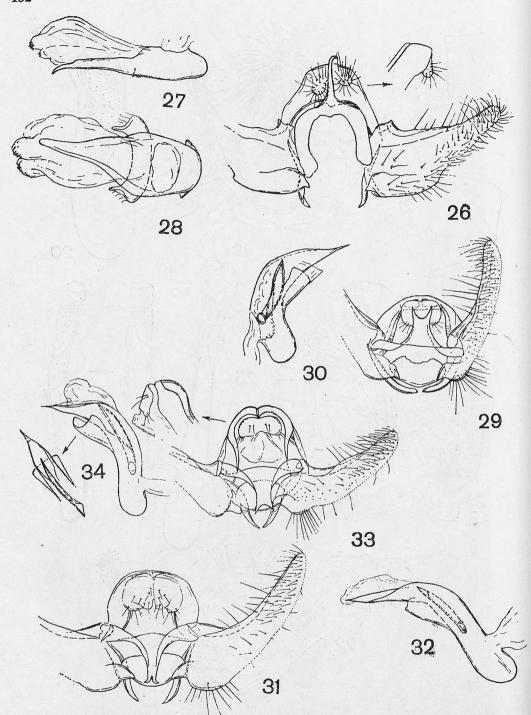
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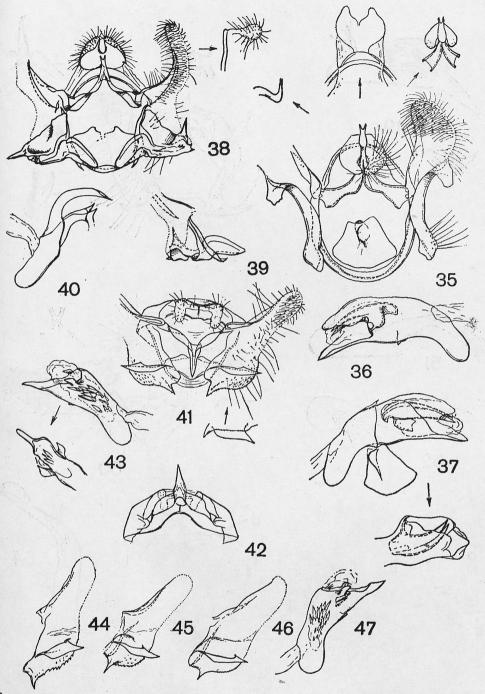
Figs. 11—18. Male genitalia and scent organs of Saphenista WALSM.: 11 — S. pellax sp. nov., holotype, 12 — aedeagus of same specimen, 13 — S. unguifera (RAZ.), Banhado, 14 — aedeagus of same specimen, 15 — S. luminosa sp. nov., holotype, 16 — aedeagus of same specimen, 17 — tegumen of same species, paratype, 18 — scent organ of same species, holotype



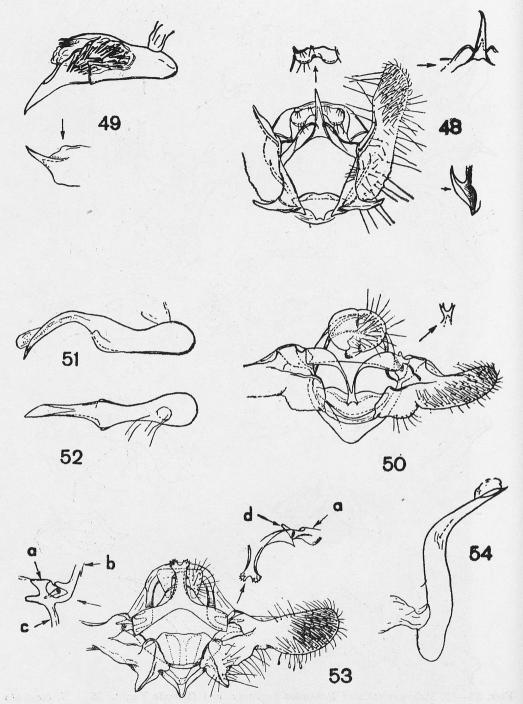
Figs. 19—25. Male genitalia and scent organ of Saphenista Walsm.: 19—S. ficta sp. nov., 20—aedeagus of same specimen, 21—scent organ of same specimen, 22—S. dyas sp. nov., holotype, 23—aedeagus of same specimen, 24—S. astricta sp. nov., holotype, 25—aedeagus of same specimen



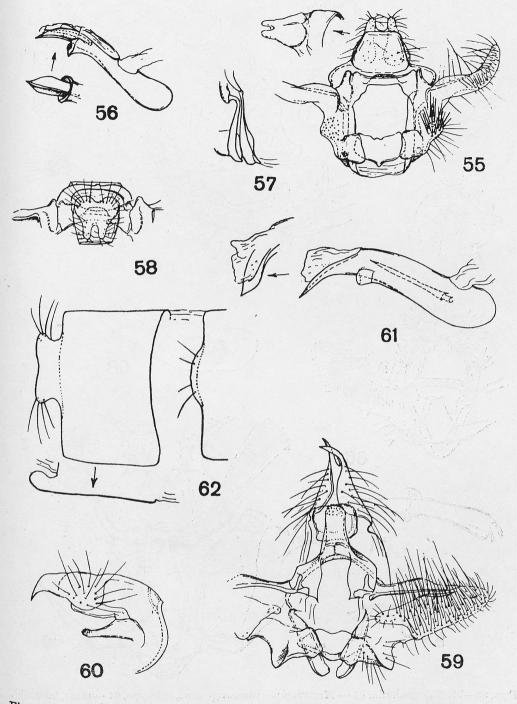
Figs. 26—34. Male genitalia of Saphenista WALSM.: 26 — S. remota sp. nov., holotype, 27—aedeagus of same species laterally, 28 — same, dorsally, 29 — S. paranae sp. nov., holotype, 30 — aedeagus of same specimen, 31 — S. mystica sp. nov., paratype, 32 — aedeagus of same specimen, 33 S. fusifera (MEYR.), Curitiba, 34 — aedeagus of same specimen



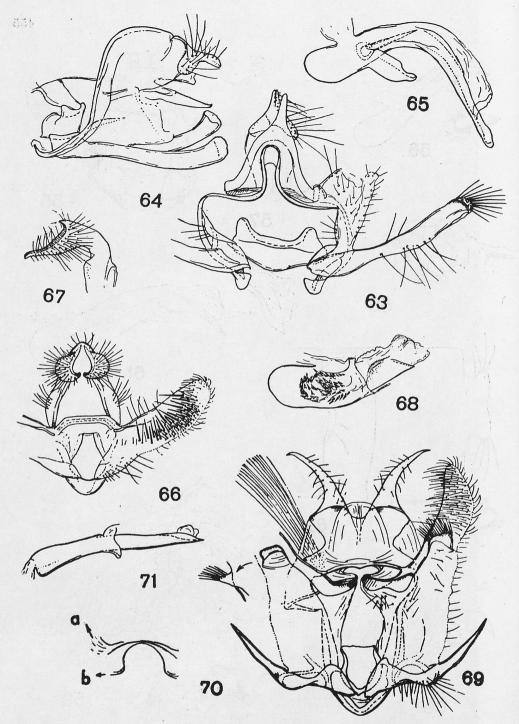
Figs. 35—47. Male genitalia of Banhadoa gen. nov. and Cochylis Treit.: 35 — B. luculenta sp. nov., holotype, 36 — aedeagus of same species, laterally, 37 — same, left side; 38 — C. mimohospes sp. nov., paratype, 39 — outer side of base of valva of same specimen, 40 — aedeagus of same specimen, 41 — C. securifera sp. nov., holotype, 42 — same specimen, tegumen and transtilla, distally, 43 — aedeagus of same specimen, 44 — valva of same species, Banhado, 45 — same, Curitiba, 46 — same, Banhado, nr. 30418, 47 — aedeagus of same specimen



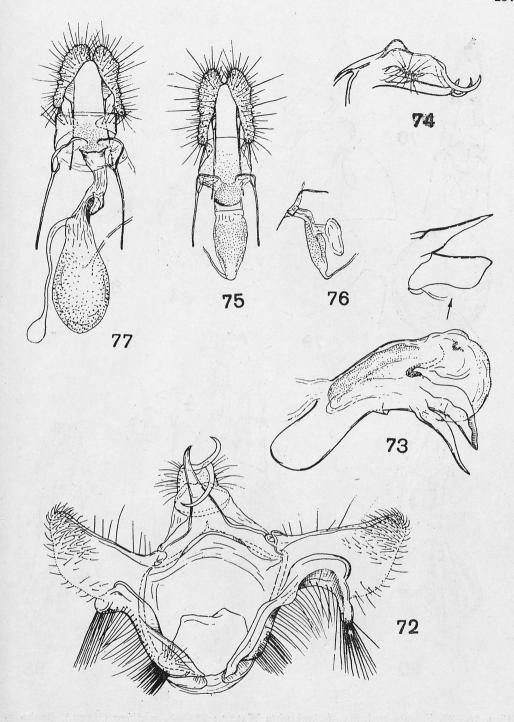
Figs. 48—54. Male genitalia of Cochylis Treit. and Spinipogon Raz.: 48—C. sagittigera sp. nov., holotype, 49—aedeagus of same specimen, 50—S. thes sp. nov., holotype, 51—aedeagus of same specimen, laterally, 52—same, dorsally, 53—S. atrox sp. nov., paratype, G. S. 21569, 54—aedeagus of same specimen; a—costa, b—vinculum, c—tegumen, d—processus basalis



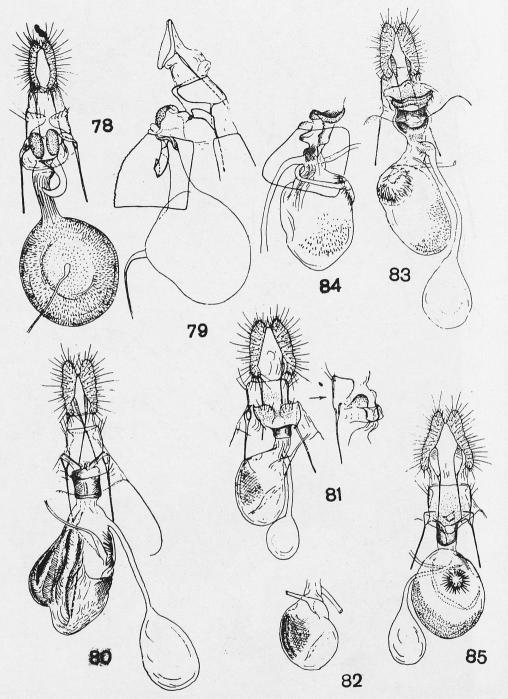
Figs. 55—62. Male genitalia and scent organ: Marylinka mimera sp. nov., holotype, 56—aedeagus of same specimen, 57—base of valva and vinculum, outer side, same specimen, 58—same specimen, bases of valvae and tegumen, distally, 59—Mielkeana gelasima sp. nov., holotype, 60—tegumen of same specimen, laterally, 61—aedeagus of same specimen, 62—scent organ of same specimen



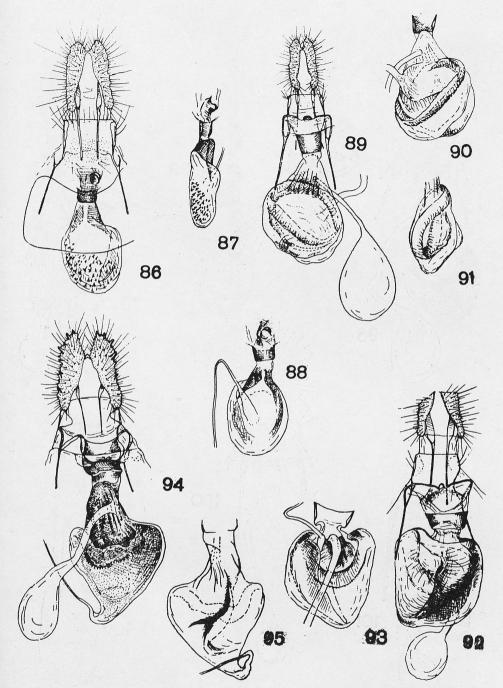
Figs. 63—71. Male genitalia: 63 — Mourecochylis ramosa sp. nov., holotype, 64 — same, laterally, aedeagus removed, 65 — aedeagus of same specimen, 66 — Anielia paranica sp. nov., holotype, 67 — same specimen, tegumen laterally, 68 — aedeagus of same specimen, 69 — Acarollela steropis (Meyr.), Planaltina, 70 — transtilla of same specimen, 71 — aedeagus of same specimen; a — membrane connecting tegumen, b — membrane connecting processus basalis of valva



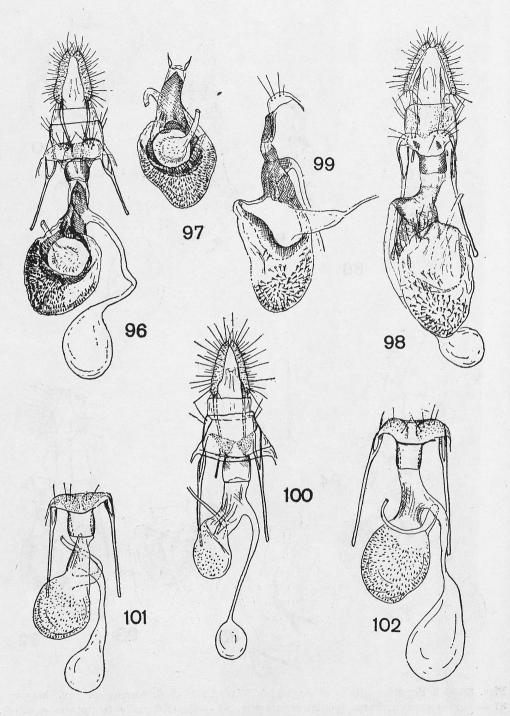
Figs. 72—77. Male and female genitalia: 72— Aethes planaltinae sp. nov., holotype, 73—same specimen distal part of tegumen and transtilla, laterally, 74— aedeagus of same specimen, 75— Saphenista nauphraga sp. nov., paratype nr. 30372, 76— same laterally, incomplete, 77— S. consona sp. nov., paratype, G. S. 21568



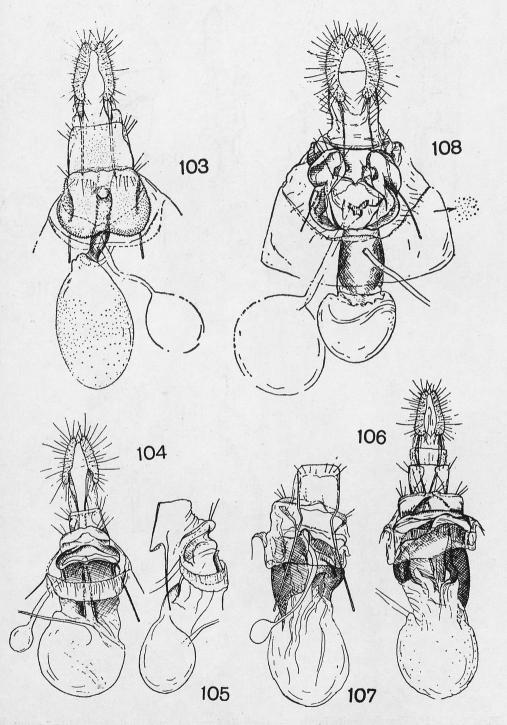
Figs. 78—85. Female genitalia of Saphenista Walsm.: 78—S. cordifera (Meyr.), Banhado, 79—same, laterally, sculptures and hair omitted, 80—S. squalida sp. nov., paratype, G. S. 21587, 81—S. unguifera (Raz.), Banhado, G. S. 21580, 82—same species from Brusque, bursa copulatrix, 83—S. ficta sp. nov., paratype, G. S. 21584, 84—same species, bursa copulatrix laterally, 85—S. astricta sp. nov., paratype, G. S. 21586



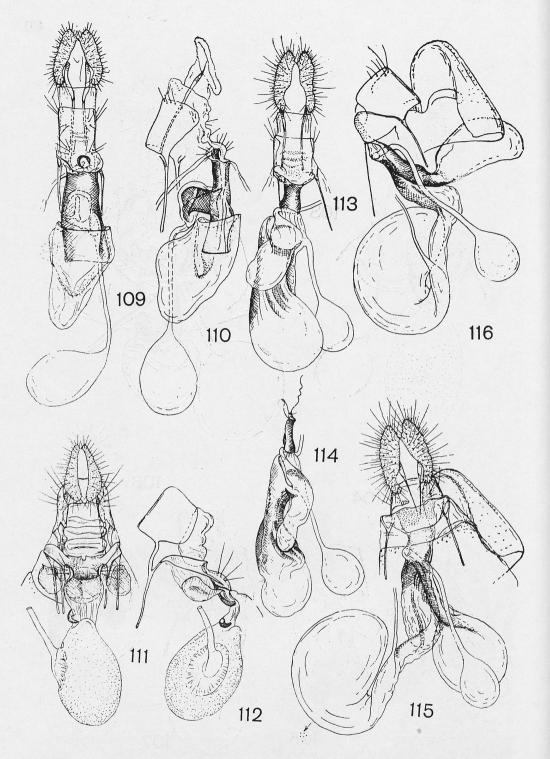
Figs. 86—95. Female genitalia of Saphenista Walsm.: 86 — S. horrens sp. nov., holotype, 87 — same specimen, bursa copulatrix laterally, 88 — same, dorsally (sculptures omitted), 89 — S. fatua sp. nov., holotype, 90 — same species, bursa copulatrix dorsally, 91 — same, laterally, 92 — S. brilhanteana sp. nov., holotype, 93 — same species, bursa copulatrix dorsally, 94 — S. paliki sp. nov., holotype, 95 — same species, bursa copulatrix dorsally (sclerites and sculptures omitted)



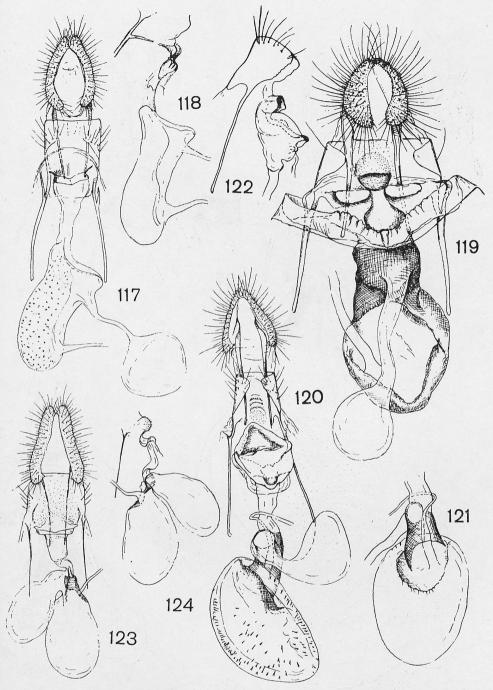
Figs. 96—102. Female genitalia of Saphenista Walsm.: 96 — S. dubia sp. nov., holotype, 97 — same species, bursa copulatrix dorsally, 98 — S. mystica sp. nov., holotype, 99 — same species, bursa copulatrix laterally, 100 — S. fusifera (Meyr.), Marumbi, Parana, 101 — same species, Sete Lagoas, Mato Grosso, nr. 7549, 102 — same species, same locality, nr. 7554



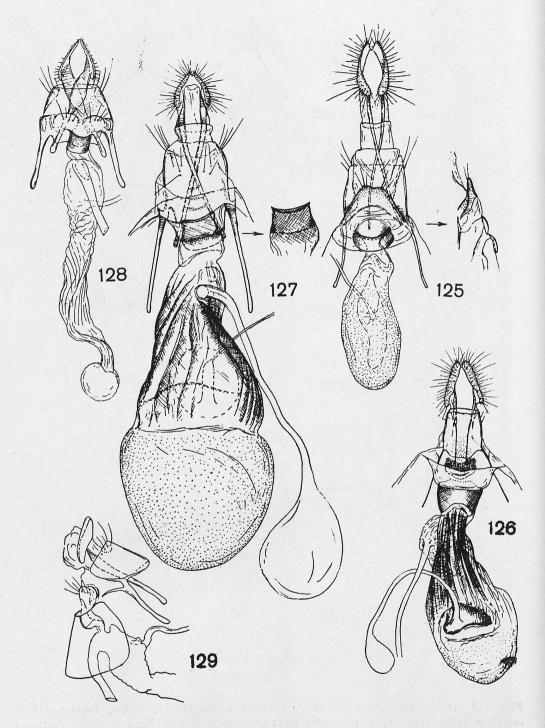
Figs. 103—108. Female genitalia of Cochylis TREIT.: 103 — C. mimohospes sp. nov., holotype, 104 — C. securifera sp. nov., paratype, G. S. 6184, 105 — same, laterally (incomplete), 106 — C. sp., Curitiba, G. S. 21604, 107 — same dorsally, 108 — C. obtrusa sp. nov., holotype



Figs. 109—116. Female genitalia: 109 — Cochylis torva sp. nov., holotype, 110 — same, laterally, 111 — Spinipogon atrox sp. nov., paratype, 112 — same, laterally, 113 — Mielkeana gelasima sp. nov., paratype, G. S. 21575, 114 — same, laterally, 115 — M. competitrix sp. nov., holotype, 116 — same, laterally



Figs. 117—124. Female genitalia: 117 — Carolella selecta (Meyr.), Lapa, Parana, 118 — same, laterally, 119 — C. molybdanthes (Meyr.), Quatro Barras, Parana, 120 — Acarolella steropis (Meyr.), Planaltina, 121 — same species, bursa copulatrix dorsally, 122 — same species, eight tergite and sterigma laterally, 123 — Acorolella obnixa sp. nov., holotype, 124 — same, laterally



Figs. 125—129. Female genitalia of Aethes BILLB.: 125 — Ae. evanida sp. nov., holotype, 126 — Ae. grandaeva sp. nov., holotype, 127 — Ae. mirifica so. nov., holotype, 128 — Ae. portentosa sp. nov., holotype, 129 — distal part of genitalia of same species, laterally