

## Revision of the cochyline genus *Lasiothyris* MEYRICK (*Lepidoptera: Tortricidae*), with a description of 8 new species

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Abstract. Neotropical genus *Lasiothyris* is redescribed; of 18 species included 8 Brazilian are described as new.

Key words: *Tortricidae*, *Cochylini*, *Lasiothyris*, revision, Neotropical, new taxa.

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### I. GENERAL

The original description of this monobasic genus was based on the venation characters and the presence of the hindwing costal fold. Even after many further species have been described or placed in *Lasiothyris* we may accept the presence of this fold as the most important character. The venation is rather variable as it is in several other cochyline genera. From the further characters found recently we may select the presence of the abdominal scent organ of the sixth abd sternite, very large aedeagus and the subterminal position of the caulis as diagnostic. A redescription of the genus and comments are as follows.

### II. SYSTEMATIC PART

#### *Lasiothyris* MEYRICK, 1917

*Lasiothyris* MEYRICK, 1917, Trans. ent. Soc. Lond., 1917: 4. Type-species: *Lasiothyris limatula* MEYRICK, 1917 – by monotypy.

Head with antenna, and labial palpus usually ca 1.5 longer than the longer diameter of eye. Coloration as in other taxa of *Phalonidia*-group of genera. Costal fold of male

hindwing with well-developed, though occasionally short (in *cerastes*) or strongly reduced (in *perjura*) costal fold. Under the fold there is a scale tuft, usually pale in colour, exceptionally (in *cnestovalva*) with black termination. The basal, anal and median areas of hindwing of some species (e.g. *sorbia*) are sparsely clothed with somewhat altered, thin, long, expanding terminally scales.

**Male genitalia.** Tegumen fairly broad, rather short; socii varying in length, with broad base. Vinculum arms membranously connected ventrally or fused with one another, with apical parts occasionally protruding (e.g. in *luminosa*), or separate. Valva simple, broad basally, tapering, more or less upcurved in distal half; sacculus simple, with distal corner rounded if expressed; seldom the angulation of sacculus is distinct. Median part of transtilla of *Phalonidia*-type, in a few species strongly reduced, short. Juxta usually small. Aedeagus long or extremely long, in some species, however, medium-sized. Coecum penis moderate, terminal part short; caulis subterminal, simple, rarely with small dorso-terminal prominences. Cornutus, if developed, slender, straight or bent, occasionally extremely long. In a few species there are more than one cornutus: two in *megapenis*, four in *perjura*. Abdominal scent organ (Fig. 7) on distal edge of male sixth abdominal segment in form of a bifurcate process, or absent. The shape of the organ is species specific (very large in *luminosa*, small in *gravida* and *sorbia*).

**Female genitalia.** There are two types of female genitalia within the genus (unfortunately females of several species are unknown). In *ficta* they resemble those of *Phalonidia*-species and are characterised by the ductus seminalis originating from the middle of the area of the corpus bursae surrounded by a series of spines and the accessory bursa extending from the ductus bursae. In *competitrix* and its allies there are two accessory bursae. The first of them is situated as in *ficta*, the second, large one, is more proximal. Its ductus may be strengthened with some sclerites. The ductus seminalis originates from the proximal portion of the ductus bursae, just beyond the corpus bursae. In the *omissa*-group only the posterior accessory bursae whilst the ductus seminalis is situated as in the *ficta* group.

**Biology:** Unknown.

**Distribution.** Neotropical genus, most probably widely spread, as it is known from Veracruz, Mexico (*gravida*) to Santa Catarina, Brazil. A majority of species are known from that state and Paraná, but these territories are best studied. There are also some data on its distribution in the central part of Brazil, from the Federal District and Pará. Only one species is recorded from the western parts of the region (*heterophaea* from Colombia).

**Comments.** *Lasiothyris* belongs to the *Saphenista*-group of genera, together with *Phalonidia* LE MARCHAND, 1933, *Saphenista* WALSINGHAM, 1914 and some small, mainly monotypical genera as *Marylinka* RAZOWSKI & BECKER, 1983, *Mielkeana* RAZOWSKI & BECKER, 1983 or *Mourecochylis* RAZOWSKI & BECKER, 1983. It differs from them by the presence of the hindwing costal fold and the shape of the abdominal scent organ of the sixth sternite. The costal fold has never been found in the remaining cochyline moths. The abdominal scent organ was discovered in *Mielkeana* but on segments five and six and in the latter case it is short, not bifid. In some species of *Saphenista* the scent organ occurs on sternite 6 but it consists of a pair of short submedian

lobes. This organ was also found in some other genera e.g. in *Mimeugnosta* RAZOWSKI, 1986, *Henricus* BUSCK, 1943 and *Lorita* BUSCK, 1939.

There are four ill-defined groups of species within *Lasiothyris*. In group one (*limatula*, *cerastes*, *sorbia*, *ficta*, *perjura*) the aedeagus is long but cornutus very weak, rudimentary or absent (only in *perjura* there are 4 small cornuti) and the end of sacculus is angulate. The female has rather primitive genitalia, similar to those of *Phalonidia*, with the ductus seminalis originating in the corpus bursae. In the *gravid*a-group of species (*gravid*a, *heterophaea*, *luminosa*, *competitrix*, *ilingocornuta*, *tardans*) the aedeagus is long and the cornutus usually very large, the caulis is subterminal, the socii elongate, the distal part of the sacculus rounded and the females have two accessory bursae, both extending from the ductus bursae and the ductus seminalis from the proximal part of this last. The position of *ichthyochroa* is unclear as its socii are highly specialised, unusual. In the *omissa*-group (*pervicax*, *omissa*, *revulsa*) the socius is strongly reduced (male of only one species known) and the females remind those in the *gravid*a-group but retain only one accessory bursa. The last two species, *cnestovalva* and *diclada* have a small aedeagus and differ in some other parts of their genitalia from the remaining members of this genus but have a typical abdominal scent organ of sternum 6 and a well-developed costal fold of the hindwing.

#### List of species

##### *Lasiothyris limatula* (MEYRICK, 1917)

*Lasiothyris limatula* MEYRICK, 1917, Trans. ent. Soc. London, **1917**: 4. Type-locality: Ecuador: Huigra. CLARKE, 1963, Catalogue Microlepidopt. British Museum, described by MEYRICK, **4**: [19], pl.9 (wings, venat., male genit. of holotype).

**Redescription of holotype.** Alar expanse 8 mm. Head missing; thorax ochreous-cream. Forewing not expanding terminally; costa hardly convex; apex short; termen slightly convex, distinctly oblique. Ground-colour ochreous-yellow, darkening along costa to before middle and somewhat also in terminal area of wing. Pattern more ochreous than ground-colour, consisting of costal spot (remnant of median fascia), weak dorsal and median suffusions, and slender fascia from end of discal cell to tornus; ochreous dots in middle of terminal area. Fringes somewhat darker than ground-colour, with weak postbasal line. Hindwing slender, with elongate apical third, pale brownish cream, paler basally; fringes long, concolorous with median area of wing.

**Male genitalia** (Figs 1,2): Tegumen short; terminal portion of socius slender, long; vinculum arms not coalescent ventrally. Transtilla broad, with very slender median part, armed with small apical bifurcation; juxta short. Valva broad in basal third, slender in terminal portion; sacculus with small terminal prominence. Aedeagus long, slender, with small ventral termination; vesica minutely spined, without cornutus.

**Comments.** This species is distinct in its slender aedeagus and lack of the cornutus. The abdomen requires examination for the presence of the abdominal scent organ.

*Lasiothyris cerastes* RAZOWSKI & BECKER, 1986

*Lasiothyris cerastes* RAZOWSKI & BECKER, 1986, Acta zool. cracov., **29**(20): 461, figs 75,76 (male genit.), 132 (abdominal scent organ), 168,169 (female genit.). Type-locality: Costa Rica: Turrialba.

Externally similar to the preceding species, but somewhat darker in coloration, with pinkish hue in posterior portion of the wing and more ferruginous pattern.

In male genitalia it is very similar to *limatula* but differs in longer base of the socii and very slender median part of the transtilla. In this species the aedeagus is much shorter and broader and the rudimentary cornutus is present. Abdominal scent organ with broad base and moderate lateral arms.

The female genitalia are characterized by a long, slender ductus bursae and small, cup-shaped colliculum.

A few specimens (the type-series) are known from Costa Rica (Turrialba).

*Lasiothyris sorbia* sp.n.

Alar expanse 8 mm. Labial palpus 1, cream, remaining parts of head concolorous; thorax more ochreous. Forewing slender; costa rather straight; termen strongly oblique, hardly convex. Ground-colour yellowish cream, slightly suffused ochreous; ferruginous dots along costa and dorsum. Pattern ill-defined, rust-ochreous at costa, ochreous in remaining parts; median fascia almost completely atrophied (median and dorsal parts), subapical fascia reaching termen, marked rust-brown terminally. Fringes cream, mixed yellow-ochreous in apex portion. Hindwing transparent, brownish, with similar fringes. Scales of major area (basal, median, anal parts) scarce, transformed, thin, expanding apically. Costal fold indistinct, but large marginal scales present.

Male genitalia (Figs 3,4) as in *cerastes* but socii much longer, median part of transtilla broader, with asymmetric terminal thorns, distal part of valva slenderer and terminal prominence of sacculus broader. Aedeagus in this species much longer and slenderer, with elongate distal portion; cornutus minute; dorso-posterior parts of anellus subtriangular. Abdominal scent organ delicate, with fairly broad lateral parts directed caudally.

Holotype, male: "Planaltina, D. [istrito] F[ederal], 15°35'S / 47°42'W Brasil, 1000 m, 25.VI.1983, V. O. BECKER col.; Col. BECKER 41104"; genitalia slide Nr. 21801. Paratypes, 2 males (one with abdomen missing) from same locality but collected on 15.IX.1984 and 10.X.1983.

Comments. This species much resembles *limatula* and *cerastes*. The differences are as given in the description of the male genitalia, especially in the presence of prominences of the caulis.



*Lasiothyris ficta* (RAZOWSKI & BECKER, 1983) comb.n.

*Saphenista ficta* RAZOWSKI & BECKER, 1983, Acta zool. cracov., **26**(13): 426, figs 19-20 (male genit.), 21 (abdominal scent organ), 83,84 (female genit.). Type-locality: Brazil: Paraná: Curitiba.

Coloration darker than in two preceding taxa; rust-brown subterminal fascia reaching mid-termen present; median pattern ill-defined. In male genitalia this species is very similar to *cerastes* but the base of the socii is very broad, the median part of the transtilla broad, wedge-shaped, and the ventro-terminal prominence of the sacculus absent. Aedeagus larger than in *cerastes*, also with ill-defined cornutus. Abdominal scent organ with long lateral processes.

The female genitalia are quite distinct, with a very short ductus bursae and broad bulbous colliculum.

Distribution. Known from a few localities (type-series only) in Paraná and Santa Catarina, Brazil.

*Lasiothyris perjura* sp.n.

Alar expanse ca 13 mm. Labial palpus 2, pale brownish grey, whitish dorsally and terminally, front, partially vertex and scape of antenna whitish, remaining parts of head pale brownish grey. Forewing slender to 2/3, distinctly expanding terminally; termen long, fairly oblique, hardly convex. Ground-colour whitish sprinkled and strigulated brownish grey, especially in basal third of costa. Pattern darker than strigulation consisting of a rather uniformly broad median fascia with proximal edge arched, concave and distal edge very weakly bent so; median part of the latter edge connected with dorsum by means of short fascia; discal dot brown-grey; subterminal fascia broadening subterminally, with curved, thin terminal part reaching tornus; spots along termen and subapical part of costa weak. Fringes concolorous with ground-colour, divisions weak, brownish grey. Hindwing white-cream, suffused greyish, strigulated brownish grey; fringes whitish. Costal fold ill-defined.

Male genitalia (Figs 5,6): Base of socii broad, not tapering towards tegumen; socius broad, slightly tapering terminally, with small, naked apical process; vinculum arm delicate. Valva rather slender; sacculus without free termination, somewhat expanding terminally. Median part of transtilla wedge-shaped, with many small thorns; juxta small. Aedeagus similar to that in three preceding species; four inequally long cornuti present. Abdominal scent organ absent.

Holotype, male: "Brasil, S[anta] C[atarina], Sao Joaquin, 1400 m, 22-24.I.1983, V. O. BECKER col.; Col. BECKER 52296"; genitalia slide Nr. 21802.

Comments. Externally this species is quite distinct in having grey coloration of the forewing pattern. In the male genitalia only the shape of the aedeagus reminds that in the three preceding species. Other characters are similar to those in preceding species (e.g. the median part of the transtilla to *ficta*) but also to some other genera of this group (e.g.

to *Phalonidia* LE MARCHAND). The abdominal scent organ is absent. The female is unknown.

*Lasiothyris grvida* RAZOWSKI, 1986

*Lasiothyris grvida* RAZOWSKI, 1986, Acta zool. cracov., **29**(16): 379, figs 30 - 32 (male genit.), 33 (abdominal scent organ), 75 (female genit.). Type-locality: Mexico: Veracruz: Cordoba.

Alar expanse 10 mm; labial palpus over 1. Forewing ground-colour yellow-cream; pattern brownish yellow with median fascia atrophying below costa; subapical fascia well developed, marked with black scales subterminally.

**Male genitalia:** Base of socii large, somewhat tapering towards tegumen but broadly connected with it, with terminal area somewhat concave medially; socius in distal portion slender. Vinculum arms membranously connected ventrally, with protruding apices. Sacculus without free termination, rounded ventro-posteriorly. Median part of transtilla tapering terminally; juxta rather small. Aedeagus extremely long; cornutus almost as long as whole aedeagus. Abdominal scent organ with moderate lateral arms.

**Female genitalia** with fairly broad and rather weakly sclerotized sterigma and colliculum; two accessory bursae developed, one originating before colliculum, the other being larger than corpus bursae and ductus bursae; ductus seminalis extending just beyond corpus bursae.

**Distribution:** Mexico: Veracruz. Known from type-series only (two localities: Cordoba and Fortin de las Flores).

*Lasiothyris luminosa* (RAZOWSKI & BECKER, 1983) comb. n.

*Saphenista luminosa* RAZOWSKI & BECKER, 1983, Acta zool. cracov., **26**(13): 426, figs 15 - 18 (male genit. & abdominal scent organ). Type-locality: Brazil: Santa Catarina: Brusque.

Externally similar to *grvida*, with pinkish hue of the glossy ground-colour and black scales on distal edge of median and subterminal fasciae.

**Male genitalia** with socii larger and broader than in *grvida*, with apical edge of their base very short, not concave; valva broader basally; median part of transtilla larger, much broader; vinculum arms distinctly protruding and coalescent ventrally. Aedeagus and cornutus larger than in mentioned species. Abdominal scent organ (Fig. 7) with long lateral parts.

**Comments.** The external differences between the species of this group are rather slight and their variation is insufficiently known. The genital differences between *grvida* and *luminosa* are as mentioned above. The female is unknown.

*Lasiothyris heterophaea* (CLARKE, 1968) comb.n.

*Phalonidia heterophaea* CLARKE, 1968, Proc. U.S. natn. Mus., **125**(3660): 36, fig. 19 (male genit.), pl. 4, fig. 1 (photogr. of holotype). Type-locality: Colombia: Antioquia: La Estrella.

Alar expanse 11 mm. Ground-colour yellowish white, glossy, especially in distal area; strigulation olive-cream; median fascia brownish olive with brown markings.

Male genitalia similar to those in *luminosa* but distal portion of valva shorter and distal angulation of sacculus more pronounced, less rounded; aedeagus seemingly longer.

Comments. The genitalia of the holotype require re-examination. The socii are insufficiently clearly seen. The abdominal scent organ is similar to that in *luminosa*.

*Lasiothyris ichthyochroa* (WALSINGHAM, 1897) comb.n.

*Phalonia ichthyochroa* WALSINGHAM, 1897, Proc. zool. Soc. London, **1987**: 136. Type-locality: St. Croix (West Indies). — *Phalonidia ichthyochroa* RAZOWSKI, 1964, Annls zool., Warsz., **22**(16): 367, figs 28,29 (male genit. of holotype).

Ground-colour of forewing cream-white; base of wing, median fascia and terminal area pale ochreous; basal half of costa, distal edge of median fascia, subapical and subterminal markings brownish, costal part of median fascia darker; small groups of brownish scales along wing edges and amidst pattern. Fringes concolorous with ground-colour, mixed ochreous in median area, with weak, brownish basal line. Hindwing greyish cream; fringes whiter. No data on the hindwing costal fold.

Male genitalia need re-examination; terminal part of tegumen tapering apically; socius slender, broadening and rounded terminally. Median part of transtilla with pair of apical thorns. Aedeagus and cornutus very long.

Comments. This species requires re-examination. It is provisionally placed in *Lasiothyris* mainly on the basis of the structure of the aedeagus and cornutus. Not checked for the presence of the abdominal scent organ.

*Lasiothyris ilingocornuta* sp.n.

Alar expanse 10 mm. Labial palpus over 1, cream, tinged ochreous basally, remaining parts of head and dorsum of palpi white-cream; thorax cream, slightly tinged ochreous. Forewing in male somewhat expanding posteriorly, in female almost uniformly broad throughout, with costa bent at 2/3, apex rounded, termen indistinctly convex. Ground-colour cream, suffused ochreous-cream at places; costa tinged ochreous basally, concolorous suffusion posterior to median cell. Median fascia pale ochreous-olive-grey, scaled black at costa, along proximal edge and near middle of posterior edge; subapical pattern olive-grey, marked black in terminal third near termen); some black dots along termen;



weak, olive-grey marking at costa near apex. Fringes ochreous-cream, cream at tornus, mixed olive-grey in apex part, with ill-defined basal line. Hindwing greyish, transparent (median and basal area clothed with scarce, thin scales), with brownish grey venation and partially periphery (in female brownish, rather dark); fringes pale brownish. Hindwing costal fold long, scent scales white-cream.

**Male genitalia** (Figs 10,11) as in *megapenis* but with base of socii large, expanding in terminal portion, socius slender, fairly long. Median part of transtilla longer than in mentioned species, gradually tapering terminally; aedeagus and cornuti as in *megapenis*, but cornutus more strongly curved; abdominal scent organ absent.

**Female genitalia** (Fig. 20) as in *megapenis* but sterigma short, ductus bursae in distal part membranous, broad, well sclerotized postmedially, curved, less sclerotic in anterior portion; ductus of accessory bursa one as in that species, beyond sclerite of ductus bursae, that of accessory bursa two short, more anterior, situated dorsally.

**Holotype**, male: "Planaltina, D[istrito] F[ederal], 15°35'S / 47°42'W, Brasil – 1000 m, 15.IX.1984, V. O. BECKER col.; Col. BECKER 56828"; genitalia slide Nr. 21807. **Paratype**, an identically labelled female.

**Comments**. Very close to *megapenis*; the differences in genitalia as given above. Externally quite different, easily distinguished by irregularly suffused forewing ground-colour and almost complete pattern. The sexual dimorphism in coloration very slight, more distinct in the shape of the forewing and size (alar expanse ca 12 mm).

### *Lasiothyris megapenis* sp.n.

Alar expanse 11 mm; labial palpus ca 1.5. Head white cream, thorax concolorous but base of tegula tinged ochreous. Forewing slender, with costa rather straight and termen short, oblique. Ground-colour white-cream, with indistinct yellowish-olive hue in median and apical areas of wing, whiter basally. Costa suffused brown in basal third, costal remnant of median fascia concolorous, followed by much paler, more ochreous median shade; subapical marking pale yellow-brown, brown at costa; black dots near apex and before middle of termen. Fringes white-cream. Hindwing pale grey-brown, partially transparent, but with typical, broad scales; fringes cream-grey. Hindwing costal fold weakly developed. Female paratype with forewing more ochreous, especially in costal half of wing, with pattern preserved mainly near costa.

**Male genitalia** (Figs 8, 9): Socius long, rounded terminally, with fairly large base. Sacculus rounded ventro-posteriorly, distal portion of valva very slender. Median part of transtilla stout, abruptly tapering in apical portion; juxta very small; vinculum arms not coalescent ventrally. Aedeagus very large, with one very long, swung cornutus and one very short cornutus in vesica; caulis short, subterminal. Abdominal scent organ absent.

**Female genitalia** (Fig. 21) as in *gravida* but colliculum not differentiated, ductus of accessory bursa one just beyond place of origin of very broad, irregularly sclerotized part of ductus bursae; ductus of accessory bursa two almost entirely membranous, dorsal; corpus bursae without signum. Position of ductus seminalis not located.



**H o l o t y p e**, male: "Brasil, M[inas] G[erais], Una, 700 m, 27.IX.1983, V. O. BECKER col.; Col. BECKER 49369"; genitalia slide Nr. 21799. **P a r a t y p e**, an identically labelled specimen and one example dated 7.XI.1982.

**C o m m e n t s**. This new species is easily distinguished by the coloration of the forewing, especially olive-cream shade of its ground colour and the presence of brown, costal remnants of the pattern. The male genitalia are very similar to those in *heterophaea* and *gravida* but distinctly differ from them in a short, stout median part of the transtilla. The differences from *gravida* in the female genitalia as given above. The venation is variable, in one specimen hindwing veins  $m_3$  -  $cu_1$  separate, in the other stalked.

*Lasiothyris competitrix* (RAZOWSKI & BECKER, 1983) n. comb.

*Mielkeana competitrix* RAZOWSKI & BECKER, 1983, Acta zool. cracov., **26**(13): 440, figs 59 - 61 (male genit. & abdominal scent organ), 113, 114 (female genit.). **T y p e - l o - c a l i t y**: Brazil: Paraná: Banhado (Quatro Barras). Specimens of type-series known also from Santa Catarina: Rio Vermelho.

Alar expanse ca 9 mm; labial palpus ca 1.5. Ground-colour cream sprinkled and suffused brownish; pattern ochreous-brown in form of postbasal spot at costa, median fascia atrophying dorsally and almost concolorous, subapical fascia marked black towards the end.

**F e m a l e g e n i t a l i a**: Sterigma rather broad; colliculum short, very weakly sclerotized; ductus bursae as in *megapenis* but with single, longitudinal sclerotic belt and sclerotized ductus of accessory bursa.

**D i s t r i b u t i o n**. Known from the type-localities only.

*Lasiothyris tardans* sp.n.

Alar expanse 9.5 mm; Externally very similar to *ilingocornuta*. It is distinguished only by broader forewing and slightly convex posterior edge of subterminal fascia. Pattern, especially at costa, is browner, without greyish-olive hue. Hindwing costal tuft long; scales of median area of wing slender but dense.

**M a l e g e n i t a l i a** (Figs 12, 13) as in *ilingocornuta* but smaller, with slenderer socii, broader median part of transtilla, slenderer valva and much smaller aedeagus provided with shorter, straight cornutus. Abdominal scent organ absent.

**H o l o t y p e**, male: "Brasil: M[inas] G[erais], Unai, 700 m, 3.XI.1983, V. O. BECKER col.; Col. BECKER 49875"; genitalia slide Nr. 21815.

*Lasiothyris pervicax* sp.n.

Alar expanse 11 mm. Labial palpus over 1.5, cream-ochreous laterally, white dorsally; remaining parts of head white-cream, vertex slightly mixed ochreous; thorax yellow-

brown, mixed cream distally. Forewing fairly broad, not expanding terminally, with costa uniformly, weakly convex, termen less convex, indistinctly oblique. Ground colour ochreous cream, mixed yellowish in basal half, with pink beyond median fascia. Base of wing and dorsum beyond median fascia ferruginous; median fascia concolorous in dorsal and median parts, rust-brown at costa, marked with black dots near middle and at dorsum; pale rust-brown shade posterior to median fascia; subapical fascia rust-brown, slender, in terminal third dotted black. Fringes concolorous with ground colour. Hindwing brownish, with paler fringes. Scales dense, typical; costal fold rather short. Variation: one female with darker, more olive-grey ground colour and grey fringes of hindwing, other paratype with pattern pale, atrophying towards dorsum and whitish fringes of the hindwing.

**Female genitalia** (Fig. 22) as in *megapenis* but with much larger, swung postmedian portion of ductus bursae; ductus seminalis originating beyond corpus bursae; accessory bursa not located.

**Holotype**, female: "Planaltina, D[istrito] F[ederal], 15°35'S / 47°42'W, Brasil – 1000 m, 20.IV.1982, V. O. BECKER col. 40078"; genitalia slide Nr. 21804. **Paratypes** two similarly labelled females, one dated 25.IX.1983.

**Comments.** Very similar to *ilingocornuta*. Externally differing in broader forewing, more convex costa and termen and in rust coloration of the costal pattern.

### *Lasiothyris omissa* sp.n.

Alar expanse 9 mm. Labial palpus over 1, white, mixed cream latero-basally, remaining parts of head white, but vertex and flagellum of antenna more ochreous; thorax pale ochreous cream. Forewing slender, with costa almost straight and termen oblique, almost straight. Ground-colour cream, suffusions weak, ochreous cream. Pattern yellowish brown: median fascia atrophying at dorsum and subcostally, with brown costal portion; subapical fascia concolorous, marked brown at costa and terminally; brown dots at termen, before apex and on posterior edge of median fascia. Fringes concolorous with ground-colour. Hindwing pale brownish grey; fringes rather paler. Hindwing costal fold long; scales of median area of wing dense, typical. Variation: in two paratypes ground-colour much darker, more brownish-cream; pattern darker, but also atrophying near costa and dorsum; black dots instead of brown, in one specimen numerous black dashes near termen.

**Male genitalia** (Figs 14, 15) as in *tardans* but with large median part armed with some apical thorns, longer aedeagus and shorter cornutus. No abdominal scent organ.

**Female genitalia** (Fig. 23) very similar to *pervicax* (cf figures).

**Holotype**, male: "Brasil: Pará, Belem, 20 m, I.1984, V. O. BECKER col.; Col. BECKER 47145"; genitalia slide Nr. 21810. **Paratypes**, 2 males and 2 females with identical labels.

**Comments.** This species is closely related to *tardans* as shows the structure of its male genitalia. In the female genitalia it hardly differs from *pervicax*. Thus suppose the females of the three species are similar to each other. Externally it differs from those two species mainly in slenderer forewing.

*Lasiothyris revulsa* sp.n.

Alar expanse 9.5 - 10.5 mm. Labial palpus 1.5, pale ochreous, white dorsally; remaining parts of head white but vertex and flagellum of antenna mixed ochreous; horax white-ochreous, paler distally. Forewing somewhat expanding towards termen, with costa slightly convex, apex sharp, termen slightly oblique, very weakly sinuate beneath apex. Ground-colour cream-ochreous, darkest in distal half of wing except for costal portion which is whitish; suffusions greish brown, best visible on remnants of pattern, black dashes or dots in terminal area; costa brownish to middle; costal portion of median fascia and subapical blotch brown, median part of the former marked with group of brown scales posteriorly or median, elongate strip. Fringes concolorous with ground-colour, with some brownish scales. Hindwing pale brown, fringes creamer, with median line brownish, atrophied anally. Costal fold long; scales dense, typical.

**Male genitalia** (Figs 16, 17): Socii reduced to a transverse hairy lobe terminated in two submedian prominences; vinculum arms fused ventrally. Valva slender, tapering terminally, similar to that in *omissa*; sacculus short, without free termination. Transtilla broad, with small, acute median part and submedian prominences of dorsal edge; juxta producing dorsally. Aedeagus long, slender, with small, sharp terminal portion and ventral convexity with top at the end of caulis; cornutus absent. Abdominal scent organ absent.

**Holotype**, male: "Planaltina, D[istrito] F[ederal], 15°35'S / 47°42'W, Brasil, 1000 m, 15.VI.1982, V. O. BECKER col.; Col. BECKER 40304"; genitalia slide Nr. 21816. **Paratypes**, 3 males with same labels, two dated 20.IV.1982.

**Comments**. The species differs from all other members of this genus in peculiar structure of the aedeagus which is constricted subterminally. The socii are also different, strongly reduced. They remind those in *Platphalonidia* RAZOWSKI, 1985 to some degree but have different basal part. Other characters are also different from their counter parts in the mentioned genus, e.g. the shape of the transtilla which is of the *Lasiothyris* type.

One specimen labelled identically with the paratype of 20.IV.1982 (BECKER Nr. 0078) differs in genitalia which have much shorter valva and the median part of the transtilla, and a proportionally longer aedeagus. Its socii are smaller, with small terminal portions (Figs 18, 19). The external differences are small.

*Lasiothyris cnestovalva* RAZOWSKI & BECKER, 1986

*Lasiothyris cnestovalva* RAZOWSKI & BECKER, 1986, Acta zool. cracov., **29**(20): 463, figs 79 - 82 (male genit.). Type-locality: Costa Rica: Braulio Carillo.

Alar expanse 9 mm; labial palpus over 1; forewing with rather straight costa and weakly oblique termen. Ground-colour glossy, pale ochreous-cream; pattern yellow-brown; median fascia interrupted medially; black marking in middle of subterminal area. Hindwing with long costal tuft.

**Male genitalia** with socii rounded apically; distinct, sharp prominence between socii, dorsally. Median part of transtilla broad to beyond middle. Valva broadening



apically; end of sacculus broad, produced, rounded. Aedeagus small, slender, without cornutus. Scent organ of sixth sternite large, with long lateral parts; small median prominence on the distal edge of the following sternite.

F e m a l e unknown.

D i s t r i b u t i o n : Known from the type-locality only.

C o m m e n t s . This and the following species distinctly differ from the remaining members of *Lasiothyris*, especially in the shape of valva and aedeagus. However, both posses the costal fold of the hindwing and the abdominal scent organ typical of this genus.

*Lasiothyris diclada* RAZOWSKI & BECKER 1986

*Lasiothyris diclada* RAZOWSKI & BECKER, 1986, Acta zool. cracov., **29**(20): 462, figs 77,78 (male genit.), 133 (abdominal scent organ). Type-locality: Costa Rica: Turrialba.

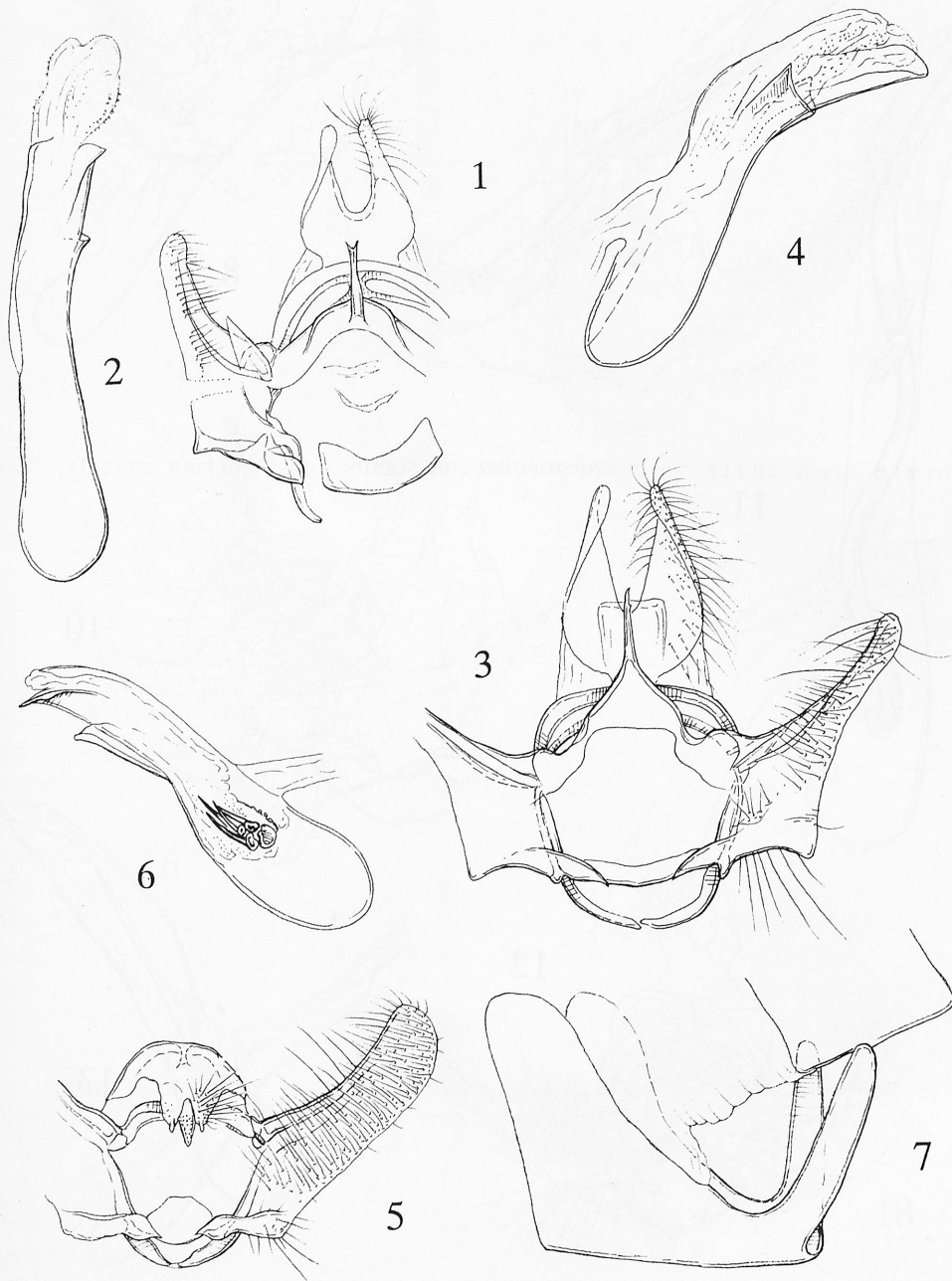
Alar expanse 8 mm; labial palpus, shape of forewing and coloratrion as in *cnestovalva*, but pattern yellow-brown, with dark brown markings, without black scales. Hindwing costal fold also long.

M a l e g e n i t a l i a as in *cnestovalva* but socius long, tapering apically, sharp, median part of transtilla longer, slenderer, sacculus without rounded, prominent termination; cornutus present. Abdominal scent organ only on sixth sternite, with slenderer lateral parts.

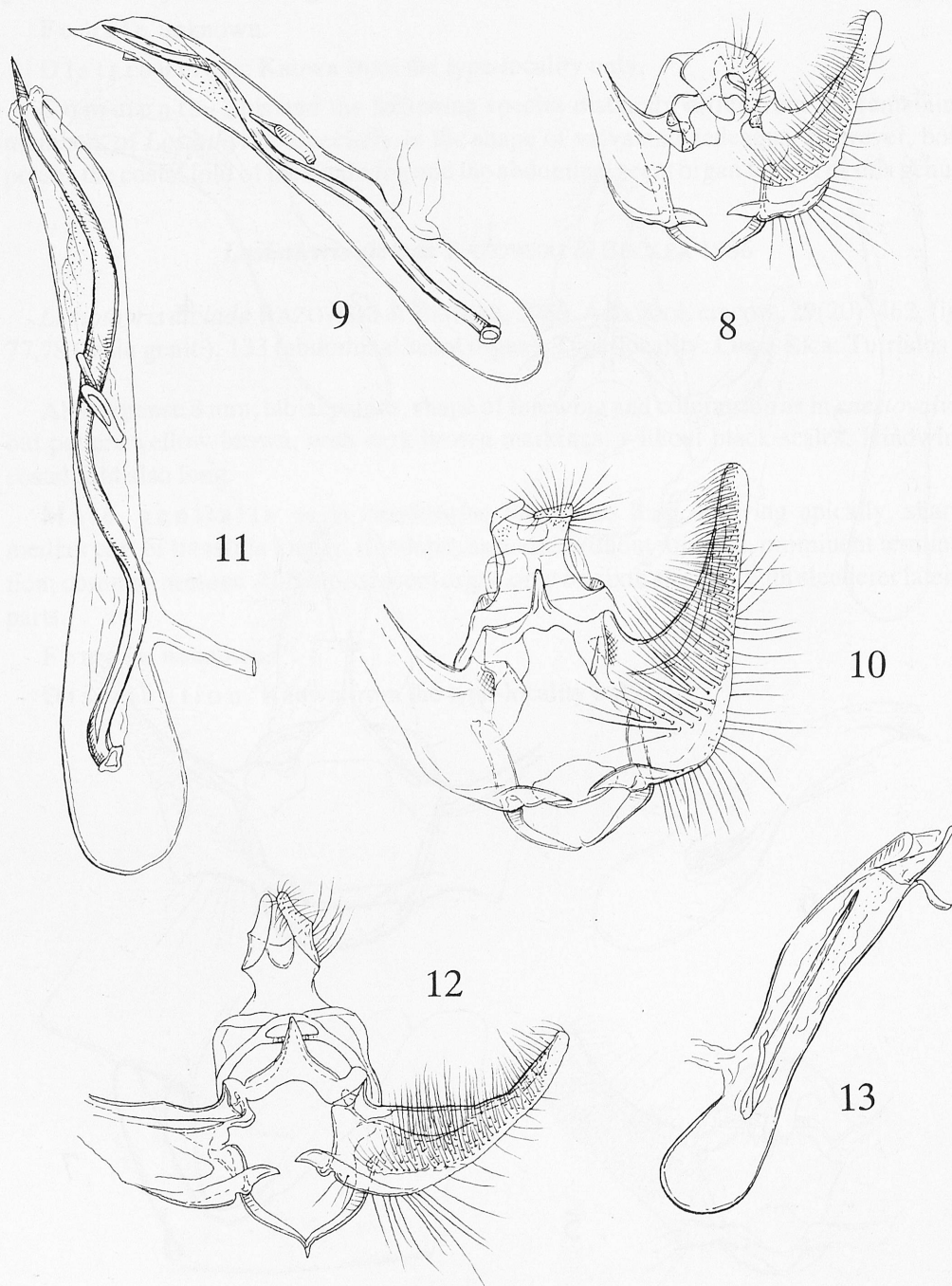
F e m a l e unknown.

D i s t r i b u t i o n . Known from the type-locality only.

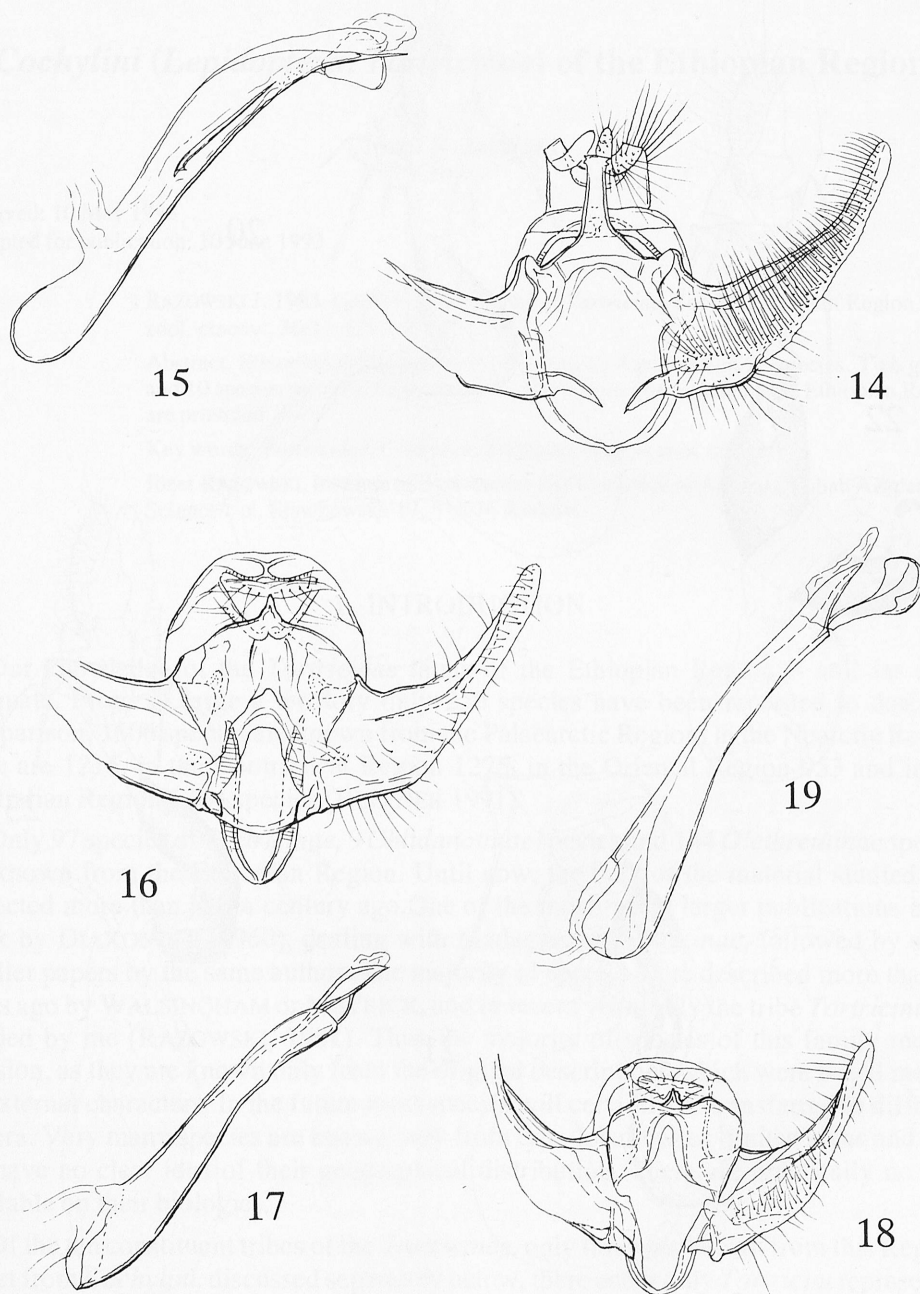




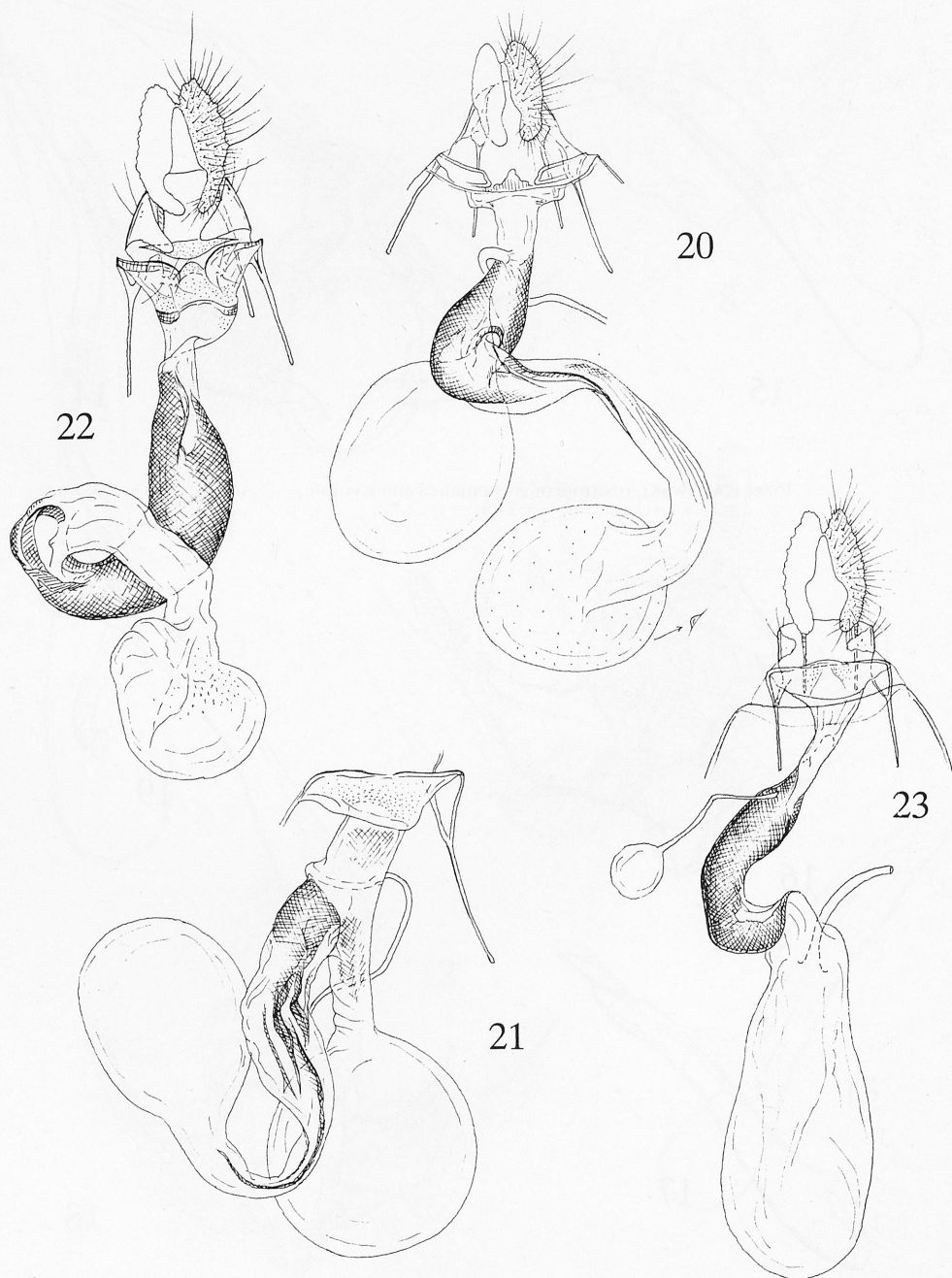
Figs 1 - 7. Male genitalia of *Lasiothyris* MEYRICK: 1,2 - *L. limatula* MEYRICK, holotype; 3,4 - *L. sorbia* sp.n., holotype; 5,6 - *L. perjura* sp.n., holotype; 7 - abdominal scent organ of *L. luminosa* (RAZOWSKI & BECKER)



Figs 8-13. Male genitalia of *Lasiothyris* MEYRICK: 8,9 - *L. megapenis* sp.n., holotype; 10,11 - *L. ilingocornuta* sp.n., holotype; 12,13 - *L. tardans* sp.n., holotype



Figs 14 - 19. Male genitalia of *Lasiothyris* MEYRICK: 14,15 - *L. omissa* sp.n., holotype; 16,17 - *L. revulsa* sp.n., holotype; 18,19 - *Lasiothyris* sp. near *revulsa*



Figs 20 - 23. Female genitalia of *Lasiothyris* MEYRICK: 20 - *L. ilingocornuta* sp.n., paratype; 21 - *L. megapenis* sp.n., paratype; 22 - *L. pervicax* sp.n., holotype; 23 - *L. omissa* sp.n., paratype