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Descriptions and notes on *Orthocomotis* DOGNIN (*Lepidoptera: Tortricidae*)

[With 65 text-figs]

Opisy i uwagi o *Orthocomotis* DOGNIN (*Lepidoptera: Tortricidae*)

Abstract. Three species and one subspecies (*O. aphanisma*, *O. phenax*, *O. phenax photetica*, *O. uragia*) are described as new; *O. jordani* is synonymized with *O. mereda*; genitalia of several species are described and illustrated.

CLARKE (1955) includes in the originally monotypical genus *Orthocomotis* DOGNIN, 12 previously described species and 17 species discovered by himself. RAZOWSKI (1982) redescribed *Orthocomotis*, described 2 new species and transferred one (*Eulia trissophrieta*) to it. He also erected a new genus *Paracomotis* for *Eulia smaragdophaea* MEYRICK. In the same paper, RAZOWSKI suggested *Orthocomotis* to be transferable to *Polyorthini*, sharing two apomorphies with that tribe, viz., the presence of densely spined dorsal portion of the anellus and the development of the dorsal lobe of the distal part of aedeagus. As the latter structure is now found in some other *Tortricinae* it remains only the first of those synapomorphies and further studies are required to confirm that hypothesis on the systematic position of the two mentioned genera.

CLARKE (1955) compared *Orthocomotis* with Holarctic *Eulia* HÜBNER in which the majority of species were originally described and provided a useful key to the determination of the species based on the external characters. He also provided the figures of the male and female genitalia of the two sexes, if known, but, unfortunately, without any description. Neither did he include the redescrptions of the external habit of the known species. In several cases the illustrations seem insufficient for a proper determination of the species, especially as they show only parts of the genitalia (e.g. the valvae).

The morphology of the genitalia is discussed in the above-mentioned paper by the first author. The reexamination of the male genitalia of several species allows now to distinguish two trends (and groups of species) within the genus. One group is characterized with strong, more or less complicate uncus, the other with simple, uncus usually devoid of stronger spines. An elaborate shape of

the transtilla and slender aedeagus correspond with the first type of uncus, whilst the species with simple uncus are characterized with belt-shaped transtilla, thick aedeagus and small dorsal prominence of the juxta. The latter group is recognized as more advanced than that with strong uncus. In the two groups, a process of simplification of the valva can be observed, and a trend to simplification of the transtilla might be seen in the first a group.

The geographic distribution of *Orthocomotis* is still insufficiently known as one can judge of the included card (Fig. 1). As realized by CLARKE, the ge-



Fig. 1. Distribution of *Orthocomotis* DOGNIN. The species arranged systematically; the taxa not mentioned in text cited with their authors' names: 1 — *melanochlora*, 2 — *mereda*, 3 — *smaragdilis*, 4 — *argodonta*, 5 — *citroleuca* (MEYRICK), 6 — *aglaia* CLARKE, 7 — *scardiana* (DOGNIN), 8 — *leucothorax*, 9 — *euchaldera* CLARKE, 10 — *attonsa* RAZOWSKI, 11 — *subolivata*, 12 — *olivata* (DOGNIN), 13 — *muscovana* (ZELLER), 14 — *prochaldera* CLARKE, 15 — *ochracea*, 16 — *chaldera* (DRUCE), 17 — *chloantha*, 18 — *trissophricta*, 19 — *magicana*, 20 — *twila*, 21 — *auchmera* RAZOWSKI, 22 — *uragia*, 23 — *ochrosaphes*, 24 — *melania* CLARKE, 25 — *exolivata*, 26 — *aphanisma*, 27 — *phenax phenax*, 27a — *phenax phobetica*, 28 — *pseudolivata*, 29 — *boscantina* (DOGNIN), 30 — *herbacea* CLARKE, 31 — *herbaria*, 32 — *cristata* CLARKE, 33 — *nitida* CLARKE

nus is exclusively Neotropical. It is certainly widely distributed in South America, being better known in its eastern than in the western part. That seemingly depends on the quantities of the material available. Northwards *Orthocomotis* reaches as far as to Mexico from where 3 species are known. Eight species are recorded from Central America, chiefly from Costa Rica, and one is insular (described from Jamaica).

In this paper, we include the descriptions of the genitalia of the species basing on the material of our collections (addition: the type of *O. chloantha* WALS.) excluding the data published in the paper by RAZOWSKI (1982) dealing with *O. attonsa* and *O. auchmera*.

Orthocomotis melanochlora (MEYRICK, 1931)

Several specimens collected in Rio Vermelho, Santa Catarina, Curitiba, Rio Negro and Banhado, Quatro Barras, Paraná (Brazil) at the altitudes 800—968 m. Flight: II, IV, VI, XII. Known also from Minas Gerais and São Paulo.

Male genitalia (Figs 2—5): Tegumen fairly strong; uncus rather slender basally, strongly expanding terminally, concave in middle dorsally, armed with small thorns dorso-posteriorly. Gnathos simple. Socius small, rounded, hairy. Vinculum strong but weakly expanding in ventral portion proximally. Valva short, broad, with costa convexely rounded postmedially, concave anteriorly; caudal edge almost straight when valva flattened; sacculus simple, slender, provided with small terminal prominence; disc of valva scarcely hairy forming indistinct pulvinar area marked with small group of bristles. Transtilla very broad, deeply incised in middle ventrally, provided with minute dorsal prominence and swollen, armed with small thorns dorso-lateral portions; juxta elongate-ovate, producing dorso-posteriorly. Aedeagus slender, long, strongly bent medially, somewhat arched in anterior half, provided with a series of small lateral (left side) thorns; cornuti small, numerous, arranged in two long rows; caulis consisting of a small basal portion and large, expanding posteriorly, scobinate distal part; dorsal, bristled area of anellus small, tapering towards transtilla.

Female genitalia (Figs 48, 49): Papillae anales elongate, fused medially; membrane between ventral parts of eighth tergite forming pair of scobinate lobes expanding ventro-proximally; sterigma broad, weakly sclerotized dorsally, strongly so ventro-laterally; ventral sac broad, rather shallow, strengthened by median sclerite; colliculum short, marked with ventral sclerite expanding in middle anteriorly and connected by a weaker ventral sclerite with sterigma, forming a short sac anteriorly; ductus bursae ill-defined; corpus bursae very small, plicate, weakly sclerotized medially; ductus seminalis ventro-lateral, situated in distal portion of corpus, anteriorly to base of large accessory bursa originating dorsally.

Orthocomotis mereda CLARKE, 1955

Orthocomotis mereda CLARKE, 1955, Trans. R. ent. Soc. London, 1955: 142, pl. 1, figs. 3—3b, pl. 5, fig. 4.

Orthocomotis jordani CLARKE, 1955, ibid.: 142, pl. 1, figs. 5, 5a — **synon. n.**

Numerous specimens taken in January, February, April and June—October in Rio Vermelho, Blumenau and 14 km NW of São Bento do Sul, Santa Catarina and Rio Negro, Marumbi, Guaratuba, Banhado, (Quatro Barras) in Paraná at the altitudes 850—968 m. Known to this date from two other localities in Santa Catarina and Tayó, Alto da Serra (São Paulo). Certainly widely distributed in eastern Brazil.

Male genitalia (Figs 6—8): Tegumen weaker than in preceding species, with well-differentiated distal portion; uncus slender, convex in basal portion dorsally, minutely spined in posterior half of dorsum, provided with a peculiar process extending from middle of its ventral part; socius attached to tegumen in its subdorsal portion; gnathos arms slender. Vinculum broad. Valva somewhat longer and more expanding dorso-posteriorly than in *melanochlora*, with oblique posterior edge; sacculus weakly concave postmedially, terminating in small, sclerotic plate; hairs of pulvinar area long. Transtilla broad, in middle part horizontal, somewhat concave, armed with large, dentate lateral processes; dorsal part of juxta large, slightly constricted before middle, tapering apically, delicately expanding in distal portion posteriorly. Aedeagus slender, bent at zone; caulis fairly long, scobinate; cornuti — several small spines and a large solitary spine; on dorsal lobe of aedeagus a row of several small spines resembling cornuti; dorsal portion of anellus setose, subdivided into two areas.

Female genitalia (Figs 50, 51): Papillae anales as in preceding species; membranous lobes of eighth segment absent; sterigma subsquare, with large lateral arms slightly emarginating dorsally and laterally and somewhat expanding ventro-anterior corners; sac very small, limited by mentioned prominences. Ostium bursae protected by sclerotic, setose margin; colliculum membranous except for distal portion and partially ventro-anterior area forming an indistinct sac; ductus bursae very short; corpus bursae small, plicate, delicately sclerotized; accessory bursa originating on dorso-lateral prominence of the posterior portion of corpus; ductus seminalis extending from ventral surface of corpus bursae, submedially.

The second author compared the types of *mereda* and *jordani* finding no external differences between them except for the coloration which in *jordani* is „vinaceous-lilac”. That difference is due to a change caused probably by a killing agent, as there is no difference in the genitalia of the holotypes.

Orthocomotis smaragditis (MEYRICK, 1912)

Several specimens collected in Paraná (Curitiba, Foz do Iguaçu, Banhado, Quatro Barras, 800 m. a.s.l.) and Federal District (Planaltina, 1000 m.) in Ja-

nuary, February, April, June, October and November. Previously known from Santa Catarina, Paraná, Rio Grande do Sul and São Paulo (Alta da Serra).

Male genitalia (Figs 9—12): Tegumen long, triangular distally; uncus strong, broad, deeply concave along middle, dorsally, densely spined along dorsal edges; gnathos slender, with short terminal plate; socius attached sub-dorsally, broadened ventrally, hairy; vinculum strongly elongate ventrally to form a distinct saccus. Valva elongate, fairly slender, with distal half of costa rather straight; sacculus slender, almost straight, with sharp end and terminal lobe directed medially; pulvinar area distinct, scobinate, long scaled. Transtilla broad, with lateral parts broad, expanding distally and dorsal portions elevated; juxta provided with distinct, setose dorsal lobes between which a sharp process is situated; the lobes extend ventrally into two distal ribs. Aedeagus strongly bent in middle, weakly sclerotized distally, provided with two larger lateral dents and several small thorns on distal membrane; caulis atrophied; two very strong cornuti present; setose part of anellus moderate.

Female genitalia (Fig. 52): Sterigma more complicate than in *mereda*, with several folds extending between ostium edge and ventral area, expanding along middle ventrally, forming rounded anterior corners; sac large. Colliculum in form of distal broadening of short ductus bursae, strengthened with dorsal sclerite; anterior half of ductus bursae, before transverse fold weakly sclerotized, triangularly tapering towards corpus bursae; distal portion of the latter expanding dorsally. Ductus seminalis lateral, originating in terminal part of corpus; ductus of accessory bursa sublateral, broad; plicate, partially sclerotic part of corpus beyond base of the latter, inner sclerite in elongate anterior portion of corpus, laterally.

Comments. CLARKE placed *smaragditis* after *subolivata*; however, its systematic position was correctly expressed by arrangement of the illustrations.

Orthocomotis argodonta CLARKE, 1955

Several specimens collected in Paran (Banhado, Quatro Barras, São José dos Pinhais and Morro de Meio) and Santa Catarina (Rio Vermelho) in January, February, March, April, June and August at the altitudes of 800 and 968 m. Described from Santa Catarina, Brazil.

Male genitalia (Figs 13, 14): Tegumen broad; terminal part of uncus concave dorsally, densely spined; socius drooping, hairy; vinculum rather slender. Valva short, rounded posteriorly; sacculus well developed, broad anteriorly, slender in posterior half, terminating in a ventral hook; pulvinar area indistinctly developed. Transtilla strong, broadly incised ventrally, provided with broad, dentate dorso-lateral prominences; juxta broad, with well developed dorsal portion. Aedeagus slender, rather uniformly bent, with dorsal plate expanding dorsad subterminally, terminating in a dull process. Cornuti: numerous, moderate spines. Dorsal part of anellus with elongate setose median portion.

Female genitalia (Figs 53, 54): Papilla analis expanding anteriorly; eighth tergite produced in middle distally, extending ventrad into a membranous fold; sterigma large, with distinct antevaginal part concave in middle ventrally; colliculum short; ductus bursae with a loop-shaped dorsal prominence similarly developed but larger than in preceding species; corpus bursae large, marked with slight ventral sclerites and a dorso-posterior prominence; ductus of accessory bursa broad, originating laterally; ductus seminalis extending from distal part of corpus bursae, ventrally.

The male was unknown till now, thus CLARKE (1955) basing on the female genitalia placed this species near *O. boscantina* (DOGNIN) with a remark „a striking species with no apparent closely associated species”. However, a close examination of the shape of the ductus bursae shows a similarity with *mereda*. The illustration of the male genitalia is unclear in the tegumen region as based on an old preparation of the second author.

Orthocomotis leucothorax CLARKE, 1955

Single specimen was taken in Brusque (Santa Catarina, Brazil) on 15—20. I.1983 at the altitude of 100 m a.s.l.

Male genitalia (Figs 15—17): Tegumen delicate; uncus simple, fairly broad, scarcely hairy dorsally; gnathos very slender; socius elongate-ovate, with attachment point situated subdorsally; vinculum moderate, with distinct inner margin. Valva fairly broad, with rather oblique caudal edge and weakly concave costa; sacculus broadening basally, concave beyond middle, provided with rounded ventral prominence apically; pulvinar area of disc marked with some long hair. Transtilla band-shaped, bent medially, marked with lateral minutely thorned pockets; juxta with strongly elongate dorsal part tapering apically, forming long posterior kil. Aedeagus slender, delicately bent, with broad, dentate dorsal plate; two rows of numerous short cornuti in vesica; dorsal, setose area of anellus weak.

Comments. This species known to this date of single specimen originating from New Bremen (Santa Catarina, Brazil) was placed by its author between *O. aglaid* CLARKE and *O. herbacea* CLARKE. Judging from the shape of the aedeagus and transtilla as well as on the structure of the juxta, it could be included in the first group of species. However, the shape of the uncus suggests of a similarity of *leucothorax* to the second group.

Orthocomotis subolivata CLARKE, 1955

Known from Costa Rica: Tuis; our specimen is also from Costa Rica and was collected on Volcán Turrialba (13 VIII 1972).

Orthocomotis ochracea CLARKE, 1955

One specimen exactly matching the holotype was collected in Sta Cruz, Turrialba at the altitude of 1500 m in August 1981. Known to this date from single male taken in Juan Vinas, Costa Rica.

Female genitalia, unknown till now (Fig. 55): Sterigma rather small, with lateral edges folding dorsad and ventral edge almost straight; colliculum very short, represented by a weakly sclerotized, shallow cup; ductus bursae very short; corpus bursae elongate, membranous; accessory bursa originating in anterior third of corpus, dorsally; ductus seminalis also dorsal, extending from middle of corpus.

Orthocomotis chaldera (DRUCE, 1889)

Specimens collected in Costa Rica: Volcán, Turrialba, one on 25 X 1971 and two on 13 VIII 1972. Known of a few localities in Costa Rica only.

Orthocomotis chloantha (WALSINGHAM, 1914)

Known only of single type specimen taken in Mexico (Sierra de las Aguas Escondidas, Guerrero), preserved in the British Museum (Natural History), London. Genitalia on slide 5340 [BM (NH)]

Female genitalia (Fig. 56): Sterigma rather short, rounded anteriorly, with small, rounded anterior corners; ostium area deeply concave; colliculum indifferentiate; ductus bursae membranous, fairly long; ductus of accessory bursa rather short, subdorsal, situated in subterminal portion of corpus bursae.

Orthocomotis trissophricta (MEYRICK, 1932)

Several specimens collected in Rio Vermelho, Santa Catarina and Banhado, Quatro Barras in Paraná. The species was also described on Brazilian specimen taken in Jaragua.

Male genitalia (Figs 18—21): Distal portion of tegumen well differentiated; uncus rather short, fairly slender, rounded apically, short hairy; gnathos arm slender, with small terminal plate; socius broad, somewhat expanding sub-ventrally; vinculum slender. Valva elongate, with costa indistinctly concave medially and terminal edge oblique; sacculus somewhat convex ventrally, provided with minute free termination; pulvinar area ill-defined, marked with delicate scobination. Aedeagus short, tapering apically, with coecum penis broad, rounded and with small dorsal plate; cornuti: no larger spines.

Female genitalia (Fig. 57) similar to those in the preceding species, but sterigma smaller, with much shorter anterior edge, the antevaginal portion of sterigma short, convex anteriorly; ductus bursae short; corpus bursae elongate, forming a distal sac dorsally reaching before middle of ductus bursae; accessory bursa from basal portion of ductus bursae; ductus seminalis originating in postmedian portion of corpus bursae, ventrally.

Orthocomotis magicana (ZELLER, 1866)

One specimen collected in Turrialba, Costa Rica, on 25 X 1971. Known from Colombia (no exact data) and Costa Rica (Juan Vinas, Mount Poas).

Orthocomotis twila CLARKE, 1955

Numerous specimens from Santa Catarina (Rio Vermelho, vicinity of São Bento do Sul) and some from Paraná (Curitiba, Banhado, Marumbi, Guaranéçaba, Foz do Iguacu). Described from Nova Teutonia, Santa Catarina. Known from Brazil only.

Male genitalia (Figs 22—26): Terminal part of tegumen elongate, concave apically beneath base of uncus; uncus slender, slightly broadening apically, gnathos very thin; socius elongate, with postmedian attachment point; vinculum slender. Valva elongate, with terminal portion rounded; sacculus convex, simple; pulvinar area marked with hairs. Transtilla fairly broad; juxta rather small, in distal portion producing posteriorly; aedeagus broad, with coecum penis fairly large; no large, spiniform cornuti in vesica.

Female genitalia (Fig. 58): Sterigma small, rounded ventrally; ostium area rounded; colliculum rather weakly sclerotized, simple; ductus bursae short, slender; corpus bursae elongate, with dorsal sac situated beyond base of accessory bursa; ductus seminalis originating before middle of corpus bursae, ventrally.

Orthocomotis uragia sp.n.

Alar expanse 20 mm. Head pale brownish, vertex tinged ochreous; collar brown, remaining parts of upper surface of thorax brownish cream. Reminders of ground colour brownish cream, those of pattern dark brown; in basal area of wing some refractive greenish scales.

Male genitalia (Figs 27—29): Tegumen with elongate apical part; uncus long, slightly expanding apically, with small brush of hair near apex, ventrally; socius large, broadest subdorsally, tapering ventrad; gnathos strong, with terminal plate provided with apical thorn. Vinculum slender. Valva simple, with costa slightly concave postbasally, terminal part rounded, sacculus reaching beyond its middle, convex, without free end; some hairs on anellus membrane above middle. Transtilla simple, arched band; terminal prominence of juxta small but distinct. Aedeagus broad to before middle, with slender posterior part and rather equally large dorsal lobe; cornuti absent; spinose portion of anellus elongate.

Holotype, male: „Buenos Aires, Costa Rica — 200 m, 23.XI.1973, V. O. BECKER col.” in the collection of the second author.

Comments. The new species externally resembles *O. exolivata*. Unfortunately but the holotype is damaged. The female remains unknown.

Orthocomotis ochrosaphes CLARKE, 1955

Several specimens were taken in Brusque at the altitude of 100 m and in Rio Vermelho, 968 m a.s.l. (Santa Catarina); a few further specimens are from Paraná: Banhado, Quatro Barras, 800 m a.s.l., Marumbi, Morretes, 500 m

a.s.l., São José dos Pinhais, Joinville, Guaraguaçaba. The moths were collected in January, February, March, June, July, November and December. Described also from Brazil: Santa Catarina.

Male genitalia (Figs 30—33): Distal part of tegumen tapering apically; uncus simple, with small terminal hair brush, ventrally; socius broad ventrally, tapering dorsally, with attachment point situated subterminally; vinculum slender. Valva fairly long, with costa tolerably straight and sacculus indistinctly convex; caudal edge of valva rounded. Aedeagus, broad, convex dorsally, numerous small, non-capitate cornuti in vesica.

Female genitalia unknown till now (Fig. 59): Lateral parts of sterigma fairly broad, distinctly separate posteriorly; proximal edge of sterigma slightly concave, latero-anterior corners rounded, not projecting. Colliculum membranous, remaining part of ductus bursae not differentiated, corpus bursae small, weakly sclerotized, marked with oblique ventral rib from the end of which extend thin ductus of accessory bursa; at base of the rib a transverse, semielliptic thickening; large posterior membranous sac extending from distal part of corpus bursae, dorsally; ductus seminalis from median portion of corpus bursae, ventrally.

Orthocomotis exolivata CLARKE, 1955

Numerous specimens were collected in Santa Catarina (Rio Vermelho, 968 m a.s.l.) and Paraná (Banhado, Quatro Barras, 800 m a.s.l., Marumbi, Morro do Meio, São José dos Pinhais). The specimens were taken from January till June and in November, December. The species was known of Santa Catarina (Nova Teutonia, New Bremen), Brazil exclusively.

Male genitalia, unknown to this date (Figs 34—37): Tegumen in distal part tapering apically; uncus strong, rather short, with weak ventral hair brush terminally; gnathos delicate; socius broadest submedially, with attachment point situated in its posterior part; vinculum strong, with distinct posterior (inner) margin. Valva large; costa hardly concave postbasally, termen somewhat oblique; sacculus broad in anterior half, concave beyond base of inner surface, armed with a short thorn at angle and with larger thorn beyond the end; free termination distinct, curved; a dentate, slender plate along median part of dorsal edge: transtilla arched; median process of juxta small, broad basally. Aedeagus slender, expanding anteriorly, with broad coecum penis; dorsal lobe tapering terminally, bent apically, ventro-terminal portion sharp; numerous rather short cornuti in vesica; spinose area of anellus elongate.

Female genitalia (Figs 60—63): Sterigma complicate, with three parallel concavities before ostium and rounded anterior edge; corpus bursae broad, plicate, tapering proximally; ductus bursae simple, short; ductus seminalis originating in posterior part of corpus bursae, at the right side, dorsally; accessory bursa extending on a very short ductus, proximally.

Orthocomotis aphanisma sp. n.

Alar expansion 22 mm. Head dark brownish grey, labial palpus paler basally, more brown-black terminally, scape of antenna concolorous with distal part of palpus; collar and spots on thorax black-grey, remaining scales pale brownish grey to grey-cream. Forewing expanding terminally; apex rounded; termen slightly concave postapically. Ground colour grey cream suffused with brownish grey, creamer along pattern edges; dorsum more leaden grey; pattern brown-grey, dark, suffused black especially along edges and on venation; refractive scales vivid green, agglomerated mainly on the ground colour postbasally, sub- and postmedially. Fringes cream, mixed grey terminally, with median line and bars almost black. Hindwing dark grey with slight admixture of brown; fringes a little paler than wing; anal tuft of scales short, grey in colour.

Variation rather slight, expressed in the shade of the ground colour of the forewing, which is more or less dark. In pale specimens, on cream ground colour black-brown strigulation is distinct. Pattern, typical of the genus, very similar to that in *exolivata*, is more or less complete. In fresh specimens green pattern is distinct but those scales easily break off and disappear in older examples.

Male genitalia (Figs 38, 39) similar to those in *O. subolivata* CLARKE, but uncus shorter, slightly expanding terminally, socius much broader, larger and terminal part of sacculus slenderer, directed caudally. Oblique part of aedeagus longer than in mentioned species, coecum penis pronounced.

Holotype, male: „Meksyk, Veracruz, Los Tuxtlas, 100 m., 25—26.I.1985, A. & J. RAZOWSKI”, G. S. 13042, in the collection of the Institute of Systematics and Evolution of Animals, PAN, Kraków. Paratypes, 6 males labelled as above but dated 22—23, 23—24 and 27—28 of January.

Orthocomotis phenax sp. n.

Alar expansion 25 mm. Labial palpus brownish grey, scape of antenna dark brown proximally, flagellum concolorous with palpus; collar and markings of anterior portion of thorax grey-brown, ground colour brownish cream. Forewing less expanding than in preceding species, with smaller less, rounded apex and tolerably straight termen. Ground colour white, strigulated dark brown; dorsum leaden grey. Pattern dark brown consisting of small basal blotch limited by indistinct belt of ground colour and anterior part of leaden grey suffusion; broad fascia from 1/3 of costa to mid-dorsum, connected with median fascia medially; the latter extending from beyond middle of costa to before tornus; terminal pattern consisting of fused subapical blotch and posterior markings. Refractive green scales scattered all over but terminal third of wing, most densely near base. Fringes whitish cream, remainders of median line and interruptions dark brown. Hindwing greish brown, with slightly paler anal tuft of scales and fringes.

Male genitalia (Figs 40, 41): Uncus thin, broadening in basal third, hardly expanding terminally, with short bristles along edges, postmedially; gnathos moderate; socius large, broad in distal portion, narrowing near middle; vinculum slender. Valva a little slenderer than in preceding species, with sacculus hardly convex, weakly producing distally. Transtilla convex dorsally; juxta with apical process longer than in *aphanisma*. Aedeagus broadest medially; distinct postbasal prominence of dorsal lobe and larger prominence at middle of right edge of oblique portion of main part of aedeagus; coecum penis distinct; no larger cornuti in vesica.

Holotype, male: „Costa Rica, Braulio Carrillo, 1100 m, VII. 1981, V. O. BECKER col.", G. S. 21725, in the collection of the second author.

Orthocomotis phenax phobetica ssp. n.

Alar expansion 24 mm. Labial palpus brownish with darker terminal suffusion; antenna similar in colour, with brown outer surface, remaining parts of head brownish cream, brown scaled; thorax brown-cream, with darker suffusion medially, brown spot near base of tegula and brownish collar. Forewing with termen somewhat concave between two first median veins. Ground colour dirty cream (slight admixture of brown); pattern typical of the genus, slenderer than in nominate subspecies, dark brown. Green scales absent as the specimen is rather damaged.

Male genitalia (Figs 42—44) as in nominate subspecies but uncus shorter, with smaller basal part, socius much shorter, distinctly tapering proximally. Valva shorter. Dorsal process of juxta short. Aedeagus as in *phenax phenax* but its prominences smaller, and that of dorsal lobe more proximal; coecum penis less produced.

Holotype, male: „Mexico; Veracruz, Hautusco, 1300 m 19—23.VIII.1981, V. O. BECKER col.", in the collection of the second author.

Comments. This form is described as a subspecies, but most probably represents a distinct species, very close to the preceding. The differences are slight but are found in several parts of the male genitalia and in the shape of the forewing.

Orthocomotis pseudolivata CLARKE, 1955

Numerous specimens collected in Santa Catarina (Brusque, Rio Vermelho, 968 m a.s.l.) and Paraná (Guaraqueçaba, Guaratuba and Banhado, Quatro Barras, 800 m a.s.l.) in February, April till August and November. Described also from Santa Catarina: New Bremen.

Male genitalia (Figs 45—47): Basal portion of uncus broad, terminal part less expanding, bristled; socius large, with subterminal attachment point. Valva broad, rather short; sacculus weakly convex, hardly producing caudally. Transtilla weakly arched dorsad; apical prominence of juxta thin. Aedeagus simple, with weakly producing coecum penis.

Female genitalia (Figs 64, 65): Sterigma producing in middle anteriorly, with broad median concavity; colliculum very short; remaining parts of ductus bursae slender, marked with a dorsal concavity followed by a short sac. Accessory bursa originating in ventral part of corpus bursae, its ductus broad at base, very slender posteriorly; ductus seminalis extending from the top of accessory bursa.

Orthocomotis herbaria (BUSCK, 1920)

Single specimen collected in Tikal, Petén (Guatemala) on 22 IX 1973 and one from Buenos Aires (Costa Rica). Known from Tuis, Purulha and Cayuga, Guatemala only.

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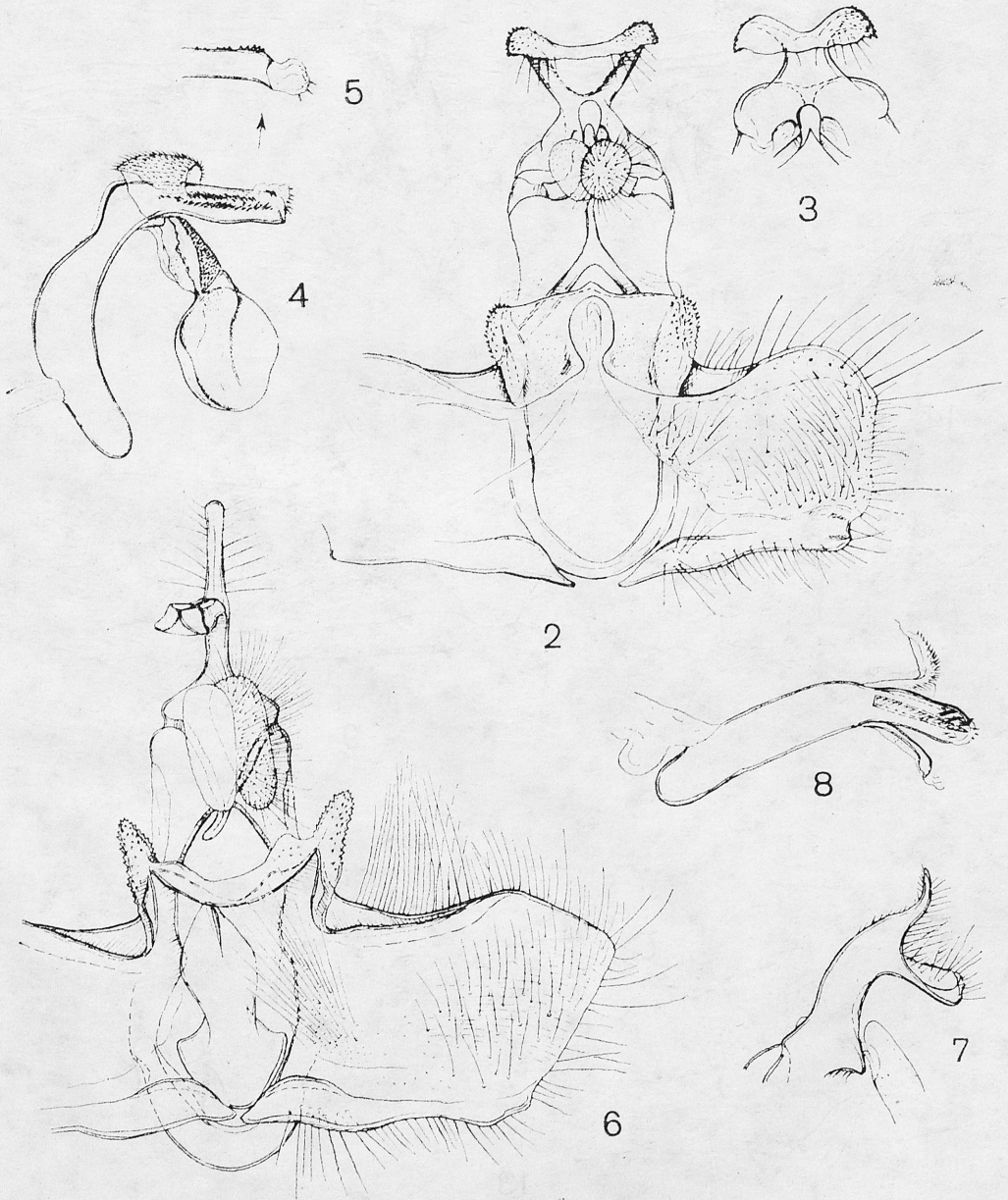
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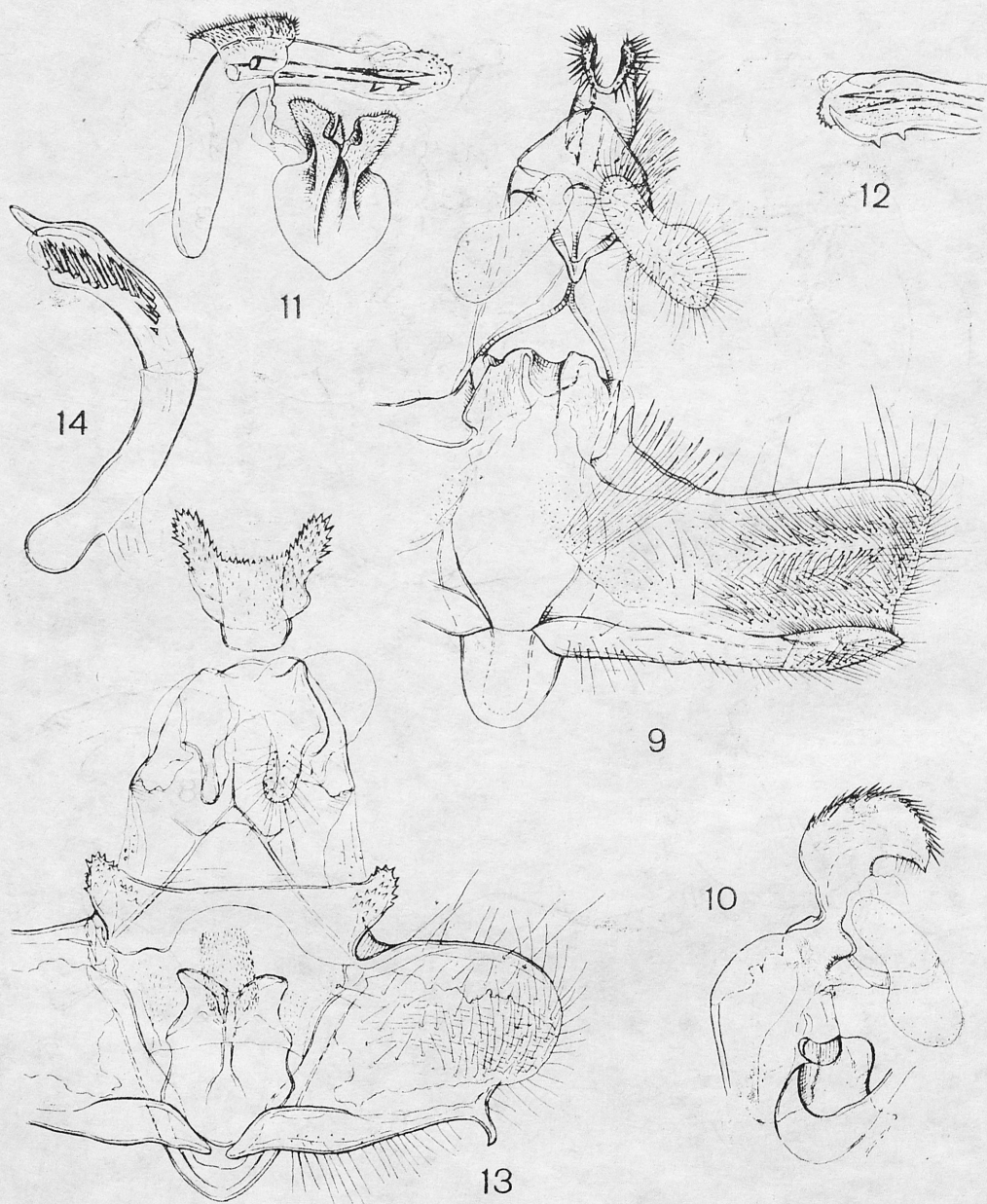
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RAZOWSKI J. 1982. Notes on *Orthocomotis* DOGNIN (*Lepidoptera: Tortricidae*) with Descriptions of New Taxa. Bull. Acad. polon. Sci., Sér. Sci. biol., **30** (1—12): 29—36.

STRESZCZENIE

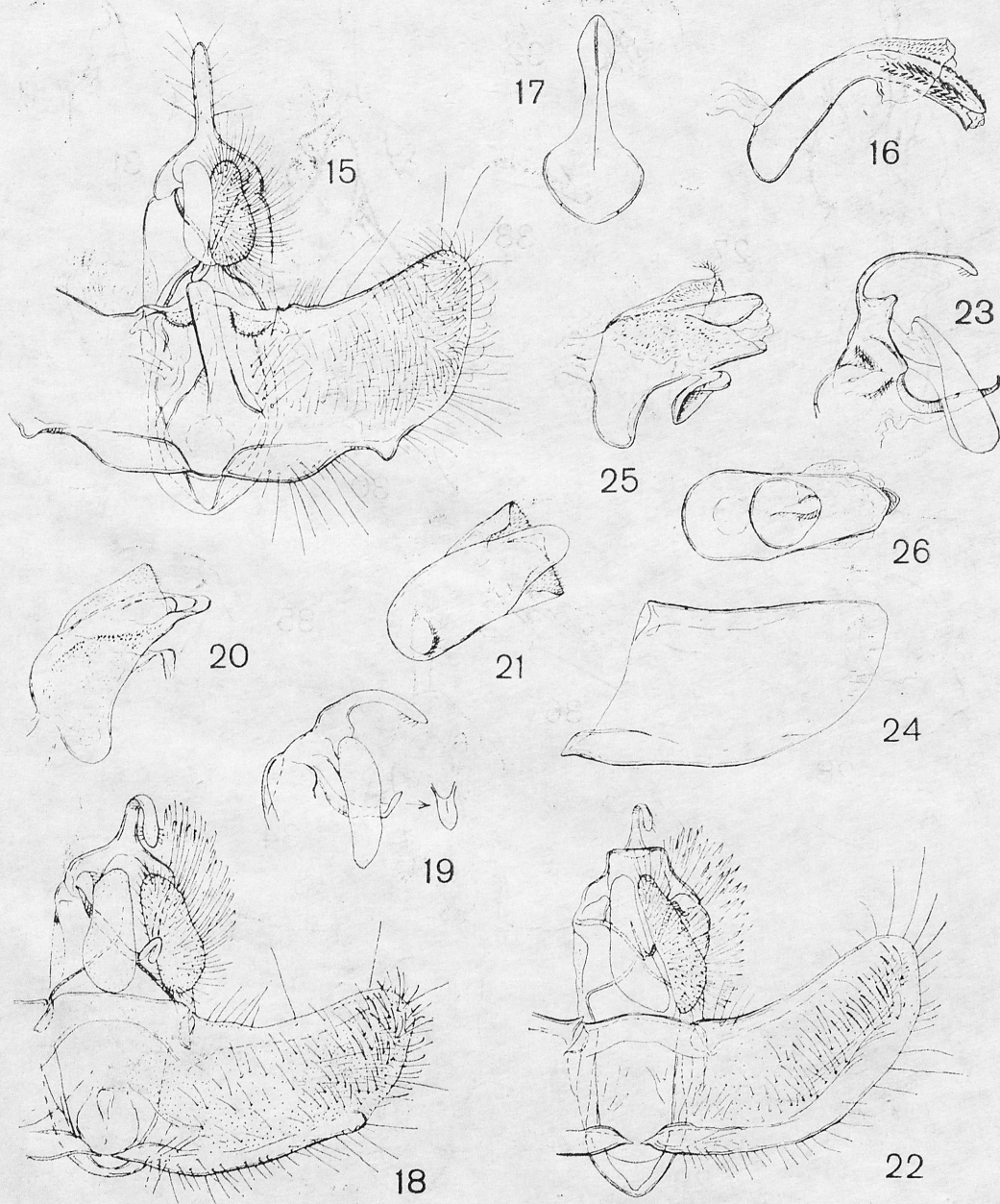
Poza uwagami o systemie i rozsiędleniu rodzaju opisano 4 taksony (*O. aphanisma*, *phenax*, *phenax phobetica*, *uragia*), a 1 gatunek zsynchronizowano (*jordani* z *mereda*). Podano nowe dane o rozsiędleniu i redeskrypcje narządów genitalnych gatunków ze zbiorów autorów. Genitalia szeregu gatunków zostały opisane i zilustrowane po raz pierwszy.



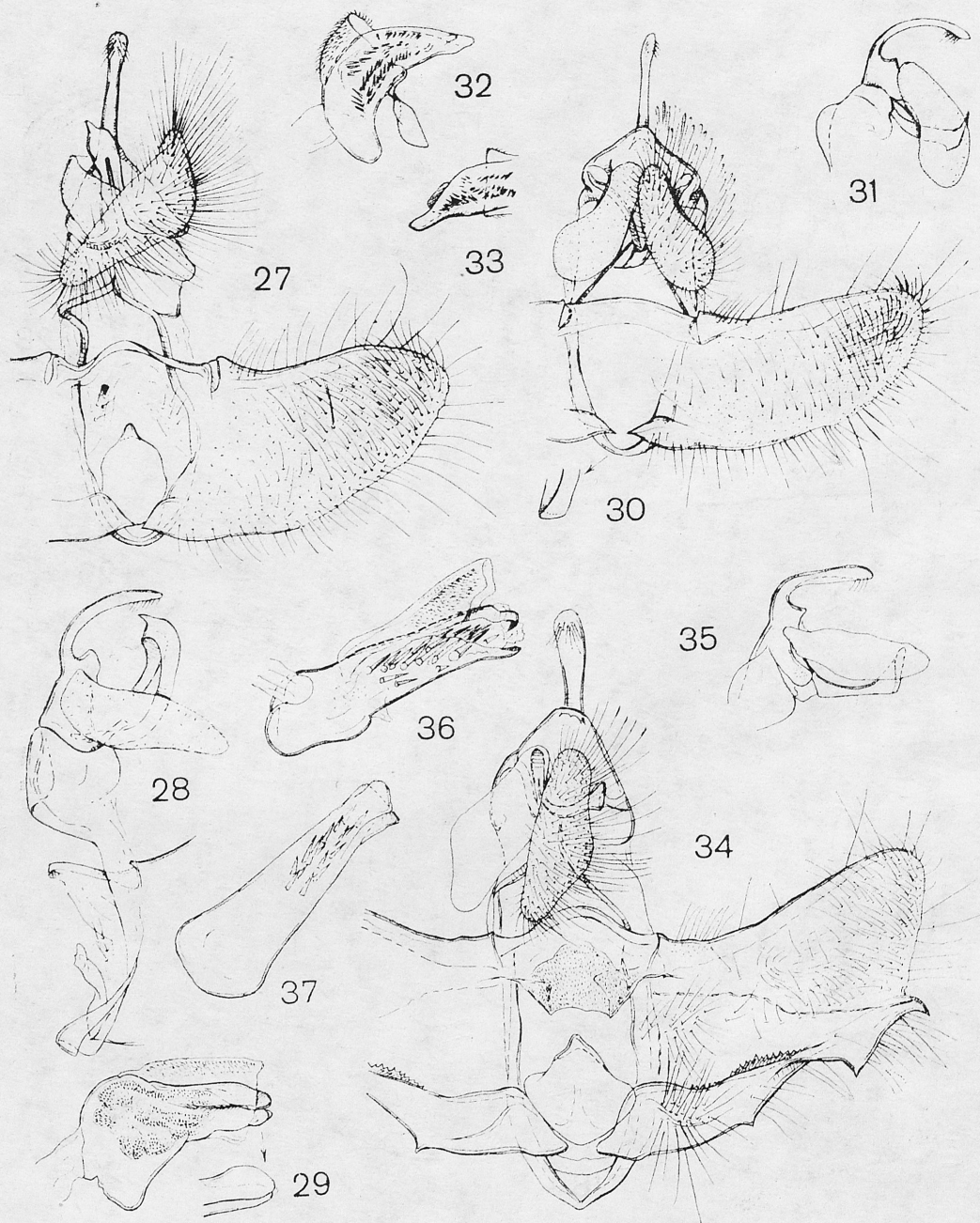
Figs. 2—8. Male genitalia of *Orthocomotis* DOGNIN: 1—5 — *O. melanochlora* (MEYRICK), Rio Negro; 6—8 — *O. mereda* CLARKE, vicinity of São Bento



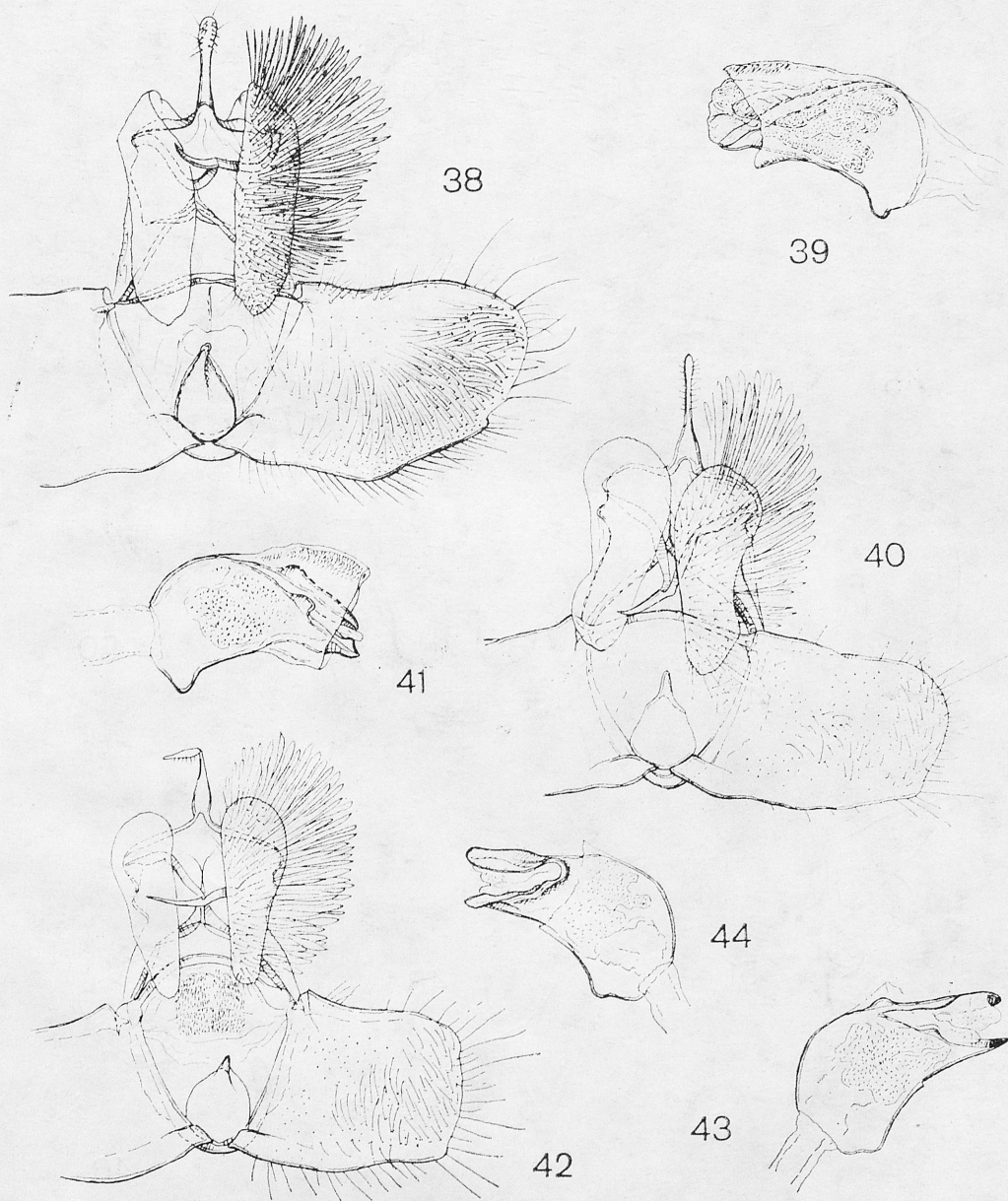
Figs 9—14. Male genitalia of *Orthocomotis* DOGNIN: 9—12 — *O. smaragdita* (MEYRICK), Foz do Iguaçu; 13, 14 — *O. argodonta* CLARKE, Morro do Meio



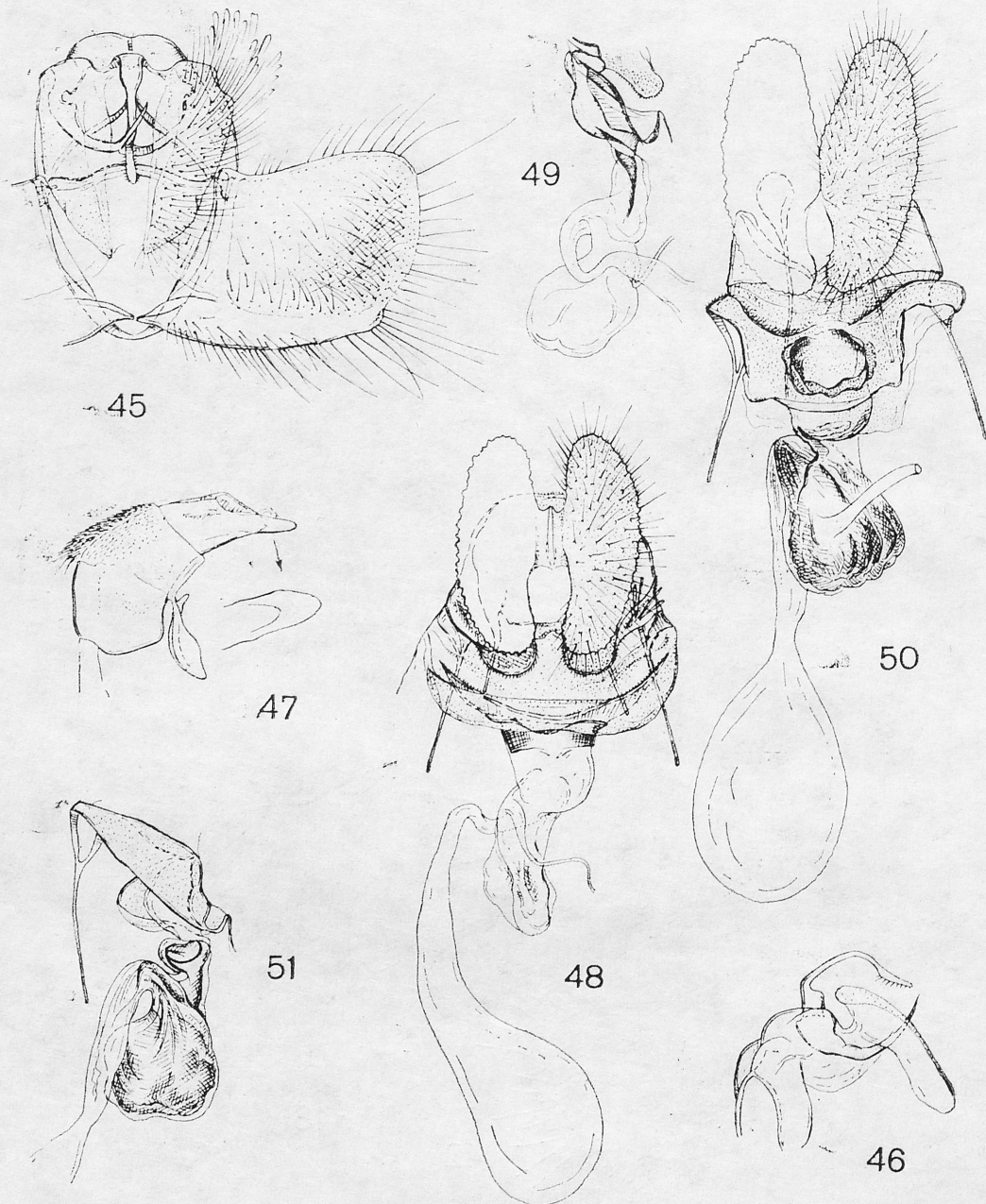
Figs 15—26. Male genitalia of *Orthocomotis* DOGNIN: 15—17 — *O. leucothorax* CLARKE, Brusque;
 18—21 — *O. trissophrica* (MEYRICK), Rio Vermelho; 22—26 — *O. twila* CLARKE, Rio Vermelho



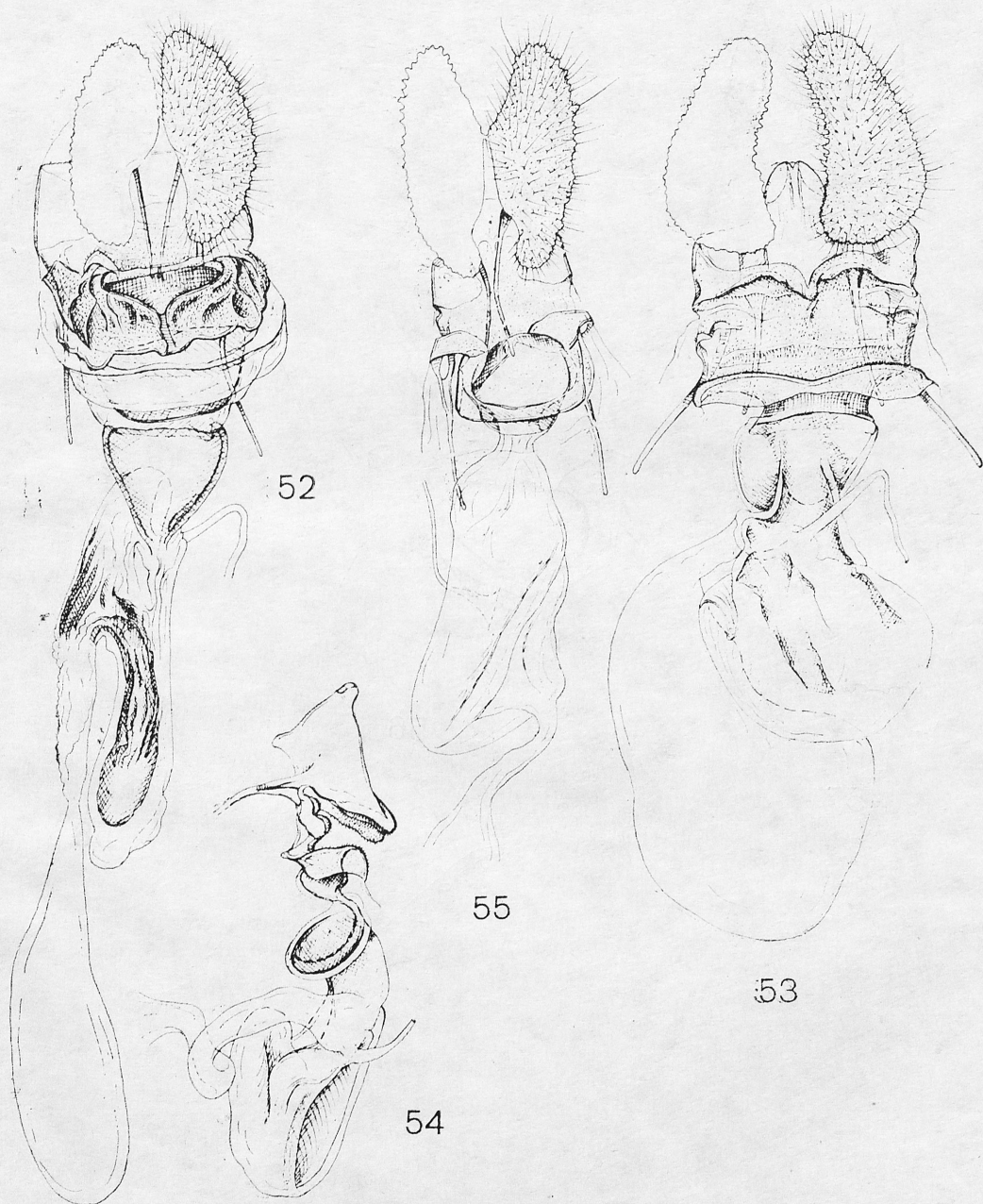
Figs 27—37. Male genitalia of *Orthocomotis* DOGNIN: 27—29 — *O. uragia* sp.n., holotype;
 30—33 — *O. ochrosaphes* CLARKE, Rio Vermelho; 34—37 — *O. exolivata* CLARKE,
 Banhado



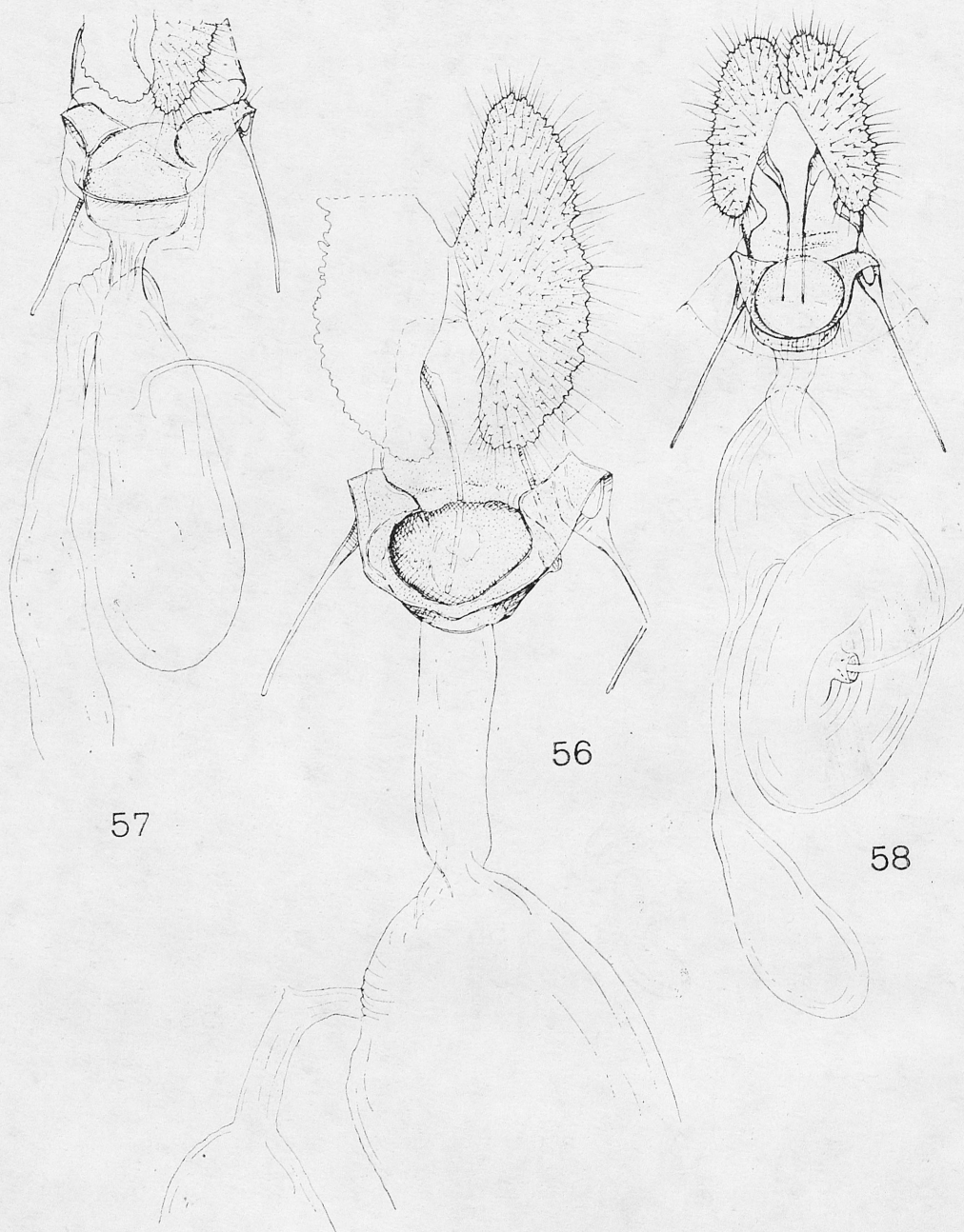
Figs 38—44. Male genitalia of *Orthocomotis* DOGNIN: 38, 39 — *O. aphanisma* sp.n., holotype
 40, 41 — *O. phenax* sp.n., holotype; 42—44 — *O. phenax phobetica* ssp.n., holotype



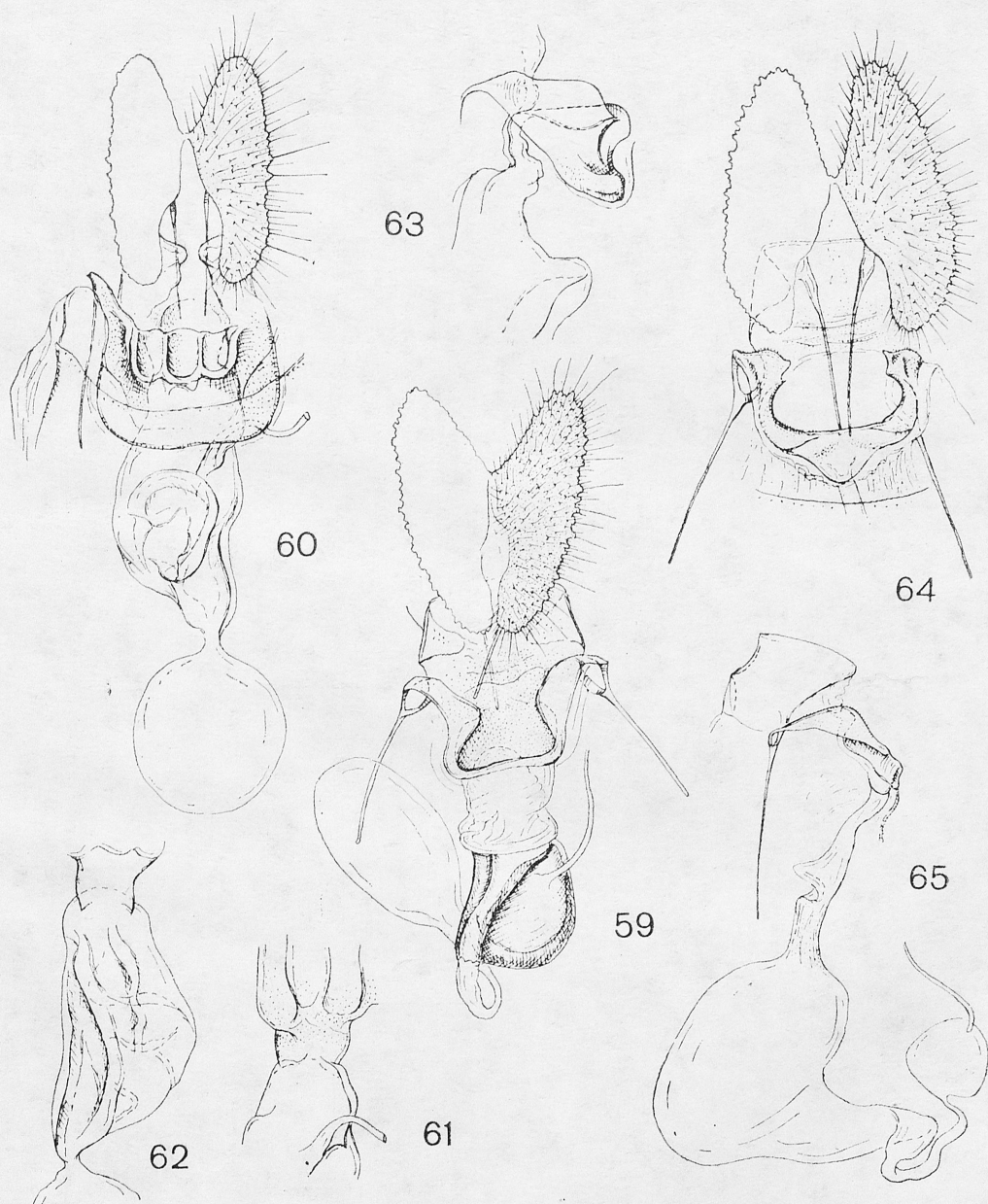
Figs 45—51. Male and female genitalia of *Orthocomotis* DOGNIN: 45—47 — *O. pseudolivata* CLARKE, Rio Vermelho; 48, 49 — *O. melanochlora* (MEYRICK), Rio Vermelho, 50, 51 — *O. mereda* CLARKE, Banhado



Figs 52—55. Female genitalia of *Orthocomotis* DOGNIN: 52 — *O. smaragdilis* (MEYRICK) Bahadò; 53, 54 — *O. argodonta* CLARKE; 55 — *O. ochracea* CLARKE, Costa Rica: Sta Cruz



Figs 56—58. Female genitalia of *Orthocomotis* DOGNIN: 56 — *O. chloantha* (WALSINGHAM), holotype; 57 — *O. trissophrieta* (MEYRICK), Banhado; 58 — *O. twila* CLARKE, Rio Vermelho



Figs 59—65. Female genitalia of *Orthocomotis* DOGNIN: 59 — *O. ochrosaphes* CLARKE, Banhado; 60—63 — *O. exolivata* CLARKE, Banhado; 64, 65 — *O. pseudolivata* CLARKE, Rio Vermelho

