**Zeitschrift:** Entomologica Basiliensia et Collectionis Frey
**Herausgeber:** Naturhistorisches Museum Basel, Entomologische Sammlungen
**Band:** 31 (2009)

**Artikel:** Classification, natural history, and evolution of Neorthopleurinae subfam.nov. (Coleoptera, Cleridae) : Part I. Generic composition of the subfamily and key to genera
**Autor:** Opitz, Weston
**DOI:** https://doi.org/10.5169/seals-981039

| Entomologica Basiliensis et Collectionis Frey | 31 | 135–207 | 2009 | ISSN 1661–8041 |
|---|---|---|---|---|

# Classification, natural history, and evolution of Neorthopleurinae subfam.nov. (Coleoptera, Cleridae) Part I. Generic composition of the subfamily and key to genera

by **Weston Opitz**

**Abstract.** The new subfamily Neorthopleurinae is described and is comprised of 22 genera of which 14 were previously described and eight are new. The type genus for the subfamily is *Neorthopleura* Barr, 1976, previously described genera and their type species are as follows: *Allochotes* Westwood, 1875 (type species *Allochotes bicolor* Westwood, 1875), *Dermestoides* Schaeffer, 1771 (type species *Dermestes sanguinicollis* Fabricius, 1782), *Lebasiella* Spinola, 1844 (type species *Lebasiella erythrodera* Spinola, 1844), *Loedelia* Lucas, 1918 (type species *Necrobioides mexicana* Gahan, 1910), *Nelsonoplium* Barr, 2006 (type species *Nesonoplium jeanae* Barr, 2006), *Neorthopleura* Barr, 1976 (type species *Neorthopleura texana* Bland, 1863), *Orthopleuroides* Kuwert, 1893 (type species *Orthopleuroides nigrimus* Kuwert, 1843), *Patuleius* Fairmaire, 1902 (type species *Patuleius rufonitens* Fairmaire, 1902), *Romanaeclerus* Winkler, 1960 (type species *Corynetes rufus* Kraatz, 1899), *Syriopelta* Winkler, 1984 (type species *Orthopleura funebris* Fairmaire, 1892), *Tenerastes* Lesne, 1932 (type species *Tenerastes mauritianus* Lesne, 1932), *Teneromimus* Gahan, 1910 (type species *Teneromimus vitticollis* Gahan, 1910), *Tenerus* Laporte, 1836 (type species *Tenerus praeustus* Laporte, 1836), and *Tricladus* Fairmaire, 1902 (type species *Tricladus alluaudi* Fairmaire, 1902). The newly described genera and their type species are: *Agaphalera* gen.nov. (type species *Lebasiella janthina* LeConte, 1866), *Colobotis* gen.nov. (type species *C. uncatis* sp.nov.), *Deciconis* gen.nov. (type species *D. adnatis* sp.nov.), *Funicula* gen.nov. (type species *F. tubuloides* sp.nov.), *Kataspinula* gen.nov. (type species *K. omocerina* sp.nov.), *Megafodina* gen.nov. (type species *Orthopleuroides imitans* Kuwert), *Novemera* gen.nov. (type species *N. cohibila* sp.nov.), and *Rifkindius* gen.nov. (type species *R. megamerus* sp.nov.). *Lebasiella erythrodera* Spinola 1844, is synonymized with *E. pallipes* Klug, 1842 and *Teneroides* Gahan, 1910 is synonymized with *Tenerus* Laporte, 1836. Neorthopleurinae subfam.nov. is worldwide in distribution with particular species abundance in tropical Africa. This treatise includes 290 line drawings, 22 color photographs of habiti, and 4 SEM illustrations.

**Key words.** Coleoptera – Cleridae – Neorthopleurinae – taxonomy – new genera – new species generic key.

## Contents

## Introduction

This is the second of a series of subfamily-level contributions of a more comprehensive project that involves species with a diminutive fourth tarsomere (Fig. 316). The format for this series of works will follow the one used in my contributions of Epiphloeinae Kuwert, 1893 (OPITZ 1997: 51, 2004: 1, 2006: 97, 2007: 77, 2008a: 1, 2008b: 1, 2008c: 1). Moreover, the validity of previously described genera and descriptions of new genera are based on findings from a study that deals with all supraspecific categories of all known Cleridae (W. Opitz, in preparation). The available generic names of Neorthopleurinae subfam.nov. were heretofore classified under Korynetinae as defined by CORPORAAL (1950: 298), BARR (1962: 126), and KOLIBÁČ (1997: 338).

## Taxonomic history

Of the 22 genera that comprise Neorthopleurinae subfam.nov. 11 were previously classified under Enopliinae (CORPORAAL 1950) and three in Korynetinae (CORPORAAL *l.c.*). The available generic names involve *Allochotes* Westwood (1875: 241), *Dermestoides* Schaeffer (1771: table 220, figure 4), *Lebasiella* Spinola (1844: 77), *Loedelia* Lucas (1918: 380), *Nelsonoplium* Barr (2006: 269), *Neorthopleura* Barr (1976: 1), *Orthopleuroides* Kuwert (1893: 489), *Patuleius* Fairmaire (1902: 567), *Romanaeclerus* Winkler (1960: 204), *Syriopelta* Winkler (1984: 178), *Tenerastes* Lesne (1932: 17), *Teneromimus* Gahan (1910: 70), *Tenerus* Laporte (1836: 43), and *Tricladus* Fairmaire (1902: 563. The nine new genera of this subfamily are *Agaphalera*, *Colobotis*, *Decicornis*, *Funicula, Kataspinula*, *Megafodina*, *Novemera,* and *Rifkindius* genn.nov.

## Material and Methods

This study is based on several hundred specimens. In most cases, specimens of the entire species inventory of a genus were studied. Also, several nonconspecific specimens of a genus were disarticulated to examine the more cryptic morphological characteristics. Species descriptions are included at the end of the description of new genera to validate the nomenclatural status of new type species. The biological principles relevant to predictions of species status and methodologies of dissection, measurements, species descriptions, and techniques involving illustrations are similar to those described in EKIS (1977: 6) and OPITZ (2004: 7, 2005: 8, 2007: 83). Morphological terminology follows The Torre-Bueno glossary of entomology (NICHOLS 1989), SNODGRASS (1935), and EKIS (1977).

**Abbreviations**

BMNH ..... British Museum of Natural History, Department of Entomology, SW 5BD, London, England (Maxwell V. L. Barclay; m.barclay@nhm.ac.uk)

EMEC ..... Essig Museum of Entomology, University of California, College of Agriculture, Division of Entomology and Parasitology, California Insect Survey, Berkeley, California 94720 (Cheryl Barr; cbarr@nature.berkeley.edu)

FSCA ..... Florida State Collection of Arthropods, Division of Plant Industry, Florida Department of Agriculture, P. O. Box 147100, Gainsville, Florida 32614-7100 (Mike Thomas; thomasm@doacs.state.fl.us. Paul E. Skelley; afn07376@afn.org)

JNRC ..... Jacques Rifkind Collection, 5105 Morella Ave., Valley Village, California 91607-3219 (Jacques Rifkind; clerid@aol.com)

JPHC ..... Jeffrey P. Huether Collection, 443 Turk Road, Geneva, New York 14456 (jeff.huether@uniphos.com)

LACM ..... Natural History Museum of Los Angeles County, Entomology Section, 900 Exposition Boulevard, Los Angeles, California 90007 (Brian V. Brown; bbrown@nhm.org)

SAMA ..... South Australian Museum, North Terrace, Adelaide, South Australia 5000, Australia (Jo Wood; wood.jo@saugov.sa.gov.au)

UMRM ..... Wilbur R. Enns Entomology Museum, Department of Entomology, 1-87 Agriculture Building, University of Missouri-Columbia, Missouri 65211 (Kristin B. Simpson; simpsonk@showme.missouri.edu)

WOPC ..... Weston Opitz Collection, Kansas Wesleyan University, Department of Biology, 100 E. Claflin Ave., Salina, Kansas 67401-6196 (Weston Opitz; opitz@kwu.edu)

## Assessments of generic-level discontinuities

Ideally, genera should be monophyletic groups; that is, they should be based on uniquely derived character states, the synapomorphy of HENNIG (1966: 146), a term modified by TUOMIKOSKY (1967: 138). However, within this theoretical framework it is important to consider practical issues when determining what magnitude of discontinuity merits generic status so that our classifications reflect not only common descent but also enable convenient and orderly diagnosis of nature's biodiversity. The latter is particularly relevant in our constructions of keys and discussions towards credible predictions of category assignments above the species level. I fully recognize that such predictions and assignments are ultimately subjective. Elsewhere, I address these issues in greater detail (W. Opitz, in preparation).

## Neorthopleurinae subfam.nov.

**Type genus:** *Orthopleura* Barr, 1976: 2.

**Diagnosis.** The members of this subfamily have the gular processes combined to form one bilobed petiolate gular process (Fig. 3), the gula is reduced substantially, the gular sutures diverge, and the pronototergosternal suture is almost always incomplete (Fig. 38). Also, the dorsolateral ridge of the pronotum is complete and circumscribes the pronotum resulting in a well formed pronotal commissure (Fig. 10). The dorsolateral pronotal carina does not join the pronotal hem, the narrow, clearly demarked border of the lower extremity of the pronotal sides.

**Description.** *Shape*: Long rectangulate (Fig. 298), short rectangulate (Fig. 297), ovoid (Fig. 292), and subovoid (Fig. 296), somewhat flattened or deep bodied. *Size*: Length 2.0–18.2 mm; width 0.7–5.8 mm. *Integumental Color*: Combinations of entirely shiny black, predominantly black with pronotum yellow to yellow-red, predominantly gold yellow to yellow-red, but with dark markings. *Head*: Transverse (Fig. 21) to subovoid (Fig. 73), strongly deflexed, usually narrower than pronotum, surface finely or coarsely punctate; epistomal suture faintly visible externally, inner epistomal ridge incomplete; clypeus bipartite, comprised of pigmented upper region and nonpigmented lower region; antenna comprised of 9, 10 or 11 antennomeres, capitate (Fig. 1), subserrate (Fig. 182), serrate (Fig. 18), or pectinate (Fig. 228), capitulum may be flabellate (Fig. 261), somewhat compacted (Fig. 84), or greatly expanded (Figs 1, 214), funicular antennomeres subfiliform (Fig. 72), annular (Fig. 275) serrate (Fig. 18), or extensively lobate (Fig. 200); eyes coarsely to subcoarsely facetted, deeply notched anteriorly, rarely nearly bisected (Fig. 109); labrum usually shallowly incised, rarely not incised, medial tormal processes transverse, fused or not fused; epipharynx not complex; last palpomere of maxillary and labial palpi from digitiform (Fig. 56) to subsecuriform (Figs 56, 68); mandible (Fig. 15) with well-developed dens, penicillus well developed or reduced; gula small, gular sutures strongly diverging (Fig. 20), gular process bifid petiolate, ends of process ciliated; gena not expanded. *Thorax*: Pronotum usually transverse (Fig. 23), subquadrate (Fig. 74), suboval (Fig. 89), or elongate (Fig. 252), lateral tubercle absent; anterior transverse depression absent, prebasal fissure (transverse groove in front of the pronotal collar) shallow, side margins not crenulated, dorsolateral carina present, complete, not confluent posteriorly with pronotal hem, pronotal commissure always present, pronotal projections (Fig. 7) usually short, rarely long (Fig. 230), prointercoxal process linear (Fig. 66) or expanded distally (Fig. 71); procoxal cavity open, cryptosternum not complete; metendosternite (Fig. 80) with furcal lamina; elytral form usually elongate rectangular, sometimes subovoid, anterior margin with or without carina, disc with or without asetiferous punctations, elytral 1° (at the rim of asetiferous punctuation) and 2° setae (distant from the rim of asetiferous punctuations) usually present epipleural fold laterally or obliquely positioned, or internally inflected (Fig. 24), usually abruptly ended at elytral middle or gradually narrowing to elytral apex; legs, fourth tarsomere diminutive (Fig. 316), tarsal formula 5–5–5, cursorial, tibial spur formula 2–2–2, 1–2–2, 1–1–1, 0–2–2, 0–0–2, or 0–0–0; tarsal pulvillar formula 3–3–3; unguis with denticle; wedge cell of metathoracic wing (Fig. 25) usually closed, rarely

open. *Abdomen*: Short compact or elongate and narrowing to pygidium; 5th visible sternite rarely incised mediodistally; pygidium quadrate, scutiform or campaniform, pygidial apodemes sometimes very long, 6th sternite incised or not; aedeagus not inverted, very sclerotized or slightly sclerotized, tegmen tubular, variously bilobed distally, or not bilobed distally, rarely pentalobed, tegminal lobes fimbriate or not, phallobasic rod (see Opitz, 2008c: 11) variously developed, rarely absent, phallobasic apodeme well developed, phallic plates (the slender sclerotized plates that form the cornified structure of the phallus) slender, variously shaped, rarely spinous; spicular fork well developed, intraspicular plate linear, spicular apodeme variously fused, or completely separated; ovipositor usually much longer than length of abdomen, with multilobed dorsal and ventral lamina (the dorsal and ventral often pleated folds between the coxites); oblique and ventral bacculi well developed. *Alimentary Canal*: Stomodaeum (Fig. 140) short, proventricular valve (Fig. 11) comprised of 4 primary lobes; ventriculus well developed, ventricular crypts small; 4 cryptonephridial Malpighian tubules; proctodaeum short in males and long in females. *Mesodermal Male Reproductive Organs*: Two pairs of accessory glands (Fig. 101); testes comprised of multiple follicles. *Mesodermal Female Reproductive Organs*: Spermathecal capsule faintly sclerotized or highly sclerotized, spermathecal gland attached to subapex or apex of spermathecal capsule (Fig. 100); saccular bursal copulatrix well developed, bursal sclerite absent; ovaries comprised of multiple follicles.

**Distribution.** Members of this subfamily are worldwide in distribution with a distinct prominence in Africa and Asia.

## Key to genera of Neorthopleurinae subfam.nov.

1. Antenna comprised of 9 antennomeres (Australia). ..... ***Novemera*** **gen.nov.**

1'. Antenna comprised of more than 9 antennomeres. ..... 2.

2. Antenna comprised of 10 antennomeres. ..... 3.

2'. Antenna comprised of 11 antennomeres. ..... 9.

3(2). Antennomeres 5 and 7 minute (Figs 199, 200) (Mauritius). ..... ***Tenerastes*** **Lesne**

3'. Antennomeres 5 and 7 not minute. ..... 4.

4(3'). Elytral surface without asetiferous punctations. ..... 5.

4'. Elytral surface with asetiferous punctations. ..... 7.

5(4). Elytral disk with shallow longitudinal carinae; elytral disk vested profusely with short golden setae (Australia, Solomon Islands). ..... ***Teneromimus*** **Gahan**

5'. Elytral disk without shallow longitudinal carinae; elytral disk not vested profusely with short golden setae. ..... 6.

6(5'). Pronotum finely, sparsely punctated, disc shiny black (Cameroon, Democratic Republic of the Congo, Gabon). ... ***Orthopleuroides*** **Kuwert**

6'. Pronotum finely, profusely punctated, disc brown (Malaysia). ..... ***Colobotis*** **gen.nov.**

7(4'). Disc of basal antennomere of capitulum much longer than combined length of funicular antennomeres (Fig. 287) (Guatemala). ..... ***Decicornis*** **gen.nov.**

7'. Disc of basal antennomere of capitulum much shorter than combined length of funicular antennomeres (Fig. 264) (Madagascar, Nambia, South Africa). ..... ♀ ***Tricladus*** **Fairmaire**

7''. Disc of basal antennomere of capitulum about as long as, or longer than, combined length of funicular antennomeres (Fig. 286). ..... 8.

8(7''). Antennal capitulum lamellate (Fig. 261) (Madagascar, Nambia, South Africa). ..... ♂ ***Tricladus*** **Fairmaire**

8'. Antennal capitulum not lamellate (Fig. 1) (Botswana, Democratic Republic of the Congo, Madagascar, South Africa, Swaziland, Zambia). ..... ***Megafodina*** **gen.nov.**

9(2'). Body form rotund, or oval, no more than twice as long as broad (Fig. 91). ..... 10.

9'. Body form rectangulate, more than twice as long as broad (Fig. 299). ..... 18.

10(9). Antennae serrate at least in part. ..... 11.

10'. Antennae capitate. ..... 13.

11(10). Body form rotund; antennomere 4–10 serrate (Fig. 18) (Bhutan, Brunei, Burma, Cambodia, China, India, Japan, Malaysia, Nepal, North Vietnam, New Guinea, Philippines, Sri Lanka, Sumatra). ..... ***Allochotes*** **Westwood**

11'. Body form more oval; antennomere 4 filiform or quadrate. ..... 12.

12(11'). At least some funicular antennomeres progressively wider. ..... 13.

12'. Funicular antennomeres not progressively wider. ..... 15.

13(12). Epipleuron not visible in beetle lateral view, epipleuron in ventral position; funicular antennomeres not widened; most species representatives shiny brick red (Madagascar). ..... ***Patuleius*** **Fairmaire**

13'. Epipleuron visible from beetle lateral view, epipleuron in lateral position; some funicular antennomeres widened (Fig. 173); most representatives of species bicolorous. ..... 14.

14(13'). Antennomere 7 larger than antennomere 8 (Fig. 173) (México). ... ..... ***Rifkindius*** **gen.nov.**

14'. Antennomere 7 not larger than antennomere 8 (Cameroon, Democratic Republic of the Congo, Cote D'Ivoire, Equatorial Guinea, Kenya, Sao Tome, South Africa, Tanzania). ..... ***Romanaeclerus*** **Winkler**

15(12'). Tarsal unguis bifid (Fig. 98) (México, USA). ..... ***Loedelia*** **Lucas**

15'. Tarsal unguis not bifid. ..... 16.

16(15'). Maxillary and labial terminal palpomeres subsecuriform (Figs 4, 8) (México). ..... ***Agaphalera*** **gen.nov.**

16'. Maxillary and tibial terminal palpomeres digitiform. ..... 17.

17(16'). Extremity of prointercoxal process triangular; pronotal projections nearly touch prointercoxal process (Costa Rica, Honduras, México, Nicaragua, USA). ..... ***Lebasiella*** **Spinola**

17'. Extremity of prointercoxal process not triangular, linear; pronotal projections distant from prointercoxal process (México). ..... ..... ***Kataspinula*** **gen.nov.**

18(9'). Antennae narrowly (Fig. 228) or broadly pectinate; outer margin of protibial and mesotibial apex with tibial comb (Figs 314, 315) (Africa, Australasia). ..... ***Tenerus*** **Laporte**

18'. Antenna not pectinate. ..... 19.

19(18'). Pronotum oblong (Fig. 252) (Guatemala, Honduras, México, Nicaragua). ..... ***Nelsonoplium*** **Barr**

19'. Pronotum quadrate or transverse. ..... 20.

20(19'). Elytral disc with asetiferous punctations. ..... 21.

20'. Elytral disc without asetiferous punctations. ..... 22.

21(20). Few asetiferous punctations at center of disc in elytral basal half (Europe, Near East). ..... ... ***Dermestoides*** **Schaeffer**

21'. Many serially arranged asetiferous punctations on elytral disc, punctations end at elytral distal two-thirds (Thailand). ..... ..... ***Funicula*** **gen.nov.**

22(20'). Pronotum quadrate (Syria). ..... ***Syriopelta*** **Winkler**

22'. Pronotum transverse (New World). ..... ***Neorthopleura*** **Barr**

## Description of genera of Neorthopleurinae subfam.nov.

### *Agaphalera* gen.nov. (Figs 1–17, 291)

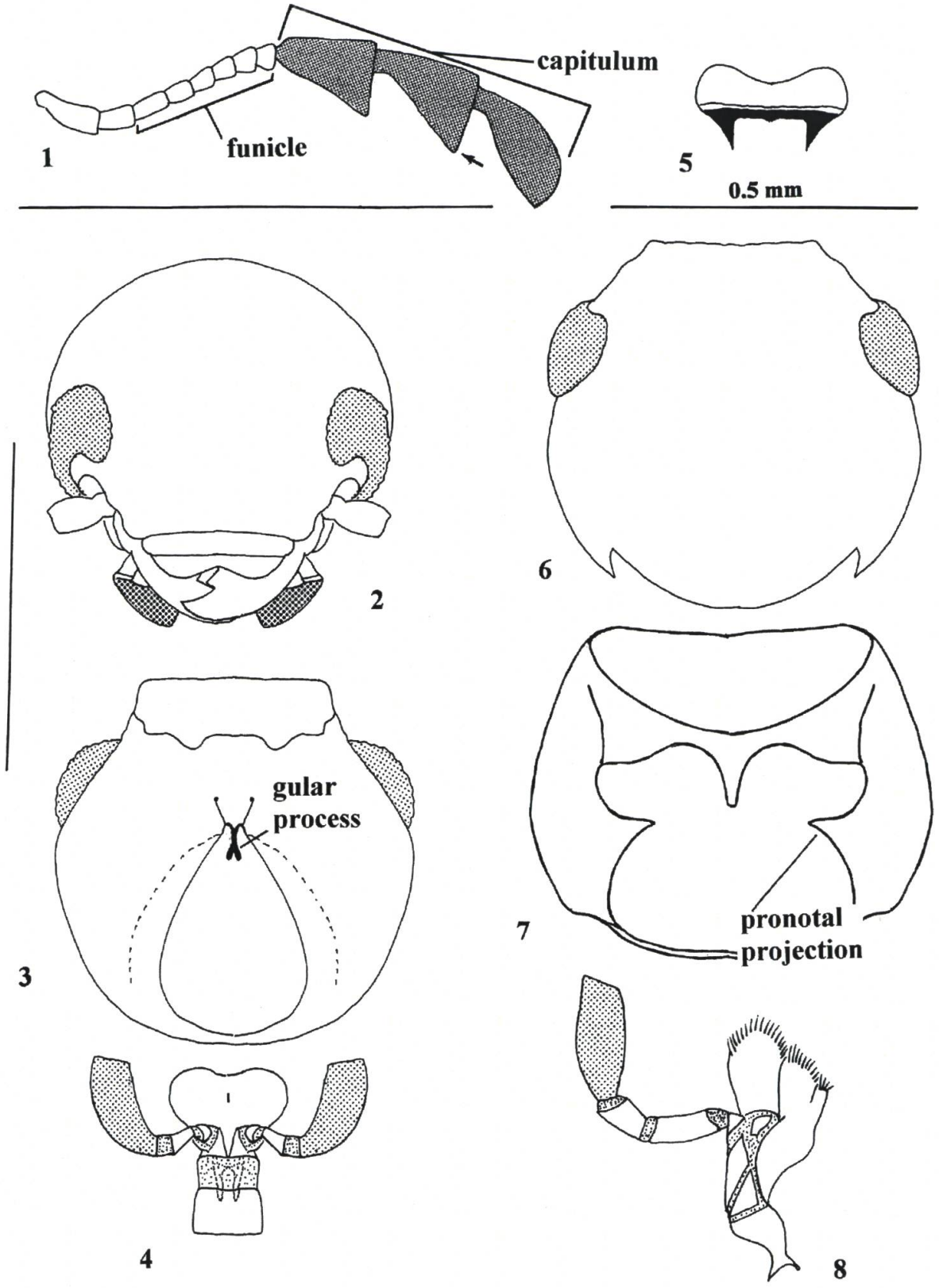
**Type species:** *Lebasiella janthina* LeConte, 1866: 99.

**Synapotypic characteristics.** Basal denticle of unguis large and truncate; antennomeres 9 and 10 subacuminate at their anterodistal angle.

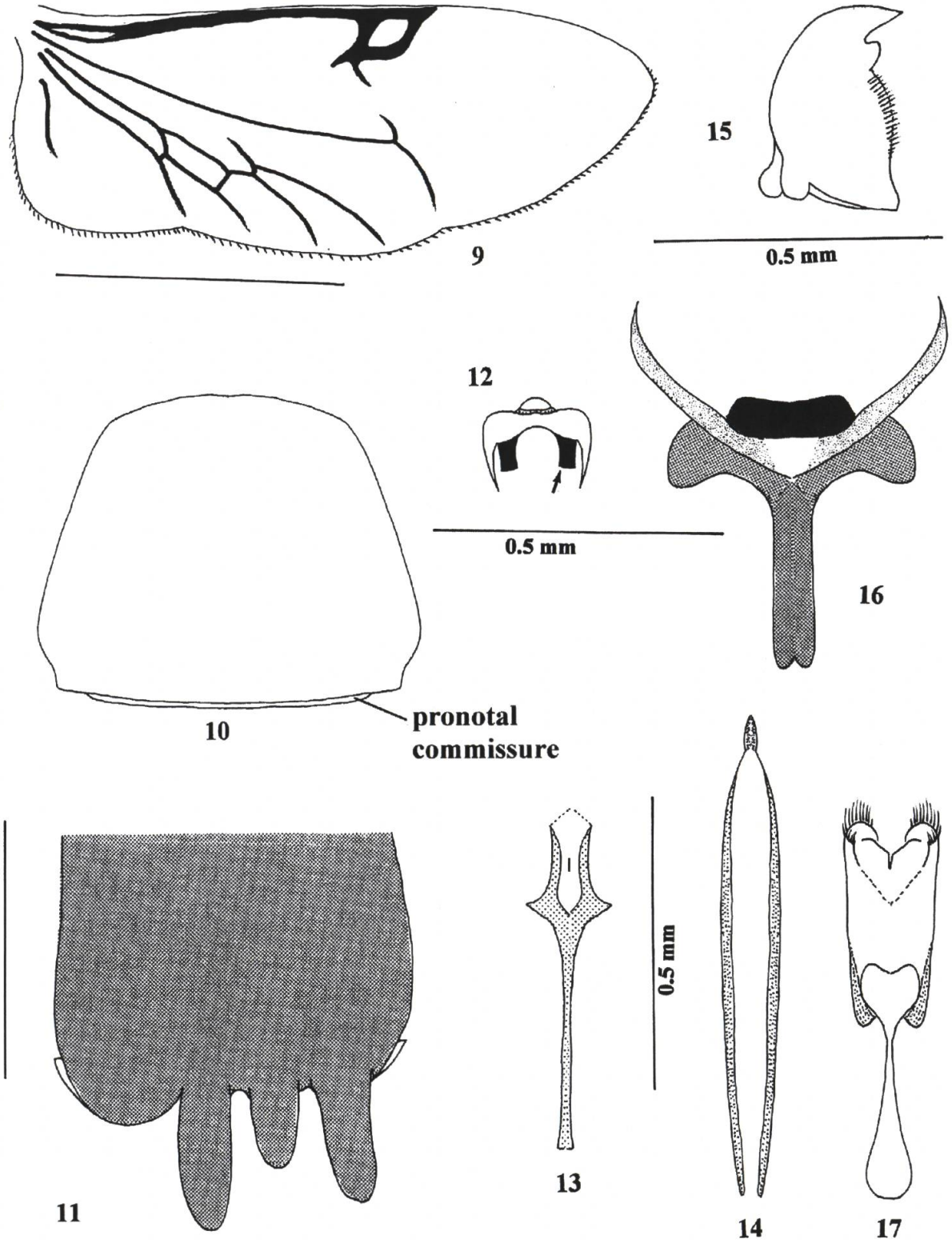
**Diagnosis.** Specimens of *Agaphalera* gen.nov. resemble superficially those of *Loedelia*. But, in *Agaphalera* gen.nov. specimens the denticle of the unguis is large and truncate (Fig. 12) not acuminate as in specimens of *Loedelia*.

**Description.** *Size*: Length 5.5 mm; width 2.4 mm. *Form* (Fig. 291): Oblong subovoid, robust, deep bodied, about 2 times longer than broad. *Vestiture*: Disc of cranium and pronotum densely vested with stout setae, elytra vested only with 1° setae. *Head* (Figs 2, 3, 6): Cranium subspheroid, frons very wide, indented with shallow setiferous punctations, latter not widely separated; gula (Fig. 3) very small, process short, narrow, and minutely forked; labrum (Fig. 5) short, medial incision curvate concave, medial tormal processes transverse confluent, epipharyngeal plate not distinguishable; mandible (Fig. 15), body short, anterior, medial, and posterior dens well developed, penicillus well developed; maxilla (Fig. 8), laterolacinia present, terminal palpomere subsecuriform; labium (Fig. 4), ligula not deeply incised, ligular lobes not flared, terminal palpomere narrow triangular; eyes small, finely facetted, ocular notch large; antenna (Fig. 1) clavate, clava loosely clubbed, short, scape about as long as combined length of pedicel and antennomere 3, funicular antennomeres filiform, capitulum antennomeres not compacted, slightly expanded laterally, capitular antennomeres 9 and 10 subacuminate at their anterodistal angle. *Thorax*: Pronotum (Fig. 10) transverse, convex, side margins evenly rounded, sculptured with very small round setiferous punctations, prointercoxal process not expanded distally; hypomeral prolongation short (Fig. 7), does not contact prointercoxal process; elytron sculptured with small circular asetiferous punctations, latter not in rows, 1° setae always adjacent to asetiferous punctations, 2° setae absent, epipleural fold subventrally positioned and expanded in proximal half, extended to elytral distal two thirds, elytral anterior margin without carina; metathoracic wing as in figure 9, wedge cell closed (Fig. 9); metendosternite (Fig. 16) with furcal lamina, furcal anterior plate slightly extended; legs, tibial spur formula 2–2–2, tarsal pulvillar formula 3–3–3, claw with large truncate denticle. *Abdomen*: Aedeagus (Figs 14, 17) shorter than length of abdomen, distal region of phallobase transformed into medially incised dorsal plate, distal margin of phallobasic lobes minutely fimbriate; lateral plates of spicular fork (Fig. 13) acuminate laterally, spicular apodemes fused, interspicular plate minute and rod-shaped; ovipositor, ventral and dorsal laminae multilobed, laminal rod present; distal margin of pygidium and 6th visible sternite rounded, not incised. *Alimentary Canal*: Stomodaeal valve comprised of 4 primary lobes (Fig. 11). *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

**Distribution.** This genus is known only from México.




**Figs 1–8.** *Agaphalera janthina*: 1 – Antenna; 2–3, Heads (2 – frontal view, 3 – ventral view); 4 – Labium; 5 – Labrum; 6 – Head, dorsal view; 7 – Prothorax, ventral view; 8 – Maxilla.




**Figs 9–17.** *Agaphalera janthina*: 9 – Metathoracic wing; 10 – Pronotum, dorsal view; 11 – Stomodaeal valve, interior view; 12 – Protarsal unci; 13 – Spicular fork; 14 – Phallus; 15 – Mandible; 16 – Metendosternite; 17 – Tegmen

**Etymology.** The generic epithet is a compound name derived from the Greek *aga* (= intensive prefix) and the Latin *phalera* (= military decoration). I refer to the decorative color of these beetles.

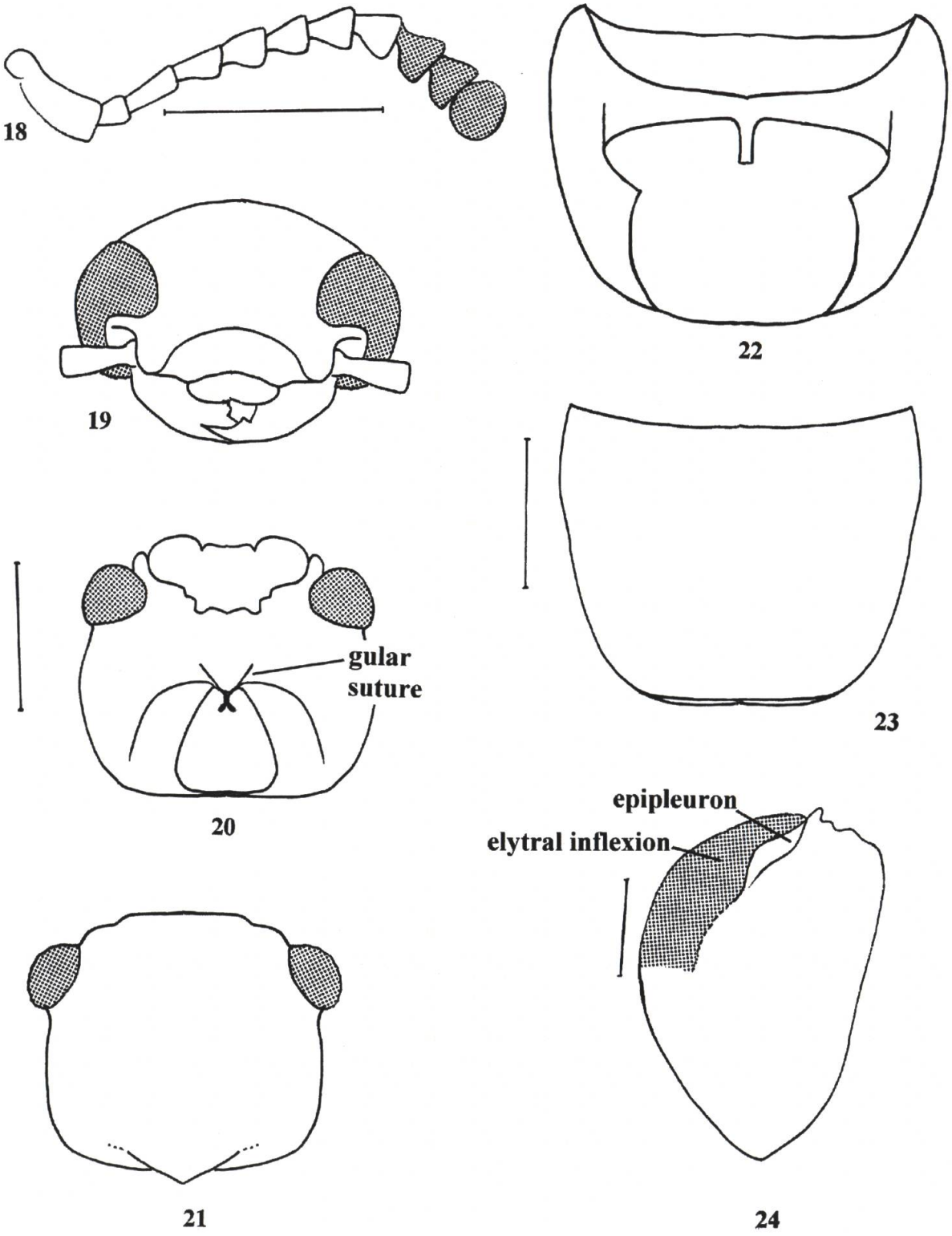
## *Allochotes* Westwood, 1875 (Figs 18–33, 292)

*Allochotes* Westwood, 1875: 241. Type species: *Allochotes bicolor* Westwood, 1875: 241, by subsequent designation by CHAPIN (1924: 256). (LOHDE 1990: 97; SCHENKLING 1903: 98; 1910: 116; GAHAN 1910: 69; CORPORAAL 1950: 256; WINKLER 1961: 59).

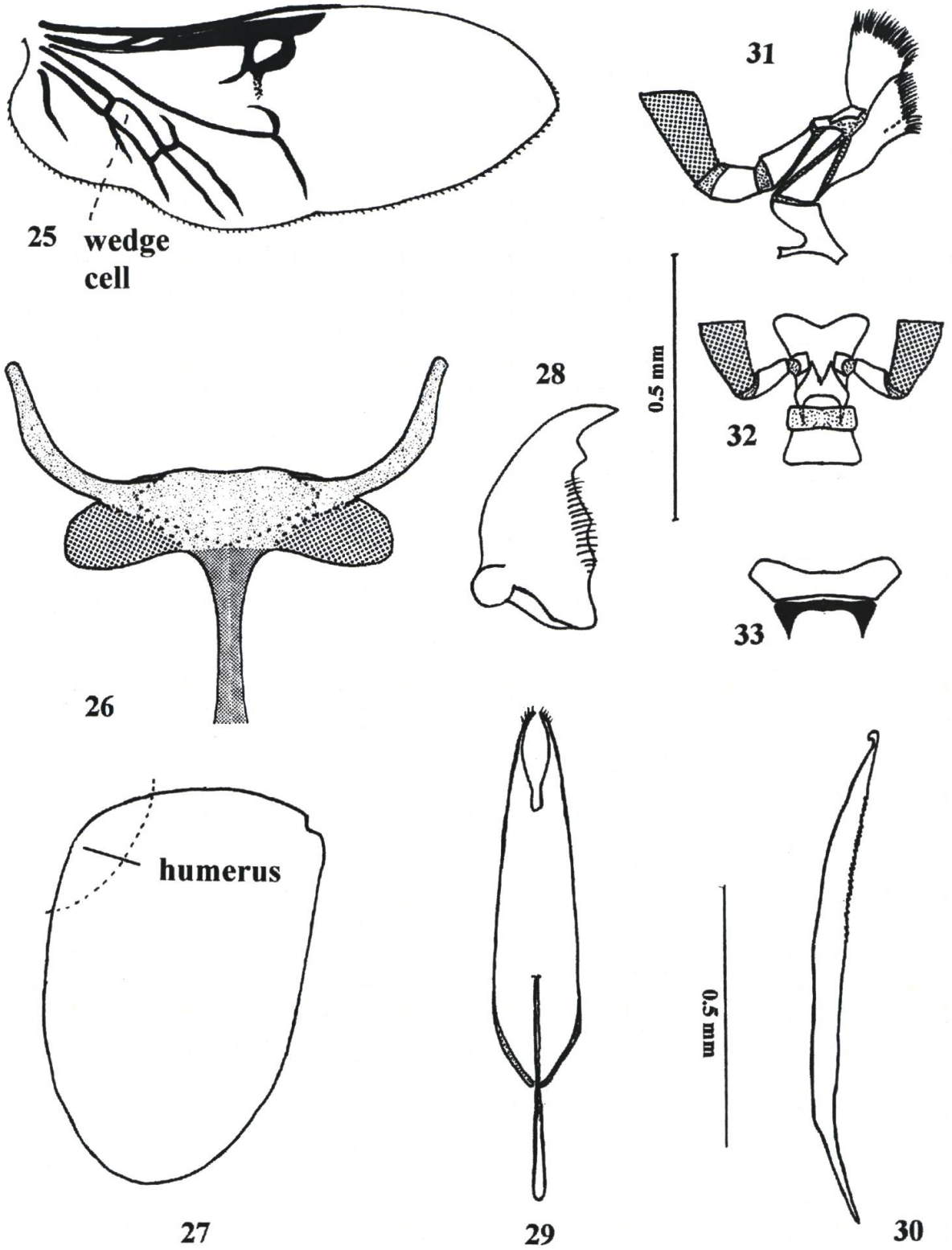
**Synapotypic characteristics.** Elytral humerus bulging (Fig. 27); metatrochantinal spine present; rotund body form (Fig. 292); hypomeron in ventral position; asetiferous punctations absent; epipleuron involuted and ridged anteriorly; tibial spur formula 0–0–2; phallic plate spinous; interspicular plate long and slender.

**Diagnosis.** The oval body form in combination with serrate antennae will easily distinguish the members of this genus from any others in the subfamily

**Description.** *Size*: Length 2.0–10.0 mm; width 1.8–5.5 mm. *Form* (Fig. 292): Oval, body deep, about 2 times longer than broad. *Vestiture*: Dorsum vested with very fine setae, elytral disc vested with 1° only. *Head* (Figs 19–21): Cranium transverse, frons very wide, indented with very small setiferous punctations, latter not widely separated; gula (Fig. 20) short, triangular, gular process very short and forked; labrum (Fig. 33) short, medial incision very shallow, medial tormal processes transverse and confluent, epipharyngeal plate small, punctiform; mandible (Fig. 28), body long, anterior medial, and posterior dens well developed, penicillus large; maxilla (Fig. 31), laterolacinia present, terminal palpomere securiform, truncate; labium (Fig. 32), ligula not deeply incised, ligular lobes not flared, terminal palpomere securiform; eyes very shallow, coarsely facetted, ocular notch large; antenna (Fig. 18) serrate, scape long, about as long as combined length of pedicel and antennomere 4, 3rd funicular antennomeres filiform, funicular antennomeres 4–8 serrate, antennomeres 9 and 10 triangular, 11th antennomere spheroid. *Thorax*: Pronotum (Fig. 23) transverse, subcrescentic, convex, side margins evenly arcuate, sculptured with very small setiferous punctations, prointercoxal process not expanded distally (Fig. 22); hypomeron in ventral position, pronotal projection very short, not in contact with prointercoxal process; elytron inflexed beneath humerus, surface sculptured with very small asetiferous punctations, punctations not rowed, elytral 1° setae always adjacent to asetiferous punctations, 2° setae absent, epipleural fold involuted, expanded and ridged in anterior portion, epipleuron not extended to elytral apex, anterior margin with carina; metathoracic wing as in figure 25; metendosternite with furcal lamina (Fig. 26), furcal anterior plate prominent; legs, tibial spur formula 0–0–2, tarsal pulvillar formula 3–3–3, unguis with well developed denticle. *Abdomen*: Aedeagus (Figs 29, 30) shorter than length of abdomen, distal region of phallobase not transformed into lobes; phallic apex uncinate, phallic lateral plates spinous; spicular apodemes fused together, interspicular plate long, rod-shaped; ovipositor, ventral and dorsal laminae multilobed, laminal rod absent; distal margin of pygidium and 6th visible sternite rounded, not incised; distal margin of pygidium




**Figs 18–24.** *Allochotes bicolor*: 18 – Antenna; 19–21, Heads (19 – frontal view, 20 – ventral view, 21 – dorsal view); 22 – Prothorax, ventral view; 23 – Pronotum, dorsal view; 24 – Elytra, ventral view.




**Figs 25–33.** 25–28, 31–33 *Allochotes bicolor*: 25 – Methathoracic wing; 26 – Metendosternite; 27 – Elytron, dorsal view; 28 – Mandible; 29–30, *A. sauteri*: 29 – Tegmen; 30 – Phallus; 31 – Maxilla; 32 – Labium; 33 – Labrum.

rounded. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

**Distribution.** The known distribution of species of this genus extends from southwest China, to various environs of Indonesia.

## *Colobotis* gen.nov. (Figs 275–278, 280, 283, 293)

**Type species:** *Colobotis uncatis* sp.nov.

**Synapotypic characteristics:** Stout spines on the ends of the protibia and mesotibia, funicular antennomeres annulate (Fig. 275), and phallic apex uncinate (Fig. 278).

**Diagnosis.** The spines on the end of the protibia and mesotibia will conveniently distinguish the members of this genus from all other members of Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 4.0 mm; width 1.0 mm. *Form* (Fig. 293): Oblong rectangular, body not deep, about 4 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres sparsely setose, elytral 1° and 2° not present, setae originate within punctations. *Head*: Cranium transverse, frons wide, indented with subrugose setiferous punctations; gula small, triangular, gular process short and bifid distally; labrum shallow, broadly incised distally; mandible, body stout, anterior dens acuminate; maxilla, terminal palpomere truncate, rectangulate; labium, ligula not deeply incised, ligular lobes slightly flared, terminal palpomere truncate, rectangulate; eyes large, coarsely facetted, ocular notch large; antenna (Fig. 275) comprised of 11 antennomeres, capitate, capitulum antennomeres 9 and 10 broadly triangular, antennomere 11 oblong, scape as long as combined length of pedicel and funicular antennomere 3, funicular antennomeres annular. *Thorax*: Pronotum quadrate (Fig. 276), disc convex, disc minutely punctate, side margins linear, prointercoxal process narrow; pronotal projections short, do not approximate prointercoxal process; entire elytral disc sculptured with small setiferous punctations, epipleural fold abruptly narrowed at elytral middle, then thinly extended to elytral apex, elytral anterior margin not carinate; metathoracic wing as in figure 283, wedge cell closed; metendosternite with furcal lamina, furcal anterior plate shallow triangular; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, claw with well developed denticle. *Abdomen*: Aedeagus (Figs 277, 278) shorter than length of abdomen, distal region of phallobase bilobed, lobes acuminate and not fimbriate, tegmen reduced ventrally, membranous, phallobasic rod broad and long; spicular fork (Fig. 280) comprised of two separated narrow plates, spicular lateral plates acuminate, interspicular plate absent; male pygidium campaniform. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: This is a monotypic genus.

**Distribution.** This genus is known only from Malaysia.

**Etymology.** The generic name stems from the Greek *Kolos* (= stunted). I refer to the small size of the specimen that currently represents this genus.

### *Colobotis uncatis* sp.nov.

**Type material.** Holotype ♂: Malaysia, Sabah, Sandakan, Sepilok. March 97, A.Y.C. Chung leg. (BMNH). Paratypes: None.

**Description.** *Size*: Length 4.0 mm; width 1.2 mm. *Form*: Rectangular. *Integumental Color*: Brown. *Integumental Structure*: Cranium, pronotum, and elytral surface profusely, minutely punctated; antenna capitate, capitulum elongated, funicular antennomeres annulate; pronotum convex, side margins parallel. *Male Genitalia*: Aedeagus slightly sclerotized; tegmen bilobed distally, lobes not fimbriate; phallic apex uncinate; spicular fork with well-developed acuminate plates; spicular apodemes fused at middle of spicular rods.

**Etymology.** The trivial name *uncatis* is a Latin noun that stems from *uncus* (= hook). I refer to the hook on the apex of the phallus.

## *Decicornis* gen.nov. (Figs 287, 288, 311)

**Type species:** *Decicornis adnatis* sp.nov.

**Synapotypic characteristics.** If we consider other generic members of Neorthopleurinae subfam.nov. with an antenna comprised of 10 antennomeres as the outgroup, then a synapotypic characteristic for *Decicornis* gen.nov. is that the spicular apodemes are completely fused.

**Diagnosis.** An antenna that is comprised of 10 antennomeres is the characteristic that distinguishes the members of this New World genus from superficially similar specimens of the New World genus *Neorthopleura.*

**Description.** *Size*: Length 4.0 mm; width 1.1 mm. *Form* (Fig. 311): Oblong long rectangular, body not deep, about 4 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres sparsely setose, antennal clava vestiture very fine, elytral disc with 1° and 2° setae present. *Head* : Cranium transverse, subquadrate, frons moderately wide, indented with subrugose setiferous punctations; gula small, triangular, sutures diverge, gular process short and bifid distally, gena not particularly expanded; labrum very shallow, broadly incised distally, medial tormal processes not examined; mandible, body stout, anterior dens acuminate; maxilla, terminal palpomere digitiform; labium, terminal palpomere digitiform; eyes large, coarsely facetted, ocular notch large; antenna (Fig. 287) comprised of 10 antennomeres, capitate, capitulular antennomeres 8 and 9 extensively lobed in males, antennomere 10 long and slender, scape about as long as combined length of pedicel and antennomere 3, funicular antennomere 3 quadrate, remainder annuliform. *Thorax*: Pronotum (Fig. 288) subquadrate, disc convex, and punctated, side margins not crenulated, somewhat arcuate, prointercoxal process not observed; pronotal projections short, they do not

approximate prointercoxal process; elytron sculptured with small asetiferous punctuations, setiferous punctations not seriate and extend to about elytral middle, epipleural fold narrows at about elytral middle, anterior margin not carinate; metathoracic wing not studied, metendosternite with well-developed furcal lamina; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, uncus with well-developed denticle. *Abdomen*: Abdomen not very tapered; aedeagus weakly sclerotized, tegmen lobate distally, lobes fimbriate, phallobasic rod broad; apodemes of spicular fork fused throughout length, interspicular plate short and narrow. *Alimentary Canal*: Not studied. *Mesodermal Male Internal Reproductive Organs*: Not studied. *Mesodermal Female Internal Reproductive Organs*: Not studied.

Intrageneric variations: This is a monotypic genus.

**Distribution.** This genus is known only from Guatemala.

**Etymology.** The generic name *Decicornis* stems from the Latin *decem* (= ten) and the Latin *cornu* (= horn). I refer to the ten antennomeres that comprise the antenna.

### *Decicornis adnatis* sp.nov.

**Type material.** Holotype ♂: GUAT. Suchitepequez, Los Terrales Reserve, 1000 m., mh + bi, 9 June 2005, R. Turnbow (SAMA). Paratypes: None.

**Description.** *Size*: Length 4.0 mm; width 1.1 mm. *Form*: Long rectangular. *Integumental Color*: Cranium black; prosternum light brown, pronotum bicolorous, disc reddish, periphery black, elytral periphery dark brown, disc with pale vitta; legs mostly dark brown, base of femora pale. *Integumental Structure*: Cranium and pronotum densely vested with setiferous punctuations; antenna capitate, funicular antennomeres becoming more annuliform, male capitulum antennomeres 8 and 9 lobed, antennomeres 10 very long and narrow; pronotum convex, side margins arcuate.

**Etymology.** The specific epithet *adnatis* is a Latin adjective that is derived from the Latin *adnatus* (= joined to). I refer to conjoined condition of the spicular apodemes.

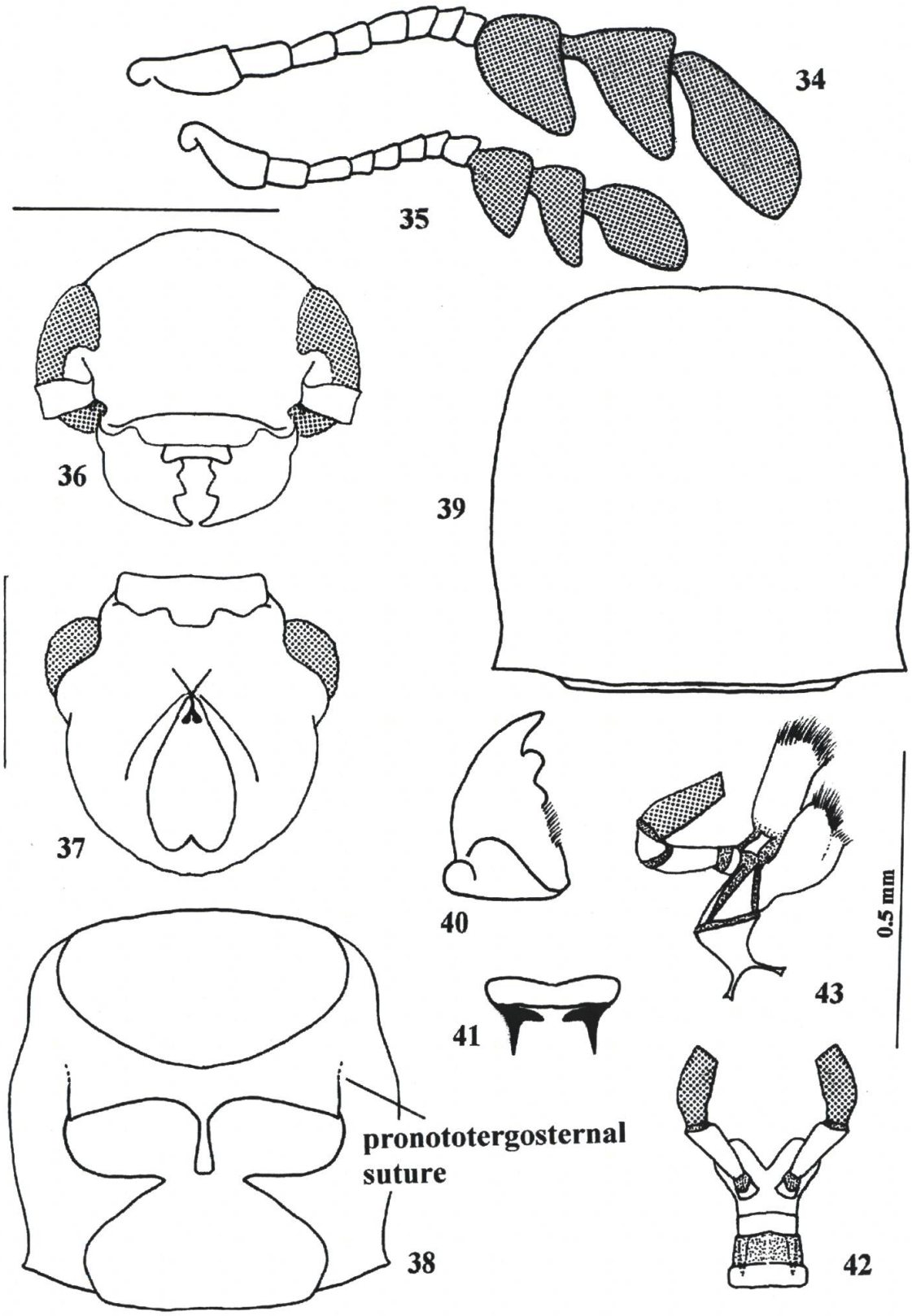
## *Dermestoides* Schaeffer, 1771 (Figs 34–53, 294)

*Dermestoides* Schaeffer, 1771: Plate 220, figure 4. Type species: *Dermestes sanguinicolle* Fabricius, 1782. (GERSTMEIER 1998: 191.)
*Orthopleura* Spinola, 1844: 80. (CORPORAAL 1950: 266. WINKLER 1979: 309; 1984: 177.)
*Aporthopleura* Barr, 1977: 32. (GERSTMEIER 1998: 191.)
*Eurenoplium* Žirovnický, 1977: 45. (WINKLER 1979: 309; GERSTMEIER 1998: 191.)

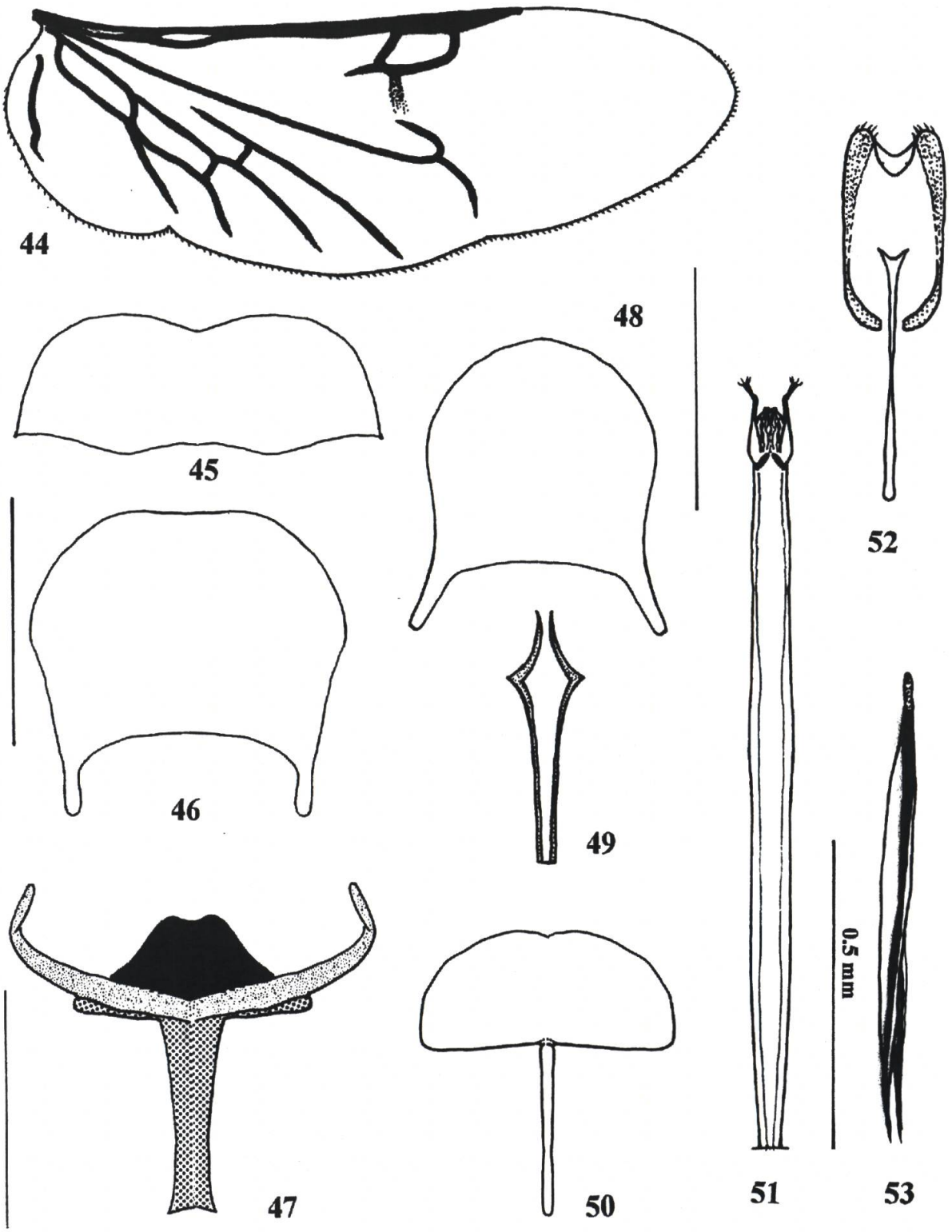
**Synapotypic characteristics.** Pronotal hind angles acuminate (Fig. 38).

**Diagnosis.** This monotypic genus us conveniently identified among other genera of Neorthopleurinae subfam.nov. by the angularity of the hind angles of the pronotum (Fig. 39).

**Description.** *Size*: Length 7.0–9.0 mm; width 2.2–3.5 mm. *Form* (Fig. 294): Oblong rectangular, body not deep, about 3 times longer than broad. *Vestiture*: Dorsum profusely




**Figs 34–43.** *Dermestoides sanguinicollis*: 34–35, Antenna (34 – male, 35 – female); 36–37, Heads (36 – frontal view, 37 – ventral view); 38 – Prothorax, ventral view; 39 – Pronotum, dorsal view; 40 – Mandible; 41 – Labrum; 42 – Labium; 43 – Maxilla.




**Figs 44–53.** *Dermestoides sanguinicollis*: 44 – Methathoracic wing; 45 – Sixth abdominal sternite, male; 46 – Pygidium, male; 47 – Metendosternite; 48 – Pygidium, female; 49 – Spicular fork; 50 – Sixth abdominal sternite, female; 51 – Ovipositor; 52 – Tegmen; 53 – Phallus.

vested with short pubescence, antennal funicular antennomeres sparsely setose, antennal capitulum vestiture very fine, elytral setae anchored in punctations. *Head* (Figs 36, 37): Cranium subquadrate, frons wide, profusely indented with subrugose setiferous punctations; gula (Fig. 37) small, triangular, sutures diverge, gular process short and bifid distally; labrum (Fig. 41) very shallow, slightly incised distally, medial tormal processes transverse and not confluent, epipharyngeal plate small and faintly developed, transverse; mandible (Fig. 40), body stout, anterior dens acuminate, medial dens minute, posterior dens absent, penicillus well developed; maxilla (Fig. 43), laterolacinia well developed, terminal palpomere digitiform; labium (Fig. 42), ligula not deeply incised, ligular lobes slightly flared, terminal palpomere digitiform, rectangulate; eyes large, coarsely facetted, ocular notch large; antenna (Figs 34, 35) comprised of 11 antennomeres, capitate, capitulum slightly sex dimorphic, capitular antennomeres 9 and 10 triangular in females (Fig. 35), more lobate in males (Fig. 34), antennomere 11 oblong, funicular antennomeres subquadrate. *Thorax*: Pronotum (Fig. 39) subquadrate, disc convex and minutely punctate, side margins linear, posterior angles acuminate, prointercoxal process narrow (Fig. 38), not expanded distally; pronotal projections long, they approximate prointercoxal process; elytron sculptured with few asetiferous punctations that are concentrated at middle of disc in elytral basal half, asetiferous punctations associated with 1° setae and somewhat seriate, epipleural fold extended to elytral apex, elytral anterior margin carinate; metathoracic wing as in figure 44, wedge cell open; metendosternite (Fig. 47) with furcal lamina, furcal anterior plate shallow rectangular; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, ungues with well-developed denticle. *Abdomen*: Abdomen not very tapered in females; aedeagus (Figs 52, 53) shorter than length of abdomen, distal region of phallobase bilobed, lateral lobes fimbriate, tegmen reduced ventrally, membranous, phallobasic rod divided distally or not divided distally; phallic plates narrow; spicular fork (Fig. 49) comprised of two separated narrow plates, spicular lateral plates absent, interspicular plate absent; sixth visible abdominal sternite broadly incised in males (Fig. 45), rounded in females (Fig. 50); pygidium transverse in males (Fig. 46), subquadrate in females (Fig. 48); ovipositor (Fig. 51) longer as length of abdomen, nearly filamentous, laminae not discernible, laminal rod not present; male and female pygidium campaniform. *Alimentary Canal*: No information available *Mesodermal Male Internal Reproductive Organs*: No information available *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: This is a monotypic genus.

**Distribution.** Europe, Near East.

## ***Funicula* gen.nov.** (Figs 289, 290, 312)

**Type species:** *Funicula tubuloides* sp.nov. By present designation.

**Synapotypic characteristics.** Antennal capitulum slender (Fig. 290).

**Diagnosis.** The very slender capitulum of the antenna will distinguish this monotypic genus from other genera within Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 5.0 mm; width 1.6 mm. *Form* (Fig. 312): Oblong rectangular, deep somewhat tubular, about 3 times longer than broad. *Vestiture*: Moderately pubescent, disc of cranium and pronotum vested with fine setae, elytra vestiture comprised of 1° and 2° elytral setae, 2° setae particularly prominent in elytral distal half. *Head* : Cranium subquadrate, frons very wide, profusely indented with setiferous punctations, latter not contiguous; gula small, triangular, sutures strongly diverging, process short, forked; gena not particularly expanded; labrum shallow, not incised, medial tormal processes not examined; mandible, anterior dens well developed; maxilla, terminal palpomere digitiform; labium, terminal palpomere digitiform; eyes small, coarsely facetted, ocular notch large; antenna (Fig. 290) capitate, comprised of 11 antennomeres, capitulum very narrow, scape long, about as long as combined length of pedicel and antennomeres 3 and 4, capitular antennomeres 9–10 narrow triangular, antennomere 11 narrow oval. *Thorax*: Pronotum (Fig. 289) quadrate, disc broadly rounded, side margins linear, sculptured with small setiferous punctations, prebasal fissure shallow, prointercoxal process not examined, pronotal extension very short; elytral basal two-thirds impressed with deep asetiferous punctuations, latter seriate; anterior margin carinate; epipleural fold very broad, lateral in position and extended to elytral apex; metathoracic wing not examined; metendosternite not examined; legs, tibial spur formula 2–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Aedeagus not available for study; ovipositor very slender, longer than length of abdomen. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: This is a monotypic genus.

**Distribution.** Known only from Thailand.

### *Funicula tubuloides* sp.nov.

**Type material.** Holotype ♀. Doi Suthep, 1100 m, Chiang Mai, N. Thailand, 15-IV-1983, T. Shimomura (FSCA). Paratypes: None.

**Description.** *Size*: Length 5.0 mm; width 1.6 mm. *Form*: Rectangular. *Integumental Color*: Body black, legs light yellow. *Integumental Structure*: Cranium and pronotum minutely punctated, elytral disc with asetiferous punctuations, latter seriate in elytral basal two-thirds; antenna capitate, capitulum very narrow, funicular antennomeres from rectangulate to quadrate; pronotum convex, side margins parallel. *Male Genitalia*: Not available for study. *Female Genitalia*: Ovipositor longer than abdomen.

**Etymology.** The trivial name *tubuloides* stems from the Latin *tubus* (= pipe) and the Latin suffix *–oides* (= likeness). I refer to the tubular appearance of this beetle.

## ***Kataspinula*** **gen.nov.** (Figs 54–68, 295)

**Type species:** *Kataspinula omocerina* sp.nov.

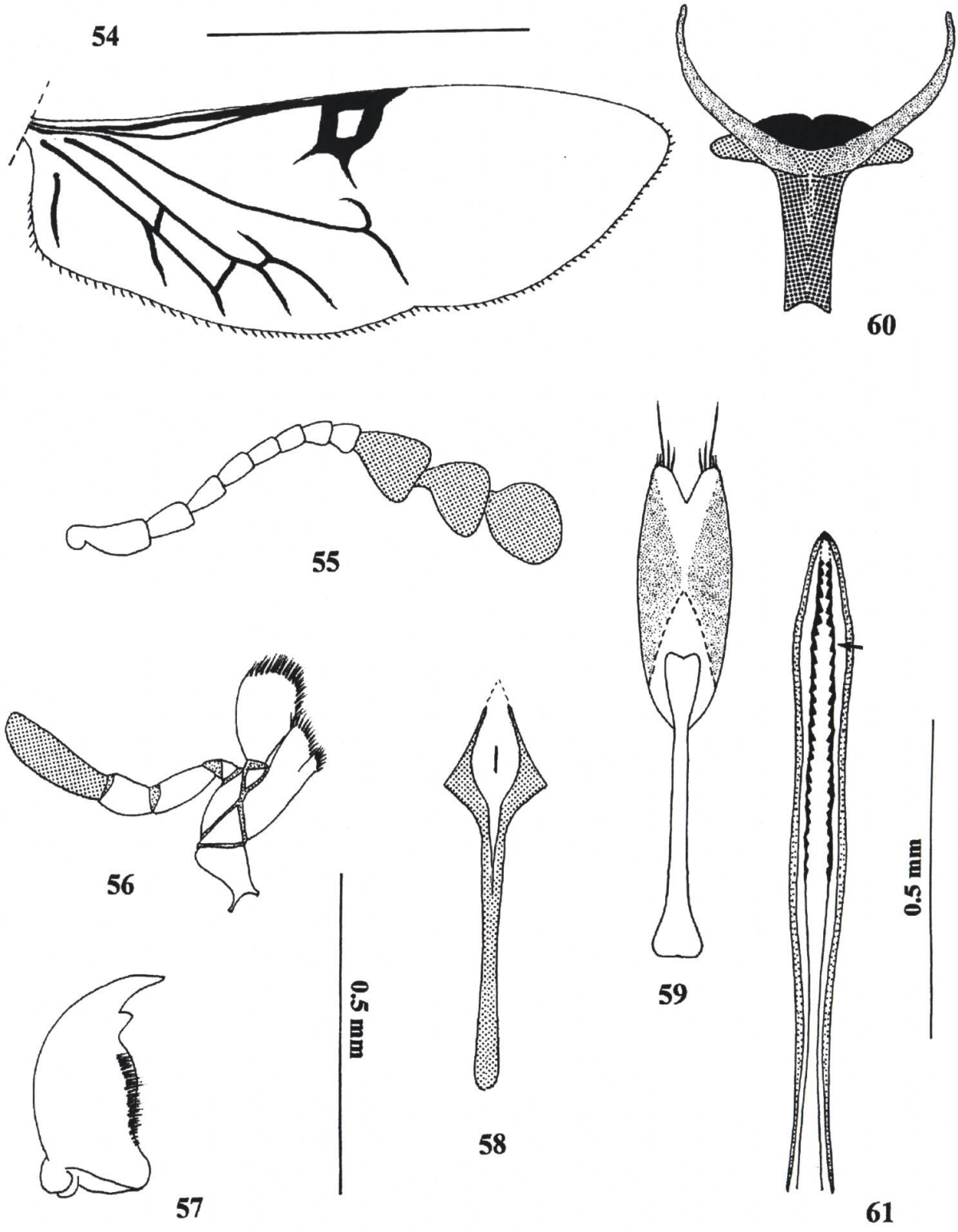
**Synapotypic characteristics.** Phallic membrane with two rows of spines (Fig. 61).

**Diagnosis.** The linear condition of the distal portion of the prointercoxal process and the shortness of the pronotal projection will distinguish the members of this genus from the superficially similar members of *Lebasiella.*

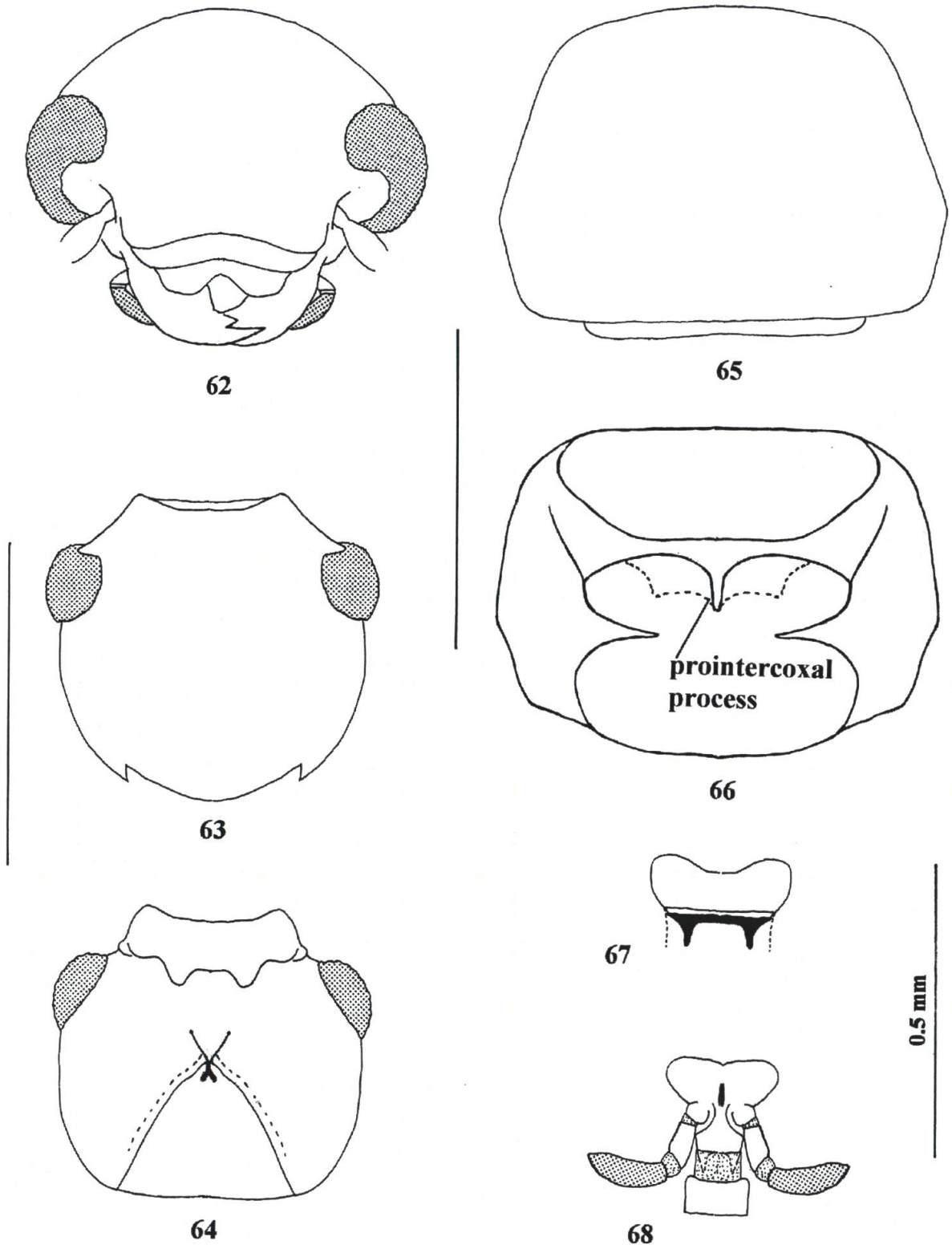
**Description.** *Size*: Length 4.1–5.5 mm; width 1.8–3.0 mm. *Form* (Fig. 295): Oblong ovoid, robust, deep body, about 2 times longer than broad. *Vestiture*: Disc of cranium and pronotum densely vested with very fine setae, elytral disc vested with stout 1° setae only. *Head* (Figs 62–64): Cranium subspheroid, frons very wide, indented with shallow minute setiferous punctations, latter not widely separated; gula (Fig. 64) very small, process short, narrow, and minutely forked; labrum (Fig. 67) short, medial incision curvate concave, medial tormal processes transverse confluent, epipharyngeal plate not distinguishable; mandible (Fig. 57), body short, anterior, medial, and posterior dens well developed, penicillus particularly well developed; maxilla (Fig. 56), laterolacinia present, terminal palpomere narrow digitiform; labium (Fig. 68), ligula not deeply incised, ligular lobes not flared, terminal palpomere digitiform; eyes small, finely facetted, ocular notch large; antenna (Fig. 55) capitate, capitulum not compact, scape short, about as long as combined length of pedicel and antennomere 3, funicular antennomeres filiform, capitular antennomeres not compacted, slightly expanded laterally, antennomeres 9 and 10 triangular, antennomere 11 ovoid. *Thorax*: Pronotum (Fig. 65) transverse, convex, side margins slightly sinuous, sculptured with very small round setiferous punctations, prointercoxal process not expanded distally (Fig. 66); pronotal projection short, does not contact prointercoxal process; elytron sculptured with small circular asetiferous punctations, latter not rowed, elytral 1° setae always adjacent to asetiferous punctations, 2° setae absent; epipleural fold subventrally positioned and expanded in proximal half, extended to elytral distal two thirds, elytral anterior margin without carina; metathoracic wing as in figure 54, wedge cell closed; metendosternite (Fig. 60) with furcal lamina, furcal anterior plate extended; legs, tibial spur formula 2–2–2, tarsal pulvillar formula 3–3–3, unguis with large denticle. *Abdomen*: Aedeagus (Figs 59, 61) shorter than length of abdomen, distal region of phallobase transformed into medially incised dorsal plate, distal margin of phallobasic lobes conspicuously fimbriate, phallic membrane with two rows of spines; apices of lateral plates of spicular fork (Fig. 58) slightly broadened, spicular apodemes fused together for most of its length, interspicular plate minute and rod-shaped; ovipositor, ventral and dorsal laminae multilobed, laminal rod absent; distal margin of pygidium rounded, 6th visible sternite slightly incised. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: Monotypic genus.

**Distribution.** Known only from south-central México.




**Figs 54–61.** *Kataspinula omocerina*: 54 – Metathoracic wing; 55 – antenna; 56 – maxilla; 57 – Mandible; 58 – Spicular fork; 59 – Tegmen; 60 – Metendosternite; 61 – Phallus.




**Figs 62–68.** *Kataspinula omocerina*: 62–64, Heads (62 – frontal view, 63 – dorsal view, 64 – ventral view); 65 – Pronotum, dorsal view; 66 – Prothorax, ventral view; 67 – Labrum; 68 – Labium.

**Etymology.** The genus name is a Latin compound name derived from *kata* (= very) and *spinula* (= spine). I refer to the spinous condition of the membranes of the phallus.

### *Kataspinula omocerina* sp.nov.

**Type material.** Holotype: ♂. Mexico, Puebla, 6 km SW Acatepec, 18°13'N 97°38' W, 1919 m, 17.VII.96, R. L. Wescott (LACM). Paratypes: Two specimens. México: Puebla: 6 km SW Acatepec, 18°13'N 97°38' W, 1919 m, 17.VII.96, R. L. Wescott (WOPC, 1); 12.5 km SW san Bartolo Teontepec, 1828N 9736W, 18-VII-1996, 2002 m, C. L. Bellamy (JNRC, 1).

**Description.** *Form*: Oblong ovoid. *Size*: Length 4.0 mm; width 1.5 mm. *Integumental Color*: Antennal club black, scape, pedicel, and funicular antennomeres brown; mouthparts, cranium, pronotum, and abdomen black; elytra mostly black, with L-shaped yellow macula that begins at humeral angle, also with yellow punctiform spot near elytral apex. *Male Genitalia* (Figs 59, 61): Tegminal lobes short, dark sclerotization of tegmen not broadly constricted at middle; phallic membranes spinous. *Variation*: Length 4.0–6.0 mm; width, 1.5–2.8 mm; yellow marking at humeral angle very broad or reduced to rectangulate spot.

**Distribution.** Known only from south-central México.

**Etymology.** The trivial name is a compound name derived from the Greek *omos* (= shoulder) and the Latin *cerinus* (= yellow). I refer to the yellow marking near the humeral angle.

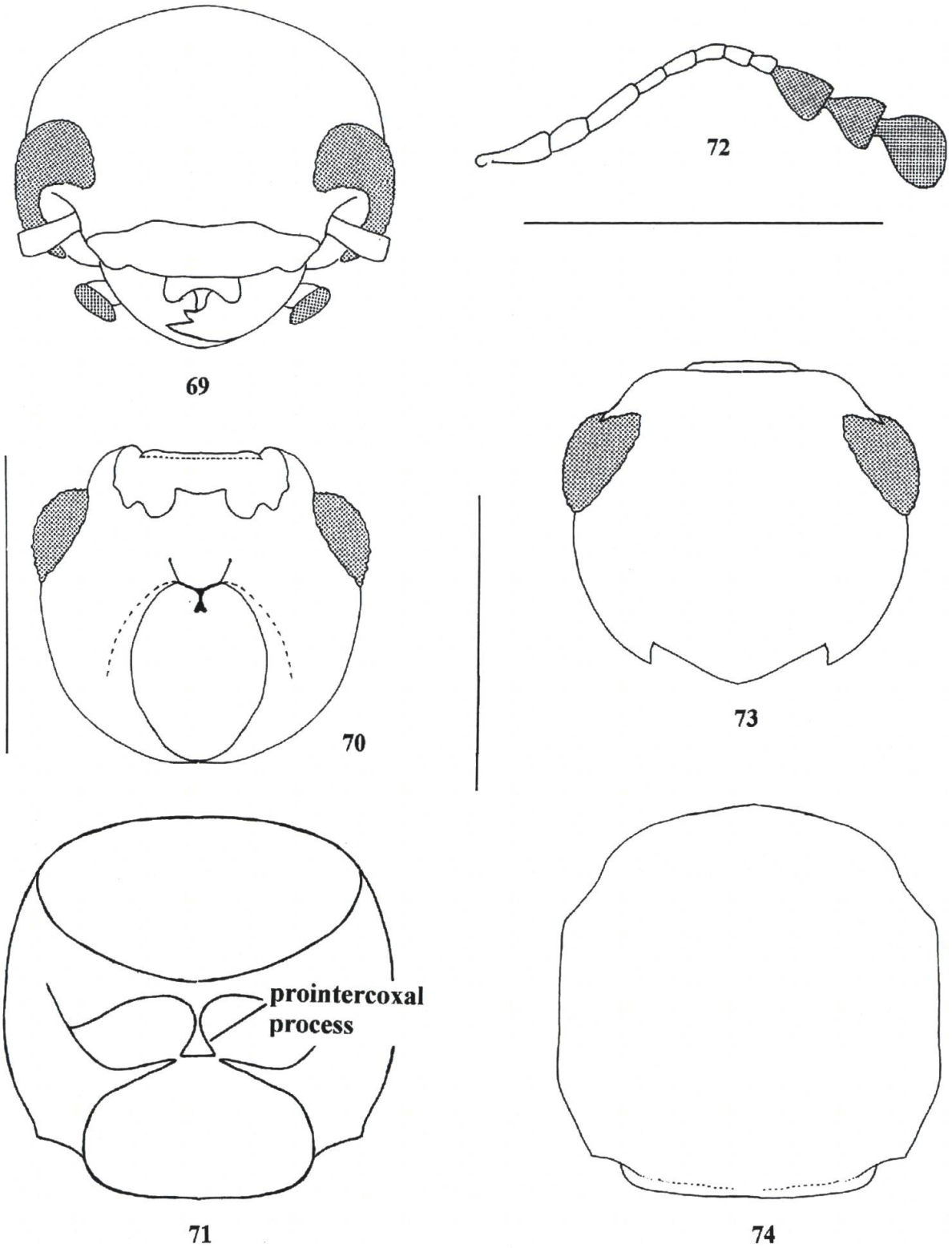
## *Lebasiella* Spinola, 1844 (Figs 69–83, 296)

*Lebasiella* Spinola, 1844: 77. Type species: *Lebasiella erythrodera* Spinola, 1844: 77 (= *L. pallipes* Klug, 1842, 353 **syn.nov.**), by original designation. (LACORDAIRE, 1857: 488. DESMAREST, 1852: 272. GORHAM, 1883: 192. LECONTE & HORN 1883: 220. SCHENKLING 1903: 116; 1910: 139. WOLCOTT 1947: 87. CORPORAAL 1950: 306. WINKLER 1961: 69. EKIS 1975: 58. OPITZ 2002: 279.)

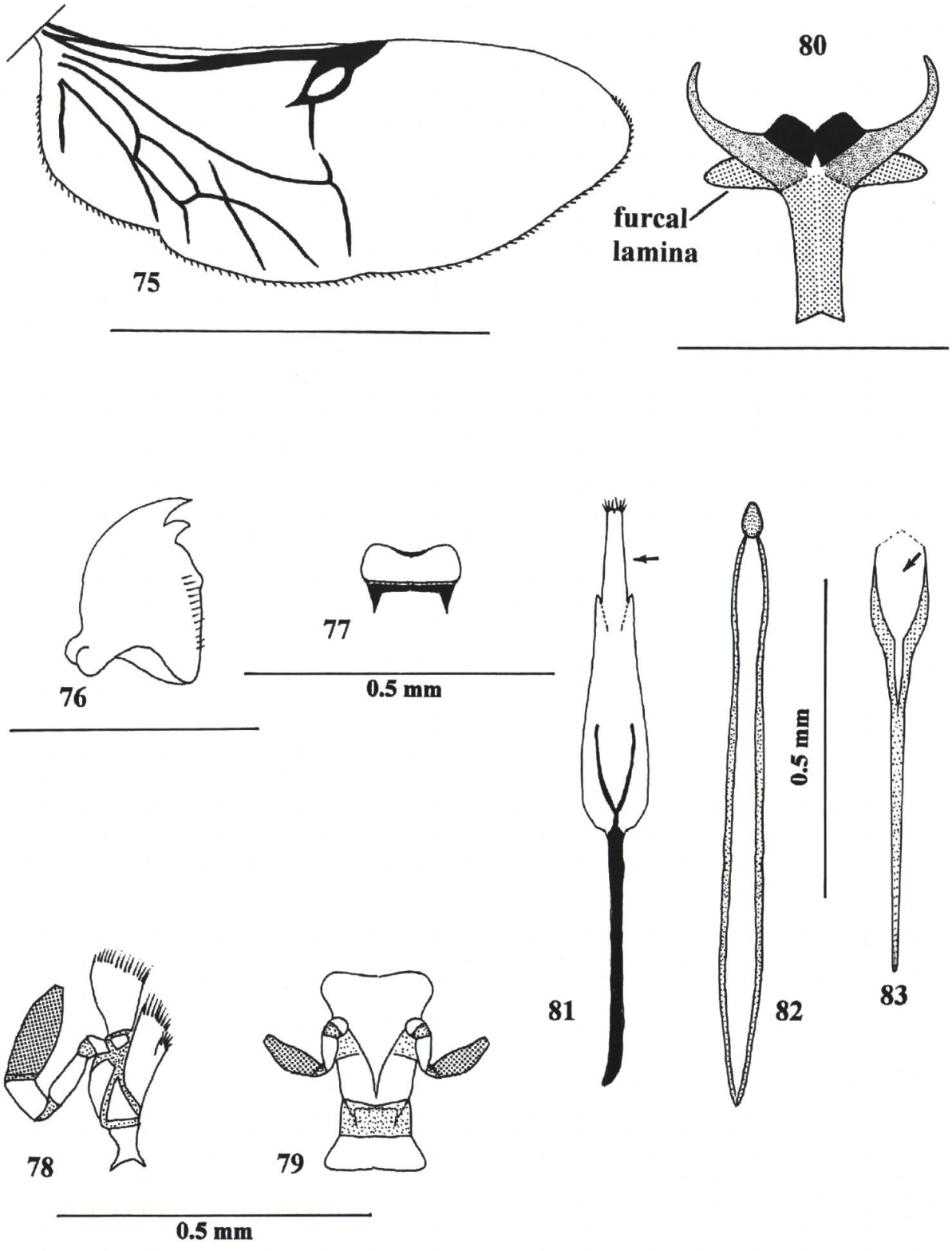
**Synapotypic characteristics.** Dorsal plate of phallobase extended into long narrow projection (Fig. 81); interspicular plate absent (Fig. 83).

**Diagnosis.** *Lebasiella* may be distinguished from superficially similar specimens of *Rifkindius* gen.nov., by the triangular shape of the distal portion of the prointercoxal process, which is linear in *Rifkindius* gen.nov. Also, in *Rifkindius* gen.nov. antennomere 5 is larger than 6 which is not the case in *Lebasiella* specimens.

**Description.** *Size*: Length 2.3–5.0 mm; width 1.0–2.4 mm. *Form* (Fig. 296): Oblong ovoid, robust, about 2 times longer than broad. *Vestiture*: Disc of cranium and pronotum vested with very small setae, elytra disc vested with 1° setae only. *Head* (Figs 69, 70, 73): Cranium subspheroid, frons very wide, indented with very small setiferous punctations, latter not widely separated; gula (Fig. 70) small, gular process short, narrow, and forked; labrum (Fig. 77) short, medial incision curvate concave, medial tormal processes transverse confluent, epipharyngeal plate not distinguishable; mandible (Fig. 76), body short, anterior, medial, and posterior dens well developed, penicillus well developed; maxilla (Fig. 78), laterolacinia present, terminal palpomere digitiform;




**Figs 69–74.** *Lebasiella pallipes*: 69–70, Heads (69 – frontal view, 70 – ventral view); 71 – Prothorax, ventral view; 72 – Antenna; 73 – Head, dorsal view; 74 – Pronotum.




**Figs 75–83.** *Lebasiella pallipes*: 75 – Metathoracic wing; 76 – Mandible; 77 – Labrum; 78 – Maxilla; 79 – Labium; 80 – Metendosternite; 81 – Tegmen; 82 – Phallus; 83 – Spicular fork.

labium (Fig. 79), ligula not deeply incised, ligular lobes not flared, terminal palpomere digitiform; eyes small, finely faceted, ocular notch large; antenna (Fig. 72) capitate, scape short, about as long as combined length of pedicel and antennomere 3, funicular antennomeres filiform, capitular antennomeres not compacted, slightly expanded laterally, capitular antennomeres 9 and 10 triangular. *Thorax*: Pronotum (Fig. 74) transverse, convex, side margins arcuate, with small angular tubercle near posterior angle, sculptured with small round setiferous punctations, prointercoxal process very expanded distally (Fig. 71); pronotal projection extensive, nearly contacting prointercoxal process; elytron ovate, tumescent near base, sculptured with small spheroid asetiferous punctations, latter not rowed, elytral 1° seate always adjacent to asetiferous punctations, 2° setae absent, epipleural fold subventrally positioned and expanded in proximal half, extended to elytral distal three-fourths, elytral anterior margin carinate; metathoracic wing as in figure 75, wedge cell closed; metendosternite (Fig. 80) with furcal lamina, furcal anterior plate extended; legs, tibial spur formula 1–1–1, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Aedeagus (Figs 81, 82) shorter than length of abdomen, dorsal plate of phallobase extended into long narrow projection, distal margin of phallobasic lobes minutely fimbriate; lateral plates of spicular fork (Fig. 83) not expanded, spicular apodemes not fused together in distal third, interspicular plate not distinguishable; ovipositor, ventral and dorsal laminae multilobed, laminal rod absent; distal margin of pygidium and 6th visible sternite rounded, not incised. *Alimentary Canal*: Stomodaeal valve comprised of 4 primary lobes. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: Spermathecal capsule well sclerotized; spermathecal gland attached to apex of spermathecal capsule; bursa copulatrix saccular.

Intrageneric variations: The principal variation among the species involves the color of the elytra and form of the aedeagus.

**Distribution.** Species are known from central México to Costa Rica.

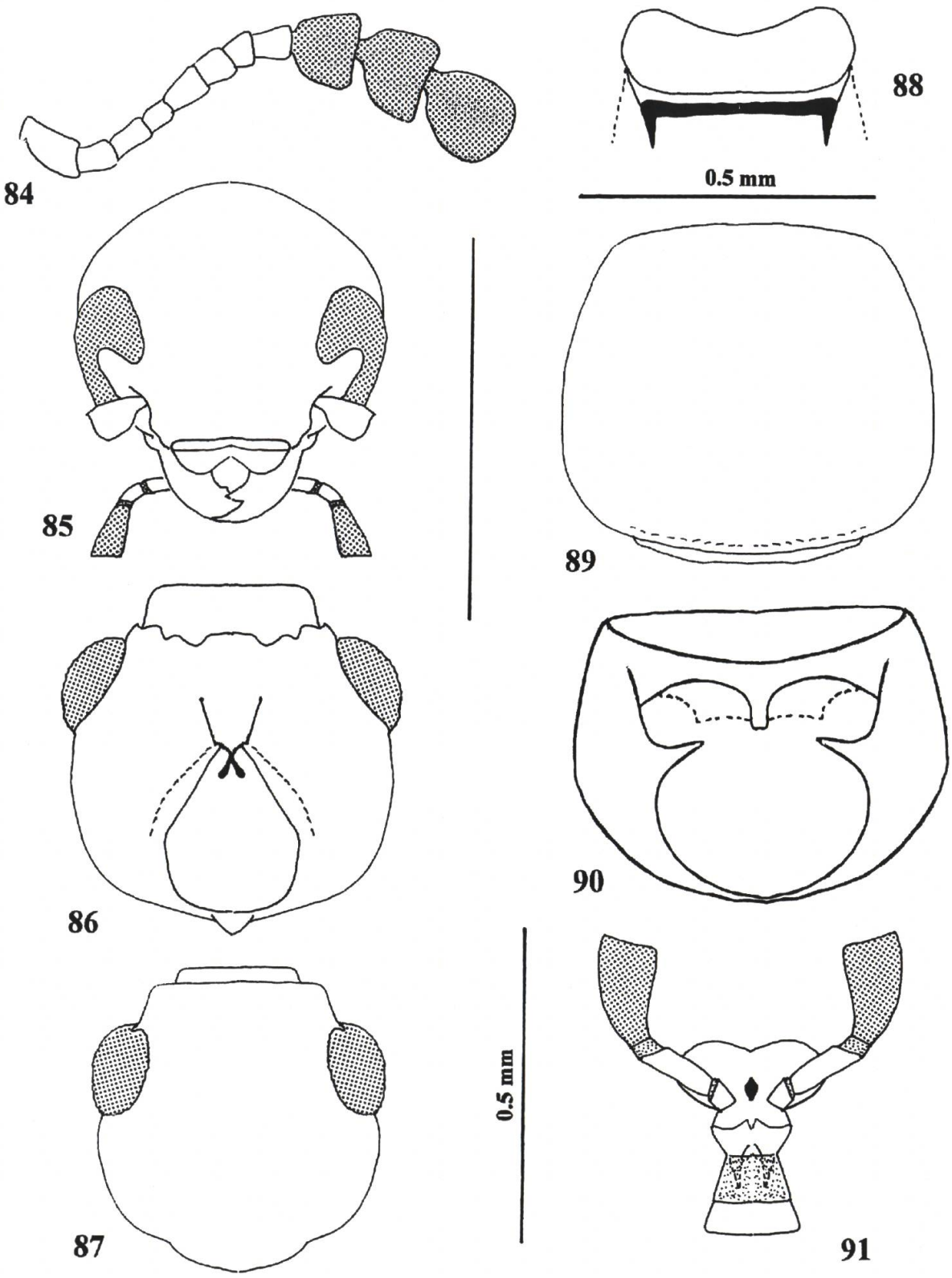
## *Loedelia* Lucas, 1920 (Figs 84–101, 297)

*Loedelia* Lucas, 1920: 380. Type species: *Necrobioides mexicana* Gahan, 1910: 76. (Wolcott 1947: 88. Corporaal 1950: 312. Opitz 2002: 280.)
*Necrobioides* Gahan, 1910: 76.

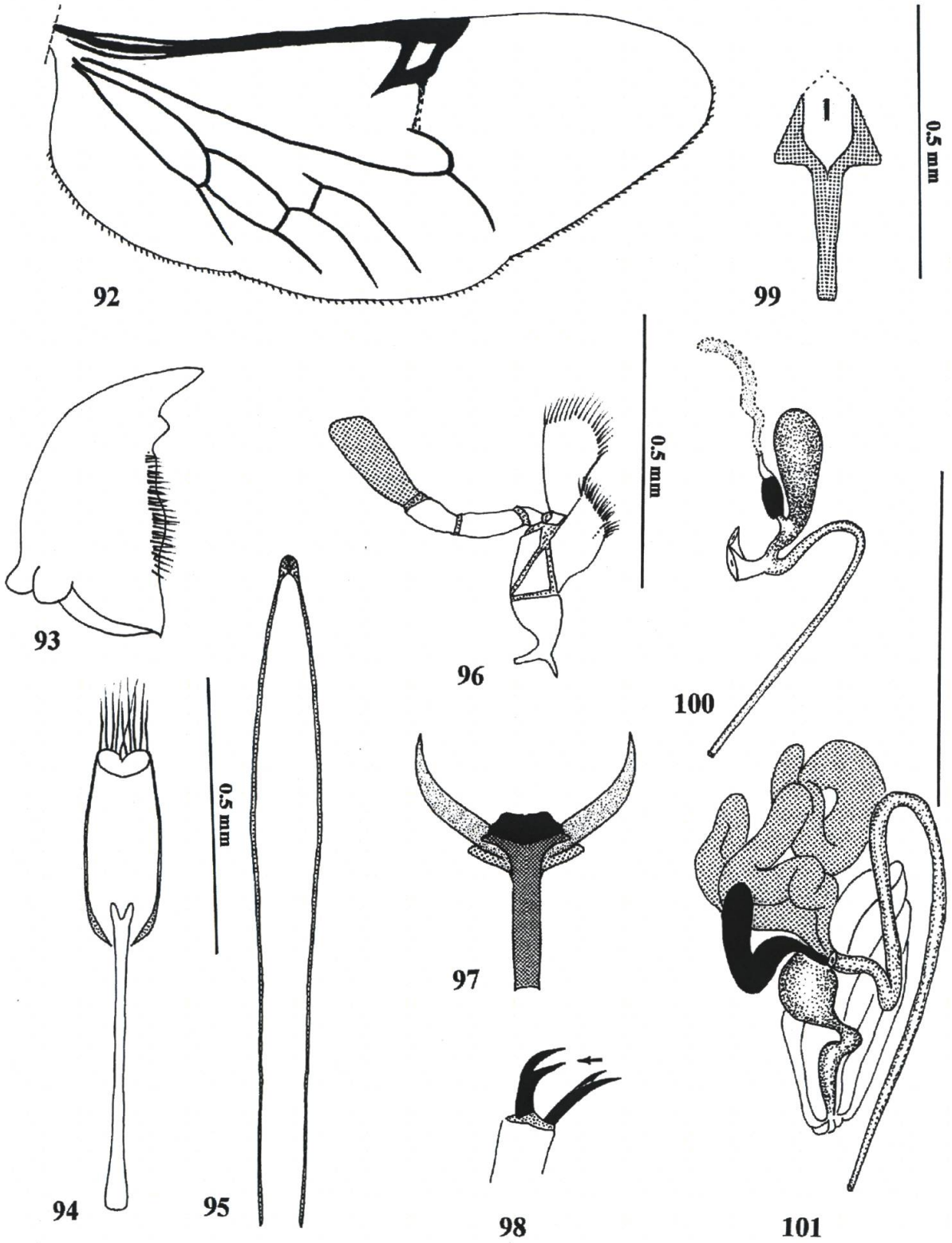
**Synapotypic characteristics.** Tarsal unquis bifid (Fig. 98).

**Diagnosis.** Within Neorthopleurinae subfam.nov., only in members of *Loedelia* are the ungues bifid (Fig. 98).

**Description.** *Size*: Length 5.0–6.0 mm; width 2.0–3.0 mm. *Form* (Fig. 297): Oblong subovoid, robust, deep body, about 2 times longer than broad. *Vestiture*: Disc of cranium and pronotum densely vested with stout setae, elytra vested with 1° setae only. *Head* (Figs 85–87): Cranium subspheroid, frons very wide, indented with very small setiferous punctations, latter widely separated; gula (Fig. 86) very small, sutures oblique, gular process short, narrow, and minutely forked; labrum (Fig. 88) short, medial incision




**Figs 84–91.** *Loedelia mexicana*: 84 – Antenna; 85–87, Heads (85 – frontal view, 86 – ventral view, 87 – dorsal view); 88 – Labrum; 89 – Pronotum; 90 – Prothorax, ventral view; 91 – Labium.




**Figs 92–101.** *Loedelia mexicana*: 92 – Metathoracic wing; 93 – Mandible; 94 – Tegmen; 95 – Phallus; 96 – Maxilla; 97 – Metendosternite; 98 – Protarsal unci; 99 – Spicular fork; 100 – Mesodermal female reproductive organs; 101 – Mesodermal male reproductive organs.

curvate concave, medial tormal processes transverse confluent, epipharyngeal plate not distinguishable; mandible (Fig. 93), body short, anterior, medial, and posterior dens well developed, penicillus very well-developed; maxilla (Fig. 96), laterolacinia present, terminal palpomere narrow triangular; labium (Fig. 91), ligula not deeply incised, ligular lobes not flared, terminal palpomere narrow subsecuriform; eyes small, very finely facetted, ocular notch large; antenna (Fig. 84) capitate, short, scape about as long as combined length of pedicel and antennomere 3, funicular antennomeres slightly increasing in diameter, capitular antennomeres not compacted, slightly expanded laterally, capitulum antennomeres 9 and 10 broadly triangular. *Thorax*: Pronotum (Fig. 89) transverse, convex, side margins evenly rounded, sculptured with very small round setiferous punctations, prointercoxal process not expanded distally (Fig. 90); pronotal projections short, do not contact prointercoxal process; elytron sculptured with small circular asetiferous punctations, latter not rowed, elytral 1° setae always adjacent to asetiferous punctations, 2° setae absent; epipleural fold subventrally positioned and expanded in proximal half, extended to elytral distal two thirds, elytral anterior margin with carina; metathoracic wing as in figure 92, wedge cell closed; metendosternite (Fig. 97) with very small furcal lamina, furcal anterior plate extended; legs, tibial spur formula 2–2–2, tarsal pulvillar formula 3–3–3, unguis bifid. *Abdomen*: Aedeagus (Figs 94, 95) shorter than length of abdomen, distal region of phallobase transformed into medially incised dorsal plate, distal margin of phallobasic lobes profusely fimbriate; apices of spicular fork lateral plates broadened, spicular apodemes fused together (Fig. 99), interspicular plate minute and rod-shaped; ovipositor, ventral and dorsal laminae multilobed, laminal rod not present; distal margin of pygidium and 6th visible sternite rounded, not incised. *Alimentary Canal*: Six cryptonephridial Malpighian tubules. *Mesodermal Male Internal Reproductive Organs* (Fig. 101): Two pairs of accessory glands, medial pair biramous. *Mesodermal Female Internal Reproductive Organs* (Fig. 100): Spermathecal capsule barrel shaped, well sclerotized, spermathecal gland attached to apex of spermathecal capsule.

Intrageneric variations: There is some variation in the development of the furcal lamina and in the shape of the short aedeagal phallobasic rod.

**Distribution.** This genus ranges from southwestern USA to southwestern México.

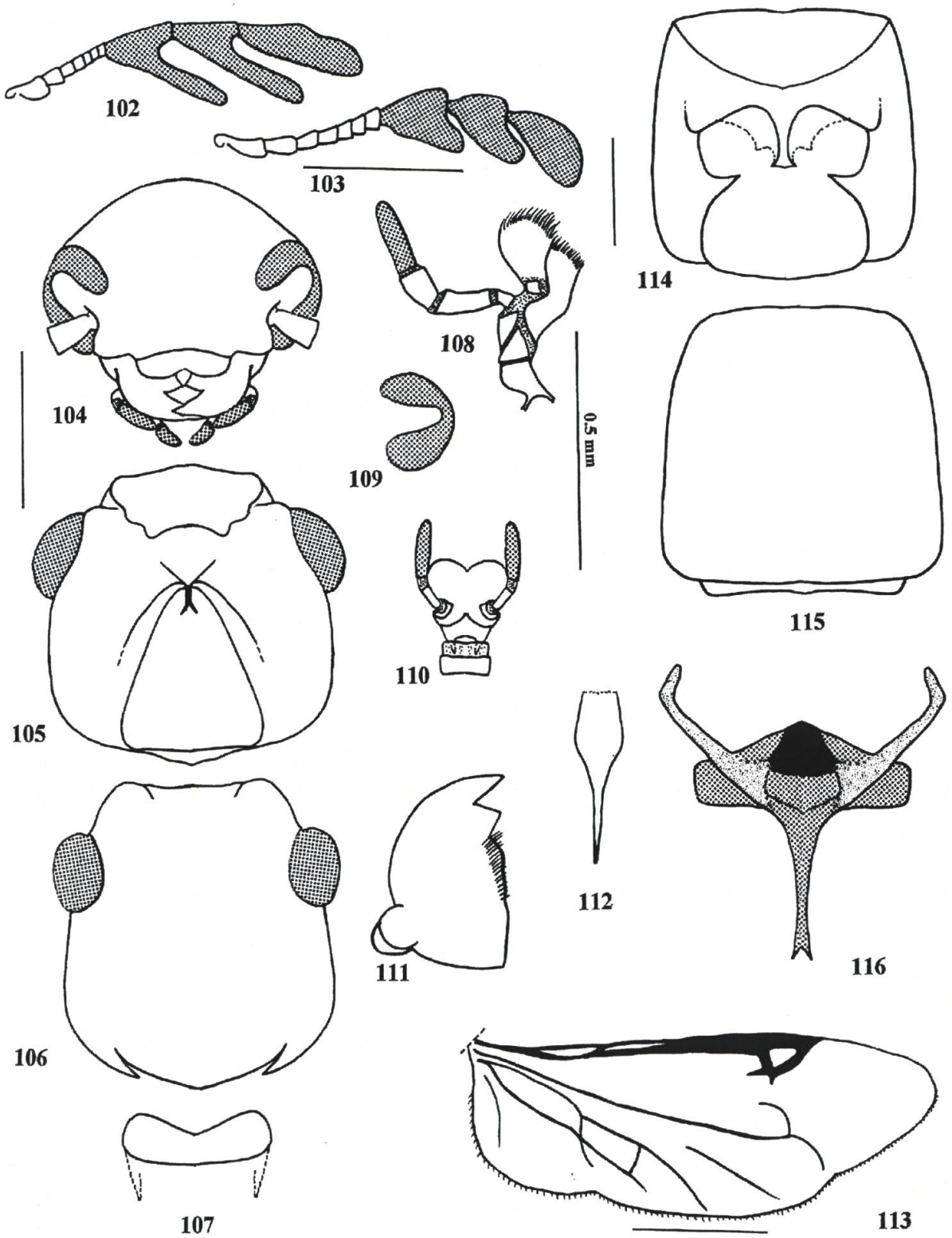
## *Megafodina* gen.nov. (Figs 102–116, 281, 282, 298)

**Type species:** *Orthopleuroides imitans* Kuwert, 1893: 489.

**Synapotypic characteristics.** Eyes deeply incised (Fig. 109); one spine on phallic plate (Fig. 281).

**Diagnosis.** The deep incision of the eye (Fig. 109) will distinguish the members of this genus from any other specimens within Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 5.0–13.0 mm; width 1.5–4.5 mm. *Form* (Fig. 298): Oblong rectangular, body not particularly deep, about 4 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres




**Figs 102–116.** *Megafodina imitans*: 102–103, Antennae (102 – male, 103 – female); 104–106, Heads (104 – frontal view, 105 – ventral view, 106 – dorsal view); 107 – Labrum; 108 – Maxilla; 109 – Eye, lateral view; 110 – Labium; 111 – Mandible; 112 – Spicular fork; 113 – Metathoracic wing; 114 – Prothorax; 115 – Pronotum; 116 – Metendosternite.

sparsely setose, elytral 1° and 2° elytral setae present, 2° very short. *Head* (Figs 104–106): Cranium subquadrate, frons moderately wide, profusely indented with subrugose setiferous punctations; gula (Fig. 105) small, triangular, gular process short and bifid distally; labrum (Fig. 107) very shallow, broadly incised distally, medial tormal processes not studied, epipharyngeal plate small and faintly developed, transverse; mandible (Fig. 111), body stout, anterior dens acuminate, medial dens minute, posterior dens absent, penicillus well developed; maxilla (Fig. 108), laterolacinia absent, terminal palpomere digitiform; labium (Fig. 110), ligula not deeply incised, ligular lobes slightly flared, terminal palpomere digitiform; eyes large, coarsely facetted, ocular notch exceptionally large; antenna comprised of 10 antennomeres, capitate, capitulum sex dimorphic, clava antennomeres 9 and 10 slightly lobed in females (Fig. 103), boldly lobed in males (Fig. 102), antennomere 10 extended, rectangular in males and ovoid in females, scape longer than combined length of pedicel and antennomere 3, funicular antennomere somewhat quadrate. *Thorax*: Pronotum (Fig. 115) quadrate, disc convex, disc minutely punctate, subparallel; prointercoxal process (Fig. 114) very expanded distally; pronotal projections short, they do not approximate prointercoxal process; elytron sculptured with few asetiferous punctations that end at about elytral middle, asetiferous punctations concentrate in middle of disc, subseriate, epipleural fold abruptly narrowed at elytral middle then thinly extended to elytral apex, anterior margin carinate; metathoracic wing as in figure 113, wedge cell closed; metendosternite (Fig. 116) with furcal lamina, furcal anterior plate triangular; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unquis with well-developed denticle. *Abdomen*: Abdomen not very tapered in females; aedeagus (Figs 281, 282) shorter than length of abdomen, distal region of phallobase bilobed, lateral lobes fimbriate, tegmen membranous ventrally, phallobasic rod slightly divided distally, phallic plate with one spine; spicular fork (Fig. 112) comprised of two separated narrow plates, spicular plates absent; ovipositor longer than length of abdomen, nearly filamentous, laminae not discernible, laminal rod not present; male pygidium campaniform. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: Sculpturing of the pronotum varies within the genus as does structure of the aedeagus.

**Distribution.** This genus is known from Rhodesia, Southwest Africa, and Madagascar.

**Etymology.** *Megafodina* stems from the Greek *megas* (= large) and the Latin *fodina* (= pit). I refer to the asetiferous punctations on the elytral disc.

## *Nelsonoplium* Barr, 2006 (Figs 243, 260, 309)

*Nelsonopium* Barr, 2006: 269.
*Nelsonoplium* Barr, 2006: 269. Type species: *Nelsonoplium jeanae* Barr, 2006: 271, by original designation.

**Material examined.** *Nelsonoplium jeanae*: MEXICO, Guerrero: Hwy. 95, 11 km N. Rio Mexcala, G. H. NELSON, 23.VII, on *Acacia cochliacantha*.

**Synapotypic characteristics.** Tegmen trilobed distally (Fig. 258); funicular antennomeres densely setose; fifth visible sternite notched at middle of distal margin (Fig. 259).

**Diagnosis.** The notch on the distal margin of the fifth visible sternite will conveniently distinguish the members of this genus from any others in Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 5.0–9.2 mm; width 2.0–3.8 mm. *Form* (Fig. 309): Oblong rectangular or suboval, body not deep, about 2.5 times longer than broad. *Vestiture*: Dorsum with short, profusely distributed pubescens, antennal funicular antennomeres densely setose, antennal club vestiture very fine, elytral 1° and 2° elytral setae present, 2° setae very short and particularly abundant. *Head* (Figs 243–245): Cranium subquadrate, frons very wide, profusely indented with contiguous setiferous punctations; gula (Fig. 244) small, triangular, sutures diverge, gular process short and slightly bifid distally, gena expanded (Fig. 244); labrum (Fig. 246) shallow, broadly incised, medial tormal processes transverse and confluent, epipharyngeal plate small and faintly developed, narrowly transverse; mandible (Fig. 250), body elongate, anterior, medial, and posterior dens well developed, penicillus well developed; maxilla (Fig. 248), laterolacinia present as deflection, terminal palpomere truncate, subrectangulate and swollen at middle; labium (Fig. 249), ligula deeply incised, ligular lobes slightly flared, terminal palpomere truncate, subrectangulate and swollen at middle; eyes small, moderately finely facetted, ocular notch large; antenna (Fig. 247) comprised of 11 antennomeres, capitate, capitulum long, capitulum longer than combined length of pedicel and antennomeres 3, funicular antennomeres very setose, somewhat filiform, increasing slightly in serration towards club, club antennomeres much longer than wide, antennomere 10 suboval. *Thorax*: Pronotum (Fig. 252) oblong, rectangular, disc somewhat flattened or shallowly convex, disc minutely cribrate, side margins linear, prointercoxal process narrow (Fig. 251, expanded distally; pronotal projections long, they approximate prointercoxal process; elytron sculptured with asetiferous punctations, but asetiferous punctations deep only in elytral proximal half, asetiferous punctations seriate, epipleural fold gradually narrowed to elytral apex, anterior margin carinate; metathoracic wing as in figure 254, wedge cell closed; metendosternite (Fig. 253) with furcal lamina, furcal anterior plate large triangular; legs, tibial spur formula 2–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Fifth visible abdominal sternite notched at middle of distal margin (Fig. 259), incision most prominent in females; aedeagus (Figs 258, 260) shorter than length of abdomen, distal region of phallobase trilobed, lateral lobes fimbriate, tegmen reduced ventrally, membranous, posterior third of phallobasic apodeme broadened into rectangular plate, phallobasic rod digitiform; lateral plates slightly forked, spicular apodemes fused in anterior two-thirds (Fig. 257), spicular plates acuminate; interspicular plate narrow and elongate; ovipositor very slender, longer than length of abdomen, laminae not discernible, laminal rod not present; female pygidium (Fig. 255) elongate, variously constricted in anterior half, truncate or not; male pygidium (Fig. 256) campaniform. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Internal Female Reproductive Organs*: No information available.

Intrageneric variation: The shape of the female pygidium is considerably variable among the known species.

**Distribution.** This taxon is known from Guatemala, Honduras, México, and Nicaragua.

### *Nelsonoplium heterochromum* sp.nov.

**Type material.** Holotype ♂: México, Nayarit, 22 km W of Chapalilla, 4000′, July 25, 1993, Oak Forest, Beating *Acacia* spp., Rifkind, Bellamy, Reifschneider, colls (LACM). Paratypes: Seventeen specimens: México, Nayarit, 22 km W of Chapalilla, 1220 m, 25-VII-1993, Oak Forest, Beating *Acacia* spp., Rifkind, Bellamy, Reifschneider (JNRC, 2; WOPC, 1); *idem*, Hwy. 15, 22 km W of Chapalilla, 1220 m, 25-VII-1993, oak/acacia forest, beating *Acacia* spp, Rifkind, Bellamy, Reifschneider (JNRC, 3; WOPC, 3); *idem*, 13 km N of Chapalilla, pine/oak forest, 1311 m, beating *Acacia pennatula*, Rifkind, Bellamy, Reifschneider (JNRC, 1); *idem*, El Tuito, 27-VII-1993, beating *Acacia pennatula*, Rifkind, Bellamy, Reifschneider (JNRC, 3; WOPC, 1); *idem*, vicinity El Tuito, 14–19-VII-1993, J. Huether (JPHC, 1); *idem*, Estación Biologica de Chamela, 10–20-VII-1985, E. Giesbert (FSCA, 1). Honduras: Francisco Morazán, 31 km S Talanga, 27-VI-1995, F.T. Hovore (WOPC, 1).

**Description.** *Size*: Length 8.5 mm; width 2.3 mm. *Form*: Oblong subrectangulate, elytra somewhat ovate. *Integumental Color*: Antenna black, except scape yellow beneath; maxillary and labial terminal palpomeres black, remainder of mouthparts, lower frons, cranial venter, and prosternum yellow; upper frons, vertex, and postgenae black; pronotum bicolorous, lower sides and middle of disc with black line, upper sides yellow-red, yellow-red region vested with golden setae, remainder of integument black, except elytra faintly light brown at middle near epipleural margin. *Head*: Capitular antennomeres 9 and 10 long triangular. *Abdomen*: Male pygidium broadly rounded distally; female pygidium broadly oblong and truncate, slightly gradually constricted in posterior half. *Male Genitalia*: Aedeagus long; tegminal lateral lobes narrow, acuminate and vested with few setae, medial lobe triangular; phallobasic rod long and slightly bifid distally.

Variation: Length 6.0–8.5 mm; width 1.5–3.0 mm; black streak at pronotal center varies in expression, may be reduced to discal spot or absent; elytral borders may be yellow.

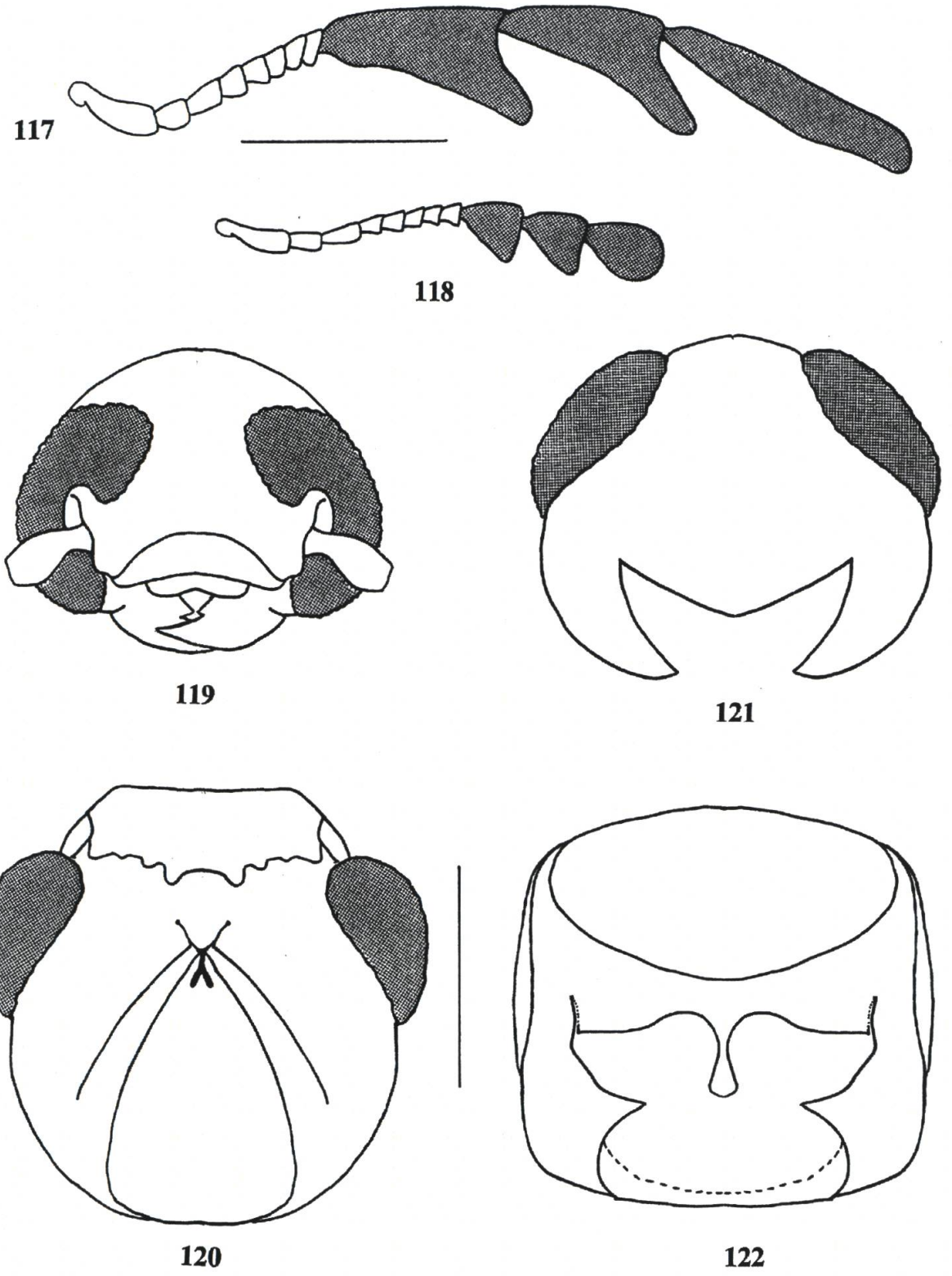
**Etymology.** The trivial name *heterochromum* is a compound Greek name derived from *chroma* (= color) and *heteros* (= different). I refer to the extensive color variation present among the available members of this species.

**Differential diagnosis.** In the members of this species the yellow-red portions of the pronotal disc show a dense aggregation of gold-yellow setae. These setae diverge to the sides from their base. This characteristic will conveniently distinguish these beetles from other *Nelsonoplium*.

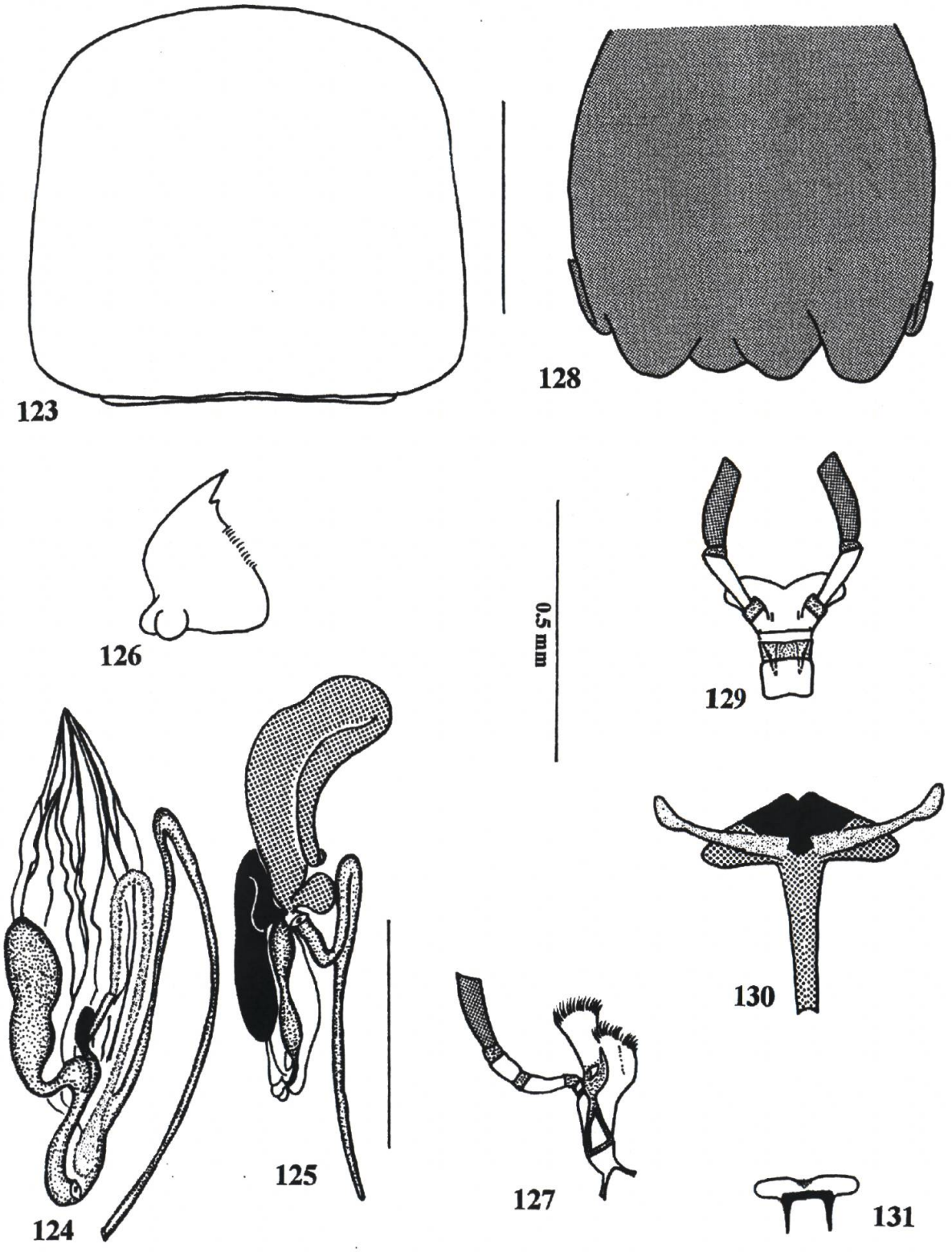
## *Neorthopleura* Barr, 1976 (Figs 117–140, 299)

*Neorthopleura* Barr, 1976: 2. Type species: *Neorthopleura texana* Bland, 1863: 356, by original designation.

**Synapotypic characteristics.** Apodeme of female pygidium very long (Fig. 134); phallic spur present (Fig. 138); apodemes of female pygidium expanded anteriorly (Fig. 133).



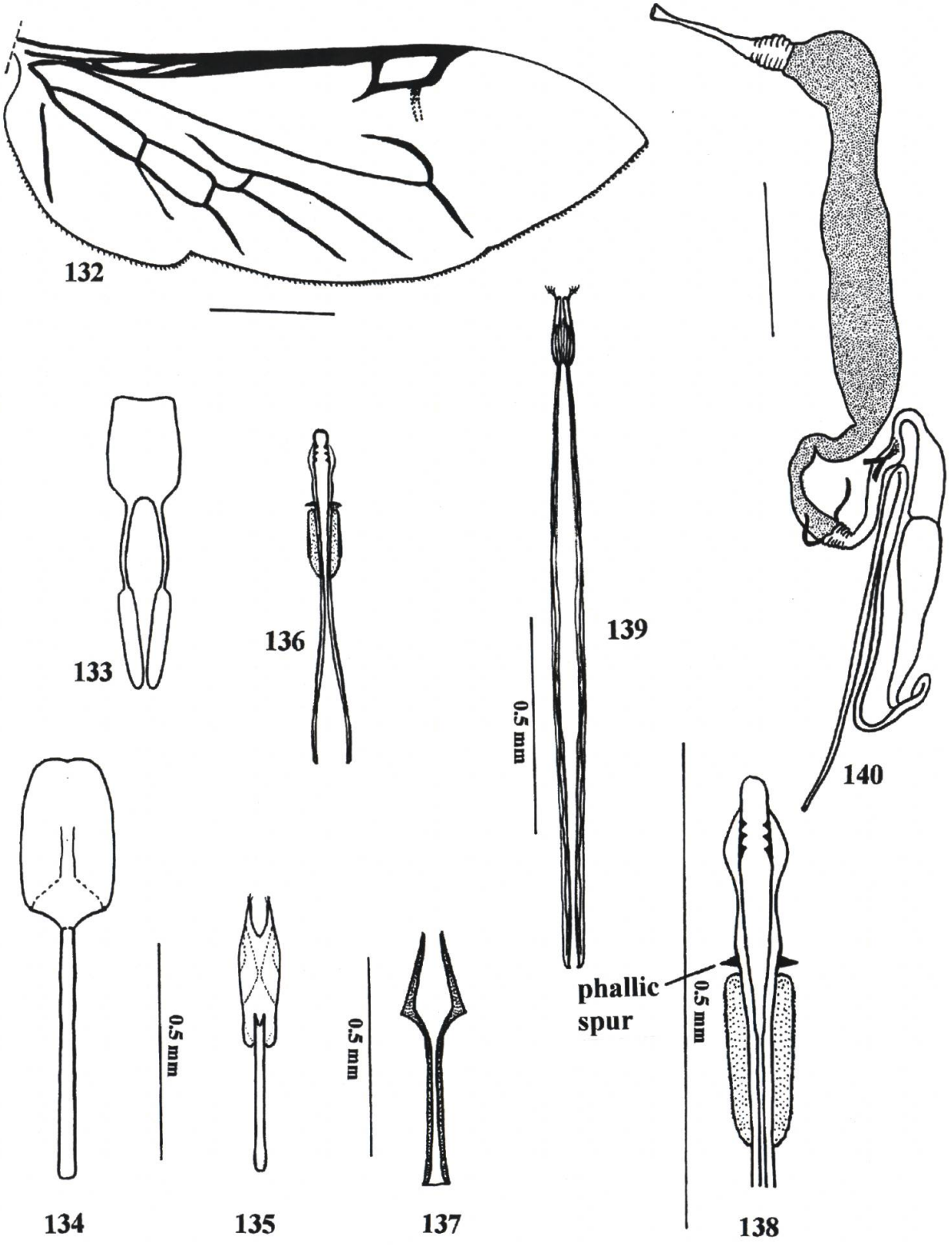

**Figs 117–122.** *Neorthopleura thoracica*: 117–118, Antennae (117 – male, 118 – female); 119–121, Heads (119 – frontal view, 120 – ventral view, 121 – dorsal view); 122 – Prothorax.




**Figs 123–131.** *Neorthopleura thoracica*: 123 – Pronotum; 124–125, Mesodermal reproductive organs (124 – female, 125 – male); 126 – Mandible; 127 – Maxilla; 128 – Stomodaeal valve, interior view; 129 – Labium; 130 – Metendosternite; 131 – Labrum.

**Diagnosis.** Specimens of *Neorthopleura* superficially resemble *Syriopelta* from which they can be distinguished by having a transverse pronotum (Fig. 123). In *Syriopelta*, the pronotum is quadrate.

**Description.** *Size*: Length 4.1–11.0 mm; width 1.6–3.5 mm. *Form* (Fig. 299): Oblong rectangular, body not deep, about 3 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres sparsely or densely setose, elytral 1° and 2° setae present, 2° very short and particularly abundant. *Head* (Figs 119–121): Cranium transverse, frons moderately wide, profusely indented with subrugose setiferous punctations; gula (Fig. 120) small, triangular, sutures diverge, gular process short and bifid distally; labrum (Fig. 131) very shallow, broadly incised distally, medial tormal processes transverse and confluent, epipharyngeal plate small and faintly developed, transverse; mandible (Fig. 126), body stout, anterior dens acuminate, medial dens minute, posterior dens absent, penicillus well developed; maxilla (Fig. 127), laterolacinia present as deflection, terminal palpomere truncate, rectangulate; labium (Fig. 129), ligula not deeply incised, ligular lobes slightly flared, terminal palpomere truncate, rectangulate; eyes large, coarsely facetted, ocular notch large; antenna comprised of 11 antennomeres, capitate, capitulum sex dimorphic, capitular antennomeres 9 and 10 triangular in females (Fig. 118), boldly lobate in males (Fig. 117), antennomere 11 oblong, rectangular in males and ovoid in females, scape longer than combined length of pedicel and antennomere 3, funicular antennomeres somewhat filiform, increasing slightly in width towards capitulum. *Thorax*: Pronotum (Fig. 123) transverse, disc boldly convex, disc minutely punctate, side margins linear, prointercoxal process narrow (Fig. 122), very expanded distally; pronotal projections short, they do not approximate prointercoxal process; elytron sculptured with small asetiferous punctations that end at elytral middle, asetiferous punctations not seriate, epipleural fold abruptly narrowed at elytral middle then thinly extended to elytral apex, elytral anterior margin not carinate; metathoracic wing as in figure 132, wedge cell closed; metendosternite (Fig. 130) with furcal lamina, furcal anterior plate shallow triangular; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Abdomen very tapered in females; aedeagus (Figs 135, 136, 138, 139) shorter than length of abdomen, distal region of phallobase bilobed, lateral lobes not fimbriate, tegmen reduced ventrally, membranous, phallobasic rod divided distally or not divided distally; phallus connected to tegmen via membranous tube that usually has pair of phallic spurs, phallic plates usually dentate distally; spicular fork comprised of two separated narrow plates, spicular lateral plates slightly acuminate (Fig. 137), interspicular plate absent; ovipositor longer than length of abdomen, nearly filamentous, laminae not discernible, laminal rod not present; female pygidium (Fig. 133) elongate, pygidial apodemes very long and expanded anteriorly; female sixth visible sternite with pair of central brace and very long apodeme (Fig. 134); male pygidium campaniform. *Alimentary Canal*: Proventriculus well defined (Fig. 140); ventricular crypts poorly defined; 4 cryptonephridial malpighian tubules; stomadeal valve with four small primary lobes. *Mesodermal Male Internal Reproductive Organs*: Two pairs of accessory glands (Fig. 125), medial gland divided, lateral pair not divided, medial branch of medial accessory gland vesicular; testis very small. *Mesodermal*




**Figs 132–140.** *Neorthopleura thoracica*: 132 – Metathoracic wing; 133 – Pygidium, female; 134 – Sixth visible sternite, female; 135 – Tegmen; 136 – Phallus; 137 – Spicular fork; 138 – Apex of phallus; 139 – Ovipositor; 140 – Alimentary canal.

*Internal Female Reproductive Organs*: Spermathecal capsule not visibly sclerotized (Fig. 124); spermathecal gland very long, attached to middle of spermathecal capsule; saccular bursa copulatrix present.

Intrageneric variations: The shape of the female pygidium is considerably variable among the known species. The presence and development of the phallic spur and the distribution of spines on the phallic plates also varies among species.

**Distribution.** This genus extends from eastern North America to southern Brazil.

## *Novemera* gen.nov. (Figs 279, 286, 300)

**Type species:** *Novemera cohibila* sp.nov.

**Synapotypic characteristics.** Antenna comprised of 9 antennomeres.

**Diagnosis.** Within Neorthopleurinae subfam.nov., only in specimens of this genus is the antenna comprised of 9 antennomeres.

**Description.** *Size*: Length 4.0 mm; width 1.1 mm. *Form* (Fig. 300): Oblong short rectangular, not body not deep, about 3 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres sparsely setose, antennal capitular vestiture very fine, elytral discal 1° and 2° setae absent, elytral disc densely covered with small setiferous punctuations. *Head*: Cranium transverse, subquadrate, frons moderately wide, indented with subrugose setiferous punctations; gula small, triangular, sutures diverge, gular process short and bifid distally, gena not particularly expanded; labrum very shallow, broadly incised distally, medial tormal processes not examined; mandible, body stout, anterior dens acuminate; maxilla, terminal palpomere digitiform; labium, terminal palpomere digitiform; eyes large, coarsely facetted, ocular notch large; antenna (Fig. 286) comprised of 9 antennomeres, capitate, capitular antennomeres 7 and 8 triangular in females, antennomere 9 ovoid, scape about as long as combined length of pedicel and antennomere 3, funicular antennomeres increasing slightly in serration towards capitulum. *Thorax*: Pronotum (Fig. 279) quadrate, disc convex, and punctated, side margins not crenulate, linear, prointercoxal process narrow, not expanded distally; pronotal projections short, they do not approximate prointercoxal process; elytron sculptured with small setiferous punctuations, setiferous punctations not seriate, epipleural fold very narrow, extended to elytral apex, anterior margin carinate; metathoracic wing not studied, metendosternite not studied; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Abdomen not very tapered; aedeagus not studied; spicular fork not studied; female pygidium somewhat narrowed posteriorly. *Alimentary Canal*: Not studied. *Mesodermal Male Internal Reproductive Organs*: Not studied. *Mesodermal Female Internal Reproductive Organs*: Not studied.

Intrageneric variations: This is a monotypic genus.

**Distribution.** This genus is known only from southeastern Australia.

**Etymology.** The generic name *Novemera* stems from the Latin *novem* (= nine) and the Greek *meris* (= part).

### *Novemera cohibila* sp.nov.

**Type material.** Holotype ♀: New South Wales. No other information available (SAMA). Paratypes: None.

**Description.** *Size*: Length 4.0 mm; width 1.1 mm. *Form*: Short rectangular. *Integumental Color*: Forebody yellow, hindbody brown; front and middle pair of legs yellow, hind legs brown. *Integumental Structure*: Cranium, pronotum, and elytral surface densely vested with setiferous punctations; antenna capitate, funicular antennomeres increasing in width to capitulum; pronotum convex, side margins parallel.

**Etymology.** The specific epithet *cohibila* is a Latin adjective that is derived from the Latin *cohibilis* (= short). I refer to the body form of these beetles.

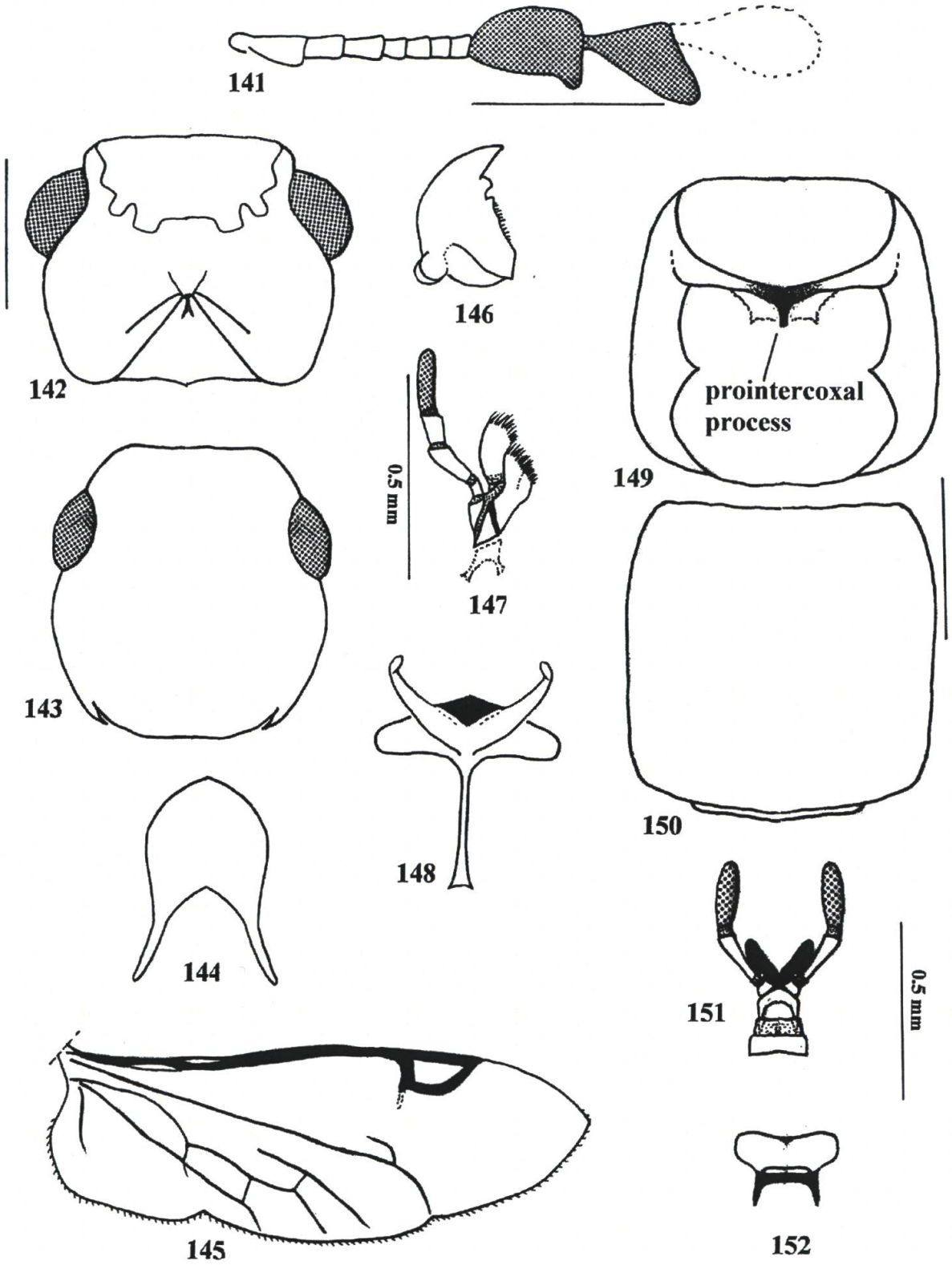
## *Orthopleuroides* Kuwert, 1893 (Figs 141–152, 301)

*Orthopleuroides* Kuwert, 1893: 489. Type species: *Orthopleuroides nigerimus* Kuwert, 1893: 490, by original designation. (SCHENKLING 1903: 112; 1906: 317. 1910: 122. HINTZ 1905: 313. GAHAN 1910: 69. CORPORAAL 1950: 269.)

**Synapotypic characteristics.** Prointercoxal process very short (Fig. 149).

**Diagnosis.** The very short prointercoxal process and the very shiny black color of these beetles will distinguish them from specimens of other genera within Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 5.3–10.0 mm; width 1.3–4.0 mm. *Form* (Fig. 301): Oblong, somewhat oval, body not deep, about 3 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres sparsely setose, 1° and 2° elytral setae not present, elytral disc only with setae that originate from very small punctations. *Head* (Figs 142, 143): Cranium transverse, subquadrate, frons moderately wide, profusely indented with subrugose small setiferous punctations; gula (Fig. 142) small, triangular, gular process short and bifid distally; labrum (Fig. 152) very shallow, broadly incised distally, medial tormal processes transverse and confluent, epipharyngeal plate small and faintly developed, transverse; mandible (Fig. 146), body stout, anterior dens acuminate, medial dens minute, posterior dens slightly developed, penicillus well developed; maxilla (Fig. 147), laterolacinia present as deflection, terminal palpomere digitiform; labium (Fig. 151), ligula not deeply incised, ligular lobes slightly flared, terminal palpomere digitiform; eyes small, shallow, coarsely faceted, ocular notch large; antenna comprised of 10 antennomeres, capitate, capitular antennomeres 9 and 10 lobate in females (Fig. 141), antennomere 11 ovoid, scape as long as combined length of pedicel and antennomere 3, funicular antennomere somewhat filiform. *Thorax*: Pronotum (Fig. 150) quadrate, disc convex, disc minutely punctate, side margins linear, prointercoxal process very short (Fig. 149), not expanded distally; pronotal projections short, they do not approximate to prointercoxal process; elytron sculptured with very small setiferous punctations, setiferous punctations not seriate, epipleural fold abruptly narrowed at elytral middle, then thinly extended to elytral apex, elytral anterior margin not carinate; metathoracic wing as in figure 145, wedge cell closed; metendosternite (Fig. 148) with furcal lamina, furcal anterior plate




**Figs 141–152.** *Orthopleuroides nigerrimus*: 141 – Antenna; 142–143, Heads (142 – ventral view, 143 – dorsal view); 144 – Pygidium, female; 145 – Metathoracic wing; 146 – Mandible; 147 – Maxilla; 148 – Metendosternite; 149 – Prothorax, ventral view; 150 – Pronotum, dorsal view; 151 – Labium; 152 – Labrum.

shallow triangular; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, uguis with well developed denticle. *Abdomen*: Abdomen not very tapered in females; aedeagus, no information available; female pygidium (Fig. 144) elongate, pygidial apodemes very long. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: This is a monotypic genus.

**Distribution.** Democratic Republic of the Congo, Gabon, Cameroon.

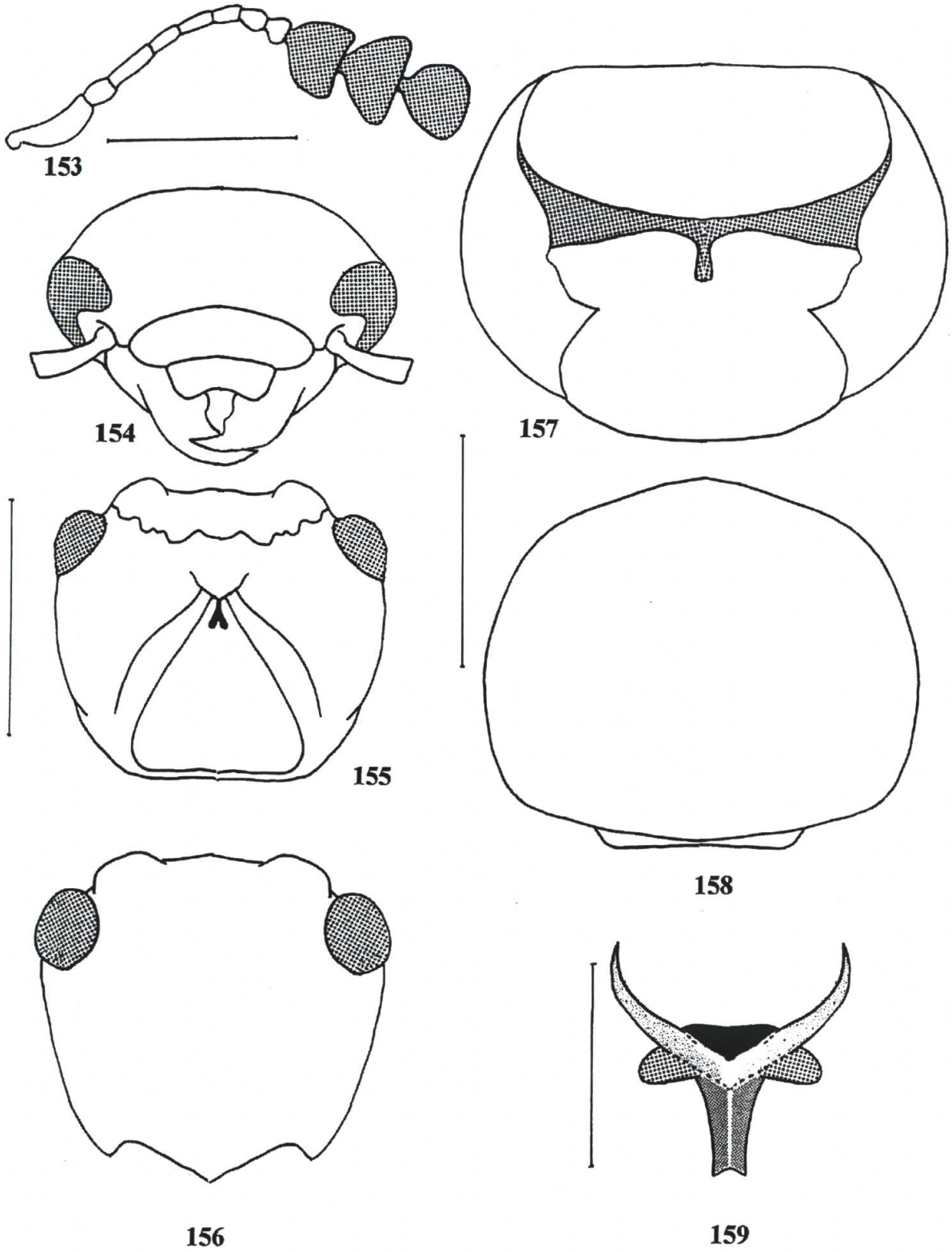
## *Patuleius* Fairmaire, 1902 (Figs 153–165, 302)

*Patuleius* Fairmaire, 1902: 567. Type species: *Patuleius rufonitens* Fairmaire, 1902: 567, by subsequent designation by CORPORAL (1950: 296). (WINKLER 1961: 66.)

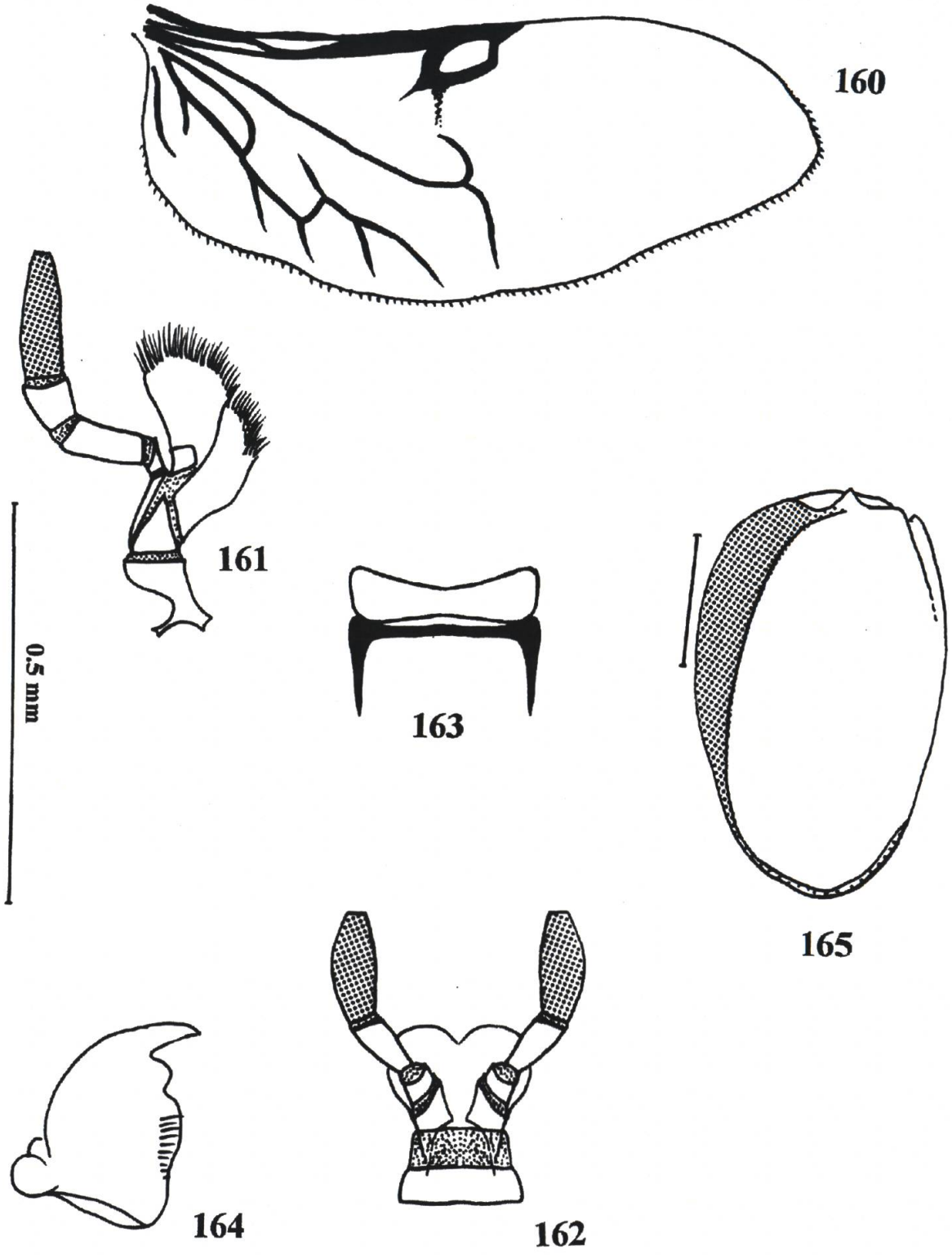
**Synapotypic characteristics.** Epipleuron extensively ridged.

**Diagnosis.** The members of this genus superficially resemble those of *Allochotes*. However, the antennae are distinctly capitate (Fig. 153) in *Patuleius* specimens and serrate in *Allochotes* specimens.

**Description.** *Size*: Length 2.0–10.0 mm; width 1.8–5.5 mm. *Form* (Fig. 302): From oblong to rotund, body deep, about 2 times longer than broad. *Vestiture*: Dorsum vested with very fine setae, elytral disc vested with 1° and 2° setae. *Head* (Figs 154–156): Cranium transverse, frons very wide, indented with very small setiferous punctations, latter not widely separated; gula (Fig. 155) short, triangular, process very short and forked; labrum (Fig. 163) short, medial incision very shallow, medial tormal processes transverse confluent, epipharyngeal plate not visible; mandible (Fig. 164), body short, anterior medial, and posterior dens moderately developed, penicillus small ; maxilla (Fig. 161), laterolacinia absent, terminal palpomere digitiform, truncate; labium (Fig. 162), ligula not deeply incised, ligular lobes not flared, terminal palpomere digitiform; eyes very shallow, coarsely facetted, ocular notch large; antenna (Fig. 153) distinctly capitate, scape long, about as long as combined length of pedicel and antennomer 3, funicular antennomeres 3–6 subfiliform, 7th and 8th funicular antennomeres slightly swollen, capitular antennomeres 9 and 10 triangular, 11th antennomere spheroid. *Thorax*: Pronotum (Fig. 158) transverse, convex, side margins evenly arcuate, sculptured with very small setiferous punctations, prebasal fissure shallow, prointercoxal process not expanded distally (Fig. 157); hypomeron in ventral position, pronotal extension very short, not in contact with prointercoxal process; elytron sculptured with very small shallow asetiferous punctations, punctations not clearly in rows, elytral 1° setae always adjacent to asetiferous punctations, 2° setae present, epipleural fold involuted (Fig. 165), expanded and expressed as long ridge, epipleuron not extended to elytral apex, elytral anterior margin with carina; metathoracic wing as in figure 160; metendosternite (Fig. 159) with furcal lamina, furcal anterior plate prominent; legs, tibial spur formula 2–2–2, tarsal pulvillar formula 3–3–3, unguis with well developed denticle. *Abdomen*: *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive*




**Figs 153–159.** *Patuleius globosus*: 153 – Antenna; 154–156, Heads (154 – frontal view, 155 – ventral view, 156 – dorsal view); 157 – Prothorax; 158 – Pronotum, dorsal view; 159 – Metendosternite.




**Figs 160–165.** *Patuleius globosus*: 160 – Metathoracic wing; 161 – Maxilla; 162 – Labium; 163 – Labrum; 164 – Mandible; 165 – Elytron, ventral view.

*Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: Species characteristics that are particularly variable involve integumental color, body size, body form, and structural aspects of the aedeagus. Body form ranges from oval to subrotund.

**Distribution.** Known only from Madagascar.

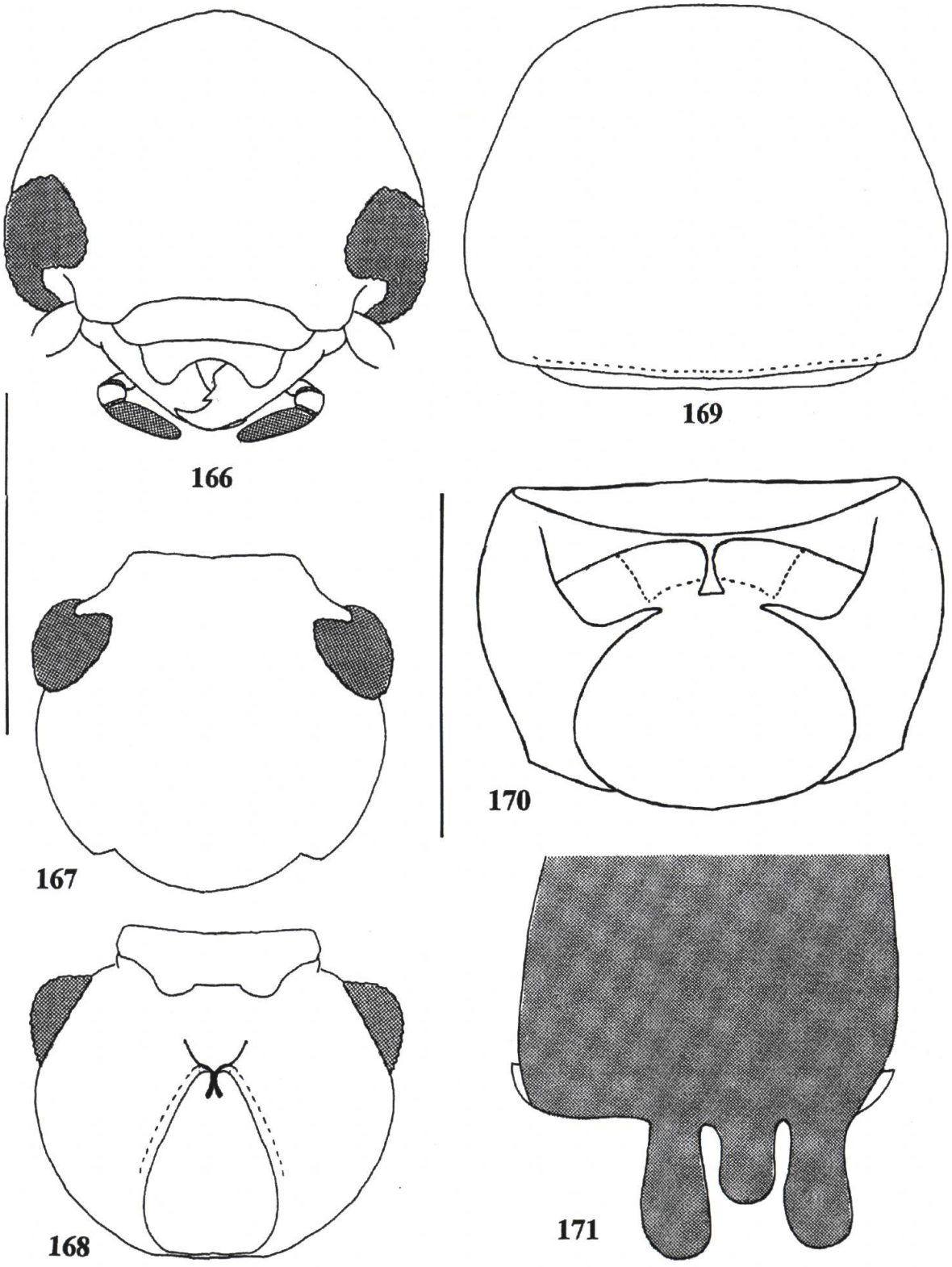
## ***Rifkindius*** **gen.nov.** (Figs 166–181, 303)

**Type species:** *Rifkindius megamerus* sp.nov.

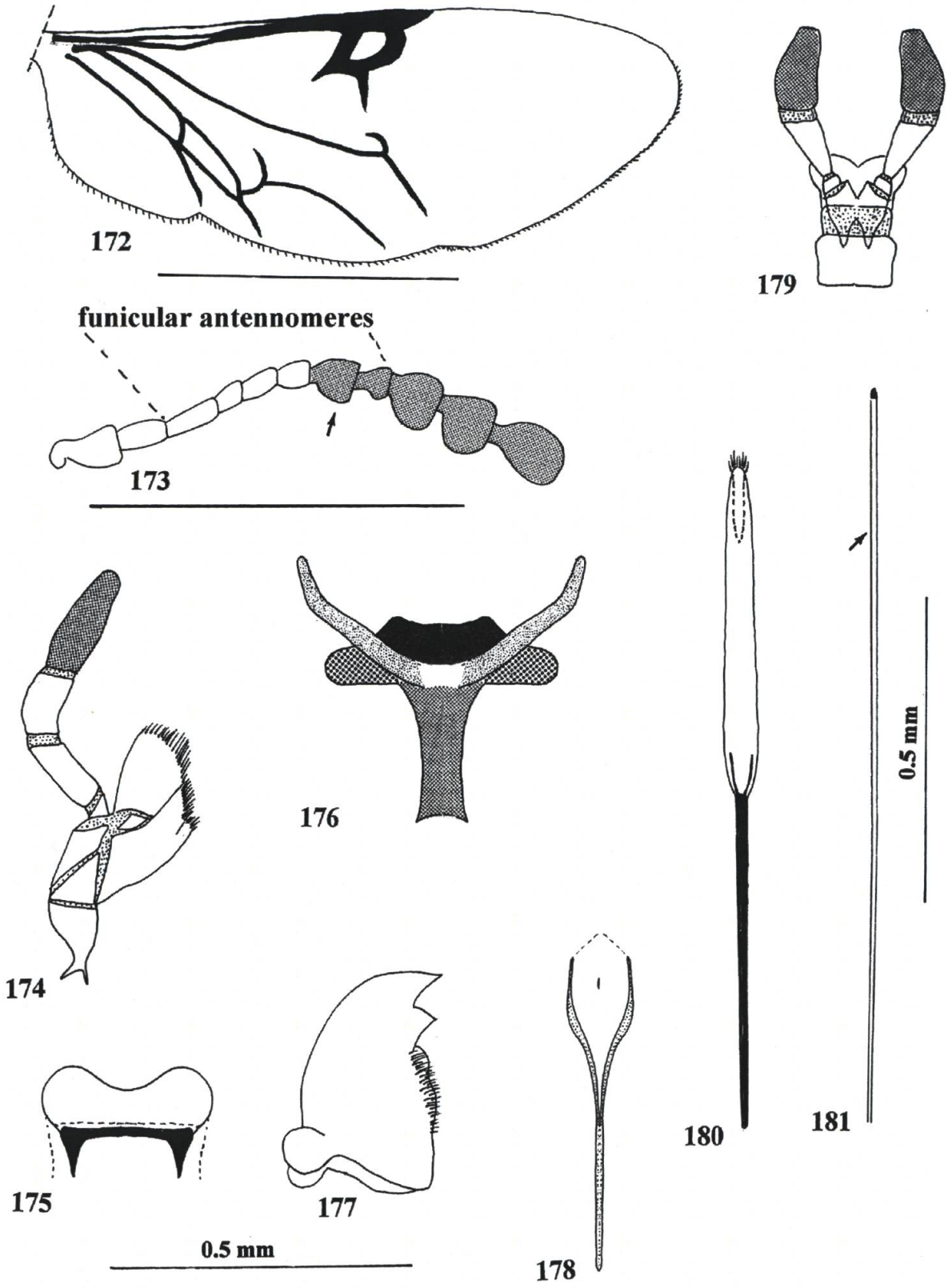
**Synapotypic characteristics.** Funicular antennomere 5 larger than 6 (Fig. 173); antennal capitular antennomeres subpetiolate; elytral umbones very prominent, dorsal lobe of stomodaeal valve greatly reduced (Fig. 171); tegmen not lobed distally (Fig. 180); and phallus extraordinarily slender (Fig. 181).

**Diagnosis.** Within Neorthopleurinae subfam.nov., only in the members of this genus is funicular antennomere 5 larger than antennomere 6.

**Description.** *Size*: Length 4.6 mm; width 2.5 mm. *Form* (Fig. 303): Oblong ovoid, robust, deep body, about 2 times longer than broad. *Vestiture*: Disc of cranium and pronotum vested with very fine setae, elytra vested with short fine 1° setae, 2° setae absent. *Head* (Figs 166–168): Cranium subspheroid, frons very wide, indented with minute setiferous punctations, latter very widely separated; gula (Fig. 168) very small, process short, narrow, and minutely forked; labrum (Fig. 175) short, medial incision curvate concave, medial tormal processes transverse confluent, epipharyngeal plate not distinguishable; mandible (Fig. 177), body short, anterior, medial, and posterior dens well developed, penicillus well developed; maxilla (Fig. 174), laterolacinia present, terminal palpomere digitiform; labium (Fig. 179), ligula not deeply incised, ligular lobes not flared, terminal palpomere narrow short digitiform; eyes small, finely facetted, ocular notch large; antenna (Fig. 173) capitate, scape short, slightly longer than pedicel, funicular antennomeres 1–4 subfiliform, funicular antennomere 5 larger than 6, capitular antennomeres somewhat petiolate, antennomere 7 subtraingular, 8th antennomere capitate, antennomeres 9–11 subspheroid. *Thorax*: Pronotum (Fig. 169) transverse, convex, side margins mostly evenly rounded, but slightly sinuous near posterior angle, disc sculptured with very small round setiferous punctations, prointercoxal process expanded distally (Fig. 170); pronotal extension does not contact prointercoxal process; elytron sculptured with small circular asetiferous punctations, latter not in rows, elytral 1° setae always adjacent to asetiferous punctations, 2° setae absent, epipleural fold subventrally positioned and expanded in proximal half, extended to elytral distal two thirds, elytral anterior margin with carina; metathoracic wing as in figure 172, wedge cell closed; metendosternite (Fig. 176) with furcal lamina, furcal anterior plate slightly extended; legs, tibial spur formula 1–1–1, tarsal pulvillar formula 3–3–3, unguis with large denticle. *Abdomen*: Aedeagus (Figs 180, 181) shorter than length of abdomen, extraordinarily slender, distal region of phallobase transformed into narrow dorsal plate,




**Figs 166–171.** *Rifkindius megamerus*: 166–168, Heads (166 – frontal view, 167 – dorsal view, 168 – ventral view); 169 – Pronotum, dorsal view; 170 – Prothorax, ventral view; 171 – Stomodaeal valve, interior view.




**Figs 172–181.** *Rifkindius megamerus*: 172 – Metathoracic wing; 173 – Antenna; 174 – Maxilla; 175 – Labrum; 176 – Metendosternite; 177 – Mandible; 178 – Spicular fork; 179 – Labium; 180 – Tegmen; 181 – phallus.

distal margin of phallobasic lobes minutely fimbriate; lateral plates of spicular fork not broadened posteriorly (Fig. 178), spicular apodemes briefly separated, then fused together, interspicular plate minute and rod-shaped; ovipositor, no information available; distal margin of pygidium and 6th visible sternite rounded, not incised. *Alimentary Canal*: Stomodaeal valve comprised of 4 primary lobes, dorsal lobe very reduced (Fig. 171). *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: This is a monotypic genus.

**Distribution.** This genus is known only from southwestern México.

**Etymology.** The genus epithet is a dedicative name to honor Jacques Rifkind for his contributions to Cleridae biology and taxonomy.

### *Rifkindius megamera* sp.nov.

**Type material.** Holotype ♀: Mexico, Oaxaca, 5 Mi. S. El Camaron, 21 July 1979, E. P. Case & D. B. Thomas (UMRM). Paratypes: Two specimens, from the same locality as the holotype (WOPC, 1) and one from México: Oaxaca: 40 km W Tehuantepec, E.E. Gilbert, C.D.MacNeil (EMEC, 1).

**Description.** *Form*: Oblong ovoid. *Size*: Length 4.6 mm; width 2.5 mm. *Integumental Color*: Antennomeres 1–4 yellow, remainder of antenna brown; maxillary and labial palpomeres brown, remainder of mouthparts, cranium and prothorax light red-brown, elytra blue-black; legs become increasingly more brown from prothoracic legs to metathoracic legs; abdomen brown. *Male Genitalia*: Aedeagus very long and narrow; tegmen not lobed distally; phallobasic rod bifid; spicular fork lateral plate not expanded. *Variations*: The two available specimens are quite homogeneous.

**Distribution.** Known only from southeastern México.

**Etymology.** The trivial name *megamera* is a compound name that stems from the Latin *magnus* (= large) and the Greek *meros* (= part). I refer to the large size of funicular antennomere 5.

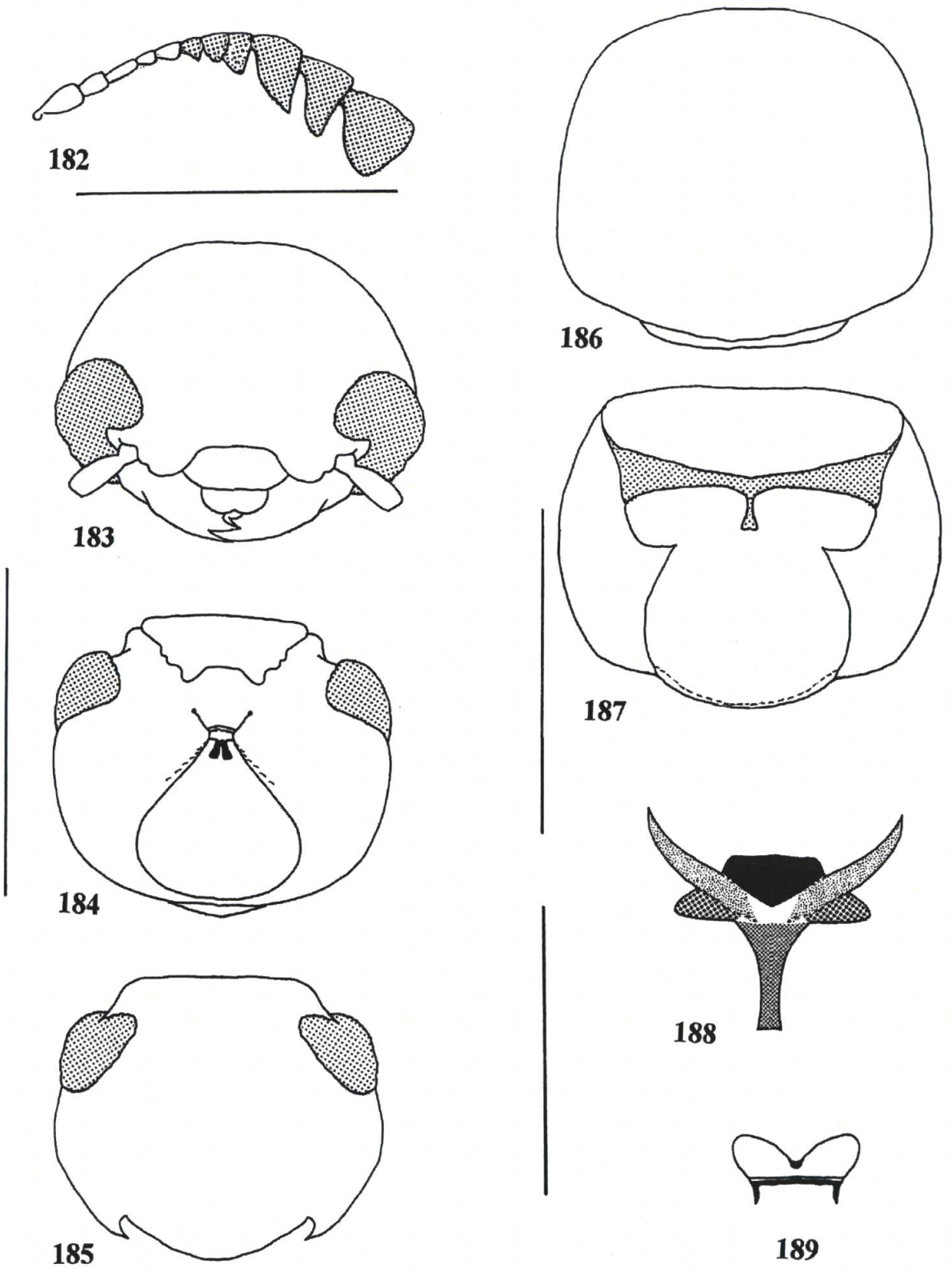
## *Romanaeclerus* Winkler, 1960 (Figs 182–194, 304)

*Romanaeclerus* Winkler, 1960: 204. Type species: *Corynetes rufus* Kraatz, 1899: 107, by original designation. (WINKLER 1961: 70.)

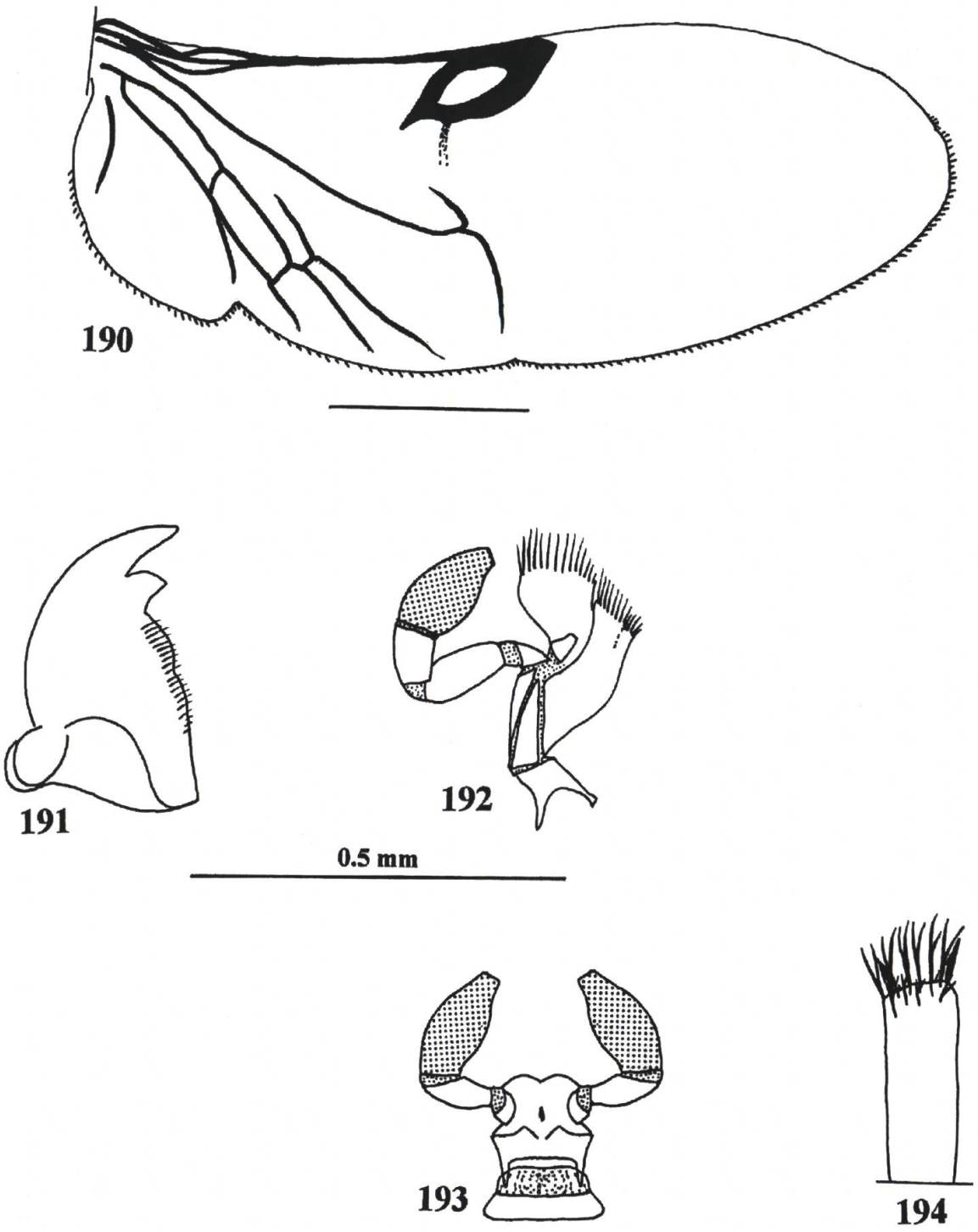
**Synapotypic characteristics.** Antennomeres 6–8 serrate (Fig. 182), apex of tibiae with bifid setae (Fig. 194); tarsal spurs absent; hypomeron in ventral position; phallus with dorsal plate.

**Diagnosis.** The bifid setae on the apex of the tibiae (Fig. 194) and the partially serrate condition of the antenna (Fig. 182) will distinguish the members of this genus from any others within Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 2.5–5.0 mm; width 0.80–1.9 mm. *Form* (Fig. 304): Oblong suboval, small, deep body, about 2 times longer than broad. *Vestiture*: Disc of cranium




**Figs 182–189.** *Romanaeclerus rufus:* 182 – Antenna; 183–185, Heads (183 – frontal view, 184 – ventral view, 185 – dorsal view); 186 – Pronotum; 187 – Prothorax; 188 – Metendosternite; 189 – Labrum.




**Figs 190–194.** *Romanaeclerus rufus:* 190 – Metathoracic wing; 191 – Mandible; 192 – Maxilla; 193 – Labium; 194 – Metatibiae.

and pronotum vested with fine setae, elytral disc vested with 1° and 2° setae. *Head* (Figs 183–185): Cranium spheroid, frons very wide, indented with small setiferous punctations, latter not widely separated; gula (Fig. 184) small, sutures somewhat longitudinal, process very short and forked; labrum (Fig. 189) short, medial incision very shallow, medial tormal processes transverse confluent, epipharyngeal plate small, punctiform; mandible (Fig. 191), body long, anterior medial, and posterior dens well developed; maxilla (Fig. 192), laterolacinia present, terminal palpomere short, digitiform; labium (Fig. 193), ligula not deeply incised, ligular lobes not flared, terminal palpomere short digitiform; eyes small, coarsely facetted, ocular notch large; antenna (Fig. 182) subserrate, scape short, about as long as combined length of pedicel and antennomeres 3, funicular antennomeres 1–3 subfiliform, 4–6 serrate, antennomeres 9 and 10 broadly acuminate, 11th antennomere subquadrangular. *Thorax*: Pronotum (Fig. 186) spheroid-transverse, convex, side margins arcuate, sculptured with very small round setiferous punctations, prebasal fissure shallow, prointercoxal process expanded distally (Fig. 187); pronotal projections short, not in contact with prointercoxal process; elytron sculptured with small asetiferous punctations, latter rowed, elytral 1° setae always adjacent to asetiferous punctations, 2° setae present, epipleural fold subventrally positioned and expanded in proximal half, extended to elytral apex, elytral anterior margin with carina; metathoracic wing as in figure 190; metendosternite (Fig. 188) with furcal lamina, furcal anterior plate prominent; legs, tibial spur formula 0–0–0, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Aedeagus shorter than length of abdomen, distal region of phallobase bilobate, lobes not fimbriate, phallobasic rod well developed and briefly forked distally, phallus denticulated at sides, spicular fork with narrow curvate spicular plates; ovipositor, longer than abdomen, ventral and dorsal laminae multilobed, laminal rod not apparent; distal margin of pygidium rounded. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: Spermathecal capsule well sclerotized, barrel shaped, spermathecal gland attached to apex of spermathecal capsule.

Intrageneric variations: The form of the distal portion of the palpomeres tends to be subacuminate in specimens of small bodied species.

**Distribution.** The known distribution of this genus extends south of the Sahara, in Africa.

## *Syriopelta* Winkler, 1984 (Figs 284, 285, 305)

*Syriopelta* Winkler, 1984: 177. Type species: *Orthopleura funebris* Fairmaire, 1892: 148, by original designation. (GERSTMEIER 1998: 193.)

**Synapotypic characteristics.** There are longitudinal indentations on the lateral aspects of the pronotum (see Figure 1 in WINKLER 1984: 179).

**Diagnosis.** Specimens of this are superficially very similar to specimens of the African *Orthopleuroides* and those of the American genus *Neorthopleura*. From *Neorthopleura*, *Syriopelta* differ by having very small eyes, and from *Orthopleuroides* differs by having

antennae that are comprised of 11 antennomeres and by having a more rectangulate body form. The longitudinal indentation along the lower sides of the pronotum further distinguishes *Syriopelta* from the other two aforementioned genera.

**Description.** *Size*: Length 8.0 mm; width 3.0 mm. *Form* (Fig. 305): Oblong rectangular, body not deep, about 3 times longer than broad. *Vestiture*: Dorsum profusely vested with short pubescence, antennal funicular antennomeres sparsely setose, 1° and 2° elytral setae not present, elytral disc with setae that originate from very small punctations. *Head*: Cranium transverse, subquadrate, frons moderately wide, profusely indented with subrugose small setiferous punctations; gula small, triangular, sutures diverge, gular process short and bifid distally; labrum very shallow, broadly incised distally, transverse; mandible, body stout, anterior dens acuminate, medial dens minute, posterior dens slightly developed, penicillus well developed; maxilla, laterolacinia not seen, terminal palpomere digitiform; labium, ligula not deeply incised, ligular lobes slightly flared, terminal palpomere digitiform; eyes small, shallow, coarsely facetted, ocular notch small; antenna (Fig. 285) comprised of 11 antennomeres, capitate, capitular antennomeres 9 and 10 triangular in females, antennomere 11 ovoid, scape as long as combined length of pedicel and antennomere 3, funicular antennomere somewhat filiform. *Thorax*: Pronotum (Fig. 284) quadrate, with longitudinal indentation at sides, disc convex, disc minutely punctate, side margins linear, prointercoxal process not seen; pronotal projections short, they do not approximate prointercoxal process; elytron sculptured with very small setiferous punctations, setiferous punctations not seriate, epipleural fold narrowed at elytral middle then thinly extended to elytral apex, anterior margin not carinate; metathoracic wing not examined; metendosternite not examined; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Abdomen not very tapered in females; aedeagus, no information available. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: This is a monotypic genus.

**Distribution.** This taxon is known only from Syria.

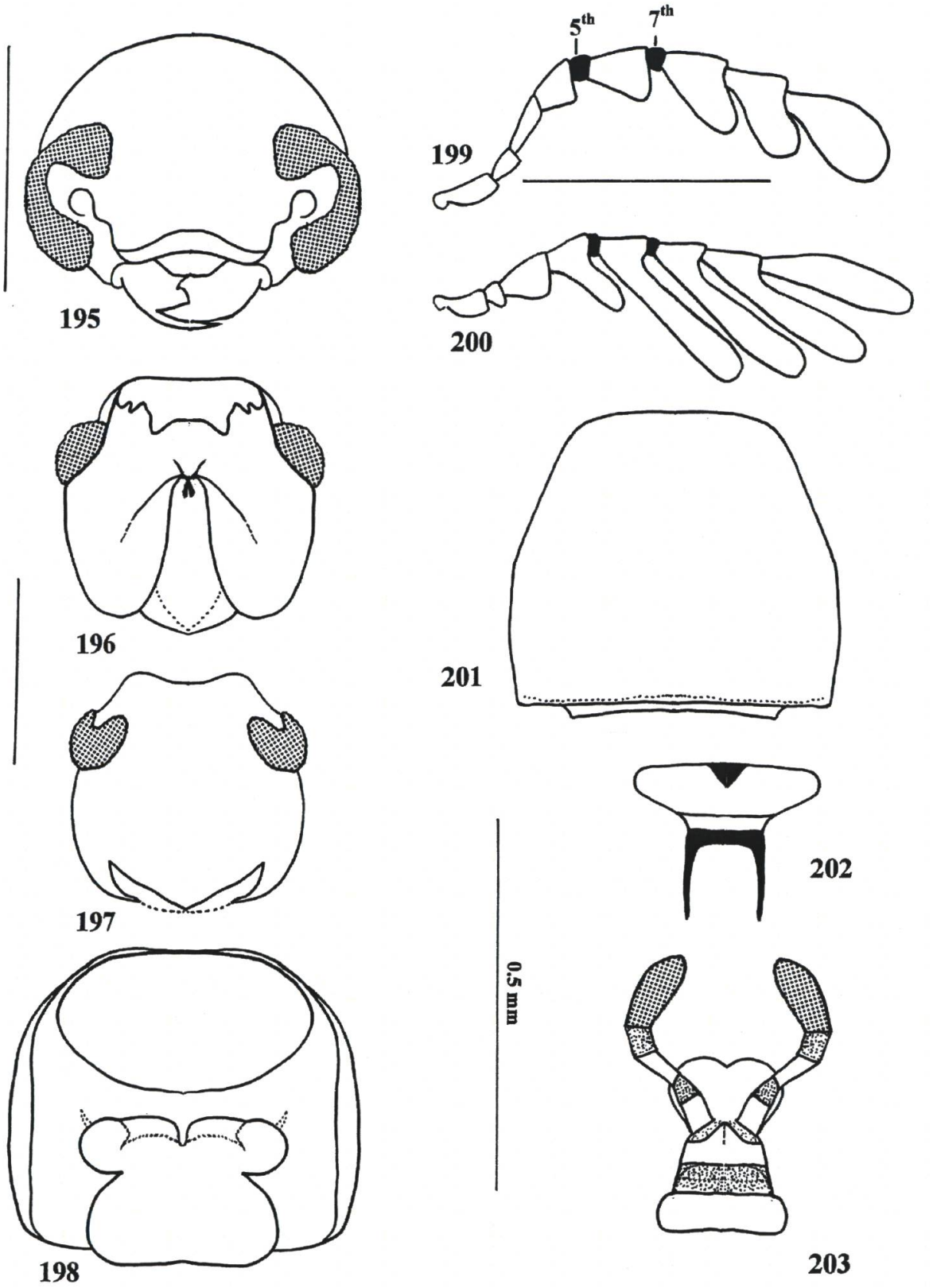
## *Tenerastes* Lesne, 1932 (Figs 195–213, 305)

*Tenerastes* Lesne, 1932: 18. Type species: *Tenerastes mauritianus* Lesne, 1932: 18. (CORPORAAL 1950: 295.)

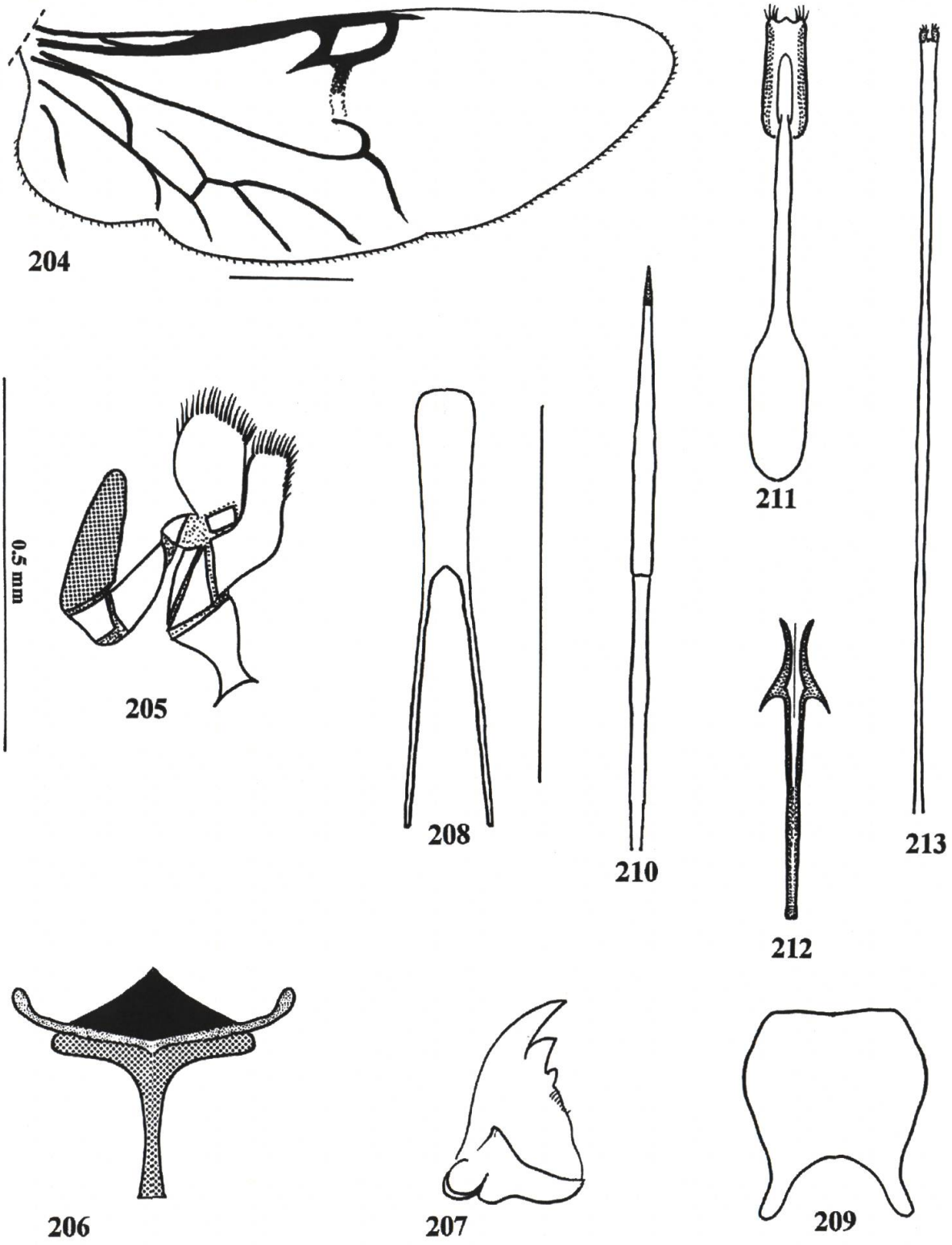
**Synapotypic characteristics.** Fifth and seventh antennomeres reduced (Figs 199, 200); posterior third of phallobasic apodeme broadened into rectangular plate (Fig. 211).

**Diagnosis.** The diminutive condition of the fifth and seventh antennomeres will distinguish members of this genus within Neorthopleurinae subfam.nov.

**Description.** *Size*: Length 5.0–7.5 mm; width 1.7–3.0 mm. *Form* (Fig. 305): Oblong, short rectangular, body not deep, about 2.5 times longer than broad. *Vestiture*: Short pubescence profuse particularly on dorsum, antennal vestiture very fine, lending antennal surface a velvety appearance, elytral 1° and 2° elytra state about equal in length.




**Figs 195–203.** *Tenerastes mauritianus*: 195–197, Heads (195 – frontal view, 196 – ventral view, 197 – dorsal view); 198 – Prothorax, ventral view; 199–200, Antennae (199 – female, 200 – male); 201 – Pronotum, dorsal view; 202 – Labrum; 203 – Labium.




**Figs 204–213.** *Tenerastes mauritianus*: 204 – Metathoracic wing; 205 – Maxilla; 206 – Metendosternite; 207 – Mandible; 208 – Pygidium, female; 209 – Pygidium male; 210 – Phallus; 211 – Tegmen; 212 – Spicular fork; 213 – Ovipositor.

*Head* (Figs 195–197): Cranium subquadrate, frons very wide, profusely indented with contiguous setiferous punctations; gula (Fig. 196) small, gular process short and forked, gena expanded; labrum (Fig. 202) shallow, not incised , medial tormal processes transverse confluent, epipharyngeal plate small, triangular; mandible (Fig. 207), body elongate, anterior, medial, and posterior dens well developed, penicillus poorly developed; maxilla (Fig. 205), laterolacinia absent, terminal palpomere digitiform; labium (Fig. 203), ligula deeply incised, ligular lobes not flared, terminal palpomere digitiform; eyes small, finely facetted, ocular notch large; antenna comprised of 10 antennomeres, sex dimorphic, flabellate in males (Fig. 200), subserrate in females (Fig. 199), 5th and 7th antennomeres reduced, scape shorter than combined length of pedicel and antennomere 3, antennomere 4 triangular in females, flabellate in males, antennomere 10 suboval. *Thorax*: Pronotum (Fig. 201) transverse, subquadrate, disc somewhat undulated, postmedial region with slight umbone, post lateral regions minutely carinate, rest of disc minutely cribrate, side margins linear, prointercoxal process short (Fig. 198), not expanded distally; pronotal extension short, they do not contact prointercoxal process; elytron profusely sculptured with large asetiferous punctations, latter not seriate, posterior disc with small yellow elevations, epipleural fold subventrally positioned, not expanded in proximal half, gradually narrowed to elytral apex, elytral anterior margin carinate; metathoracic wing as in figure 204, wedge cell not closed; metendosternite (Fig. 206) with furcal lamina, furcal anterior plate large triangular; legs, protibia with small tibial comb, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Female abdomen projecting beyond elytral apices, tapered. aedeagus (Figs 211, 213) shorter than length of abdomen, distal region of phallobase bilobed, lobes fimbriate, tegmen reduced ventrally, posterior third of phallobasic apodeme broadened into rectangular plate, phallobasic rod digitiform; lateral plates of spicular fork acuminate, spicular apodemes fused together in anterior half (Fig. 212), interspicular plate narrow and elongate; ovipositor (Fig. 213) very slender, much longer than length of abdomen, laminae not discernible, laminal rod not present; female pigydium (Fig. 208) long and slender, male pygidium (Fig. 209) subquadrate. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

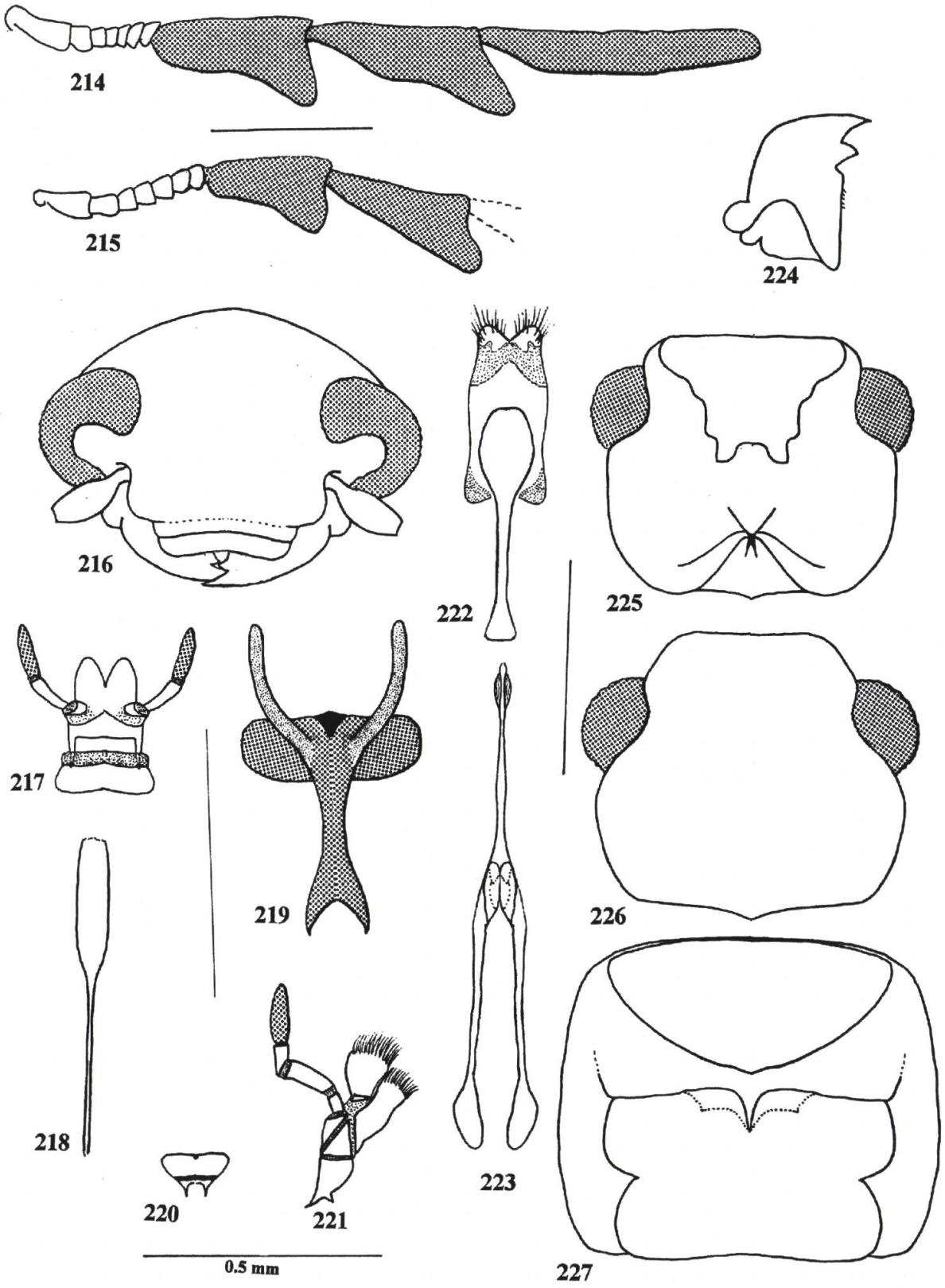
Intrageneric variations: This is a monotypic genus.

**Distribution.** Known only from Mauritius, part of the Mascarene Islands of the Indian Ocean.

## *Teneromimus* Gahan, 1910 (Figs 214–227, 307)

*Teneromimus* Gahan, 1910: 70. Type species: *Teneromimus vitticollis* Gahan, 1910: 71, by subsequent designation (CORPORAAL 1950: 266).

**Synapotypic characteristics.** The labrum is not incised distally, the mandibular penicillus is minute, the laterolacinia is absent, the phallus is abruptly splayed at the middle where two oval plates are present (Fig. 223), and the phallobasic rod is spatulate (Fig. 222).




**Figs 214–227.** *Teneromimus vitticollis*: 214–215, Antennae (214 – male, 215 – female); 216 – Head , frontal view; 217 – Labium; 218 – Spicular fork; 219 – Metendosternite; 220 – Labrum; 221 – Maxilla; 222 – Tegmen; 223 – Phallus; 224 – mandible; 225–226, Heads (225 – ventral view, 226 – dorsal view); 227 – Prothorax, ventral view.

**Diagnosis.** The combination of dorsum profusely vested with short gold-colored setae and extensively capitate antenna will distinguish the members of these genera from any others in the subfamily.

**Description.** *Size*: Length 7.0–9.0 mm; width 2.0–3.0 mm. *Form* (Fig. 307): Oblong rectangular, body not deep, about 3 times longer than broad. *Vestiture*: Dorsum profusely vested with short gold-colored pubescence, antennal funicular antennomeres moderately setose, elytral 1° and 2° elytral setae not present, elytral disc with setae that originate from minute punctations. *Head* (Figs 216, 225, 226): Cranium transverse, subquadrate, frons moderately wide, profusely indented with subrugose small setiferous punctations; gula (Fig. 225) small, triangular, gular process short and bifid distally; labrum (Fig. 220) very shallow, not incised distally, medial tormal processes transverse and confluent, epipharyngeal plate small and faintly developed, transverse; mandible (Fig. 224), body stout, anterior dens acuminate, medial dens minute, posterior dens slightly developed, penicillus minute; maxilla (Fig. 221), laterolacinia absent, terminal palpomere digitiform; labium (Fig. 217), ligula deeply incised, ligular lobes slightly flared, terminal palpomere digitiform; eyes small, shallow, coarsely facetted, ocular notch large; antenna comprised of 10 antennomeres, capitate, capitular antennomeres 9 and 10 lobate in and very long in both sexes (Figs 214, 215), antennomere 11 oblong, scape longer than combined length of pedicel and antennomeres 3, funicular antennomere somewhat quadrate. *Thorax*: Pronotum transverse, disc convex, disc minutely punctated, side margins linear, intercoxal process short (Fig. 227), not expanded distally; pronotal projections short, do not approximate prointercoxal process; elytron sculptured with minute setiferous punctations, setiferous punctations not seriate, epipleural fold abruptly narrowed at elytral middle, then thinly extended to elytral apex, anterior margin not carinate; metathoracic wing with closed wedge cell; metendosternite (Fig. 219) with furcal lamina, furcal anterior plate small; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Abdomen not very tapered in females; aedeagus well developed, tegmen lobed distally (Fig. 222), lobes fimbriate, phallobasic rod wide spatulate, phallic plates abruptly splayed at middle where oval plates are present, ends of phallic plates explanate; spicular fork comprised of very narrow plates (Fig. 218); pygidiae campaniform. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: There is some variation in the integumental color of these beetles.

**Distribution.** These beetles are found on the Solomon Islands and in Australia.

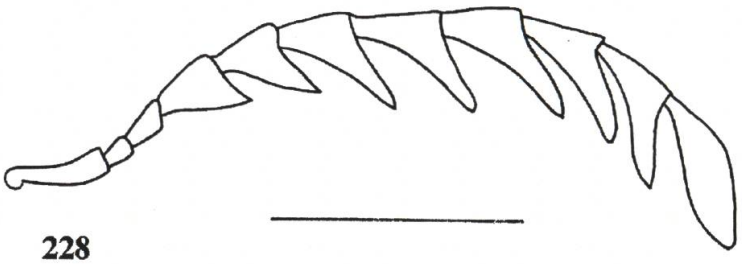
## *Tenerus* Laporte, 1836 (Figs 228–242, 308, 313–316)

*Tenerus* Laporte, 1836: 43. Type species: *Tenerus praeustus* Laporte, 1836: 43 (see Notes). (Spinola 1841: 73; 1844a: 161. Lacordaire 1857: 475. Gemminger & Harold 1869: 1750. Desmarest 1870: 241. Gorham 1877: 402; 1895: 297. Lohde 1900: 97. Schenkling 1903: 99; 1910: 117. Hintz 1905: 312. Chapin 1924: 259. Corporaal 1949: 356; 1950: 257.)

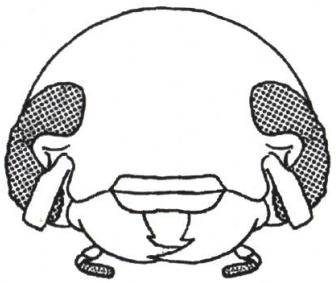
*Cylistus* Klug, 1842: 354. (Spinola 1844b: 151. Lacordaire 1857: 475. Desmarest 1870: 242.)

*Prionophorus* Blanchard, 1953: 64. (Schenkling 1903: 99.)

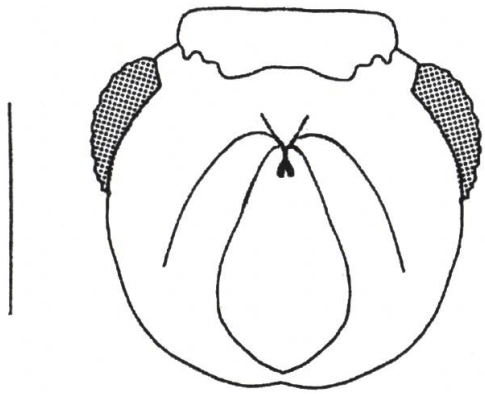
*Teneroides* Gahan, 1910: 69. **syn.nov.** (The characteristics used to define this nominal genus are part of the structural variations within *Tenerus* Laporte.)



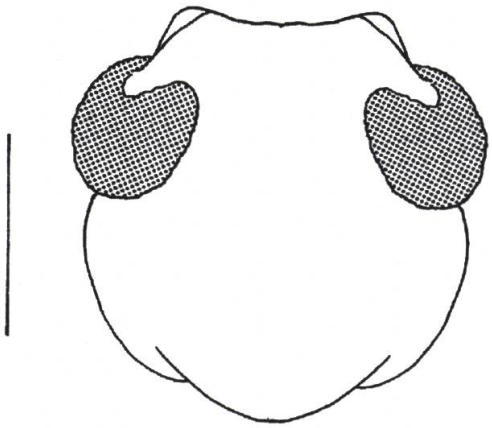
228



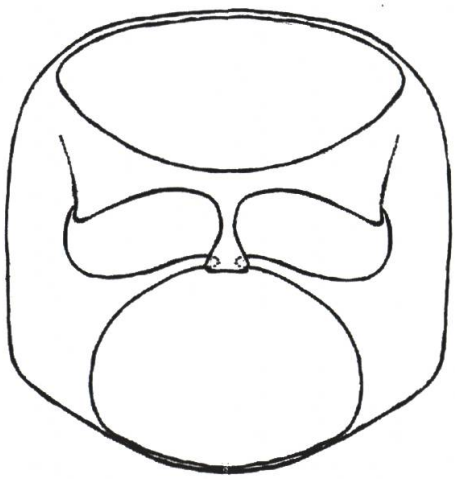
231



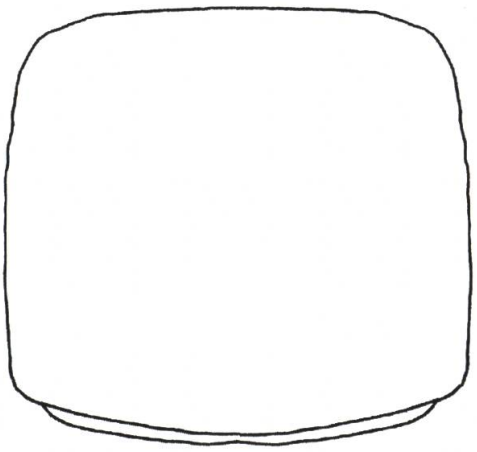
229



232



230



233

**Figs 228–233.** *Tenerus variabilis*: 228 – Antenna; 229 – Head, ventral view; 230 – Prothorax, ventral view; 231–232, Heads (231 – frontal view, 232 – dorsal view); 233 – Pronotum, dorsal view.

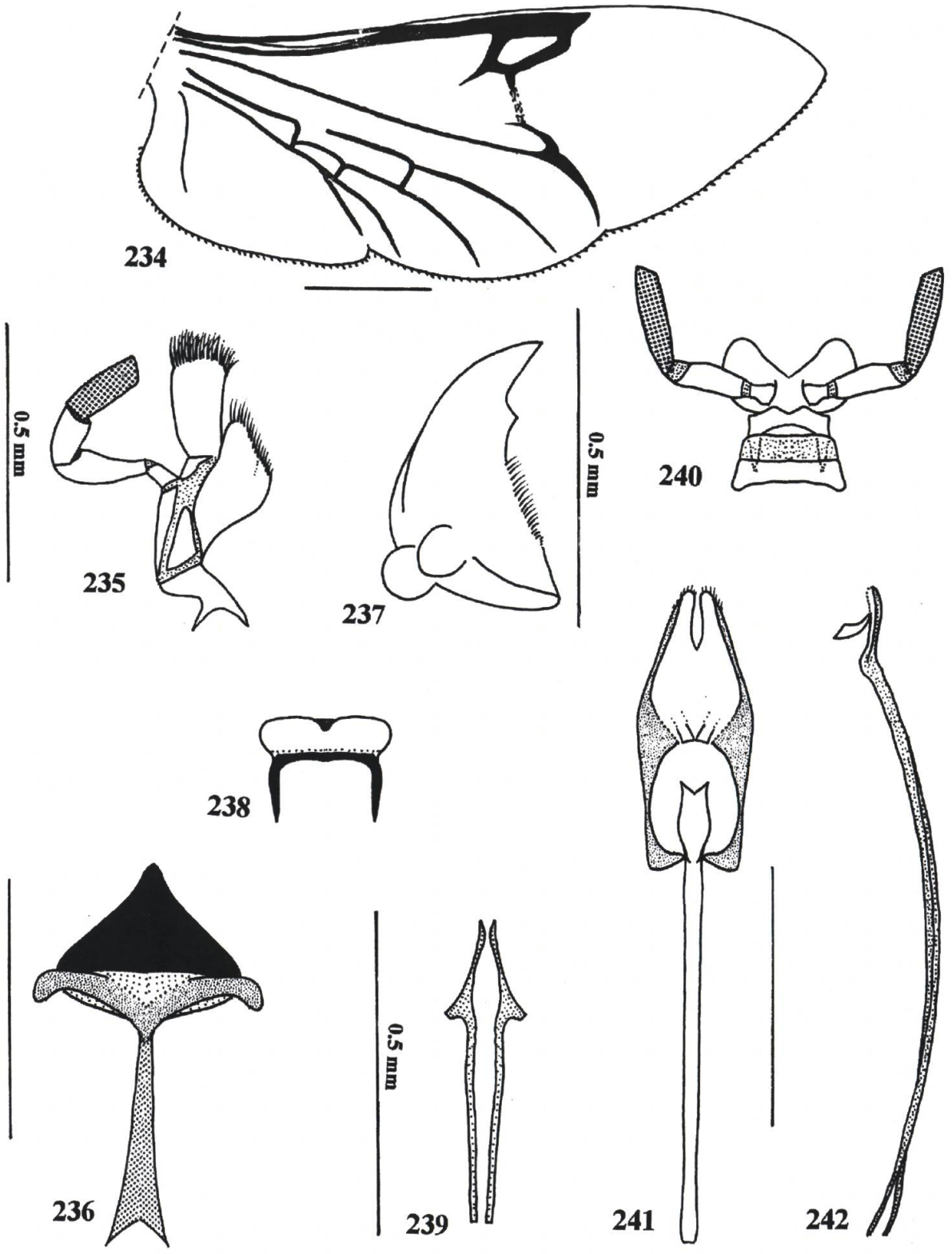
**Synapotypic characteristics.** Protibial comb present on mesotibiae.

**Diagnosis.** Any member of Neorthopleurinae subfam.nov. that has a mesotibial comb (Fig. 315) belongs to this genus.

**Description.** *Size*: Length 3.3–18.2 mm; width 1.1–5.8 mm. *Form* (Fig. 308): Oblong rectangular, deep body, about 3 times longer than broad. *Vestiture*: Moderately pubescent, disc of cranium and pronotum vested with fine setae, elytral vestiture comprised of short and long setae nested in small punctations. *Head* (Figs 229, 231, 232, 313): Cranium subquadrate, frons very wide, profusely indented with setiferous punctations, latter not contiguous; gula (Fig. 229) small, rectangular, sutures somewhat longitudinal, process short, forked, gena expanded; labrum (Fig. 238) shallow, not incised, medial tormal processes transverse confluent, epipharyngeal plate small subtriangular; mandible (Fig. 237), body elongate, anterior dens well developed, without medial and posterior dens, penicillus well developed; maxilla (Fig. 235), laterolacinia present in form of lacinial deflection, terminal palpomere rectangulate; labium (Fig. 240), ligula deeply incised, ligular lobes flared, terminal palpomere rectangulate; eyes small, coarsely facetted, ocular notch large; antenna (Fig. 228) narrow or broad pectinate, comprised of 11 antennomeres, sex dimorphic, male antennae more pectinate than female antennae, scape short, about as long as combined length of pedicel and antennomeres 3, antennomeres 4–10 pectinate, antennomere 11 suboval. *Thorax*: Pronotum (Fig. 233) quadrate, disc broadly rounded, side margins linear, sculptured with very small setiferous punctations, prebasal fissure deep, prointercoxal process very expanded distally (Fig. 230), pronotal extension contacts prointercoxal process; elytron profusely sculptured with small setiferous punctations, latter not seriate; elytral anterior margin carinate; epipleural fold lateral in position, not expanded in proximal half or inflexed, gradually narrowed to elytral apex, metathoracic wing as in figure 234, wedge cell closed; metendosternite (Fig. 236) with furcal lamina, furcal anterior plate large triangular; legs, protibia and mesotibia with tibial comb (Figs 314, 315), metatrochanter with or without carinate or acuminate projections, tibial spur formula 0–2–2, tarsal pulvillar formula 3–3–3, uncus with well-developed denticle. *Abdomen*: Aedeagus (Figs 241, 242) shorter than length of abdomen, distal region of phallobase bilobed, tegmen reduced ventrally, phallobasic rod broad and bifid distally, phallic plate narrow, arcuate distally and connected to short curvate plate; spicular fork comprised of two disconnected components (Fig. 239), lateral plates short, spicular apodemes not fused together, interspicular plate not discernible; ovipositor very slender, longer than length of abdomen, laminae not discernible, laminal rod not present; distal margins of pygidium and 6th visible sternite rounded, incised or not. *Alimentary Canal*: No information available. *Mesodermal Male Internal Reproductive Organs*: No information available. *Mesodermal Female Internal Reproductive Organs*: No information available.

Intrageneric variations: In this genus there is much interspecific variation in size, integumental color, sculpture on the elytral disc, shape of the pygidium and 6th sternite, and in the aedeagus.

**Distribution.** Widely distributed in Southeast Asia and in Africa.




**Figs 234–242.** *Tenerus variabilis*: 234 – Metathoracic wing; 235 – Maxilla; 236 – Metendosternite; 237 – Mandible; 238 – Labrum; 239 – Spicular fork; 240 – Labium; 241 – Tegmen; 242 – Phallus.

### *Tricladus* Fairmaire, 1902 (Figs 261–274, 310)

*Tricladus* Fairmaire, 1902: 563. Type species: *Tricladus alluaudi* Fairmaire, 1902: 564, by original designation. (CORPORAAL 1950: 295.)

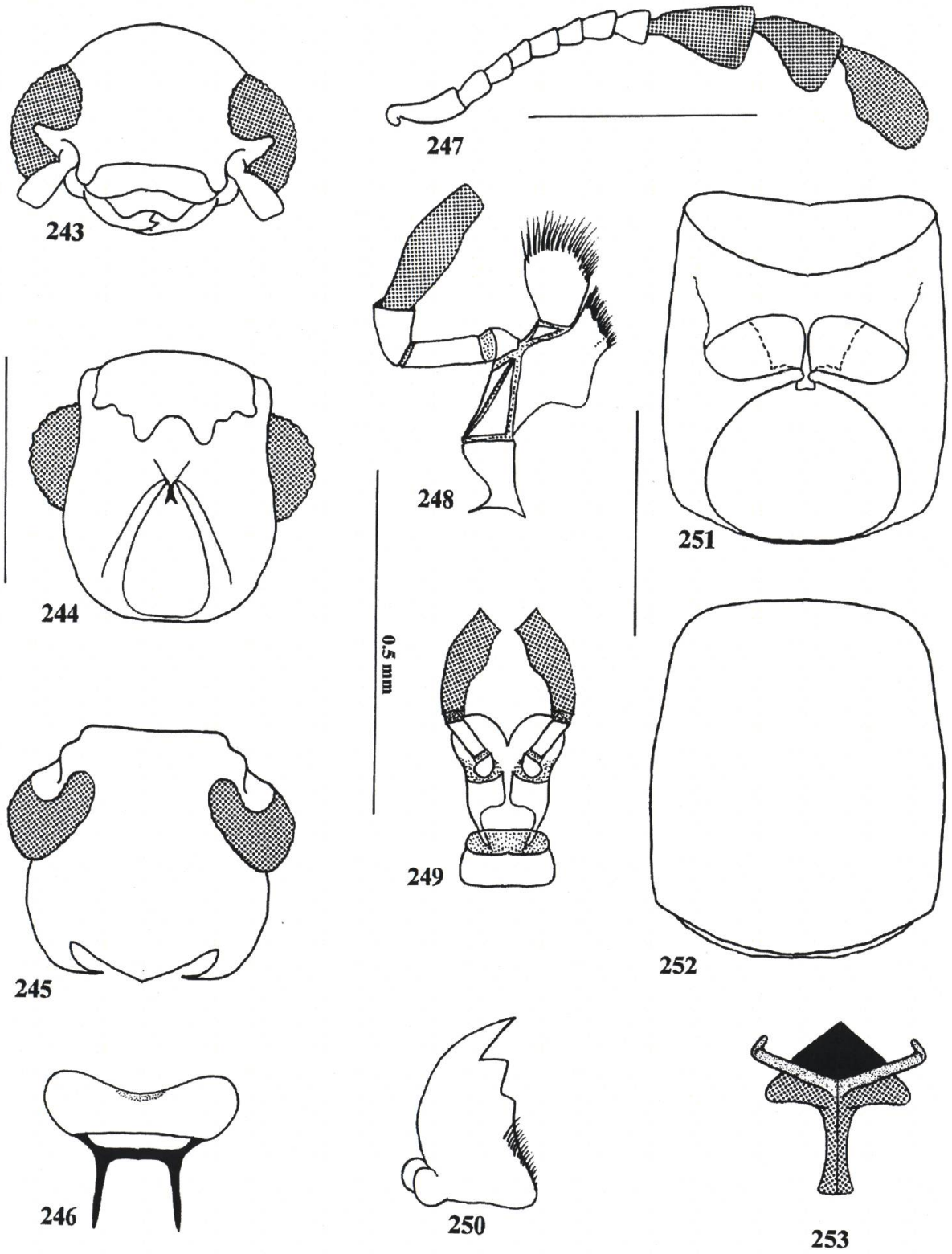
**Synapotypic characteristics.** The male antennal club is lamellate (Fig. 261) and the phallic plates are extensively spinous (Fig. 274).

**Diagnosis.** Among the members of Neorthopleurinae subfam.nov. whose antennae consist of 10 antennomeres, only in specimens of *Tricladus* Fairmaire is the pronotum oblong (Fig. 270) and its disc very coarsely punctated. The pronotal disc appears subrugose.

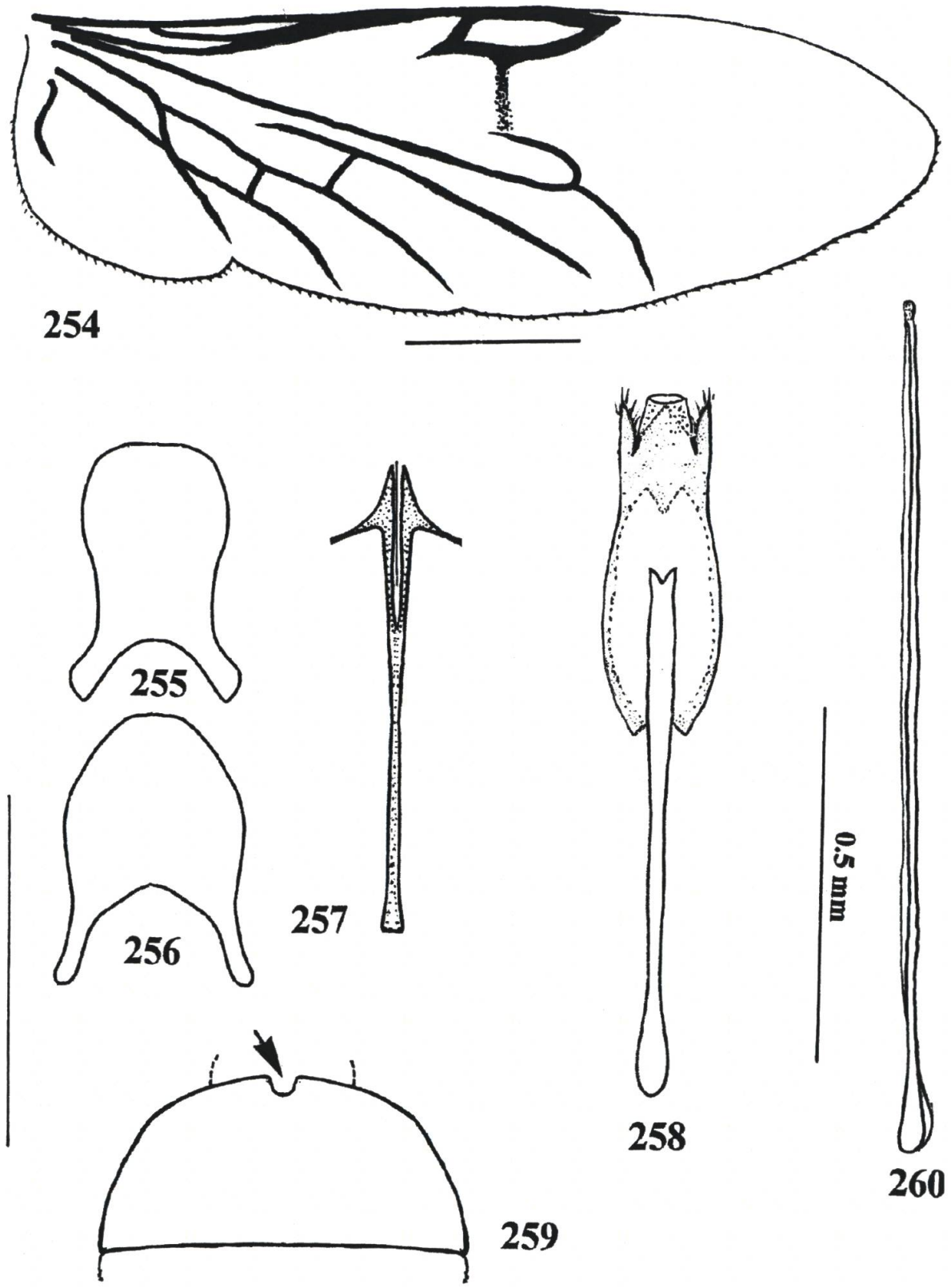
**Description.** *Size*: Length 3.0–7.0 mm; width 0.70–2.0 mm. *Form* (Fig. 310): Oblong short rectangular, body not deep, about 3 times longer than broad. *Vestiture*: Dorsum vested with short pubescence, antennal funicular antennomeres sparsely setose, elytral 1° and 2° elytral setae present. *Head* (Figs 265, 266): Cranium quadrate, frons very wide, profusely indented with subrugose small setiferous punctations; gula small, triangular, gular process short and bifid distally, gena not particularly expanded; labrum (Fig. 268) very shallow, broadly incised distally, transverse; mandible (Fig. 262), body stout, anterior dens acuminate, medial dens minute, posterior dens indistinct, penicillus well developed; maxilla (Fig. 263), laterolacinia present, terminal palpomere digitiform; labium (Fig. 271), ligula not deeply incised, ligular lobes slightly flared, terminal palpomere digitiform; eyes small, coarsely facetted, ocular notch small; antenna comprised of 10 antennomeres, club clavate, clava antennomeres 9 and 10 moderately lobate in females (Fig. 264) and extremely lobate in males (Fig. 261), antennomere 10 very long, scape as long as combined length of pedicel and antennomere 3, funicular antennomere somewhat filiform. *Thorax*: Pronotum (Fig. 270) oblong, disc convex, disc subrugose, coarsely punctated, side margins linear, prointercoxal process flared distally (Fig. 269); pronotal projections long, extend to prointercoxal process; elytron sculptured with asetiferous punctations in basal half, elytral anterior margin carinate, epipleural fold narrowed at elytral middle then thinly extended to elytral apex; metathoracic wing not examined; metendosternite with furcal lamina (Fig. 267), anterior plate acuminate; legs, tibial spur formula 1–2–2, tarsal pulvillar formula 3–3–3, unguis with well-developed denticle. *Abdomen*: Abdomen not very tapered in females; aedeagus (Figs 272, 274), tegmen lobate distally, lobes divided and fimbriate, phallic plates extensively spinous; apodemes of spicular fork (Fig. 273) not contiguous, spicular plates narrow. *Alimentary Canal*: No information available. *Male Mesodermal Internal Reproductive Organs*: No information available. *Female Mesodermal Internal Reproductive Organs*: No information available.

Intrageneric variations: There is variation in integumental color and drastic sexual dimorphism in the development of the antennal capitulum.

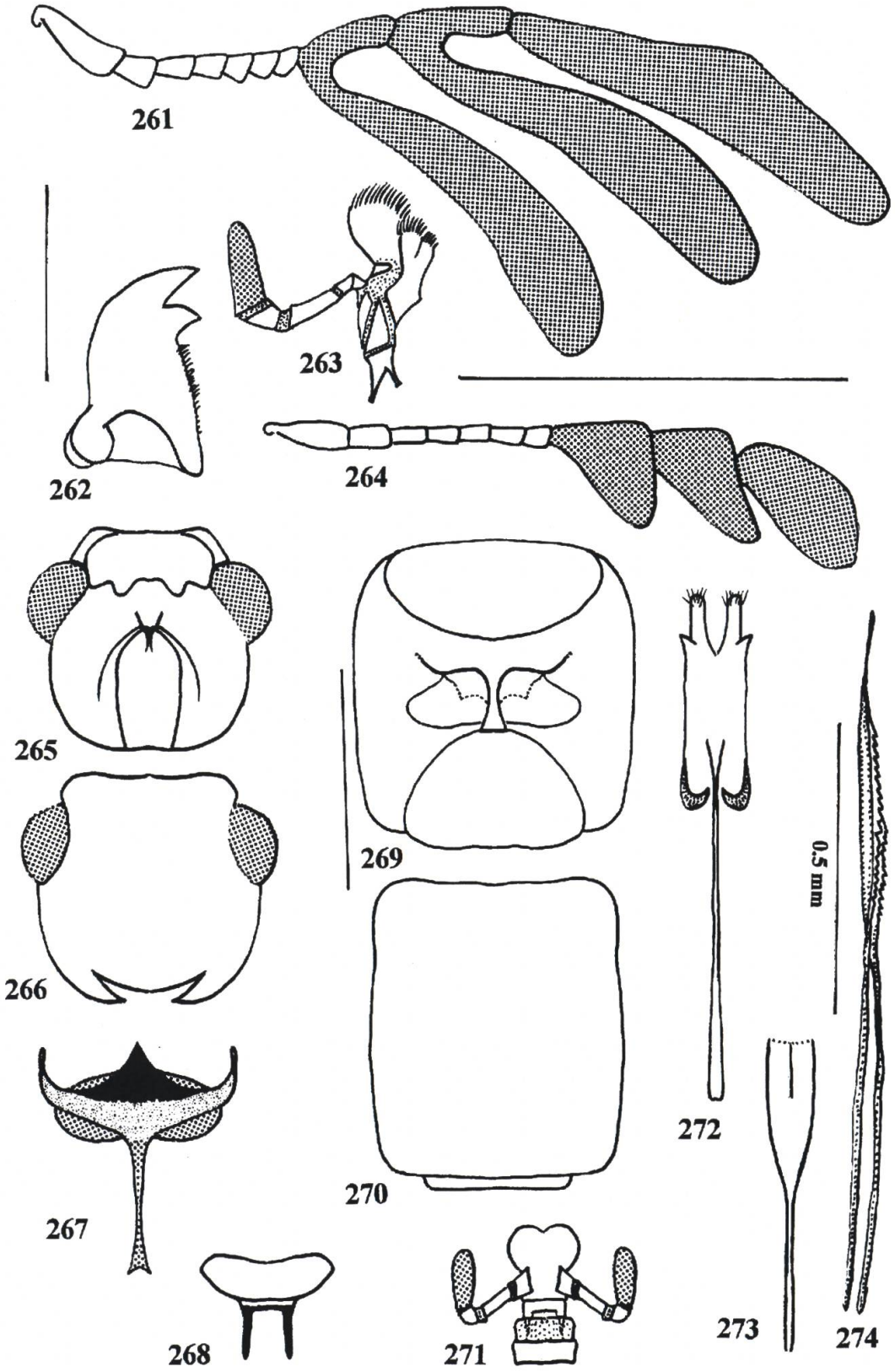
**Distribution.** This taxon is known from Madagascar, Nambia, and Tanzania.



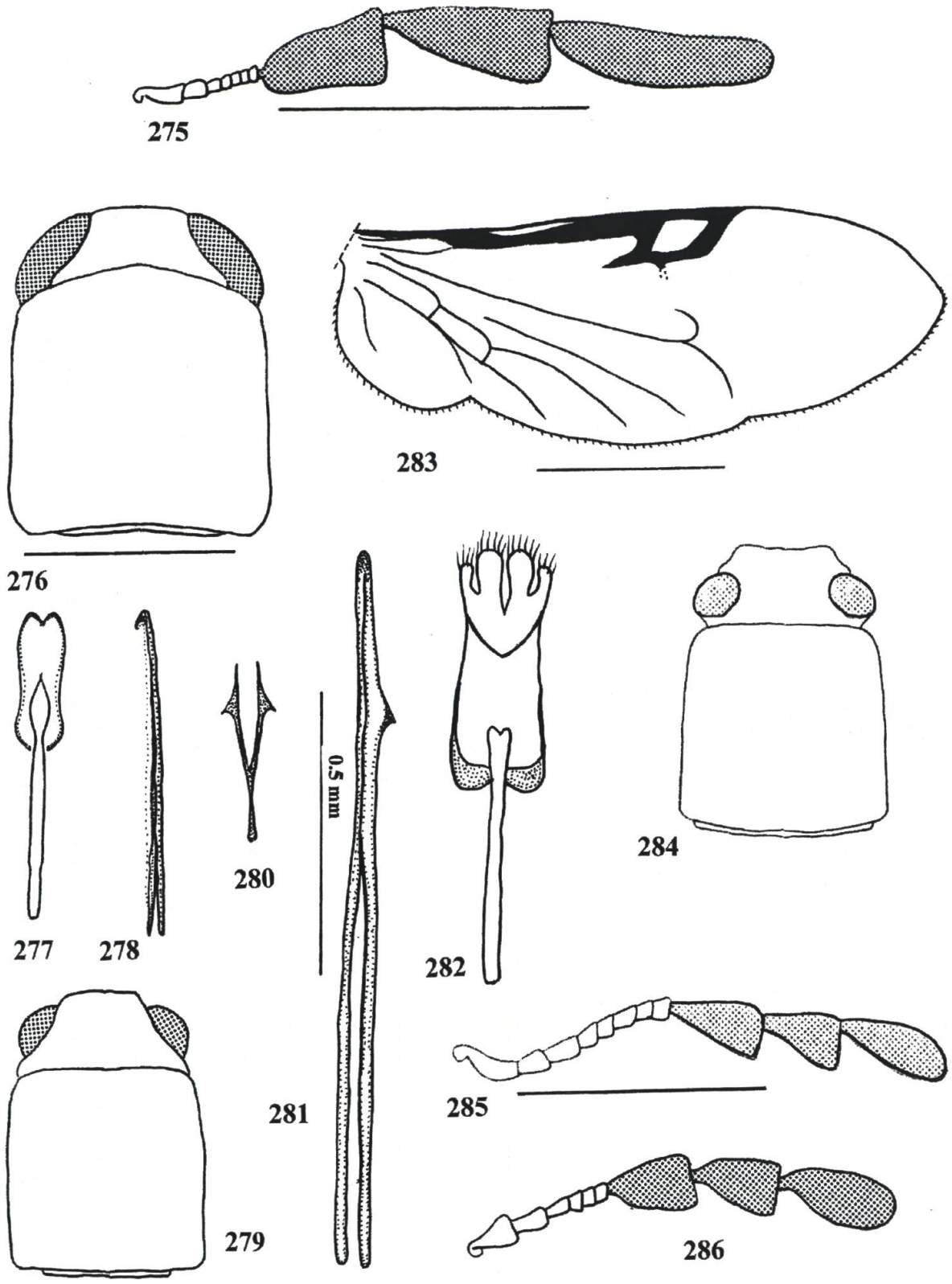

**Figs 243–253.** *Nelsonoplium heterochromum*: 243–245, Heads (243 – frontal view, 244 – ventral view, 245 – dorsal view); 246 – Labrum; 247 – Antenna; 248 – Maxilla; 249 – Labium; 250 – Mandible; 251 – Prothorax, ventral view; 252 – Pronotum, dorsal view; 253 – Metendosternite.



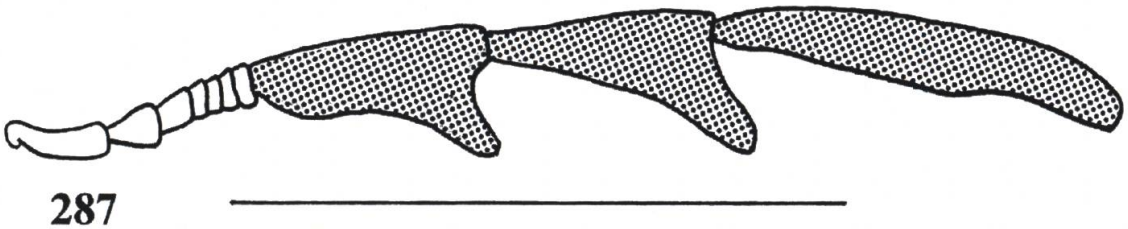

**Figs 254–260.** *Nelsonoplium heterochromum*: 254 – Metathoraic wing; 255–256, Pygidia (255 – female, 256 – male); 257 – Spicular fork; 258 – Tegmen; 259 – Fifth visible sternite; 260 – Phallus.



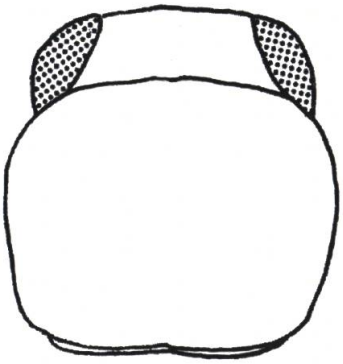

**Figs 261–274.** *Tricladus alluaudi*: 261 – Antenna, male; 262 – Mandible; 263 – Maxilla; 264 – Antenna, female; 265–266, Heads (265 – ventral view, 266 – dorsal view); 267 – Metendosternite; 268 – Labrum; 269 – Prothorax, ventral view; 270 – Pronotum, dorsal view; 271 – Labium; 272 – Tegmen; 273 – Spicular fork; 274 – Phallus.



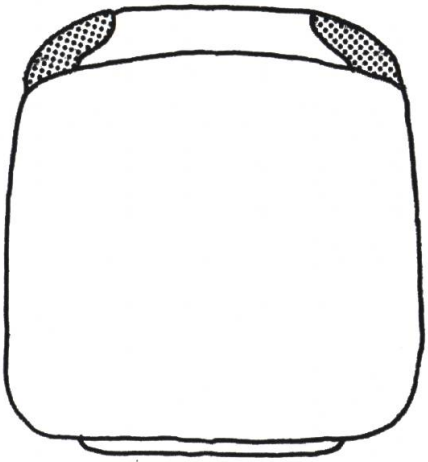

**Figs 275–286.** 275–278, *Colobotis uncatis*: 275 – Antenna; 276 – Forebody, dorsal view; 277 – Tegmen; 278 – Phallus; 279 – *Novemera cohibila* forebody; 280 – *Colobotis uncatis* spicular fork; 281–282 *Megafodina imitans*: 281 – Phallus; 282 – Tegmen; 283 – *Colobotis uncatis* metathoracic wing; 284–285 *Syriopelta funebris*: 284 – Forebody; 285 – Antenna; 286 – *Novemera cohibila* antenna.



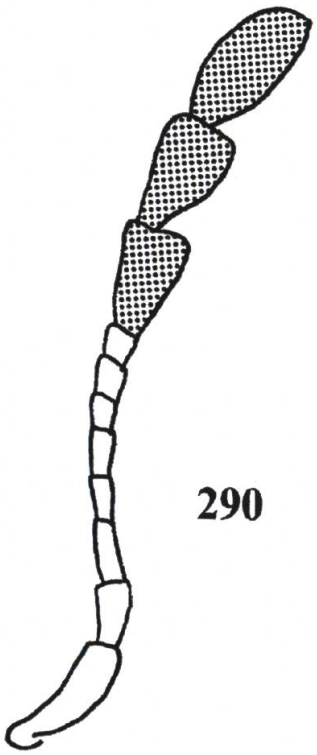
287



288

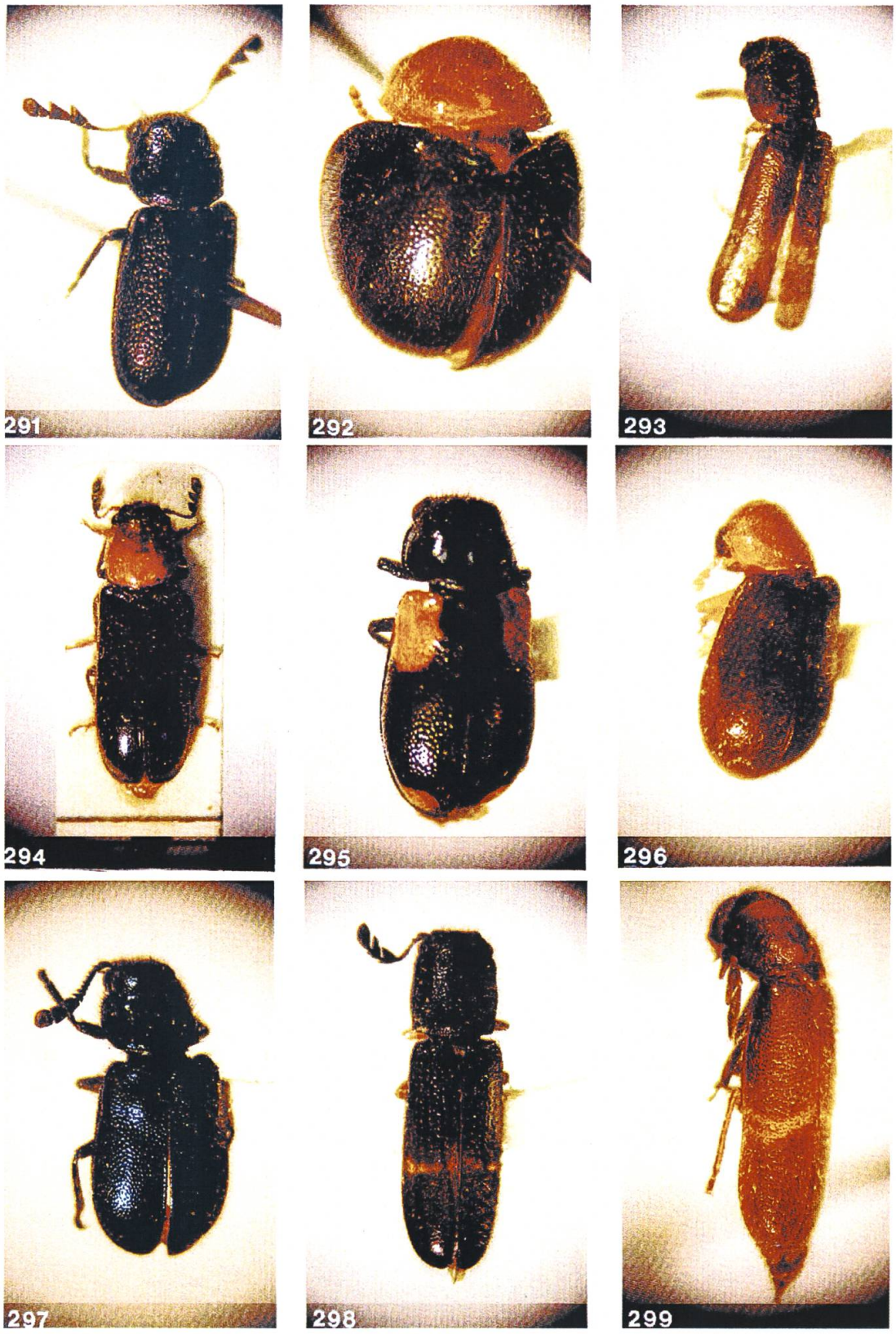


289

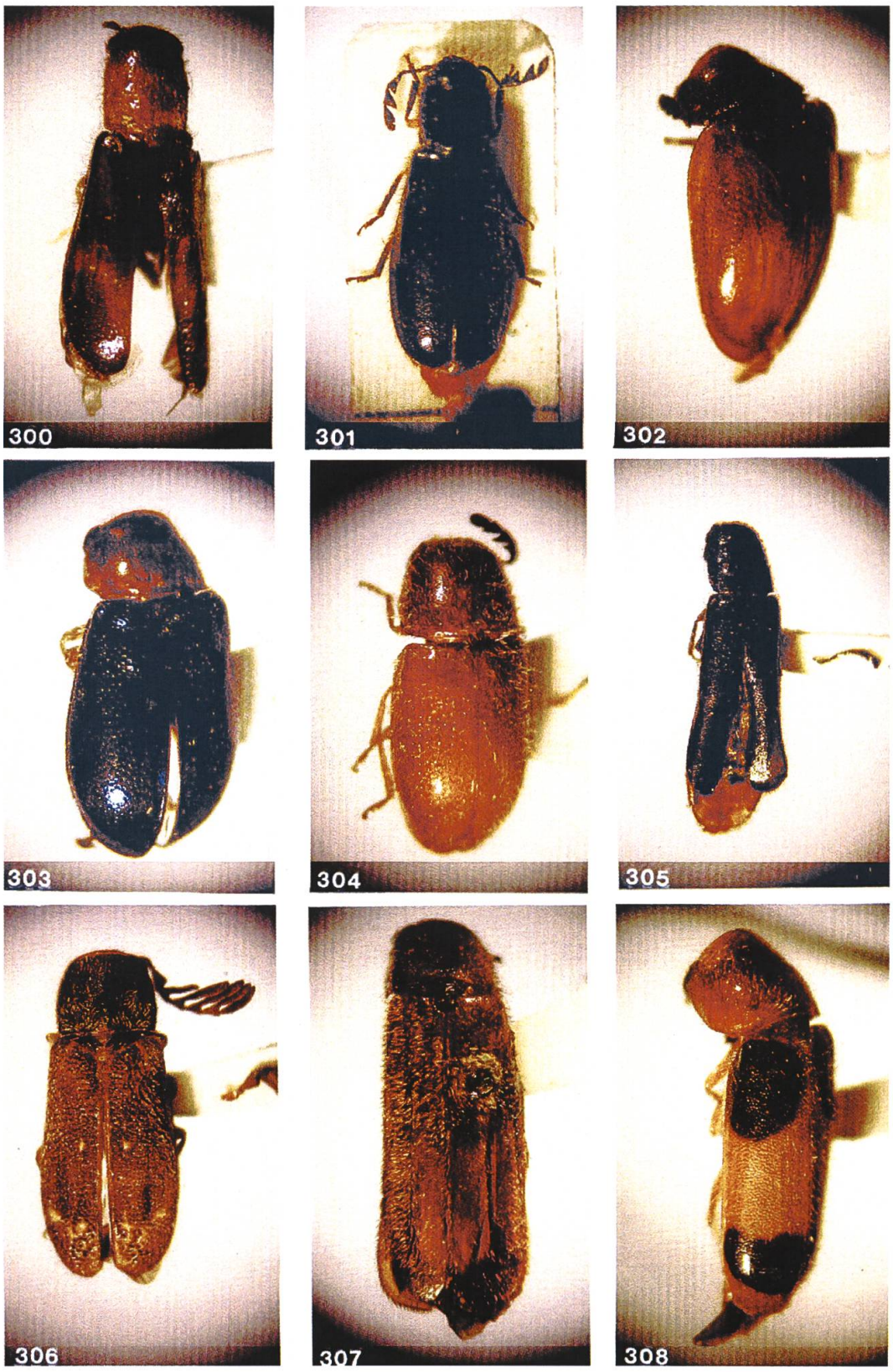


290

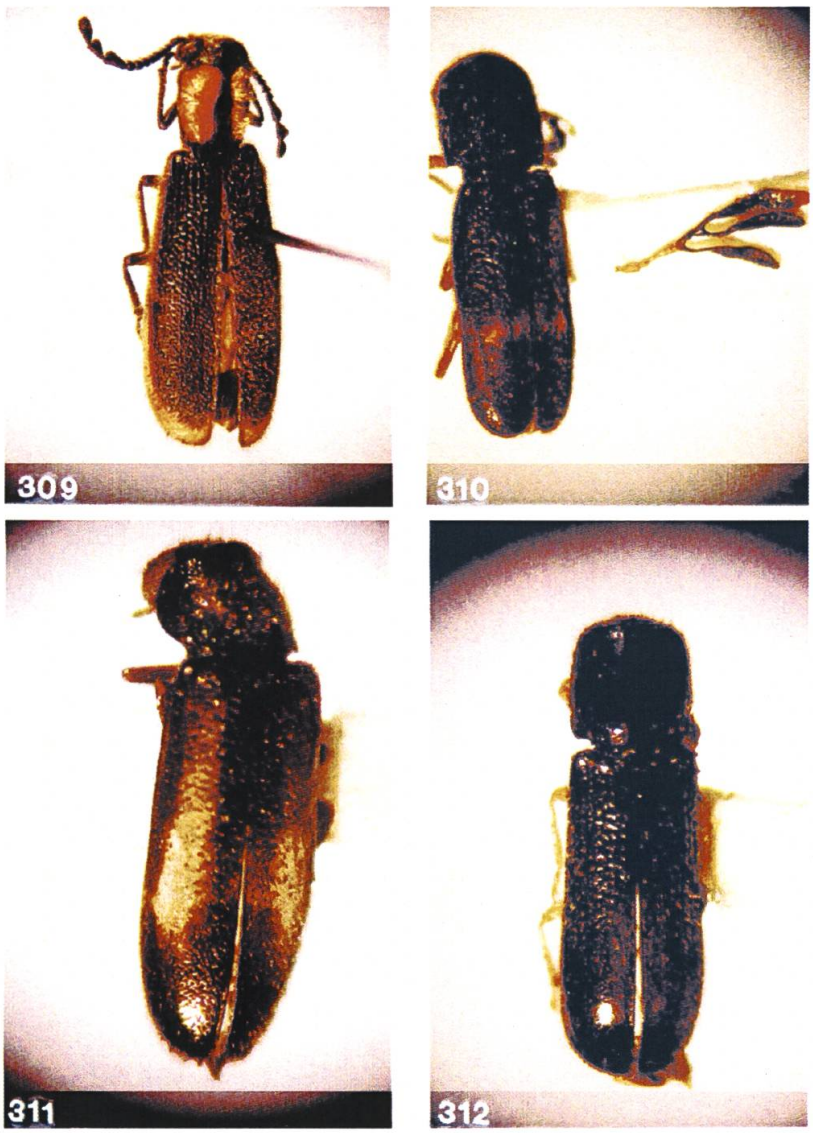
**Figs 287–290.** 287–288, *Decicornis adnatis*: 287 – Antenna, male; 288 – Forebody; 289–290 *Funicula tubuloides*: 289 – Forebody; 290 – Antenna.



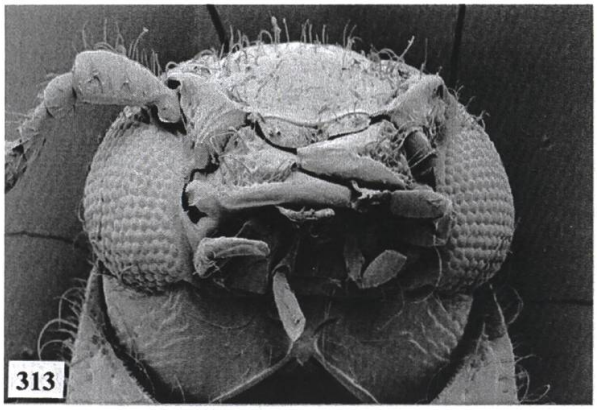

**Figs 291–299.** Habiti: 291 – *Agaphalera janthina*; 292 – *Allochotes bicolor*; 293 – *Colobotis uncatis*; 294 – *Dermestoides sanguinicolle*; 295 – *Kataspinula omocerina*; 296 – *Lebasiella pallipes*; 297 – *Loedelia mexicana*; 298 – *Megafodina imitans*; 299 – *Neorthopleura texana*.

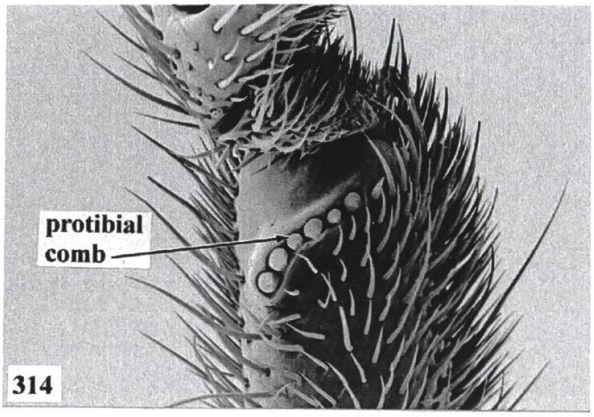


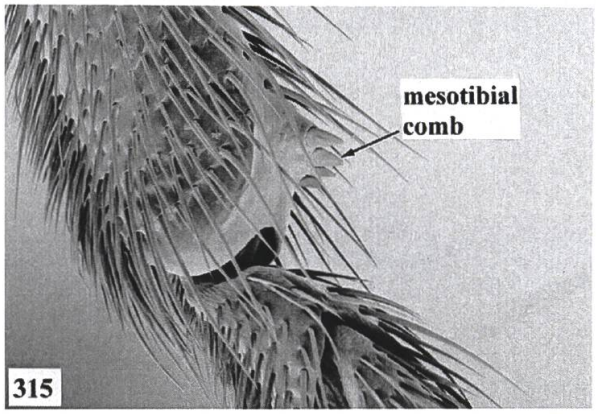

**Figs 300–308.** Habiti: 300 – *Novemera cohibila*; 301 – *Orthopleuroides nigerrimus*; 302 – *Patuleius compressus*; 303 – *Rifkindius megamerus*; 304 – *Romanaeclerus rufus*; 305 – *Syriopelta funebris*; 306 – *Tenerastes mauritianus*; 307 – *Teneromimus vitticollis*; 308 – *Tenerus variabilis*.

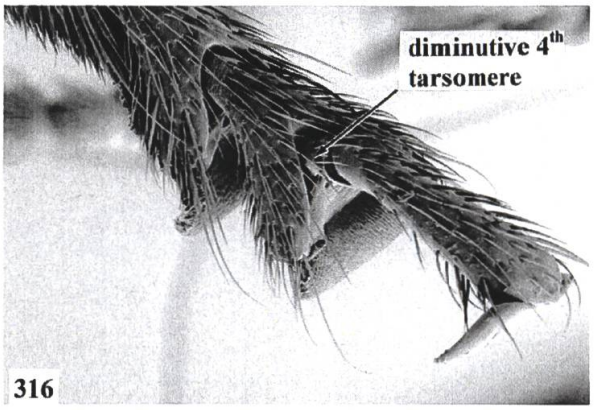



**Figs 309–312.** Habiti: 309 – *Nelsonoplium heterochromum*; 310 – *Tricladus alluaudi*; 311 – *Decicornis adnatis*; 312 – *Funicula tubuloides*.




**Figs 313–316.** *Tenerus variabilis*: 313 – Head, ventral view; 314 – Apex of protibia; 315 – Apex of mesotibia; 316 – Metatarsomeres.

## Acknowledgments

My gratitude to the curators mentioned in the Material and Methods section, Jacques Rifkind for a review of the manuscript. My thanks to Gregory Zolnerowich and Tom Phillips, of Kansas State University, Department of Entomology, for use of their electron microscope.

## References

BARR W. F. (1976): *Taxonomy of the new clerid genus Neorthopleura (Coleoptera).* Melanderia **24:** 1–14.

BARR W. F. (1977): *A new genus of European Cleridae.* The Pan-Pacific Entomologist **53:** 32–33.

BARR W. F. (2006): *A new genus and species of Mexican Enopliinae (Coleoptera: Cleridae).* The pan-Pacific Entomologist **82(2):** 269–271.

BLANCHARD C. E. (1853): *Description des insects, par Emile Blanchard.* In: J. D. D'URVILLE (Ed.): *Voyage au pole sud et dans l'Oceanie sur les corvettes....* Paris: Gide.

BLAND J. H. B. (1863): *Descriptions of a few supposed new species of North American Coleoptera.* Proceedings of the Entomological Society of Philadelphia **1(10):** 353–356.

CHAPIN E. A. (1924): *Classification of the Philippine components of the coleopterous family Cleridae.* The Philippine Journal of Science **25(2):** 159–286.

CORPORAAL J. B. (1949): *Fifth series of notes on systematics and synonymy.* Entomologische Berichten **12(288):** 355–357.

CORPORAAL J. B. (1950): *Cleridae.* In: W. D. Hinks (Ed.): *Coleopterorum catalogus supplementa, Pars 23 (editio secunda).* Gravenhagen: W. Junk.

DESMAREST E. (1870): *Clériens. Part 2.* Pp 226–279. In: J. C. Chenu (ed.): *Encyclopédie d'histoire naturelle...Coléoptères: Staphyliniens, psélaphiens, dermestiens, ptiniens, clériens, malachiens, etc.* Paris: Librairie de Firmin-Didot Frères.

EKIS G. (1975): *Taxonomic and nomenclatural status of clerid taxa described by Massimiliano Spinola (1780–1897) (Coleoptera: Cleridae).* Bolletino dell Museo di Zoologia dell' Universita di Torino **1:** 1–80.

EKIS G. (1977): *Classification, phylogeny, and zoogeography of the genus Perilypus (Coleoptera: Cleridae).* Smithsonian Contribution to Zoology **227:** 1–138.

FABRICIUS J. C. (1782): *Oeconomische Naturgeschichte für den mittleren Schulen.* Leipzig: Bey F. G. J. und Sohn.

FARMAIRE L. (1892): *Descriptions de Coléoptères des environs d'Akbès (Syrie).* Annales de la Société Entomologique de Belgique **36:** 144–159.

FARMAIRE L. (1902): *Matériaux pour la faune coléoptérique de la region malgache.* Annales de la Société Entomologique de France **71:** 530–568.

GAHAN C. J. (1910): *Notes on the Cleridae and descriptions of some new genera and species of this family of Coleoptera.* Annals and Magazine Natural History **5(8):** 55–76.

GEMMINGER M. & HAROLD E. (1869): *Cleridae.* Catalogus Coleopterorum hucusque descriptorum synonymicus et systematicus **6:** 1722–1759.

GERSTMEIER R. (1998): *Checkered Beetles. Illustrated key to the Cleridae and Thanerocleridae of the Western Palaearctic.* Weikersheim: Margraf Verlag.

GORHAM H. S. (1877): *Descriptions of new species of Cleridae, with notes on the genera and corrections of synonymy.* Transactions of the Royal Entomological Society of London **1877(4):** 401–426.

GORHAM H. S. (1883): *Fam. Cleridae.* In: GOODMAN & SALVIN (eds.): *Biologia Centrali- Americana. Insecta, Coleoptera.* **3(2):** 169–192. London: Taylor & Francis.

GORHAM H. S. (1895): *List of the Coleoptera in the collection of H.E. Andrewes esq. from India and Burma with descriptions of new species and notes.* Annales de la Société Entomologique de Belgique **39:** 293–330.

HENNIG W. (1966): *Phylogenetic systematics.* Urbana: University of Illinois Press.

HINTZ E. (1905): *Neue Cleriden aus Wesatfrika.* Deutsche Entomologische Zeitschrift **2:** 305–315.

KLUG J. C. F. (1842): *Versuch einer systematischen Bestimmung und Auseinandersetzung der Gattungen und Arten der Clerii, einer Insectenfamilie aus der Ordnung der Coleopteren.* Abhandlungen Preussische Akademie der Wissenschaften. **1842:** 259–397.

KOLIBÁČ J. (1997): *Classification of the subfamilies of Cleridae (Coleoptera: Cleroidea).* Acta Musei Moraviae, Scientiae Naturales (Brno) **81:** 307–361.

KUWERT A. (1893): *Neue und Alte Afrikanische Cleriden.* Annales de la Société Entomologique de Belgique **37:** 467–500.

LACORDAIRE J. T. (1857): *Clérides.* Pp 415–496. In: J. T. LACORDAIRE: *Histoire Naturelle des Insectes: Genera des Coléoptères.* Paris: Encyclopédique de Roret.

LAPORTE F. L. (1836): *Eudes entomologiques, ou descriptions d'insectes noveaux et observations sur la synonymie.* Revue Entomologique (published by G. Silbermann) 4: 5–60.

LECONTE J. L. (1866): *New species of North American Coleoptera. Part I.* Smithsonian Miscellaneous Collections **167:** 87–168.

LECONTE J. L. & HORN G. H. (1883): *Fam. XLVI. Cleridae.* In: LECONTE J. L.& HORN G. H.: *Classification of the Coleoptera of North America.* Smithsonian Miscellaneous Collections **507:** 216–220.

LESNE P. (1932): *Coléoptères des Iles Mascareignes: Bostrychides, clérides, supplement aux buprestides.* Annales de la Société Entomologique de France **101:** 1–24.

LOHDE R. (1900): *Cleridarum catalogus.* Stettiner Entomologische Zeitung **61:** 3–148.

LUCAS R. (1918): *Catalogus alphabeticus generum et subgenerum Coleopterorum orbis terrarum totius.* (pars 1), 1–296.

NICHOLS S. W. (1989): *The Torre-Bueno glossary of entomology. Revised edition.* (orig. TORRE BUENO J. R. de la, 1937). The New York Entomological Society, New York, 840 pp.

OPITZ W. (1997): *Classification, natural history, and evolution of the Epiphloeinae (Coleoptera: Cleridae). Part I. The genera of Epiphloeinae.* Insecta Mundi **11(1):** 51–96.

OPITZ W. (2002): *Cleridae.* Pp 267–280. In: ARNETT R. H., JR., THOMAS M. C., SKELLEY P. E. & FRANK J. H. (eds): *American beetles. Volume 2.* Boca Raton: CRC Press.

OPITZ W. (2004): *Classification, natural history, and evolution of the Epiphloeinea (Coleoptera: Cleridae). Part II. The genera Chaetophloeus Opitz and Plocamocera Spinola.* Bulletin of the American Museum of Natural History **280:** 1–82.

OPITZ W. (2005): *Classification, natural history, and evolution of the genus Aphelocerus Kirsch (Coleoptera: Cleridae: Clerinae).* Bulletin of the American Museum of Natural History **293:** 1–128.

OPITZ W. (2006): *Classification, natural history, and evolution of the Epiphloeinae (Coleoptera: Cleridae). Part III. The genera Parvochaetus, n. gen., Amboakis, n. gen, and Ellipotoma Spinola.* Insecta Mundi **20(3–4):** 97–164.

OPITZ W. (2007): *Classification, natural history, and evolution of the Epiphloeinae (Coleoptera: Cleridae). Part IV. The genera Pyticeroides Kuwert and Diapromeces Opitz.* Entomologica Basiliensia et Collectionis Frey **29:** 77–166.

OPITZ W. (2008a): *Classification, natural history, and evolution of the Epiphloeinae (Coleoptera: Cleridae). Part V. Decorosa Opitz, a new genus of checkered beetles from Hispaniola with description of its four new species.* American Museum Novitates **3628:** 1–19.

OPITZ W. (2008b): *Classification, natural history, and evolution of the Epiphloeinae (Coleoptera: Cleridae). Part VI. The genera Epiphlaeus Spinola and Opitzius Barr.* Annales Zoologici (Warszawa) **58(1):** 1–34.

OPITZ W. (2008c): *Classification, natural history, and evolution of the Epiphloeinae (Coleoptera: Cleridae). Part VII. The genera Hapsidopteris Opitz, Iontoclerus Opitz, Katamyurus Opitz, Megatrachys Opitz, Opitzia Nemésio, Pennasolis gen.nov., Pericales gen.nov., Pteroferus gen.nov., and Turbophloeus gen.nov.* Zootaxa **1754:** 1–40.

SCHAEFFER I. C. (1771): *Icones Insectorum circa Ratisbonam indiginorum coloribus naturam referentibus expressae, 3.* Table 220, figure 4.

SCHENKLING S. (1903): *Coleoptera Malacodermata: fam. Cleridae.* In: *Genera Insectorum. Fascicule Coleoptera.* **13:** 1–124. Bruxelles: P. Wytsman.

SCHENKLING S. (1906): *Die Cleriden des Deutschen Entomologischen National-Museums, nebst beschreibungen neuer Arten.* Deutsche Entomologische Zeitschrift **1:** 241–320.

SCHENKLING S. (1910): *Cleridae.* In: SCHENKLING S. (ed.): *Coleopterorum Catalogus, Pars 23.* Berlin: W. Junk.

SNODGRASS R. E. (1935): *Principles of insect morphology.* New York, McGraw Hill.

SPINOLA M. (1844): *Essai monographique sur les Clerites: insects Coléoptéres.* **2:** 1–216.

TUOMIKOSKY R. (1967): *Notes on some principles of phylogenetic systematics.* Annales Entomologici Fennici **33(3):** 137–147.

WESTWOOD J. O. (1875): *Description of a new genus of clerideous Coleoptera from the Malayan Archipelago.* Transactions of the Entomological Society of London **Part II, 1852:** 241–242.

WINKLER J. R. (1960): *Über die Stellung von Korynetes rufus Kraatz in System der Cleridae (Coleoptera).* Beiträge zur Entomologie **10(1/2):** 204–206.

WINKLER J. R. (1961): *Buntkäfer (Cleridae). Die nueue Brehm-Bücherei Nr. 281. A.* Ziemsen: Wittenberg Lutherstadt.

WINKLER J. R. (1979): *Enopliinae of Palaearctis, Part 1: Dermestoides J. C. Schaeff., 1771, available and valid generic name for European Orthopleura sanguinicollis (F., 1787).* Deusche Entomologische Zeitschrift, N. F. **26(4–5):** 309–314.

WINKLER J. R. (1984): *Enopliinae of Palaearctis, Part 2: Syriopelta gen. n., new genus established for Syrian Orthopleura funebris Fairmaire, 1892 (Col., Cleridae).* Deusche Entomologische Zeitschrift, N. F. **31(1–3):** 177–185.

WOLCOTT A. B. (1947*): Catalogue of North American Beetles of the Family Cleridae.* Fieldiana: Zoology **32(2):** 59–105.

ŽIROVNICKÝ J. (1977): *Eurenoplium genre nouveau pour Orthopleura sanguinicollis (F.) (Col. Cleridae).* Bulletin de la Société Entomologique de Mulhouse Juillet-Sept. **1977:** 45–46.

**Author's address:**

Weston Opitz
Kansas Wesleyan University
Department of Biology
100 East Claflin Avenue, Salina
Kansas 67401-6196
USA
E-mail: opitz@kwu.edu