

Taxonomic revision of the Australian Notoxinae (Coleoptera: Anthicidae)

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Abstract. Notoxinae of the Australian Region are revised, with 42 species classified in single genus, *Mecynotarsus* LaFerté-Sénéctère, 1849. In total, 31 species are newly described: *Mecynotarsus armifer* sp. nov., *M. auceps* sp. nov., *M. auripilosus* sp. nov., *M. bicornis* sp. nov., *M. bidens* sp. nov., *M. bidentatus* sp. nov., *M. bullatus* sp. nov., *M. canthariphilus* sp. nov., *M. centralis* sp. nov., *M. dearmatus* sp. nov., *M. exophthalmus* sp. nov., *M. fallax* sp. nov., *M. festivus* sp. nov., *M. grandior* sp. nov., *M. granulatus* sp. nov., *M. hirtipennis* sp. nov., *M. imitator* sp. nov., *M. iuvenis* sp. nov., *M. magelae* sp. nov., *M. mollis* sp. nov., *M. nobilis* sp. nov., *M. obesus* sp. nov., *M. parvulus* sp. nov., *M. pilbarensis* sp. nov., *M. pilicornis* sp. nov., *M. pusillus* sp. nov., *M. regalis* sp. nov., *M. setulosus* sp. nov., *M. speciosus* sp. nov., *M. weiri* sp. nov. (all Australia), and *M. excavatus* sp. nov. (New Caledonia). Two new synonyms, *Mecynotarsus concolor* King, 1869 = *Notoxus decemdentatus* Pic, 1899, syn. nov., and *M. hortensis* Lea, 1922 = *M. lateroalbus* Lea, 1922, syn. nov., are proposed. Lectotypes are designated for *Mecynotarsus amabilis* Lea, 1895 and *M. kingii* MacLeay, 1872. A key to the Australian *Mecynotarsus* is provided. *Notoxus australasiae* LaFerté-Sénéctère, 1849 is regarded as Afrotropical species described by mistake from Australia. The identity of *Leptoprion* Krekich-Strassoldo, 1914 is briefly discussed.

Key words. Coleoptera, Anthicidae, Notoxinae, *Mecynotarsus*, *Notoxus*, *Leptoprion*, taxonomy, new species, new synonymy, lectotype designation, faunistics, Australia, New Caledonia, Australian Region

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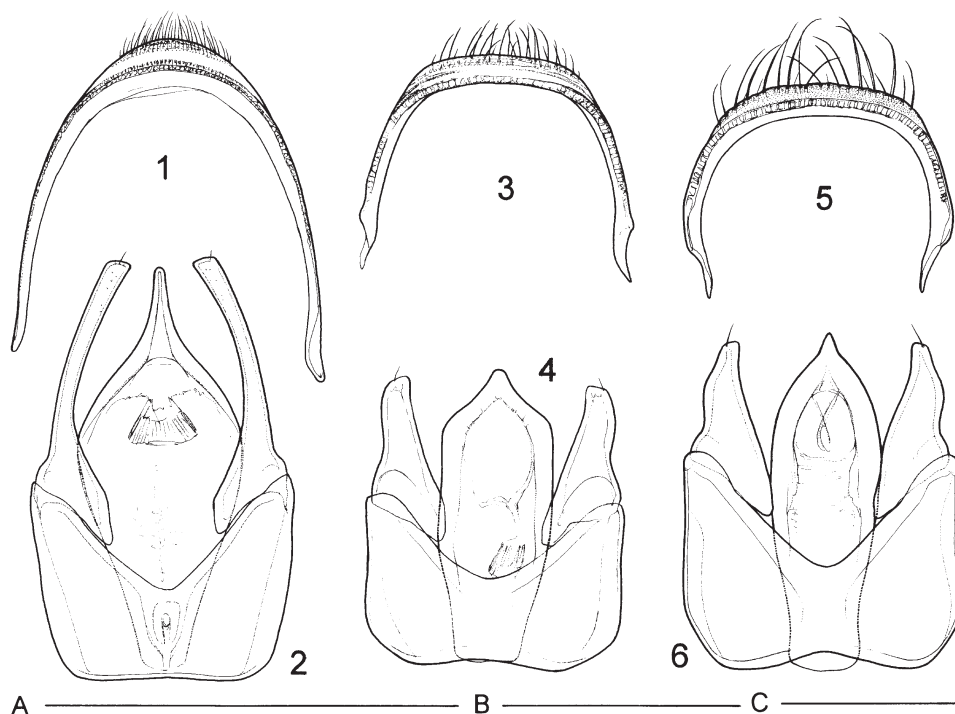
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Introduction

The subfamily Notoxinae Stephens, 1829 is well-characterized, and perhaps the most popular group of anthicid beetles. Its members can be easily recognized by the presence of the peculiar antero-dorsal horn on the pronotum. Other important characters of these horned anthicids are: head closely articulated with pronotum, its base more or less truncate with paired lateral occipital condyles for articulation with the prothorax; pronotum with lateral cervical notches for articulation with the occipital condyles of the head; apical margin of mandibles enlarged as a thick rim or flange; submentum extended as widely separated angular flat plates, covering the base of the maxillae; aedeagus with phallobase, separate parameres, and free median lobe; ovipositor an amorphous simple membranous structure, with only distinct sclerotized styli (CHANDLER 1982, 2001; KEJVAL 2011a). Most of the above listed external characters of Notoxinae (if not all) represent synapomorphies that evolved in connection with their typical habits – burrowing into sandy or loose soils; for behavioural observations see CHANDLER (1978, 2001) and HASHIMOTO & HAYASHI (2012).

Notoxinae are distributed world-wide, and are currently classified as seven genera: *Hypaspistes* Waterhouse, 1886, *Leptoprion* Krekich-Strassoldo, 1914, *Mecynotarsus* LaFerté-Sénéctère 1849, *Notoxus* Geoffroy, 1762, *Plesionotoxus* Chandler, 1978, *Pseudonotoxus* Pic, 1899, and *Squamantoxus* Chandler, 2001. Of these genera only *Mecynotarsus* and *Notoxus* have been recorded from Australia (UHMANN 2007).

The present paper is the first serious attempt at a revision of the Australian Notoxinae. A total of 42 species are recognized and treated in single genus, *Mecynotarsus*, despite some persisting reservations about this placement (KEJVAL 2011a) that are discussed in the next section. This revision is aimed mainly to provide more detailed species descriptions, including



Figs 1–6. 1–2 – *Mecynotarsus horni* Pic, 1901, syntype (DEIC): 1 – tergum VIII, 2 – aedeagus in dorsal view. 3–4 – *M. humeralis* Pic, 1903, Wa-wa dam (DCDC): 3 – tergum VIII, 4 – aedeagus in dorsal view. 5–6 – *M. insularis* Kejval, 2011, holotype (SMNS): 5 – tergum VIII, 6 – aedeagus in dorsal view. Scale (0.2 mm): A – Figs 4, 6; B – Figs 2, 5; C – Figs 1, 3.

male characters, and an identification key for further faunistic research. Lastly, this paper contains the figures of the male characters of *Mecynotarsus horni* Pic, 1901, *M. humeralis* Pic, 1903, and *M. insularis* Kejval, 2011 (Figs 1–6), that were omitted by mistake in my previous treatment of the Oriental species (KEJVAL 2011a).

The identity and biology of the Australian *Mecynotarsus*

The Australian *Mecynotarsus* species are here treated as members of the *M. ziczac* species-group (herewith established as an informal group of convenience). This group is remarkably diversified in external characters, and does not fully fit the genus definition given by KEJVAL (2011a). The major distinctive characters and examples of variation are as follows: body setation mostly scaly or rarely rather coarsely hairy, scales more or less elongate, rounded to truncate, rarely bifurcate to somewhat frayed apically, erect tactile setae may be both absent and present (including elytra, sometimes numerous and very distinct); eyes with interfacetal setae mostly

aciculate, sometimes nearly indistinct or conversely very conspicuous, thick, distinctly club-shaped (e.g. *M. auceps* sp. nov. and *M. excavatus* sp. nov.); rugules or tubercles on the gula varying from uniformly small and unevenly scattered to rather heterogeneous and partly ordered (coarser and more-or-less fused anteriorly); antebasal paired tactile setae of pronotum absent (completely or partly) to well-developed, mostly short, rarely conspicuously long (laterally); posterior collar of pronotum very short and inconspicuous to well-developed and quite distinct. As for male characters, the aedeagi of the Australian *Mecynotarsus* are relatively large and much more elongate than those of the Oriental species, having long parameres with a distinct latero-basal process (typically absent in other *Mecynotarsus* (Figs 2, 4, 6), but present in some *Notoxus*), and the median lobe is mostly finely membranous apically, rarely with more sclerotized paired projections. The general morphology is rather uniform, including some details (e.g. subapical denticles on lateral margins and small lobules on the mesal margins of parameres in many, externally rather dissimilar species), suggesting monophyly of this species group.

The Australian *M. ziczac* species-group is distinct enough that it could deserve a formal separate treatment, possibly as a subgenus, especially in regards to the recently proposed informal division of the Oriental species (five species-groups recognized; see KEJVAL 2011a). Actually, based on the comparative morphology of the aedeagi and patterns of distribution, there are only two conspicuous species-groups indicating possibly two separate evolutionary lineages. One group is widespread and most speciose in the Afrotropical and Oriental Regions. It is well-represented in the Malay Archipelago, and six species are found to the east of Wallace's Line as far as New Guinea, Vanuatu and Fiji (even these Australasian species show clear affinities to the Oriental fauna, however, they have not yet been found in northern Australia). The *ziczac* species group appears to be confined to the Australian Region (mainland Australia, Tasmania, New Caledonia), with a single possible exception (see section on *Leptoprion*). This group has never been revised, though the few known species were treated by UHMANN (2007), who unfortunately did not examine all of the holotypes or specimens from syntype series.

In spite of the facts discussed above, I have refrained from establishing a new taxon and placed all newly described species in *Mecynotarsus*, the only genus previously known from this region, mainly due to the lack of distinct synapomorphies for these Australian species (all conspicuous external characters were found variable), and because of uncertain identity of the genus *Leptoprion* (see below).

Biology of the Australian *Mecynotarsus* is essentially unknown, however, it does not seem to differ from that of other Notoxinae genera or psammophilous anthicids. Based on label data, most records originate from sandy / gravely riversides and seashores, rarely from forested habitats (mostly open forest, dry sclerophyll forest, mallee, and rarely from closed forests or even rainforests). The specimens were collected mostly by using lights or pitfall traps, and have been frequently found in some plant debris on sandy soils after floods. Both type specimens of *M. auceps* sp. nov. were found in nest debris of Malleefowl (*Leiopa ocellata* Gould, 1840), numerous specimens of *M. canthariphilus* sp. nov. and *M. kreusleri* King, 1869 were trapped by using cantharidin bait, and several specimens of *M. mastersii* MacLeay, 1872 were found in pan traps or pitfall traps baited with dung.

Relationships of *Mecynotarsus*

Mecynotarsus appears to be closest to *Leptoprion* and *Pseudonotoxus* (for comments on the former genus see below) by sharing the angular antero-lateral margins of the pronotum, the presence of tubercles or rugules on the gula, and the lack of distinct setose pits near the cervical articulations of the pronotum (CHANDLER 1982, KEJVAL 2011a).

Pseudonotoxus comprises 11 externally rather uniform species distributed in the Afrotropical and Oriental Regions. They resemble especially some members of the *M. ziczac* species-group by the scaly setation (erect tactile setae always absent), the presence of thick, club-shaped interfacetal setae, and by the indistinct posterior collar and the lack of antebasal tactile setae on pronotum (these four characters are quite stable within this genus). However, it differs from *Mecynotarsus* by (i) the more robust antennomere II, which is usually distinctly longer than III (as wide and at most as long as antennomere III in *Mecynotarsus*), and by (ii) the conspicuously short terminal tarsomere, which is especially for the metatarsi somewhat widened and flattened, at most twice as long as wide, and somewhat shorter than the penultimate tarsomere (rather cylindrical, more than 3.0 times as long as wide, and longer than the penultimate metatarsomere in *Mecynotarsus*). In addition, *Pseudonotoxus* has an elongate form of the aedeagus, resembling those of the Australian *Mecynotarsus*, however its detailed morphology is different: parameres simple basally, lacking the latero-basal process, and the median lobe rather sclerotized and simply rounded to pointed apically.

The genus *Leptoprion*

Leptoprion is monotypic genus of Notoxinae, comprising a single species, *Leptoprion angulatus* Krekich-Strassoldo, 1914. It was described from single specimen collected in southwestern Sumatra (Bengkulu province, Manna), and KREKICH-STRASSOLD (1914) placed his genus near *Hypaspistes* and *Notoxus*. HEBERDEY (1942), based on the original description, regarded *Leptoprion* as subgenus of *Hypaspistes* and stated that it may perhaps indicate closer relationship of *Hypaspistes* and *Mecynotarsus*, forming transition between these two genera. Finally, BONADONA (1958) treated *Leptoprion*, without providing any comments, as a synonym of *Hypaspistes*.

Leptoprion was never revised and never recorded again. The holotype is presently deposited in the Veth Collection (NCB). It is a female bearing the following label data (Fig. 119): 'Sumatra Manna 1901 M. Knappert [p+h] // TYPE [p; red label] // *Leptoprion angulatus* det. v.Krekich [p+h] // *Leptoprion angulatus* spec. et subgen. nov. [h] // Coll. Veth [p] Museum Leiden NCB Naturalis The Netherlands Coleoptera [p]'. It is a rather large specimen (body length 3.2 mm), showing a very distinctive morphology of the pronotal horn, which is extremely long and slender, nearly parallel-sided, with very widely spaced lobules on the lateral margins, feebly marked horn crest, and distinctly corrugated latero-basal surface (Figs 126, 141, 186). Additional remarkable characters of the type are as follows: posterior collar of pronotum quite distinct; body rather glossy, elytra sparsely punctured, elytral setation generally longer and more erect, mostly decumbent, with some very long, suberect to erect

tactile setae; antebasal tactile setae of pronotum conspicuous (not articulated near distinct tubercles); setation of tibiae additionally with numerous, decumbent stiff setae; antennomere I conspicuously elongate, nearly 4.0 times as long as wide, and about 3.0 times as long as antennomere II.

Based on examination of the type, *Leptoprion* shares all important external characters of *Mecynotarsus*; the lack of the mandibular flange, mentioned in the diagnosis of Notoxinae by CHANDLER (2010), is based upon a specimen of *M. excavatus* sp. nov., tentatively assigned to this genus and showing only regression of the posterior margin of the flange (Chandler, pers. comm.). On the other hand, *L. angulatus* is a very conspicuous and surprisingly isolated species, which does not resemble any of the presently known Oriental *Mecynotarsus*. It does not seem to be close even to the Australian species, which are very diversified in external characters. Some species have an extremely elongate pronotal horn, with three to four widely spaced lobules on each side, feebly marked horn-crest, and rather elongate and conspicuously robust basal antennomeres. They are clearly variable in characters of setation, including the presence of erect tactile setae on the elytra and stiff setae on the tibiae (generally well-developed in these species, and sometimes very conspicuous as in Fig. 136). Consequently, it is not rejected that *L. angulatus* may belong to the Australian *M. ziczac* species-group, and represents only a geographically isolated and thus extremely aberrant species, in which case *Leptoprion* would be the available genus group name for this species group. Similarly, *M. excavatus* sp. nov. of this group, which is known only from the island of New Caledonia, is another isolated species that displays a number of unique characters (conspicuous sexual dimorphism, excavate elytral apex in both sexes, peculiar double setation of elytra etc.).

The identity of *Leptoprion* remains obscure and it is obvious that additional specimens are needed with examination of the male characters important for any further comments and decisions.

The identity of *Notoxus* species recorded from Australia

Notoxus is by far the largest and best known genus of Notoxinae, comprising more than 300 described species. It is nearly cosmopolitan, being poorly represented in South America and absent in the Australian Region (KEJVAL 2011b). There are only two *Notoxus* species recorded from Australia, *N. decemdentatus* Pic, 1899 and *Notoxus australasiae* LaFerté-Sénéctère, 1849. The former is herein synonymized with *Mecynotarsus concolor* King, 1869, and its records from New Caledonia and New South Wales by UHMANN (1993, 2000) are proved to be based on misidentified specimens of *M. excavatus* sp. nov. and *M. apicipennis* Lea, 1895 (the respective specimens are listed herein under these species).

As for *N. australasiae*, its generic placement is undoubtedly correct, however, it belongs in my opinion to the Afrotropical fauna. This species was described from the vicinity of Adelaide in South Australia ('colonie anglaise d'Adelaide') based on a single specimen provided by M. Hope (LAFERTÉ-SÉNÉCTÈRE 1849), and has never been recorded since. I have seen the type deposited in the LaFerté-Sénéctère Collection (MNHN), and noted the striking similarity of

the external characters to some South African species, mainly with *N. inconstans* LaFerté-Sénéctère, 1849. I believe that the type locality of *N. australasiae* is erroneous, similar to the situation of *Anthelephila cyanea* Hope, 1833, which was described by M. Hope from Australia, but is a species native to southern Africa (KEJVAL 2003).

Material and methods

Specimens were examined with a Leica MZ 9.5 stereomicroscope; morphological measurements were taken by using an ocular graticule (body length is measured from the apex of pronotal horn to the elytral apices, proportions of pronotum including pronotal horn). Male genitalia were examined after being cleared in a hot 10% KOH solution and then placed on the same card in water-soluble dimethyl hydantoin formaldehyde resin (DMHF). Illustrations were made using a drawing tube, with some details added from examination using a compound microscope. As parameres are mostly strongly curved in the apical third, many figures of the aedeagi have the apical portion of the right paramere drawn in a different view (more or less rotated). Similarly, some figures of the male tergum VIII include also a different view of the postero-ventral margin. Photographs were taken by a Nikon Coolpix 4500 digital camera attached to a Leica MZ 9.5 trinocular stereomicroscope; images of the same specimen at different focal planes were combined with Helicon Focus 5.2 Pro and edited with Adobe Photoshop 9.0.2. software.

Data from locality labels are cited verbatim for the type specimens only, and comments are placed in square brackets. Separate labels are indicated by double slashes (//). The following abbreviation are used: [h] – handwritten; [p] – printed; env. – environs of; spec. – specimen; leg. – collected by; coll. – collection.

The terminology of body setation and morphology of pronotal horn follows WERNER & CHANDLER (1995) and KEJVAL (2011a). The term posterior collar is used for narrow basal portion that is defined dorsally and laterally by antebasal sulcus of pronotum. Species are listed alphabetically.

The acronyms of the specimen depositories are:

AMSA	The Australian Museum, Sydney, New South Wales, Australia;
ANIC	National Insect Collection, CSIRO, Canberra, A.C.T., Australia;
BMNH	The Natural History Museum, London, United Kingdom;
DEIC	Deutsches Entomologisches Institut, Eberswalde, Germany;
DCDC	Donald S. Chandler collection, Durham, New Hampshire, U.S.A.;
HNHM	Hungarian Natural History Museum, Budapest, Hungary;
MHNG	Muséum d'Histoire Naturelle, Genève, Switzerland;
MNHN	Museum National d'Histoire Naturelle, Paris, France;
MNHW	Museum of Natural History, Wrocław University, Wrocław, Poland;
NCB	Naturalis, the Netherlands Centre for Biodiversity Naturalis, Leiden, Netherlands;
NMPC	National Museum, Prague, Czech Republic;
QMBA	Queensland Museum, Brisbane, Queensland, Australia;
SAMA	South Australian Museum, Adelaide, South Australia, Australia;
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany;
USMB	Upper Silesian Museum, Bytom, Poland;
ZKDC	Zbyněk Kejval Collection, Domažlice, Czech Republic;
ZSMC	Zoologische Staatssammlung München, Germany (coll. G. Uhmann).

A key to *Mecynotarsus* species of the Australian Region

- 1 (2) Elytra in female distinctly excavate apically (Fig. 134); male protibiae with distinct pointed process subapically on inner margin (Fig. 137); head vertex in male with sharp median incision (Fig. 130); setation of elytra as in Fig. 174; male abdominal character as in Figs 44–46; species occurring in New Caledonia. ***M. excavatus* sp. nov.**
- 2 (1) Elytra simple, rather conjointly rounded apically; male protibiae simple; head vertex in male at most shallowly impressed medially, lacking any incision; species occurring in Australia.
- 3 (4) Elytral disc uneven, with distinct omoplates and postbasal impression; elytral setation bicoloured and unevenly ordered, mostly brownish, with whitish setae pointing mostly laterad and forming two conspicuous transverse bands (Fig. 203); elytral setae hairy and finely bifurcate apically; male characters as in Figs 76–79. ***M. mastersii* MacLeay, 1872**
- 4 (3) Elytral disc evenly curved, lacking omoplates and postbasal impression; elytral setation mostly scaly and simple, if bifurcate, then pointing evenly posteriad, forming no transverse bands.
- 5 (20) Pronotal disc granulate, with numerous, more or less distinct granules scattered dorsally and dorso-laterally (laterally sparser and coarser; Figs 152, 166).
- 6 (7) Elytral setae finely bifurcate apically (Fig. 184); antennae rather short; male characters as in Figs 110, 111. ***M. speciosus* sp. nov.**
- 7 (6) Elytral setae simple, at most truncate apically; antennae conspicuously long.
- 8 (9) Antero-lateral margins of frons projecting into conspicuous, apically pointed, thorn-like process (Fig. 23); male characters as in Figs 24, 25. ***M. armifer* sp. nov.**
- 9 (8) Antero-lateral margins of frons at most lobed, never with pointed process.
- 10 (13) Elytral setation longer and somewhat sparser, surface visible (Fig. 183).
- 11 (12) Elytra with numerous long tactile setae, including apical half; appressed setae of pronotal disc very fine, nearly frayed apically; distal antennomeres more robust, wider, antennomere X 1.8 times as long as wide; male characters as in Figs 106, 107. ***M. regalis* sp. nov.**
- 12 (11) Elytra lacking tactile setae; appressed setae of pronotal disc coarser, well-shaped, truncate to shortly bifurcate apically; distal antennomeres slender, more elongate, antennomere X nearly twice as long as wide; male characters as in Figs 80, 81. ***M. mollis* sp. nov.**
- 13 (10) Elytral setation short and very dense, surface entirely obscured (Fig. 175).
- 14 (15) Antero-lateral margins of frons distinctly raised and moderately lobed (lobule smooth and glossy subapically); male characters as in Figs 42, 43. ***M. dearmatus* sp. nov.**
- 15 (14) Antero-lateral margins of frons simple or at most slightly raised.
- 16 (17) Elytral setation somewhat heterogeneous, mostly appressed, with slightly raised setae of coarser punctures (Fig. 178), and some tactile setae distinct at least near base; male characters as in Figs 82, 83. ***M. nobilis* sp. n.**

- 17 (16) Elytral setation quite uniformly short and appressed, tactile setae lacking, including basal portion.
- 18 (19) Larger, more robust species, body length 2.9–3.1 mm; darker elytral scales usually forming rather extensive and distinct brownish markings (Fig. 196); male characters as in Figs 55–57. ***M. granulatus* sp. nov.**
- 19 (18) Smaller, slender species, body length 2.2–2.6 mm; darker elytral scales forming mostly rather vague brownish spots; male characters as in Figs 62, 63. ***M. imitator* sp. nov.**
- 20 (5) Pronotal disc at most with few minute granules near basal margin (*M. festivus* sp. nov.) or antero-medially near base of pronotal horn.
- 21 (26) Antero-lateral margins of frons with distinct process (Figs 26–27, 30, 128–129).
- 22 (23) Process of frontal margin conspicuously robust, long and curved, horn-like (Figs 26, 128). ***M. bicornis* sp. nov.**
- 23 (22) Process of frontal margin much smaller, somewhat flattened.
- 24 (25) Paired rugules of clypeus very conspicuous (Fig. 129, marked by an arrow); process of frontal margin somewhat larger, its posterior tip rather rounded and pointing dorsally (Fig. 27); male metatarsomere III moderately enlarged in apical half; male characters as in Figs 28, 29. ***M. bidens* sp. nov.**
- 25 (24) Paired rugules of clypeus minute; process of frontal margin lobed anteriorly, its posterior tip sharp and pointing evenly posteriorly (Fig. 30); male metatarsomere III strongly enlarged in apical half; male characters as in Figs 31, 32. ***M. bidentatus* sp. nov.**
- 26 (21) Antero-lateral margins of frons simple or at most moderately raised / lobed, lacking any distinct process.
- 27 (30) Scales of elytra entirely covering surface, coalescent, with extremely fine, indistinct margins (Fig. 173).
- 28 (29) Body somewhat paler coloured, elytral scales at least partly with pale reddish tinge (mainly apically; Fig. 192); parameres more robust and somewhat sinuously narrowing in apical third (Fig. 41); male tergum VIII as in Figs 40. ***M. concolor* King, 1869**
- 29 (28) Body generally darker coloured, elytral scales dark brown and silvery, apex of elytra darker (Fig. 197); parameres more slender and evenly narrowing in apical third (Fig. 61); male tergum VIII as in Fig. 60. ***M. hortensis* Lea, 1922**
- 30 (27) Scales of elytra well-spaced, if contiguous and entirely covering surface, then with margins clearly visible.
- 31 (34) Body setation generally scaly, scales short and wide, covering most of head surface, nearly all antennomeres, legs including tarsomeres, and dorsal side of pronotal horn.
- 32 (33) Eyes comparatively large; pronotal horn conspicuously slender and elongate, with extremely narrow crest (Fig. 167), body scales greyish, white and black, forming conspicuous, sharply outlined markings on elytra (Figs 185, 208); male characters as in Figs 112–115. ***M. weiri* sp. nov.**

- 33 (32) Eyes very small; pronotal horn much wider and less elongate, its crest distinctly wider; body scales dark to pale brownish, partly mixed and thus markings of elytra less contrasting (Fig. 189); male characters as in Figs 15–18. *M. auceps* sp. nov.
- 34 (31) Body setation at least partly hairy, pronotal horn sometimes with hairy or scaly setation, but never entirely covered dorsally (except for rugules) by contiguous, appressed scales.
- 35 (36) Horn crest at most slightly indicated, dorsal side of pronotal horn evenly vaulted and covered by small rugules (Fig. 155); male characters as in Figs 72, 73. *M. leai* Pic, 1942
- 36 (35) Horn crest well-developed.
- 37 (40) Setation of elytra hairy, setae long and rather sharply pointed apically (Fig. 170).
- 38 (39) Pronotum globose, evenly rounded laterally in dorsal view; pronotal horn wider, subtriangular, posterior angles distinct; horn crest short and compact, situated rather posteriorly; body setation sparser, silvery, pronotum (antero-laterally) and elytra with numerous erect tactile setae; male characters as in Figs 38, 39. *M. centralis* sp. nov.
- 39 (38) Pronotum somewhat more elongate, unevenly rounded laterally in dorsal view; pronotal horn narrower, posterior angles indistinct (Fig. 145); horn crest longer, extending (evenly lowering) anteriorly; body setation denser, with goldish or cupreous shiny reflection, and forming brownish markings on elytra, pronotum (antero-laterally) and elytra lacking erect tactile setae; male characters as in Figs 19–21. *M. auripilosus* sp. nov.
- 40 (37) Setation of elytra scaly, setae mostly distinctly shorter and wider, rounded to truncate apically, rarely linear, but never sharply pointed apically.
- 41 (42) Setation of elytra clearly double, comprising shorter, appressed, whitish scales and distinctly longer, linear, more raised, apically truncate, cupreous shining setae (Fig. 169); body length 3.7–4 mm; body coloration generally dark, at most with paler subapical spot on elytra (Fig. 188); male characters as in Figs 13, 14. *M. apicipennis* Lea, 1895
- 42 (41) Setation of elytra quite uniform, appressed, if nearly double, comprising longer and more raised scales (*M. canthariphilus* sp. nov.) then body length less than 2.5 mm and body generally paler coloured, mostly with darker markings of elytra as in Figs 187, 209.
- 43 (66) Dorsal surface of pronotal horn nearly bare, or at most sparsely, inconspicuously setose, especially in apical half.
- 44 (57) Elytral scales shortly oval, rather rounded apically (Figs 177, 179, 182), entirely appressed and very dense, mostly entirely covering surface; lacking scattered erect tactile setae of elytra (at most with some longer bristly setae on humeri and basal margin).
- 45 (46) Setation of genae rather coarse and modified, arranged as in Fig. 133; male characters as in Figs 108, 109. *M. setulosus* sp. nov.

- 46 (44) Setation of genae finer and evenly arranged (all setae pointing more or less anteriorly).
- 47 (48) Head vertex sharply impressed along median margins of eyes (Fig. 131); male characters as in Figs 47, 48. ***M. exophthalmus* sp. nov.**
- 48 (47) Head vertex evenly curved, lacking any distinct impressions.
- 49 (50) Frontal portion of head prolonged; antero-lateral margins of frons subparallel and moderately raised / lobed (Fig. 132); male characters as in Figs 67, 68.
..... ***M. kingii* MacLeay, 1872**
- 50 (49) Frontal portion of head relatively short; antero-lateral margins of frons narrowing anteriorly and simple.
- 51 (52) Larger, robust species (body length 3.5–4.2 mm; Fig. 204); body scales generally distinctly glossy (Fig. 179); male characters as in Figs 84, 85. ***M. obesus* sp. nov.**
- 52 (51) Smaller species (body length 1.6–2.5 mm); body scales at most slightly glossy, if distinctly glossy (*M. pusillus* sp. nov.; mainly scales on pronotal disc), then body length less than 2.0 mm.
- 53 (54) Horn crest longer, evenly narrowing and lowering anteriorly; median rugules largely fused and forming irregular sculpture, which may be connected with rugules of crest margins; male characters as in Figs 102, 103. ***M. pilbarensis* sp. nov.**
- 54 (53) Horn crest short and more compact, situated more posteriorly; rugules of crest margins usually fused and forming evenly shaped rim; single, rather evenly shaped median longitudinal rugule (Figs 156–158, 165).
- 55 (56) Body scales at least partly whitish (always on pronotum); lobules of pronotal horn margins narrower and widely spaced, submarginal rugules rounded and rather unevenly scattered (Figs 156–158); posterior collar of pronotum with distinct fringe of whitish scales; male characters as in Figs 74, 75. ***M. magelae* sp. nov.**
- 56 (55) Body scales mostly reddish to brownish, contiguous to nearly fused; lobules of pronotal horn margins wide, narrowly spaced to fused, and submarginal rugules elongate, contiguous to fused in dense rows (Fig. 165); posterior collar of pronotum with inconspicuous scales few (not really fringed); male characters as in Figs 104, 105. ***M. pusillus* sp. nov.**
- 57 (44) Elytral scales distinctly elongate (linear, nearly parallel-sided), truncate or at least subtruncate apically and mostly well-spaced (Figs 172, 176); elytra with or without scattered erect tactile setae.
- 58 (59) Elytral scales brownish and rather contrastingly whitish, partly mixed and also forming wide transverse bands (Fig. 199); pronotal horn rather long and slender; horn crest long, extending (evenly lowering) anteriorly; rugules of crest margins well-spaced; male characters as in Figs 69–71. ***M. kreusleri* King, 1869**
- 59 (58) Elytral scales of various colours (whitish to greyish, reddish, brownish) but never forming wide transverse bands; pronotal horn usually short and wide (except *M. grandior* sp. nov.); horn crest short and compact, situated rather posteriorly; rugules of crest margins contiguous to fused.
- 60 (61) Large species (body length 2.7–3.7 mm); body generally dark coloured and nearly opaque (Fig. 195); pronotum narrower, moderately convex laterally; pronotal horn longer and more slender (Fig. 151), rugules of crest margins mostly partly fused and

- forming semioval rim, interrupted anteriorly (see Variation); male characters as in Figs 53, 54. ***M. grandior* sp. nov.**
- 61 (60) Mostly smaller species (body length 2.1–2.9 mm; except *M. bullatus* sp. nov.); body generally paler coloured (pale reddish to reddish brown) and somewhat glossy; pronotum globose to moderately transverse, strongly convex laterally; pronotal horn short and wide, rather triangular, with distinct posterior angles (Figs 147, 148, 162, 163); rugules of crest margins either separate or forming semicircular rim (complete, never interrupted anteriorly).
- 62 (63) Rugules of crest margins contiguous to nearly fused, but never forming evenly shaped rim (Figs 162, 163); elytra lacking scattered tactile setae; male characters as in Figs 88–97. ***M. phanophilus* Lea, 1922**
- 63 (62) Rugules of crest margins fused and forming evenly shaped semicircular rim (Figs 147, 148); elytra with scattered tactile setae.
- 64 (65) Larger, more robust species (body length 2.7–3.7 mm); scaly setation of pronotal disc double, with longer subdecumbent and shorter appressed scales; scales of elytra somewhat shorter and wider (Fig. 172); elytra in females with apical margin rounded to straight, apical angle rather rounded; male characters as in Figs 33, 34. ***M. bullatus* sp. nov.**
- 65 (64) Smaller species (body length 2.2–2.6 mm); scaly setation of pronotal disc simple, uniformly short and appressed; scales of elytra somewhat longer and narrower (Fig. 176); elytra in females with apical margin slightly concave and median apical angle thus more prominent; male characters as in Figs 58, 59. ... ***M. hirtipennis* sp. nov.**
- 66 (43) Dorsal surface of pronotal horn rather densely, conspicuously setose.
- 67 (74) Dorsal setation of pronotal horn hairy, distinctly finer than scales of pronotal disc (Figs 143, 150, 161, 164).
- 68 (69) Pronotal horn with single large, evenly shaped, longitudinal median rugule (Fig. 161); scales of elytra whitish and brownish, mixed (Fig. 180) and forming mostly distinct darker transverse bands /spots (Fig. 205); male characters as in Figs 86, 87. ***M. parvulus* sp. nov.**
- 69 (68) Pronotal horn with numerous median rugules, separate or largely fused and forming irregular sculpture; scales of elytra mostly paler coloured (pale reddish), setose dark markings different or indistinct.
- 70 (71) Dark markings of elytra as in Fig. 194 (see Variation); metatarsi distinctly longer than metatibiae; male characters as in Figs 51, 52. ***M. festivus* sp. nov.**
- 71 (70) Dark markings of elytra as in Fig. 187 (if well-developed); metatarsi at most slightly longer than metatibiae.
- 72 (73) Pronotum narrower, unevenly rounded laterally in dorsal view; pronotal horn more elongate (Fig. 143); scales of elytra rather linear and subdecumbent (Fig. 168); male sternum VII distinctly modified, subtruncate and moderately angled postero-laterally (Fig. 10); male characters as in Figs 11, 12. ***M. amabilis* Lea, 1895**
- 73 (72) Pronotum wider, rather evenly rounded laterally in dorsal view; pronotal horn shorter and wider (Fig. 164); scales of elytra shorter and wider, drop-shaped, and appressed; male sternum VII simple; male characters as in Figs 98–101. ***M. pilicornis* sp. nov.**

- 74 (67) Dorsal setation of pronotal horn scaly, similar to that on pronotal disc (Fig. 142; somewhat finer only in *M. canthariphilus* sp. nov.).
- 75 (76) Elytral and pronotal scales at dark coloured places cupreous shiny; dorsal surface of pronotal horn rather scantily and finely setose in apical half, scales distinct only latero-basally, rather narrow to linear; male sternum VII with smooth, sharply bordered, subapical facet (Fig. 35); male tergum VIII and aedeagus as in Figs 36, 37. *M. canthariphilus* sp. nov.
- 76 (75) Elytra and pronotal disc usually with brownish setose markings, but scales never cupreous; dorsal surface of pronotal horn largely distinctly setose, setae forming distinctly widened scales; male sternum VII simple, at most somewhat sparsely setose subapically (except *M. iuvenis* sp. nov.).
- 77 (78) Male sternum VII with small bordered median impression near base (Fig. 64); posterior setation of male tergum VIII rather hairy (setae pointed apically), long and raised (Fig. 65); aedeagus as in Fig. 66. *M. iuvenis* sp. nov.
- 78 (77) Male sternum VII simple, lacking bordered impression; posterior setation of male tergum VIII rather scaly (setae coarser, blunt apically), short and less raised (Figs 7, 49, 116).
- 79 (80) Parameres of aedeagus moderately wide, subparallel and moderately curved in apical third, rather abruptly narrowed and slightly produced apically (Fig. 50). *M. fallax* sp. nov.
- 80 (79) Parameres of aedeagus narrower and strongly curved in apical third (Fig. 9), with simply rounded apex.
- 81(82) Crest of pronotal horn usually wider (Fig. 142); parameres of aedeagus unevenly narrowing, with distinct preapical denticle / angulation on outer margin (Fig. 8). ... *M. albellus* Pascoe, 1866
- 82(81) Crest of pronotal horn usually narrower; parameres of aedeagus evenly narrowing, simple subapically (Fig. 117). *M. ziczac* King, 1869

Species treatments

Mecynotarsus albellus Pascoe, 1866

(Figs 7–9, 124, 142)

Mecynotarsus albellus Pascoe, 1866: xvi.

Mecynotarsus albellus: PIC (1911): 13 (catalogue); LEA (1922): 473, 510 (catalogue, remarks on characters); UHMANN (2000): 146 (record); UHMANN (2007): 23 (redescription, records).

Type locality. Western Australia, Fremantle.

Type material. SYNTYPE (Fig. 124): ‘*Mecynotarsus albellus* Type? Pasc [h] // Fremantle [h; green, rounded label] // Type [p; round label, red margin]’ (BMNH).

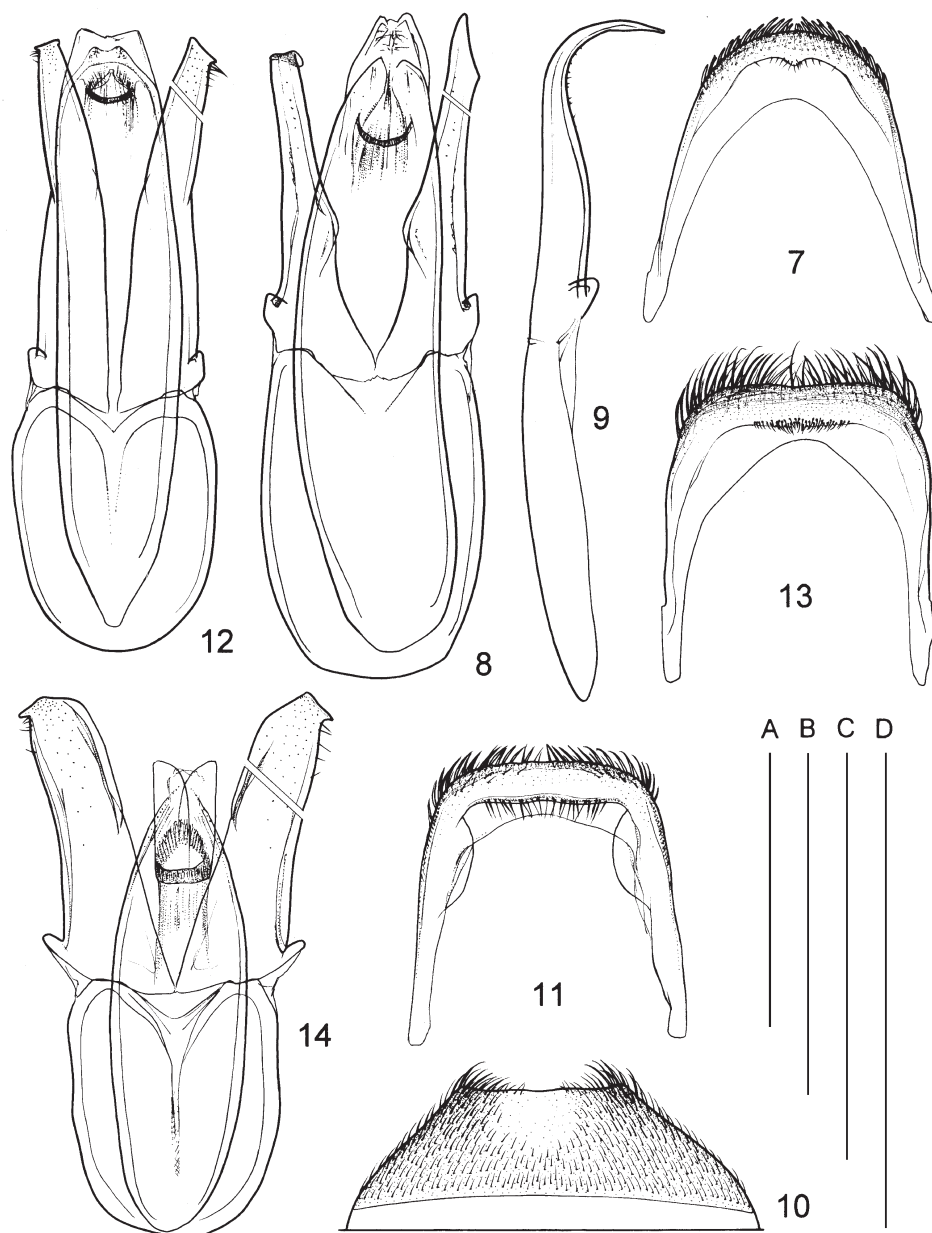
Additional material. AUSTRALIA: NEW SOUTH WALES: 3 ♂♂ 2 ♀♀, Sydney [no date and collector; E. W. Fergusson Collection] (ANIC); 1 ♂ 3 ♀♀, Jerry’s Plains, Upper Hunter River, 32°03’03”S, 150°56’22”E, riparian open pasture, pit trap, 23.xi.–9.xii.2004, J. Gollan leg. (AMSA); 1 ♂ 3 ♀♀, Cliffords Quarry at Aberdeen, Upper Hunter River, 32°08’08”S, 150°55’36”E, riparian open pasture, pit trap, 23.xi.–9.xii.2004, J. Gollan leg. (AMSA); 2 ♀♀, Metulla at Bureen, Upper Hunter River, 32°02’06”S, 150°44’09”E, young riparian revegetation, pit trap, 23.xi.–9.xii.2004, J. Gollan leg. (AMSA); 1 ♀, Elmswood at Gundy, Pages River, 31°05’01”S, 151°00’45”E, young riparian vegetation, pit trap, 23.xi.–9.xii.2004, J. Gollan leg. (AMSA); 1 ♀, Kinchega National Park, pitfall trap, i.1986, K. Henle leg.

(ANIC); 1 ♂ 3 ♀♀, Kinchega NP, 32°30'S 142°20'E, i.1987, K. Henle leg. (ANIC); 1 spec., Sydney [no date, E. W. Fergusson Collection] (ANIC); 1 ♂ 4 ♀♀, Menindee Lake, 32°21'S 142°20'E, beach sand/debris, 21.xii.1970, Britton, Misko & Pullen leg. (ANIC); 4 ♂♂ 2 ♀♀, Round Hill, near Lake Cargillego, at light, 11.–12.i.1981, Hangay & Vojnits leg. (HNHM); 2 ♂♂, Sand Hills env., 112 km S of Broken Hill, 7.x.1966, J. B. Williams leg. (QMBA). **SOUTH AUSTRALIA:** 3 ♂♂ 5 ♀♀, Adelaide [no date and collector, 'amabilis' identification label by Lea] (SAMA); 2 ♀♀, Adelaide [no date], A. H. Elston leg. (AMSA); 1 ♂, Adelaide, at light, xi.1956, C. Watts leg. ['amabilis' identification label by Lea] (SAMA); 2 ♂♂ 2 ♀♀, Adelaide, at beach, xii.1958, C. Watts leg. (SAMA); 1 ♂, Murray River [no date], A. H. Elston leg. (AMSA); 1 ♂, Eyre Peninsula, Hambidge National Park, 33°30'S 135°54'E, at light, 16.xii.1970, Britton, Misko & Pullen leg. (ANIC); 4 ♂♂ 2 ♀♀, Gluepot Reserve, 8.5 km W–WNW of Gluepot Homestead, 33°44'49'S 140°01'56'E, open old growth mallee with mixed shrub understorey, pitfall trap, 25.–28.xi.2000 (SAMA); 7 ♂♂ 22 ♀♀, Marion Bay, Yorke Peninsula, 5.xi.1981, E. Matthews leg. (SAMA); 12 ♂♂ 10 ♀♀, Eyre Peninsula, Lake Gilles National Park, at light, 13.xi.1975, J. A. Herridge leg. (SAMA); 1 ♂ 1 ♀, Hambidge Mallee, 60 km S of Kimba, 19.xii.1972, Spieth leg. (ZSMC); 1 ♂, Ngarkat Conservation Park, 35°54'28"S, 140°44'59"E, pitfall trap, 20.xi.–7.xii.2004, J. S. White leg. (SAMA); 1 ♂, Ngarkat CP, Pinnaroo–Bordertown Road, 35°41'16"S, 140°47'58"E, pitfall trap, 30.iii.2001, D. Hirst & A. McArthur leg. (SAMA); 2 ♂♂ 2 ♀♀, 13 km E of Marion Bay, Yorke Peninsula, 4–7.xi.1981, E. Matthews, H. & A. Howden leg. (SAMA); 1 ♂, Devon Downs [no date, SAMA expedition] (SAMA); 1 ♂, Redcliff Homestead, 33°42'37"S, 139°32'43"E, x.1992, C. H. Watts leg. (SAMA). **VICTORIA:** 7 ♂♂ 9 ♀♀, Robinvale, 34°35'S 132°46'E, at night, 25.x.–3.xi.1988, T. Weir, J. Lawrence & M. Hansen leg. (ANIC); 21 ♂♂ 7 ♀♀, 7.3 km SW of Wemen, 34°50'S 142°34'E, at night mallee, 25.x.–3.xi.1988, T. Weir, J. Lawrence & M. Hansen leg. (ANIC); 1 ♂, Wyperfeld National Park, Frew's Plain, 35°37'S 142°01'E, at night, 15.–17.xi.1973, S. Misko leg. (ANIC); 9 ♂♂ 1 ♀, Wyperfeld National Park, Lowan Track, 35°35'S 142°05'E, light trap, 16.xi.1973, S. Misko leg. (ANIC); 3 ♂♂ 12 ♀♀, Lake Hattah, 34°44'S 142°21'E, 28.vii.1967, G. W. Anderson leg. (ANIC); 3 ♂♂ 4 ♀♀, same data, except 9.–15.iii.1969 (ANIC); 1 ♂ 4 ♀♀, same data, except 9.xii.1969 (ANIC); 2 ♂♂ 3 ♀♀, same data, except 30.x.1964 (ANIC); 3 ♂♂ 6 ♀♀, Lake Hattah National Park, 25.x.1967, Britton & Misko leg. (ANIC); 1 ♂ 1 ♀, Kulkyne Forest, near Hattah Lakes, at light, 11.x.1966, G. W. Andersson leg. (ANIC); 2 ♂♂, Lake Burrumbeet [no date and collector] (BMNH). **WESTERN AUSTRALIA:** 1 ♂, 'Fremantle // F. Bates 81-19 // albellus det. v. Krekich' (BMNH); 1 ♂, 'Fremantle 91–49. // 1773 // albellus det. v. Krekich' (BMNH); 1 ♂ 1 ♀, Fremantle, J. J. Walker leg. [no date] (BMNH); 2 ♀♀, Swan River [no date], J. Clark leg. (AMSA); 3 ♀♀, Cottesloe Beach, 23.vii.1908, G. E. Bryant [leg.] (BMNH); 1 ♂ 2 ♀♀, Cottesloe [no date], H. M. Giles leg. (AMSA); 2 ♂♂ 1 ♀, Desperation Bay, N of Leeman, 16.vii.1983, H. & A. Howden leg. (ANIC); 1 ♀, Delisser Sandhills, 31°43'S 128°53'E, 24.ix.1981, A. A. Calder leg. (ANIC).

Redescription (male, Fremantle, ZKDC). Body length 2.1 mm. Body, legs, and antennae dark reddish.

Antero-lateral margins of frons simple. Gular rugules minute and scattered. Clypeal granules indistinct. Setation of head rather evenly short and appressed, dense, finer on vertex, somewhat coarser to scaly laterally near eyes and ventrally. Antennae moderately long; antennomeres III–V about 1.6 times, X 1.1 times as long as wide; setation mostly rather short and fine, inconspicuous, distinctly coarser on basal 1–2 antennomeres.

Pronotum 1.5 times as long as wide, its lateral margins unevenly shaped, moderately convex anteriorly, somewhat angled at widest point and then straight to slightly concave while narrowing towards base in dorsal view; posterior collar narrow but distinct, somewhat concealed by scaly setation. Pronotal horn robust, rather short, moderately wide, its posterior angles obsolete in dorsal view (Fig. 142); horn margins armed with 5 rounded lobules on each side; horn crest distinct, clearly raised, long and rather wide, with coarse, separate rugules on margins; submarginal rugules minute, widely spaced laterally; about 15 median rugules unevenly scattered and well-spaced. Setation whitish, largely appressed and scaly, including most of dorsal surface of pronotal horn; erect tactile setae absent; scales on pronotal disc of two sizes, smaller and narrower or larger and wider, truncate to obtusely rounded apically; antebasal paired setae short but distinct (somewhat thickened) laterally and absent medially.



Figs 7–14. 7–9 – *Mecynotarsus albellus* Pascoe, 1866: 7 – tergum VIII, 8 – aedeagus in dorsal view, 9 – tegmen in lateral view. 10–12 – *M. amabilis* Lea, 1895: 10 – sternum VII, 11 – tergum VIII, 12 – aedeagus in dorsal view. 13–14 – *M. apicipennis* Lea, 1895: 13 – tergum VIII, 14 – aedeagus in dorsal view. Scale (0.5 mm): A – Fig. 13; B – Figs 7, 10, 14; C – Fig. 11; D – Figs 8, 9, 12.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish, evenly developed / ordered; scales distinctly elongate, rounded to subtruncate apically, very densely spaced but distinct; erect tactile setae absent.

Male characters. Sternum VII slightly produced and rounded medially. Tergum VIII and aedeagus as in Figs 7–9; parameres unevenly narrowing and strongly curved in apical half, with small subapical denticle on lateral margin.

Variation. Body length (♂♀) 2.5–3.4 mm. Body scales typically whitish (Western Australia), the specimens from eastern localities with more or less distinct / extensive brownish markings on elytra, similarly as in Fig. 209.

Differential diagnosis. *Mecynotarsus albellus* is nearly identical to and difficult to distinguish from *M. ziczac*, having a very similar form of the aedeagus. Its horn crest is mostly somewhat wider and the median rugules more numerous (forming three uneven rows) than in the latter species, however this rather slight difference is useful at most for tentative sorting. The only reliable character to separate these two species seems to be the presence or absence of small subapical angulation / denticle on outer margin of the parameres (cf. Fig. 8 *versus* 117).

Distribution. Australia: New South Wales, South Australia, Victoria, Western Australia (PASCOE 1866, CHAMPION 1895, UHMANN 2007).

The records from Tasmania, Northern Territory (Alice Springs) and Queensland (Hughenden) by UHMANN (2000, 2007) were re-identified as *M. leai* Pic, 1942, *M. bidens* sp. nov., *M. granulatus* sp. nov. and *M. obesus* sp. nov.; the respective specimens are listed under these species).

Mecynotarsus amabilis Lea, 1895

(Figs 10–12, 122, 143, 168, 187)

Mecynotarsus amabilis Lea, 1895: 608.

Mecynotarsus amabilis: PIC (1911): 13 (catalogue); LEA (1922): 473 (catalogue, record); UHMANN (2000): 146 (records); UHMANN (2007): 22 (redescription, record).

Type locality. New South Wales, Windsor, Hawkesbury River.

Type material. LECTOTYPE (hereby designated, Fig. 122): ♂, 'amabilis Lea TYPES Windsor [h] // 19017 Mecynotarsus amabilis Lea N. S. Wales TYPE [h] // SAMA Database No. 25-028554 [p]' (SAMA). PARALECTOTYPES: 2 ♀♀, same data as holotype [mounted on the same card, see Remarks]' (SAMA).

Additional material: AUSTRALIA: NEW SOUTH WALES: 1 ♂ 1 ♀, Bungonia State Park, Shoalhaven River Gorge, 5.–7.x.1985, C. Reid leg. (ANIC); 2 ♀♀, 15 km NW of Moruya, Moruya River, 3.x.1982, J. & E. Doyen leg. (ANIC); QUEENSLAND: 1 ♂ 1 ♀, Helidon, 1890, C. J. Wild leg. (QMBA).

Redescription (male, Shoalhaven River Gorge, ANIC). Body, legs and antennae reddish brown.

Antero-lateral margins of frons simple. Gular rugules rather distinct, anteriorly larger and ordered in row as in Fig. 138. Setation of head rather evenly short and appressed, very dense and finer on vertex, coarser near ventral margins of eyes, with some inconspicuous, longer, erect setae dorsally at base. Antennae moderately long; antennomeres III–V about twice, X 1.4 times as long as wide; setation mostly rather short and fine, inconspicuous, distinctly coarser on basal 1–2 antennomeres.

Pronotum 1.6 times as long as wide, its lateral margins unevenly shaped, slightly convex anteriorly, somewhat angled at widest point, and then nearly straight in narrowing towards

base in dorsal view; posterior collar narrow but distinct, somewhat concealed by scaly setation. Pronotal horn rather robust, moderately long and wide, its posterior angles obsolete in dorsal view (Fig. 143); horn margins armed with 5 rounded lobules on each side; horn crest distinct, long and rather wide, with coarse rugules on margins, evenly lowering towards apex; submarginal rugules minute, rather ordered in long, dense row laterally; 12 distinct median rugules of different sizes, some of them contiguous to fused, and several minute granules posteriorly. Setation whitish laterally, goldish to cupreous shiny dorsally, largely appressed to subdecumbent and scaly, finer on pronotal horn dorsally, but even here dense and rather distinct; scales on pronotal disc of two sizes, all elongate and distinctly truncate apically, those longer more raised (subdecumbent); antebasal paired setae long and distinct laterally and absent medially, additional tactile setae absent.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation scaly, multi-coloured, whitish, brown, cupreous and goldish, somewhat shiny, forming dark markings (Fig. 168), evenly developed / ordered; scales linear, bluntly rounded to truncate apically, very densely spaced but distinct; erect tactile setae absent.

Male characters (lectotype). Sternum VII subtruncate and moderately angled postero-laterally (Fig. 10), its surface shallowly impressed medially. Tergum VIII and aedeagus as in Figs 11, 12.

Variation. Body length (♂♀) 2.7–3.0 mm. Horn margin with 5–6 lobules on each side, 6–12 median rugules.

Differential diagnosis. *Mecynotarsus amabilis* is undoubtedly close to *M. albellus*, *M. ziczac*, and other externally similar species that have a narrower pronotum (unevenly shaped laterally in dorsal view), a distinctly setose dorsal surface of the pronotal horn, and the colour pattern of elytra as in Figs 187, 209 (if well-developed). It may resemble especially *M. canthariphilus* sp. nov. by the partly goldish to cupreous shiny colouration of the scales and the finer setation of the pronotal horn, however, it differs clearly by the male characters (cf. Figs 10–11 *versus* 35–37).

Distribution. Australia: New South Wales (LEA 1895; UHMANN 2007), Queensland (LEA 1922).

The records from New South Wales and Queensland by UHMANN (2000) are based on misidentified specimens of *M. phanophilus* Lea, 1922, *M. setulosus* sp. nov., and *M. ziczac* King, 1869. The record from Queensland (Gayndah) by LEA (1922) needs verification as the type series of *M. amabilis* contains two different species (see below), and some identifications of *M. amabilis* by Lea were found to be erroneous (see the material of *M. albellus* and *M. ziczac*).

Remarks. LEA (1895) described *Mecynotarsus amabilis* from three specimens collected from flood debris along the Hawkesbury river near Windsor. The syntypes examined are mounted on the same card. Two of them are seriously damaged, both lacking heads and pronota. The third one (female) is in perfect condition, however it belongs to a different species (probably *M. kingii* MacLeay, 1872, judging from rather shortly oval elytral scales). For this reason, a lectotype is designated for the male syntype mounted near handwritten 'TY', and redescription of external characters is based on a male specimen from Shoalhaven River Gorge, that is quite identical with the lectotype in male characters.

***Mecynotarsus apicipennis* Lea, 1895**

(Figs 13, 14, 127, 144, 169, 188)

Mecynotarsus apicipennis Lea, 1895: 607.*Mecynotarsus apicipennis*: Pic (1911): 13 (catalogue); LEA (1922): 473 (catalogue).**Type locality.** Australia, New South Wales, Tamworth, Peel River.**Type material.** SYNTYPES: 1 ♂ 2 ♀♀ [mounted on single card], 'apicipennis Lea TYPES Tamworth [h] // 19016 *Mecynotarsus apicipennis* Lea N. S. Wales. TYPE [h] // S.A. Museum Specimen [p; red label]' (SAMA).**Additional material. AUSTRALIA: NEW SOUTH WALES:** 1 ♀, Mount Kaputar, Bullawa Creek, 29.xi.1984, G. Hangay leg. ['*Notoxus decemdentatus*' identification label by Uhmman] (HNHM).**Redescription** (male, syntype). Body length 3.8 mm. Dark brown to brown black; elytra with pale reddish apical spot.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly ordered and fused as in Fig. 139. Clypeal granules minute. Setation of head rather evenly short and appressed, dense and finer on vertex, slightly coarser around eyes. Antennae moderately long; antennomeres III–V about twice, X 1.4 times as long as wide; setation mostly rather short and fine, inconspicuous, somewhat coarser and longer on basal antennomere.

Pronotum 1.7 times as long as wide, its lateral margins evenly moderately convex in dorsal view; posterior collar quite distinct; pronotal base with two pairs of distinct median granules on each side of deep transverse antebasal sulcus, and with minute granules scattered dorso-laterally and on posterior collar. Pronotal horn rather robust, moderately wide, its posterior angles obsolete in dorsal view (Fig. 144); horn margins armed with 5 rounded lobules on each side; horn crest distinct, clearly raised, narrow, with coarse, separate rugules on margins; submarginal rugules quite distinct, ordered in sparse row laterally; coarse median rugules fused and forming longitudinal sculpture. Setation rather heterogeneous, mostly whitish and scaly (especially laterally), dorsally in addition with brownish to cupreous shiny, longer, nearly hair-like setae (or linear scales); scales on pronotal disc appressed, elongate and truncate apically, longer hair-like setae subdecumbent, somewhat flattened and rather rounded apically; dorsal setation of pronotal horn comparatively fine (not scaly) and more raised, with some long stiff setae posteriorly along its crest; antebasal paired setae present and rather short, another tactile setae absent.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation very similar to that on pronotal disc, mostly mixed whitish and brownish to cupreous shiny, forming rather vague brownish markings, and whitish on apical spot (Fig. 188), comprised of smaller, appressed scales and longer, subdecumbent setae, evenly developed / ordered, somewhat sparse (coarsely punctured surface visible, Fig. 169); erect tactile setae absent.

Male characters. Sternum VII slightly produced medially. Tergum VIII and aedeagus as in Figs 13, 14.

Variation. Body length (♂♀) 3.7–4.0 mm. The apical pale reddish colouration of elytra may be strongly reduced to a pair of inconspicuous, rounded subapical spots.

Differential diagnosis. *Mecynotarsus apicipennis* is conspicuous by its larger size, and mainly by the sparser and clearly double setation of the elytra, which is comprised of smaller

whitish scales and much more elongate, somewhat more raised, apically rounded to truncate, cupreous shiny setae.

Distribution. Australia: New South Wales (LEA 1895, UHMANN 2007).

***Mecynotarsus armifer* sp. nov.**

(Figs 22–25)

Type locality. Australia, 70 km SW of Greenvale.

Type material. HOLOTYPE: ♂, 'QLD. 70 km SW GREENVALE. 15-24 FEB 95 A. J. WATTS [p] // SAMA Database No. 25-029040 [p]' (SAMA). PARATYPES: 1 ♂, 'Qld. Greenvale 70 km SW at light. 14-24 Mar 1995 A. J. Watts [p] // SAMA Database No. 25-028961 [p]' (SAMA); 1 ♂, 'Qld. Greenvale 70 km SW At light 1-10 Mar. 95 A. J. Watts [p] // SAMA Database No. 25-028948 [p]' (SAMA); 1 ♀, 'Qld Greenvale 70 km SW at light. 12-21 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028956 [p]' (SAMA); 1 ♀, 'Qld Greenvale 70 km SW at light 1-13 Jan. 96 A. J. Watts [p] // SAMA Database No. 25-029045 [p]' (SAMA); 1 ♀, 'N Queensland 17.1.2000 Laura Sv. Bilý leg.' (NMPC); 1 ♀, 'AUSTRALIA NT., 25 km S of Katherine, 168 m, 14°31'S, 132°25'E, 16.-17.1.2009, Sv. Bilý leg.' (NMPC); 2 ♀♀, '17.25S 124.56E WA Lennard River 29 April 1992 P. J. Gullan at light [p] // AUST. NAT. INS. COLL. [p]' (ANIC); 1 ♀, 'Bessie Springs 16.40S 135.51E 8 km ESE of Cape Crawford, NT. 26 Oct. 1975 M. S. Upton [p] // AUST. NAT. INS. COLL. [p]' (ANIC); 1 ♂ 3 ♀♀, 'AUSTRALIA, N. Territory, West MacDonnell Nat. Park, SIMPSON GAP, 23°40'S 133°43'E, 600 m, 3.-5.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 2 ♂♂ 1 ♀, same data, except: 11.01.2009 (ZKDC).

Description (holotype, male). Body length 2.8 mm. Reddish, elytra slightly paler; legs and antennae reddish.

Antero-lateral margins of frons projecting into conspicuous, thorn-like, apically pointed process (Fig. 23). Gular rugules of different sizes, anteriorly larger, contiguous and ordered as in Fig. 138. Clypeal granules minute. Setation of head vertex mostly short and appressed, with some long setae in median line, especially at base, somewhat coarser around eyes and ventro-laterally. Antennae conspicuously long; antennomeres V–VII most elongate, 2.8 times as long as wide, antennomere II slightly shorter than III, antennomere X 1.4 times as long as wide; basal five antennomeres with rather coarse, nearly scaly setation.

Pronotum 1.7 times as long as wide, its lateral margins evenly convex in dorsal view; posterior collar very distinct; surface largely with numerous, evenly scattered, pointed granules (dorsally) to larger hook-like projections (dorso-laterally). Pronotal horn rather robust, moderately wide, its posterior angles moderately indicated in dorsal view; horn margins armed with 4 rounded lobules on each side, apical lobule simple, widely rounded; horn crest distinct, raised, rather short and narrow, with coarse, separate rugules on margins; submarginal rugules distinct; 5 median rugules, partly fused. Setation whitish to silvery, clearly double, comprised of short, very fine, appressed undersetae that cover the entire surface, and much longer, subdecumbent, coarse to scale-like setae that are rather linear and are truncate apically; antebasal paired setae are probably present both laterally and medially, difficult to recognize owing to presence of numerous more or less raised tactile setae (mainly on lateral sides).

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation pale reddish and brownish, forming paired, transverse spot behind mid-length, scaly, appressed and evenly ordered; scales rather linear, truncate apically, densely but distinctly spaced (surface visible); several erect tactile setae scattered in basal portion.

Male characters. Sternum VII moderately produced medially, rather sparsely setose (Fig. 22). Tergum VIII and aedeagus as in Figs 24, 25.

Variation. Body length (σ^7) 2.5–2.8 mm. Horn margins with 3–4 lobules on each side; 2–5 median rugules.

Differential diagnosis. *Mecynotarsus armifer* sp. nov. can be easily recognized by the combination of the granulate pronotum (granules quite distinct, forming small hook-like projections dorso-laterally), and the presence of conspicuous, thorn-like projections of the frontal margins.

Etymology. The species name is a Latin adjective, *armifer*, -a, -um (= bearing arms, armed); referring to the conspicuous, thorn-like projections of the frontal margin.

Distribution. Australia: Northern Territory, Queensland, Western Australia.

Mecynotarsus auceps sp. nov.

(Figs 15–18, 189)

Type locality. Australia, Victoria, 5.6 km S of Kiata, Lowan Sanctuary.

Type material. HOLOTYPE: σ^7 [apical antennomeres and apical lobule of pronotal horn abrupt], ‘in malleefowl nest debris, Lowan Sanct 3½ mi S. Kiata VICT. 17 Dec 1964, D. Lee [h] / SAMA Database No. 25-028917 [p]’ (SAMA). PARATYPES: 1 σ^7 [apical antennomeres abrupt], same data as holotype (SAMA).

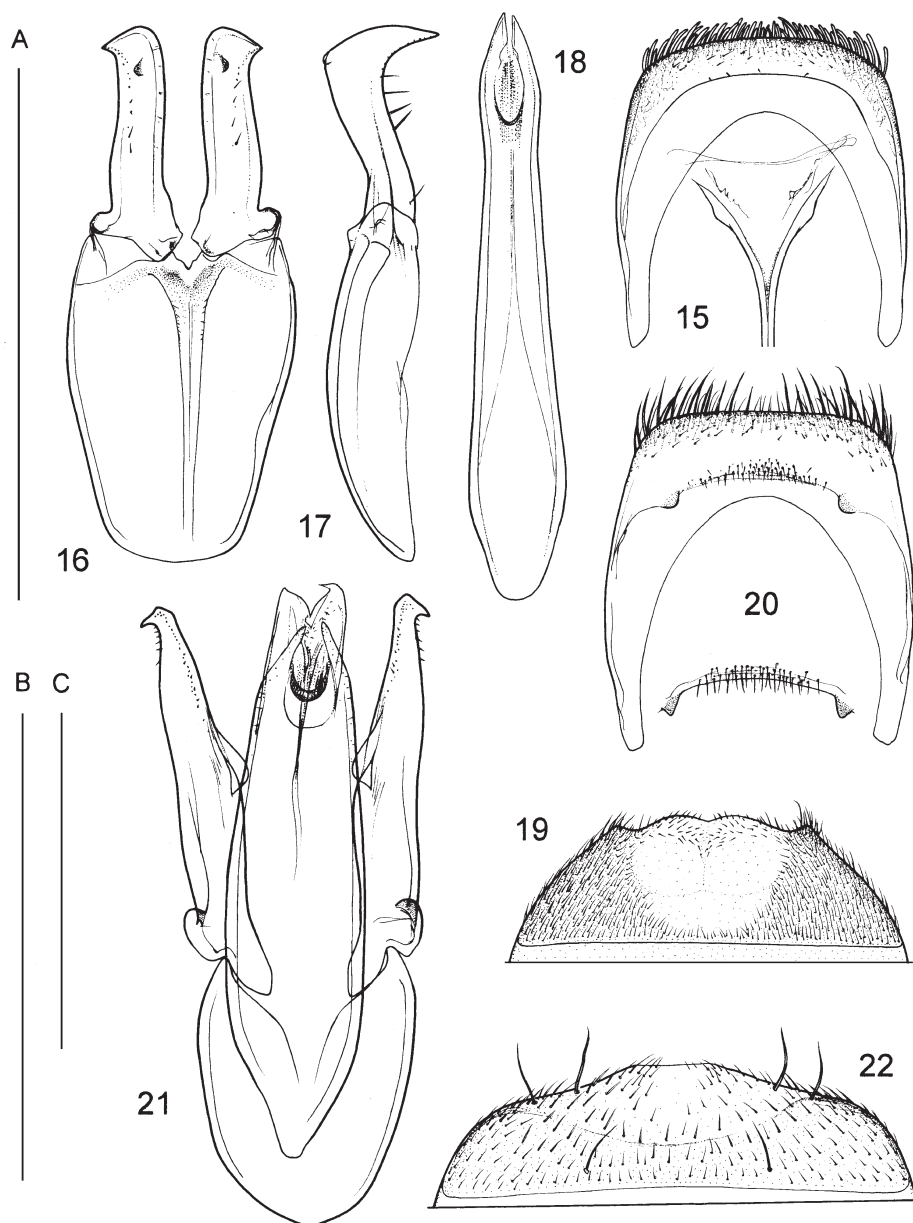
Description (holotype, male). Body-length 2.1 mm. Body brown black to black; legs and antennae somewhat paler, reddish brown.

Antero-lateral margins of frons simple. Gular rugules minute, mostly scattered and somewhat concealed by scaly setation. Setation of head scaly and quite appressed, especially around eyes and ventro-laterally, with some finer setae dorsally near base. Antennae rather short; antennomeres III–V 1.2–1.6 times as long as wide, antennomere IX moderately transverse; setation whitish to greyish, mostly scaly, distinctly finer only on apical three antennomeres.

Pronotum rather globose, 1.4 times as long as wide, its lateral margins strongly and evenly convex in dorsal view; posterior collar narrow but quite distinct. Pronotal horn moderately wide, its posterior angles at most moderately indicated in dorsal view (Fig. 189); horn margins armed with 4 narrow lobules on each side (for apical lobule see Variation); horn crest distinct, moderately raised, with widely spaced smaller rugules on margins; submarginal rugules inconspicuous, concealed by setation; single longitudinal median rugule. Setation greyish laterally, mixed greyish and brownish dorsally, scaly, covering even dorsal side of pronotal horn; scales on pronotal disc pentagonal, uniformly large, quite appressed and contiguous, entirely covering surface; both lateral and median antebasal setae present, rather short and thick, blunt apically, another tactile setae absent.

Elytra 1.5 times as long as wide; omoplates and postbasal impression absent. Setation grey, brown and brown black, mixed dorsally, mostly paler laterally and forming rather conspicuous brown black markings in posterior half (Fig. 189), scaly, appressed and evenly ordered; scales similar to those on pronotum but rather rounded and elongate, entirely covering surface; erect tactile setae absent.

Male characters. Sternum VII simple. Tergum VIII and aedeagus as in Figs 15–18.



Figs 15–22. 15–18 – *Mecynotarsus auceps* sp. nov.: 15 – tergum VIII and apex of spiculum, 16 – tegmen in dorsal view, 17 – the same, lateral view, 18 – median lobe in dorsal view. 19–21 – *M. auripilosus* sp. nov.: 19 – sternum VII, 20 – tergum VIII, 21 – aedeagus in dorsal view. 22 – *M. armifer* sp. nov., sternum VII. Scale (0.5 mm): A – Figs 15–18; B – Figs 20–22, 25; C – Fig. 19.

Variation. Body length (♂♀) 1.8–2.1 mm. The apical lobule of the pronotal horn in the paratype simple, widely rounded.

Differential diagnosis. *Mecynotarsus auceps* sp. nov. is conspicuous by its small size, extremely scaly setation (rounded scales entirely covering most of body surface, including dorsal side of pronotal horn, most antennomeres, tarsomeres, and ventral surface of the head), small eyes, and relatively short and wide pronotal horn. Moreover, it differs from all species by morphology of the aedeagus (form of parameres).

Etymology. From the Latin, *auceps* (bird-catcher); named in reference to the collecting circumstances. Noun in apposition.

Collection circumstances. Both type specimens were found in the litter forming the nest-mounds of Malleefowl (*Leiopa ocellata*) (Galliformes: Megapodiidae).

Distribution. Australia: Victoria.

***Mecynotarsus auripilosus* sp. nov.**

(Figs 19–21, 138, 145, 170, 190)

Type locality. Australia, Australian Capital Territory, Uriarra Crossing.

Type material. HOLOTYPE: ♂, 'Uriarra Crossing ACT. 30 Dec. 1985 K. R. Pullen [h] // KIM PULLEN COLLECTION [p; orange label] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 1 ♂ 4 ♀♀, same data as holotype (ANIC); 1 ♀, '37.41S 145.29E VIC Yarra Riv. 4.5 km SW Healesville, 80m 825, 6 Feb. 1987 A. Newton & M. Thayer [p] // rdy scler. Along river FMHD #87-259 UV light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, 'Cann River VIC 20-25 May 1978 S. & J. Peck [p] // flood debris [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 13 ♀♀, 'AUSTRALIA: ACT Kambah Pool, Murrumbidgee Riv. X-30-1989 J&RBell [p]' (DCDC, 4 spec. ZKDC).

Description (holotype, male). Body length 3.0 mm. Body largely brown, at places (pronotal horn, frons, gula) reddish; elytra with yellowish apical spot; legs yellowish, antennae reddish.

Antero-lateral margins of frons simple. Gular rugules small, anteriorly ordered in dense row (Fig. 138). Clypeal granules minute. Setation of head vertex mostly short and fine, appressed, with numerous long suberect setae postero-medially, especially near base. Antennae rather long; antennomeres III–V nearly 2.2 times, X 1.4 times as long as wide; setation mostly rather short and fine, inconspicuous, somewhat coarser and longer on basal antennomere.

Pronotum 1.8 times as long as wide, its lateral margins somewhat unevenly shaped, slightly angled at widest point and straight in narrowing towards base in dorsal view; posterior collar quite distinct. Pronotal horn rather robust, moderately wide, its posterior angles obsolete in dorsal view (Fig. 145); horn margins armed with 5 subtruncate to rounded lobules on each side; horn crest distinct, clearly raised and narrow, with coarse, separate rugules on margins; submarginal rugules distinct and well-spaced; 13 median rugules of different sizes, minute to coarse, mostly rather densely spaced to contiguous. Setation whitish to silvery, comprising short and very fine (not scaly), appressed, surface entirely covering undersetae, and much longer, coarser subdecumbent setae; dorsal setation of pronotal horn largely inconspicuous, except numerous long, stiff raised setae present posteriorly along its crest; about 7 erect tactile setae present laterally on each side; antebasal paired setae present both laterally and medially.

Elytra nearly 1.8 times as long as wide; omoplates and postbasal impression absent. Setation silvery to goldish shiny and brownish, forming rather vague brownish markings and paler apical spot (Fig. 190), evenly developed / ordered, rather coarsely hairy, appressed and sparse (coarsely punctured surface visible, Fig. 170); erect tactile setae absent.

Male characters (Paratype). Sternum VII clearly modified (Fig. 19), its surface medially asetose and rather glossy. Tergum VIII and aedeagus as in Figs 20, 21.

Variation. Body length (♂♀) 2.6–3.0 mm; horn margins with 4–6 lobules on each side; 4–13 median rugules.

Differential diagnosis. *Mecynotarsus auripilosus* sp. nov. is conspicuous by its larger size, slender body form (pronotum narrower, its lateral margins unevenly shaped), and mainly by the mostly silvery to goldish shiny setation of elytra, which is rather long, coarsely hairy (setae pointed to finely bifurcate apically), appressed and quite uniform (not double). Moreover, it can be easily recognized by the male characters.

Etymology. Composed from the Latin words *aureus* (gold) and *pilosus*, *-a*, *-um* (setose); named in reference to the goldish setation of the elytra; adjective.

Distribution. Australia: Australian Capital Territory, Victoria.

Mecynotarsus bicornis sp. nov.

(Figs 26, 128)

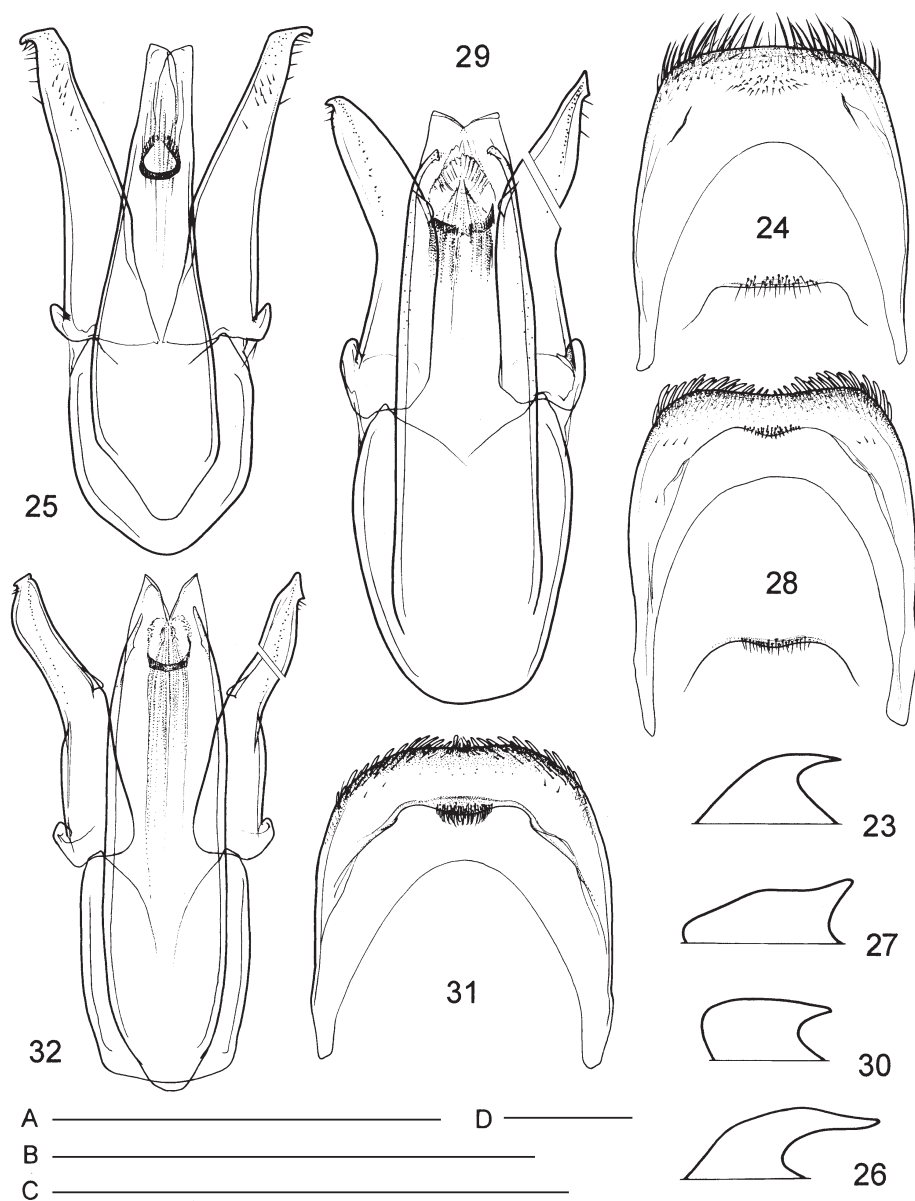
Type locality. Australia, Western Australia, 13 km EN of Newman, 23°15'S 119°52'E.

Type material. HOLOTYPE: ♀, '(23.15S 119.52E) 13 km. E. by N. of Newman, WA. 12.xi.70. E. B. Britton [p] // ANIC specimen [p; green label]' (ANIC).

Description (holotype, female). Body length 3.1 mm. Body reddish, elytra somewhat paler, unicolorous; legs and antennae reddish.

Antero-lateral margins of frons projecting into conspicuous, curved and apically pointed horn-like process (Figs 26, 128). Gular rugules of different sizes, anteriorly larger, ordered and partly fused. Clypeal granules indistinct. Setation of head vertex mostly short, fine and appressed, with some longer setae in median line, somewhat coarser, subdecumbent laterally along eyes. Antennae moderately long; antennomere I rather robust and wide apically, somewhat curved, antennomeres III–V about twice, X 1.2 times as long as wide; setation mostly fine, inconspicuous, somewhat longer and coarser basally, especially antennomere I near apex laterally with somewhat clustered, longer stiff setae.

Pronotum globose to moderately transverse, 1.3 times as long as wide, its lateral margins rather strongly, evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust and wide, subtriangular, its posterior angles distinct in dorsal view; horn margins armed with 4 lobules on each side; horn crest distinct, moderately wide, with coarse rugules on margins; submarginal rugules distinct, forming rather dense row laterally; median rugules of different sizes, anteriormost larger, fused and forming irregular sculpture, numerous minute granules posteriorly. Setation whitish to very slightly reddish, scaly and appressed, rather inconspicuous on pronotal horn dorsally; scales on pronotal disc of slightly different sizes, generally rather short and wide, widely rounded to subtruncate apically, very densely spaced, slightly glossy; antebasal paired setae present laterally and absent medially, some additional tactile setae present antero-laterally.



Figs 23–32. 23–25 – *Mecynotarsus armifer* sp. nov.: 23 – frontal process, 24 – tergum VIII, 25 – aedeagus in dorsal view. 26 – *M. bicornis* sp. nov., frontal process. 27–29 – *M. bidens* sp. nov.: 27 – frontal process, 28 – tergum VIII, 29 – aedeagus in dorsal view. 30–32 – *M. bidentatus* sp. nov.: 30 – frontal process, 31 – tergum VIII, 32 – aedeagus in dorsal view. Scale (0.5 mm): A – Figs 25, 28; B – Figs 29, 31, 25; C – Figs 23, 24, 26, 32; (0.1 mm): D – Figs 27, 30.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation scaly, appressed, uniform, pale reddish; scales very short, subtruncate apically, very densely spaced but distinct, slightly glossy; scattered tactile setae absent, but several longer, stiff setae present on humeri.

Male characters. Unknown.

Differential diagnosis. *Mecynotarsus bicornis* sp. nov. is very conspicuous in having the long, horn-like processes on the frontal margins. Similar processes are found only in *M. armifer* sp. nov., which is an otherwise quite dissimilar species, differing clearly in generally more slender appearance, pronotal horn morphology, body setation, by much longer antennae, by the presence of granules on the pronotal disc etc.

Etymology. The species name is a Latin adjective *bicornis*, *-is*, *-e*, composed of the words *bis* (twice) and *cornus* (horn); named in reference to the presence of the paired, horn-like processes on the frontal margins.

Distribution. Australia: Western Australia.

Mecynotarsus bidens sp. nov.

(Figs 27–29, 129, 146, 171)

Type locality. Australia, Northern Territory, Hull River, 33 km ESE of Docker River, 24°58'S 129°23'E.

Type material. HOLOTYPE: ♂, '24.58S 129.23E Hull River 33 km ESE of Docker River NT 17.xi.1977 T. A. Weir [p] // ANIC specimen [p; green label]' (ANIC). PARATYPES: 2 ♂♂ 2 ♀♀, same data as holotype (ANIC); 2 ♂♂ 1 ♀, 'Hull River 33 km ESE of Docker River NT 17 Nov. 1977 J. A. L. Watson [h] // ANIC specimen [p; green label]' (ANIC); 2 ♂♂, '24.20S 132.53E NT Finke River at Running Water 15 March 1995 T. Weir, at light [p] // ANIC specimen [p; green label]' (ANIC); 1 ♂ 8 ♀♀ '23.01S 134.29E Ongeva Creek 99 km NE of Alice Springs N. T. 13 Oct. 78 M. S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 2 spec. ZKDC); 2 ♂♂ 1 ♀, 'Australien Alice Springs, NT 3.10.1972 [p] // Mecynotarsus albells Pascoe det. G. Uhmman 2004 [p]' (ZSMC, ZKDC); 1 ♂, '23.44S 133.44E Temple Bar Gap 15 km W by S of Alice Springs N. T. 7 Nov. 1979 I. D. Naumann [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, 'AUSTRALIA, N. Territory West MacDonnell Range Nat. Park, SIMPSON GAP 23°40'S 133°43'E, 600 m, 11.01.2009, St. Jakl leg. [p]' (ZKDC); 1 ♀, '3 mi. NE. of Gosses Bluff NT. 10 Apr. 1969 23.48S 132.21E H. Pelz [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂ 1 ♀, 'AUSTRALIA, NT, Watarka Nat. Park, near Kathleen Springs, sand dunes, 24°18'S 131°34'E, 620 m, 6.-8.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 1 ♀, '55 mi. S. of Birdsville, Qld. 24.x.66 light trap J. G. Woods [p] // ANIC specimen [p; green label]' (ANIC); 1 ♂ 1 ♀, 'AUSTRALIA, Queensland, "Dig Tree", U.V. light trap, 22.XI.1998, leg. G. Hangay [p]' (HNHM); 1 ♂, 'Qld. Greenvale 70 Km SW at light 21-31 Oct. 95 A. J. Watts [p] // SAMA Database No. 25-029026 [p]' (SAMA); 1 ♀, 'QLD. 70 km SW GREENVALE. 15-24 FEB 95 A. J. WATTS [p] // SAMA Database No. 25-029018 [p]' (SAMA); 2 ♀♀, same data, except database number: 25-029041 or 25-029007 (SAMA); 1 ♂, 'S. Aust. At light. Levi Crk. 8 km NW Big Perry Spring 28°19.2' 136°16.1' 7 Dec. 1974. J. A. Herridge. [p] // SAMA Database No. 25-028875 [p]' (SAMA); 4 ♂♂ 5 ♀♀, same data, except database number: 25-028876, 25-028878 to 25-028885 (SAMA); 1 ♀, 'S. Aust. Margaret R 10 km SE Coward Springs. At light. 3 Dec. 1974. J. A. Herridge. [p] // SAMA Database No. 25-028886 [p]' (SAMA); 1 ♂, same data, but database number: 25-0258887 (SAMA); 1 ♀, '6 mi. S Copley, S. AUSTRALIA XI-29-1951 W. L. Brown Ck. bottom at lt. [p] // Mecynotarsus albells Pascoe det. DSChandler [p+h]' (DCDC); 1 ♂, 'Broken Hill N.S.W. R. J. Burton' (SAMA).

Description (holotype, male). Body length 3.4 mm. Body reddish, elytra unicolorous; legs and antennae reddish.

Antero-lateral margins of frons projecting as small, tooth-like, apically pointed processes (Figs 27, 129). Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules conspicuous, protruding and somewhat pointed (Fig. 129, marked by

arrow). Setation of head vertex comparatively long, mostly appressed to subdecumbent, with numerous very long setae in median line and basally, distinctly shorter and coarser, nearly scaly ventro-laterally along eyes. Antennae moderately long; antennomere I rather robust and wide apically, somewhat curved (asymmetrical), antennomeres III–V about twice, X 1.2 times as long as wide; setation mostly fine, inconspicuous, distinctly coarser in basal half, especially antennomere I very densely, coarsely setose, including several long bristly setae.

Pronotum globose to moderately transverse, 1.3 times as long as wide, its lateral margins rather strongly, evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust and wide, triangular, its posterior angles distinctly protruding in dorsal view (Fig. 146); horn margins armed with 4 wide lobules on each side, apical lobule widely rounded; horn crest distinct, moderately wide, with coarse rugules on margins; submarginal rugules distinct, rather unevenly spaced, at places contiguous to fused; median rugules mostly fused and forming conspicuous irregular sculpture, connected with rugules of crest margins, several minute, well spaced granules posteriorly. Setation pale reddish, scaly and quite appressed; scales on pronotal disc rather uniformly large, round and contiguous, entirely covering surface (possibly some smaller scales present), rather opaque; antebasal paired setae present laterally and absent medially, several tactile setae present antero-laterally.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation very similar to that on pronotal disc, scales pale reddish, appressed, extremely dense, uniform, entirely covering surface (Fig. 171); scattered tactile setae absent, but some longer, raised setae present on humeri (margins sloping towards base).

Male characters. Sternum VII with moderately produced, rounded apex. Tergum VII rather widely rounded and moderately emarginate posteriorly (Fig. 28). Aedeagus as in Fig. 29.

Variation. Body length (σ^7) 2.9–3.4 mm; fused median rugules sometimes narrowly connected with rugules of crest margins.

Differential diagnosis. *Mecynotarsus bidens* sp. nov. is undoubtedly very close to *M. bidentatus* sp. nov., as suggested by their nearly identical external appearances (body form, setation, paired frontal process), and similarity of male characters. It differs from the latter species by the conspicuous clypeal granules, rather symmetrical metatarsomere II, which is evenly, moderately widening towards the apex, and by the shape of the frontal process and parameres.

Etymology. Composed from Latin words *bis* (twice) and *dens* (tooth); named in reference to the presence of the paired, tooth-like processes of the frontal margins; noun in apposition.

Distribution. Australia: New South Wales, Northern Territory, Queensland, South Australia.

Mecynotarsus bidentatus sp. nov.

(Figs 30–32)

Type locality. Australia, Western Australia, 13 km EN of Newman, 23°15'S 119°52'E.

Type material. HOLOTYPE: σ^7 , '(23.15S 119.52E) 13 km. E. by N. of Newman, WA. 12.xi.70, E. B. Britton [p] // ANIC specimen [p; green label]' (ANIC).

Description (holotype, male). Body length 2.4 mm. Body reddish, elytra nearly unicolorous; legs and antennae reddish.

Antero-lateral margins of frons projecting into small, posteriorly pointed process (Fig. 30). Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules indistinct. Setation of head vertex comparatively long medially and with some raised longer setae at base, distinctly shorter and coarser to scaly along eyes, especially ventro-laterally. Antennae rather short; antennomeres III–V about 1.6 times, X nearly as long as wide; setation mostly fine, hairy, distinctly coarser on basal antennomeres, especially antennomere I with distinct scales and several long bristly setae.

Pronotum globose to moderately transverse, 1.4 times as long as wide, its lateral margins rather strongly and nearly evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust, moderately wide, subtriangular, its posterior angles distinct in dorsal view; horn margins armed with 4 and 5 lobules laterally, apical lobule asymmetrical (nearly fused with lateral lobule); horn crest distinct, moderately wide, with coarse rugules on margins; submarginal rugules distinct, rather unevenly spaced; 7 median rugules, mostly rather large and asymmetrical, smaller to minute posteriorly. Setation greyish to pale reddish, scaly and appressed; pronotal horn dorsally nearly asetose; scales on pronotal disc rather uniformly large, round shaped, contiguous, entirely covering surface (possibly some smaller scales present), rather opaque; antebasal paired setae absent medially and difficult to distinguish laterally, owing to presence of another tactile setae (about 7 on each side).

Elytra nearly 1.8 times as long as wide; omoplates and postbasal impression absent. Setation very similar to that on pronotal disc, scaly, pale reddish and brownish, forming very vague marking; scales distinctly smaller than those on pronotum, appressed, uniformly rounded, very dense, entirely covering surface as in Fig. 171; scattered tactile setae absent, but some stiff, more raised setae present on humeri (margins sloping towards base).

Male characters. Sternum VII moderately produced and rounded medially. Tergum VIII and aedeagus as in Figs 31, 32.

Differential diagnosis. *Mecynotarsus bidentatus* sp. nov. is undoubtedly very close to the preceding *M. bidens* sp. nov. It differs from the latter species by the indistinct clypeal granules, the somewhat asymmetrical metatarsomere II, which is rather strongly enlarged in the apical half, and by the different shapes of the frontal processes and the parameres.

Etymology. The species name is a Latin adjective *bidentatus*, *-a*, *-um*, composed from the words *bis* (twice) and *dentatus* (toothed); named in reference to the presence of the paired, tooth-like processes of the frontal margins.

Distribution. Australia: Western Australia.

Mecynotarsus bullatus sp. nov.

(Figs 33, 34, 139, 147, 148, 172, 191)

Type locality. Australia, Western Australia, 13 km EN of Newman, 23°15'S 119°52'E.

Type material. HOLOTYPE: ♂, '(23.15S 119.52E) 13 km. E. by N. of Newman, WA. 12.xi.70. E. B. Britton [p] // ANIC specimen [p; green label]' (ANIC). PARATYPES: 1 ♂ 1 ♀, same data as holotype (ANIC); 3 ♂♂ 6 ♀♀, 'Minilya River, WA. 23. 49S 114. 00E 29 Mar. 1971 Upton & Mitchell [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 2 spec. ZKDC); 1 ♂ 2 ♀♀, 'West Peawah R. WA 14.iv.1976 K. & E. Carnaby [p] // ANIC specimen [p; green label]' (ANIC); 2 ♀♀, same data, except: 'AUST. MUS. INS. COLL. [p; green label]' (ANIC); 2 ♀♀, 'W. Grey River WA

6 March 1983 K. & E. Carnaby at light' (ANIC); 1 ♀, 'Regans Ford W.A. 18 Oct. 1978 on Brand Hwy. at light K. & E. Carnaby [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂ 1 ♀, 'Geraldton Oct '31 W.A. [p] // Australia, Harvard Exp. Darlington [p] // [plain yellowish label]' (DCDC); 1 ♂, 'Qld. Greendale 70 Km SW at light 17-24 Jan. 96 A. J. Watts [p] // SAMA Database No. 25-029000 [p]' (SAMA); 1 ♀, 'Qld. Greendale 70 km SW At light 1-10 Mar. 95 A. J. Watts [p] // SAMA database No. 25-028947 [p]' (SAMA); 2 ♀, same data, except database numbers: 25-028953 or 25-028967 (SAMA); 1 ♀, 'Qld. Greendale 70 km SW at light, 12-21 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028950 [p]' (SAMA); 1 ♀, 'QLD. 70 km SW GREENVALE. 16-28 JAN 95 A. J. WATTS [p] // SAMA Database No. 25-029037 [p]' (SAMA); 1 ♀, 'QLD. 70 km SW GREENVALE. 15-24 FEB 95 A. J. WATTS [p] // SAMA Database No. 25-029019 [p]' (SAMA); 2 ♂♂ 4 ♀♀, 'Upper Daintree R., Via Daintree, N. Qld. 27.xii.1964. G. Monteith' (QMBA); 2 ♂♂ 1 ♀, 'W Normanby R., N. Qld., 40 ml. W. of Cooktown 2.i.1946. G. Monteith' (QMBA); 1 ♀, 'Normanton Q 20.v.1976, K. & E. Carnaby' (ANIC); 3 ♀♀, 'AUSTRALIA, N. Territory West MacDonnell Range Nat. Park, SIMPSON GAP 23°40'S 133°43'E, 600 m, 3.-5.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 1 ♂, same data, except: 11.01.2009 (ZKDC).

Description (holotype, male). Body length 3.3 mm. Body reddish, pronotal disc darker, reddish brown, elytra unicoloured; legs and antennae reddish.

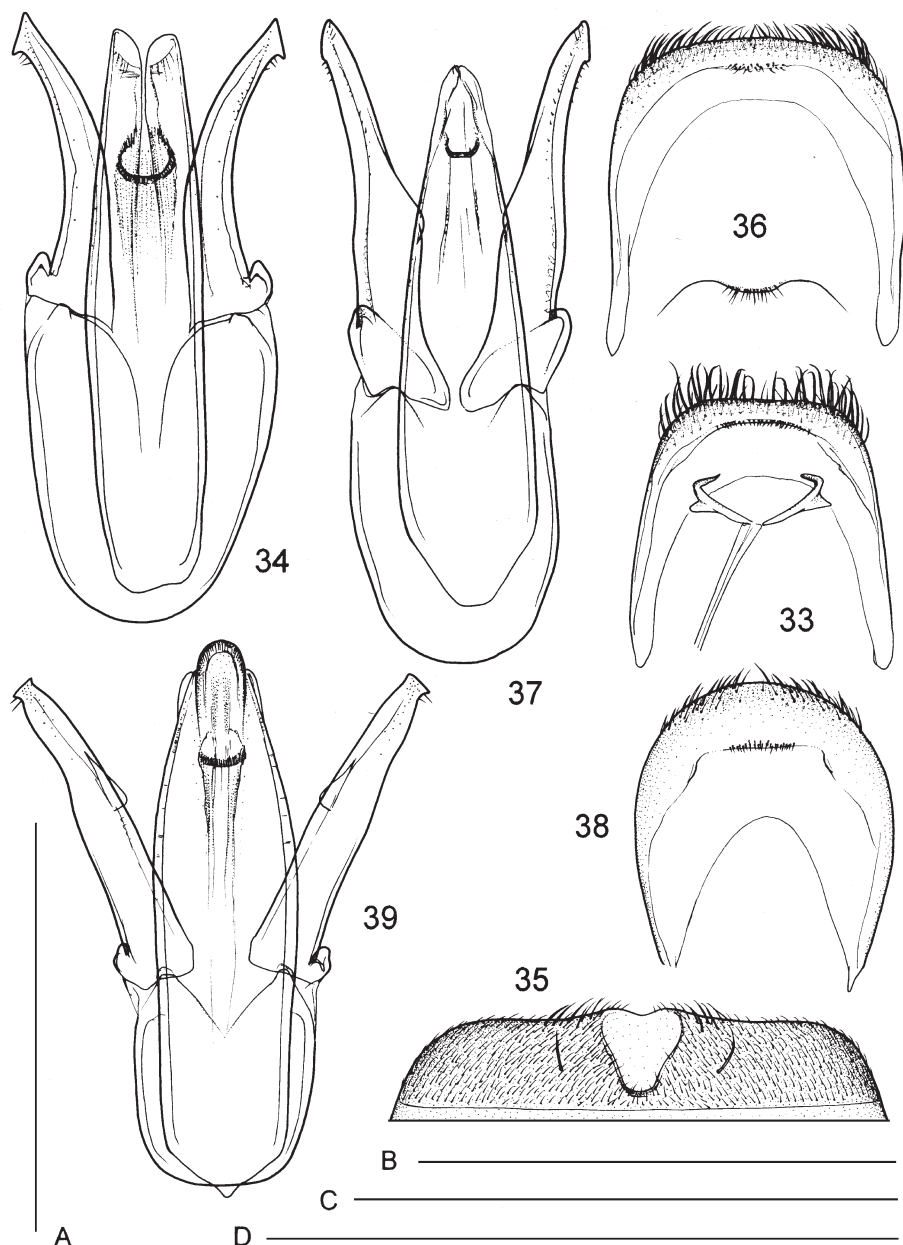
Antero-lateral margins of frons moderately raised / lobed near antennal insertion. Gular rugules of different sizes, anteriorly larger, ordered and fused (Fig. 139). Clypeal granules minute. Setation of head vertex fine, appressed, with numerous, very long, more raised setae medially, distinctly coarser, subdecumbent ventro-laterally near eyes. Antennae rather long; antennomere I long and robust, strongly enlarged apically; antennomeres III–V about twice, X 1.3 times as long as wide; setation mostly fine, distinctly coarser on basal antennomeres, especially antennomere I conspicuously setose, with coarsely fringed apical margin and numerous long bristly setae.

Pronotum moderately transverse, 1.4 times as long as wide, its lateral margins rather strongly and evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust and wide, clearly triangular, its posterior angles conspicuously projecting in dorsal view (Fig. 147); horn margins armed with 3 lobules on each side, posterior lobules very wide, apical lobule simple, widely rounded; horn crest very conspicuous, strongly raised, short and situated rather posteriorly, with rugules mostly fused and forming complete semicircular rim (single separate rugule posteriorly on each side); submarginal rugules mostly very coarse, distinctly spaced; single large, median longitudinal rugule and several minute granules scattered posteriorly. Setation scaly, whitish laterally, pale reddish dorsally; scales on pronotal disc of two sizes, shorter and appressed or longer and subdecumbent, both elongate, truncate apically and somewhat glossy; antebasal paired setae present medially, difficult to recognize laterally owing to presence of numerous long tactile setae.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation mixed whitish and reddish, and brownish, forming vague brownish marking (Fig. 191), scaly, appressed and evenly ordered; scales linear, rounded to subtruncate apically, slightly glossy and distinctly spaced (surface clearly visible, Fig. 172); erect tactile setae present, more numerous and longer in basal third, especially at base and humeri, shorter and very sparsely scattered mesally, and absent in apical third.

Male characters. Sternum VII nearly simple. Tergum VIII and aedeagus as in Figs 33, 34.

Variation. Body length (♂♀) 2.7–3.7 mm; some specimens with nearly unicolorous, whitish to pale reddish scales on elytra, brownish marking may be both absent and conspicuous;



Figs 33–39. 33–34 – *Mecynotarsus bullatus* sp. nov.: 33 – tergum VIII and apex of spiculum, 34 – aedeagus in dorsal view. 35–37 – *M. canthariphilus* sp. nov.: 35 – sternum VII, 36 – tergum VIII, 37 – aedeagus in dorsal view. 38–39 – *M. centralis* sp. nov.: 38 – tergum VIII, 39 – aedeagus in dorsal view. Scale (0.5 mm): A – Figs 33, 34, 38; B – Figs 35; C – Figs 36, 39; D – Fig. 37.

pronotal horn in the specimens from Queensland mostly subtriangular, with less projecting posterior angles (Fig. 148).

Differential diagnosis. *Mecynotarsus bullatus* sp. nov. is undoubtedly close to *M. hirtipennis* sp. nov. as suggested by similarity of both external (triangular pronotal horn, semicircular crest rim, numerous tactile setae), and male characters. Its specimens are usually larger and more robust than those of the latter species, and differ especially by the longer, denser and somewhat double setation of the pronotal disc, with longer scales rather subdecumbent and somewhat overlapping shorter appressed scales, by the more robust antennae (basal antennomeres), and by the evenly narrowing, arcuately divergent and apically pointed parameres.

Etymology. The Latin adjective, *bullatus*, *-a*, *-um* (= bubble-like); named in reference to the peculiar rounded shape of horn crest rim.

Distribution. Australia: Queensland, Northern Territory, Western Australia.

Mecynotarsus canthariphilus sp. nov.

(Figs 35–37)

Type locality. Australia, Queensland, McIvor River, 40 km N of Cooktown.

Type material. HOLOTYPE: ♂, 'McIvor Rv., 25 mls., N. Cooktown, N. Qld. 6 May 1970 S. R. Curtis // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 3 ♂♂ 1 ♀, same data as holotype (ANIC); 51 specimens, 'Stewart's Creek, Daintree, N. Q. cantharadin [sic!] lure 15.x.67.J. G. Brooks leg. [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 5 spec. ZKDC); 11 specimens, same locality label, in addition: 'Brit. Mus. 1968-301 [p]' (BMNH, 3 spec. ZKDC); 1 ♂ 1 ♀, '15.47S 145.14E Shiptons Flat QLD 17–19 Oct. 1980, T. Weir // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, 'W. slopes of Seymour Ra. N. Q., Dinner Ck. Rd., nr. Innisfail; rainforest at light, 6.xi.66, E. Britton // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '17.16 S 145.54 E Base Cableway Mt. Bellenden-Ker QLD 80 m. 19 Oct. 1981, E. D. Edwards // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '10 km SwbyW Gordonvale Q. 26 May 1980 I. D. Naumann J. C. Cardale // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♂♂ 1 ♀, 'Kuranda, Queensld. AUSTRALIA XI-1-1950 W. L. Brown, on sand on river bank [p]' (DCDC); 1 ♂, 'KURANDA. 26-12 34 [h] // *Mecynotarsus phanophilus* Lea Det. H. J. Carter [p+h] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂ 1 ♀, 'KURANDA. 26-12-34 [h] // ANIC [h; green label]' (ANIC); 2 ♂♂ 2 ♀♀, 'McIvor River, 40 ml. N. of Cooktown, 7.v.1970, N. Qld, G. B. Monteith' (QMBA); 1 ♀, '15.41S 145.12E Annan R. 3km WbyS of Black Mt. QLD 27 Sept. 1980 T. Weir [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC).

Description (holotype, male). Body length 2.2 mm. Body reddish brown; legs and antennae pale reddish.

Antero-lateral margins of frons simple. Gular rugules minute and rather scattered. Setation of head evenly short and appressed, dense, finer on vertex, somewhat coarser laterally along eyes and ventrally. Clypeal granules indistinct. Antennae moderately long; antennomeres III–V about 1.7 times, X 1.1 times as long as wide; setation mostly rather short and fine, distinctly coarser on basal 1–2 antennomeres.

Pronotum 1.6 times as long as wide, its lateral margins unevenly shaped, somewhat angled at widest point and then straight to slightly concave while narrowing towards base in dorsal view; posterior collar narrow but distinct. Pronotal horn robust, rather short, moderately wide, its posterior angles obsolete in dorsal view; horn margins armed with 5 rounded lobules on each side; horn crest distinct, clearly raised, long, rather narrow, with coarse, separate rugules on margins; submarginal rugules minute, forming uneven row laterally; 9 median rugules

of different sizes, rather densely spaced, minute to coarse. Setation whitish laterally, goldish dorsally, largely appressed and scaly, finer and less distinct on dorsal surface of pronotal horn; scales on pronotal disc of two sizes, longer ones slightly more raised dorsally, both obtusely rounded to truncate apically; erect tactile setae absent; antebasal paired setae short but distinct (somewhat thickened) laterally and absent medially.

Elytra 1.5 times as long as wide; omoplates and postbasal impression absent. Setation similar to that on pronotum, scaly, whitish and goldish to shining cupreous, forming dark markings and mixed dorsally in basal half; scales linear, rounded to truncate apically, very dense, but distinctly spaced, largely rather uniform, but dorsally in basal half with moderately longer and slightly more raised, goldish to cupreous scales originating from coarser punctures; erect tactile setae absent.

Male characters. Sternum VII clearly modified (Fig. 35). Tergum VIII and aedeagus as in Figs 36, 37.

Variation. Body length (♂♀) 1.9–2.6 mm; pronotal horn with 4–5 rugules on each side, and 5–10 median rugules; body reddish to brown black, brownish to cupreous shining setose markings on elytra may be rather distinct (transverse posterior band and apical spot) or vague.

Differential diagnosis. *Mecynotarsus canthariphilus* sp. nov. may resemble *M. amabilis* by the finer setation of the dorsal surface of the pronotal horn (especially in the anterior half, being rather scaly only laterally near base of the crest) and the shining goldish to cupreous colouring of the pronotal disc and elytra (longer scales, dorsally). It differs from the latter species by smaller body size, the nearly double setation of the elytra with some longer, more erect scales, and by all of the male characters (cf. Figs 35–37 versus 10–12).

Etymology. The species name is the latinized adjective *canthariphilus*, *-a*, *-um*, composed from *canthari-* (abbreviated, standing for cantharidin) and the Greek *philos* (attracted to); named in reference to the means of collection for the specimens.

Collection circumstances. Most specimens were trapped by using cantharidin bait (especially the large series from Daintree), or were taken at light in / near rainforests, or on sandy river banks.

Distribution. Australia: Queensland.

Mecynotarsus centralis sp. nov.

(Figs 38, 39)

Type locality. Australia, Northern Territory, Alice Springs.

Type material. HOLOTYPE: ♂, 'Alice Springs NT 7/68 C.Watts [p] // SAMA Database No. 25-029057 [p]' (SAMA).

Description (holotype, male). Body length 2.0 mm. Body, legs and antennae reddish.

Antero-lateral margins of frons simple or at most very slightly raised. Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules minute but rather distinct. Setation of head generally rather hairy, mostly short and appressed on vertex, with some long erect setae postero-medially, slightly coarser and more raised ventro-laterally. Antennae rather long; antennomeres III–V about 1.7 times, X nearly as long as wide; setation hairy, longer and coarser basally, especially antennomere I with numerous bristly setae.

Pronotum globose, 1.5 times as long as wide, its lateral margins rather strongly, evenly convex in dorsal view, posterior collar very narrow but distinct. Pronotal horn rather robust and wide, triangular, its posterior angles distinct in dorsal view; horn margins armed with 3 and 4 lobules (two posterior lobules appears to be fused), apical lobule simple, widely rounded; horn crest distinct, rather short, coarse rugules on its margins fused with median rugules, several minute granules scattered posteriorly; submarginal rugules distinct, rather unevenly spaced. Setation silvery, scaly, appressed to subdecumbent, nearly indistinct on pronotal horn dorsally; scales on pronotal disc rather uniformly linear, densely spaced, rounded to subtruncate apically; antebasal paired setae absent medially and inconspicuous laterally, owing to presence of numerous additional tactile setae (especially antero-laterally).

Elytra 1.9 times as long as wide; omoplates and postbasal impression absent. Setation silvery, coarsely hairy to scaly, appressed, uniform; scales linear and bluntly pointed apically, quite distinctly spaced (surface clearly visible); erect tactile setae present, rather short and sparsely scattered, especially in basal half.

Male characters. Sternum VII slightly produced, rounded medially. Tergum VIII and aedeagus as in Figs 38, 39.

Differential diagnosis. *Mecynotarsus centralis* sp. nov. can be recognized by the combination of the following external characters: pronotal horn rather wide, subtriangular; horn crest short, compact, distinctly raised and situated rather posteriorly, with few coarse rugules on margins and medially (partly fused); pronotum globose, evenly rounded laterally; elytra somewhat glossy, rather sparsely setose; appressed elytral scales coarsely hairy and bluntly pointed apically. It can be easily distinguished from all species by male characters, especially by the peculiar, more sclerotized and rounded apex of the median lobe and the evenly rounded tergum VIII.

Etymology. The species name is a Latin adjective, *centralis*, *-is*, *-e* (= central); named in reference to the location of the type locality.

Distribution. Australia: Northern Territory.

Mecynotarsus concolor King, 1869

(Figs 40, 41, 120, 173, 192)

Mecynotarsus concolor King, 1869: 4.

Mecynotarsus concolor: PIC (1911): 14 (catalogue); LEA (1922): 473, 510 (catalogue, remarks on characters).

Notoxus decemdentatus Pic, 1899: 189, **syn. nov.**

Notoxus decemdentatus: PIC (1911): 7 (catalogue); UHMANN (1993): 87 (record); UHMANN (2000): 146 (record).

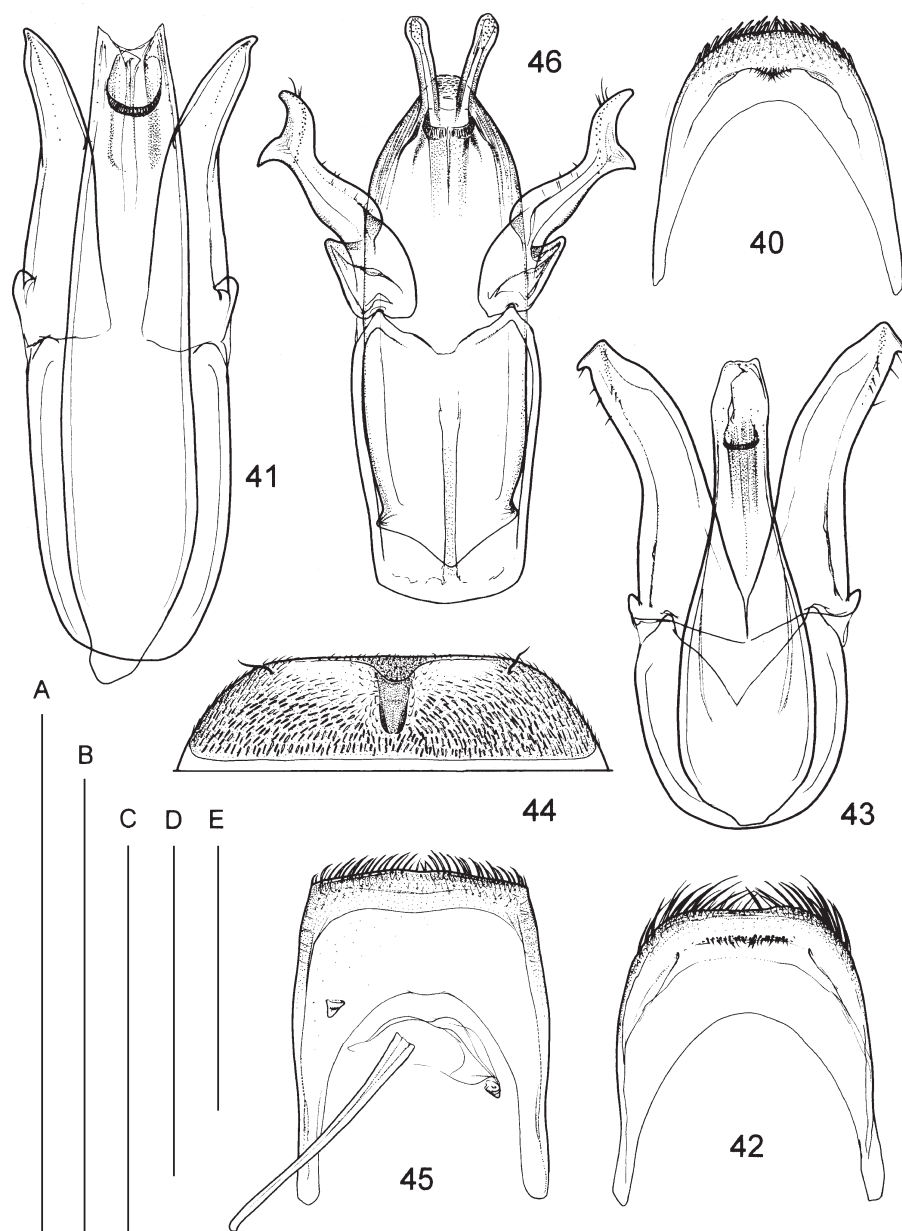
Notoxus decemnotatus (incorrect subsequent spelling): LEA (1922): 473.

Type locality. South Australia, Gawler, dried riverbed of Gawler River.

Type material. *M. concolor* – SYNTYPES (Fig. 120): 2 ♀♀, ‘*Mecynotarsus concolor* RLK Gawler Mrs Kr. [h] // A35017 [h] // [orange round label] // HOLOTYPE [p; red label] // Australian Museum K 269858 [p]’ (AMSA).

N. decemdentatus – SYNTYPES (Fig. 123): 2 ♀♀, ‘*Notoxus 10-dentatus* i. l. Schaaf. Nov. Holland [h] // 10 dentatus Pic [h]’ (MNHN); 1 ♀, ‘(Schaufuss) [h]’ (MNHN).

Additional material. **AUSTRALIA:** 2 ♂♂ 1 ♀, ‘Pascoe Coll.’ (BMNH); 1 ♂ 2 ♀♀, ‘Austr. 73-7’ (BMNH). **SOUTH AUSTRALIA:** 2 spec. [mounted on single card], ‘K35066 [h] // *Mecynotarsus concolor* King S. Australia [h] // Australian Museum K 269859 [p]’ (AMSA); 3 ♂♂ 1 ♀, Gawler [no date], Odewahn leg. (NMPC); 4 ♀♀, Gawler [no date and collector, probably Odewahn leg.] (NMPC); 3 ♀♀, South Australia [no precise data, date and collector] (ANIC); 8 spec., ‘Adelaide F. Bates 81-19’ (BMNH); 1 ♂, Olary, 24 km WNW, 32°17’S 140°19’E, Britton, Misko & Pullen leg. (ANIC). **NEW SOUTH WALES:** 1 ♂, Fowlers Gap Research Station, 31°05’S 141°42’E, at light, 29.xi.–2.xii.1981, J. C. Cardale leg. (ANIC).



Figs 40–46. 40–41 – *Mecynotarsus concolor* King, 1869: 40 – tergum VIII, 41 – aedeagus in dorsal view. 42–43 – *M. dearmatus* sp. nov.: 42 – tergum VIII, 43 – aedeagus in dorsal view. 44–46 – *M. excavatus* sp. nov.: 44 – sternum VII, 45 – tergum VIII and apex of spiculum, 46 – aedeagus in dorsal view. Scale (0.5 mm): A – Figs 44, 45; B – Figs 40, 46; C – Fig. 42; D – Fig. 43; E – Fig. 41.

Redescription (male, Gawler, NMPC). Body length 2.5 mm. Reddish; pronotum and head moderately darker.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly coarser, ordered and fused as in Fig. 139. Clypeal granules minute, nearly indistinct. Setation of head evenly short, dense, finer and appressed on vertex, somewhat coarser laterally along eyes and ventrally. Antennae moderately long; antennomeres III–V about twice, X 1.5 times as long as wide; setation mostly rather short and fine, inconspicuous, distinctly coarser in basal third / half, and with some long, stiff setae on basal antennomere.

Pronotum 1.5 times as long as wide, its lateral margins somewhat unevenly shaped, angled at widest point and then nearly evenly narrowing towards base in dorsal view; posterior collar narrow but distinct. Pronotal horn robust, moderately wide, its posterior angles indicated in dorsal view; horn margins armed with 4 widely rounded lobules on each side; horn crest very distinct, clearly raised, long and rather narrow, with three coarse and two minute rugules on margins; submarginal rugules minute to coarse, forming uneven row laterally; single large median longitudinal rugule and several minute granules postero-medially. Setation whitish to pale brownish, scaly and quite appressed; pronotal horn largely rather sparsely indistinctly setose; scales on pronotal disc with indistinct, fine margins, nearly merging and entirely covering surface; antebasal paired setae distinct (somewhat thickened) both laterally and medially, another tactile setae absent.

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation similar to that on pronotum, scaly, whitish and brownish, forming vague markings, at places somewhat mixed (Fig. 192); elongate scales nearly merging and entirely covering surface (Fig. 173); erect tactile setae absent.

Male characters. Sternum VII slightly produced medially. Tergum VIII and aedeagus as in Figs 40, 41.

Variation. Body length (♂♀) 2.4–2.9 mm; pronotal horn with 3–4 lobules on each side; darker markings on elytra may be both distinct and rather vague (always rather vaguely outlined).

Differential diagnosis. *Mecynotarsus concolor* is extremely close to *M. hortensis*, differing only by the somewhat paler colouration of the body scales (especially on the elytra, elytral apices pale reddish) and by the shape of the parameres and postero-ventral margin of the male tergum VIII (prominence of median process, setation) (cf. Figs 40, 41 and 60, 61).

Distribution. Australia: New South Wales (new record), South Australia (KING 1869, UHMANN 2007).

The records of the herein synonymized *Notoxus decemdentatus* from New Caledonia and New South Wales by UHMANN (1993, 2000) were found to be based on misidentified specimens of *Mecynotarsus excavatus* sp. nov. and *M. apicipennis*, respectively.

***Mecynotarsus dearmatus* sp. nov.**

(Figs 42, 43)

Type locality. Australia, Western Australia, Drysdale River, 15°02'S 126°55'E.

Type material. HOLOTYPE: ♂, '15.02S 126.55E Drysdale River, W.A. 3–8 Aug. 1975 I.F.B. Common and M.S.Upton [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 7 ♂♂ 1 ♀, same data as holotype (ANIC, 1 spec. ZKDC);

1 ♂, '16.02S 130.48E NT Jasper Gorge GPS 15 Oct. 2000 T.Weir & D.Yeates at light [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂, '17.25S 124.56E WA Lennard River 29 April 1992 P.J.Gullan at light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♂♂ 1 ♀, 'Bessie Spring 16.40S 135.51E 8km ESE of Cape Crawford, NT. 26 Oct. 1975 M.S.Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC).

Description (holotype, male). Body length 2.6 mm. Reddish to reddish brown, head somewhat darker, nearly brown black dorsally.

Antero-lateral margins of frons distinctly lobed near insertion of antennae (margin of lobe somewhat angled, smooth and glossy). Gular rugules rather coarse, especially anteriorly and here ordered as in Fig. 138. Clypeal granules indistinct. Setation of head vertex mostly fine, appressed, with long, more erect setae in median line and basally, and coarser to scaly around eyes and ventro-laterally. Antennae conspicuously long; antennomeres V–VII most elongate, about 2.2 times as long as wide, antennomere II at most slightly shorter than III, antennomere X 1.8 times as long as wide; basal 4–5 antennomeres with coarser to scaly setation.

Pronotum 1.6 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar distinct; surface of pronotal disc with numerous scattered granules (sparser, coarser and pointed dorso-laterally), posterior collar medially with pair of similar minute granules. Pronotal horn rather robust, moderately wide, subtriangular, its posterior angles moderately indicated in dorsal view; horn margins armed with 4 rather long, apically rounded lobules on each side, apical lobule simple, widely rounded; horn crest distinct, rather wide, with coarse, separate rugules on margins; submarginal rugules small, partly serial; about 7 median rugules, mostly rather coarse and well-spaced, and some smaller granules posteriorly. Setation whitish, scaly, mostly appressed to subdecumbent, strongly reduced on pronotal horn dorsally; scales on pronotal disc of two sizes, smaller scales quite appressed, larger scales subdecumbent, elongate to linear, truncate apically; antebasal paired setae present medially and difficult to recognize laterally owing to presence of numerous additional tactile setae.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish, pale reddish and reddish brown, somewhat mixed and also forming vague darker markings, scaly, uniform, appressed and evenly ordered; scales longitudinally oval to linear, rounded to subtruncate apically, very dense (surface barely visible); several tactile setae present at base.

Male characters. Sternum VII moderately produced and rounded postero-medially. Tergum VIII and aedeagus as in Figs 42, 43.

Variation. Body length (♂♀) 2.2–2.6 mm; pronotal horn with 3–4 lobules on each side; 6–11 median rugules; dark markings on elytra distinct to feebly indicated.

Differential diagnosis. *Mecynotarsus dearmatus* sp. nov. resembles *M. granulatus* sp. nov. and *M. imitator* sp. nov. in having uniformly short and appressed scaly setation on the elytra (scattered tactile setae absent), however it differs from both species by the distinctly lobed antero-lateral margins of the frons and by the shape of the parameres of the aedeagus.

Etymology. The species name is the Latin adjective, *dearmatus*, -a, -um (= disarmed); named in reference to the shorter projections of the frontal margins.

Distribution. Australia: Northern Territory, Western Australia.

***Mecynotarsus excavatus* sp. nov.**

(Figs 44–46, 130, 134, 137, 149, 174, 193)

Type locality. New Caledonia, Touho-Koné, Aoue-Enga.**Type material.** HOLOTYPE: ♂, 'Nouvelle Calédonie m 60 str. Touho-Koné, Aoue-Enga, 24.II.2006 P. M. Giachino leg. [p]' (SMNS). PARATYPES: 9 ♂♂ 3 ♀♀, same data as holotype (SMNS, 3 spec. ZKDC, 1 spec. NMPC); 1 ♂, 'Nouvelle Calédonie str. Touho-Koné 24.II.2006 - m 150 M. Daccordi leg. [p]' (SMNS); 1 ♀, 'NEW CALEDONIA, 50 m, Bourail, 30.12.-5.1.1991, leg. Wiesner & Worm [p; violet label] // Notoxus decemdentatus Pic det. G. Uhmann 1991 [p+h]' (ZKDC); 4 ♂♂ 4 ♀♀, 'NEW CALEDONIA (N) 20°25.2'S 164°13.3'E Nehoue river, 15 m 8.01.2007 public camp site night coll. (lamp & beating) leg. M. Wanat & R. Dobosz [p; black frame] // Muzeum Przyrodnicze Uniwersytetu Wrocławskiego MNHW Museum of Natural History Wrocław University [p]' (MNHW); 1 ♂ 1 ♀, 'NEW CALEDONIA (N) 20°25.2'S 164°13.3'E Nehoue river, 15 m 8.01.2007 public camp site leg. R. Dobosz & M. Wanat [p; black frame]' (USMB); 1 ♀, 'NEW CALEDONIA: 4 km W. of Thio black light 24 Dec. 1976 G. F. Hevel [p] // Leptoprion ? [h; black frame]' (DCDC).**Description** (holotype, male). Body length 3.3 mm. Body black, at places brownish; legs and antennae brown to dark reddish brown.

Head vertex with rather distinct, deep median incision / cavity (Fig. 130). Antero-lateral margins of frons simple. Gular rugules minute and scattered. Clypeal granules indistinct. Setation of head largely uniformly scaly, with some longer, hair-like setae ventrally; scales minute, very densely spaced, appressed. Antennae rather moderately long, at most very slightly enlarged in apical third; antennomeres III–V about twice, X nearly 1.3 times as long as wide; setation mostly rather short and fine, coarser to scaly on basal two antennomeres.

Pronotum nearly 1.9 times as long as wide, its lateral margins somewhat unevenly, moderately convex in dorsal view; posterior collar very narrow, inconspicuous. Pronotal horn moderately long, rather narrow (especially at base), its posterior angles obsolete in dorsal view (Fig. 149); horn margins armed with 4 rounded lobules on each side, with small additional granule situated on each side posteriorly, apical lobule wide and with small median incision, nearly bilobed; horn crest distinct, clearly raised, long and very narrow, with coarse, separate rugules on margins; submarginal rugules distinct, situated rather anteriorly; median rugules absent. Setation of pronotal disc silvery and scaly; scales similar to those on head, very small and uniform, rounded apically and quite appressed; antebasal paired setae absent, another tactile setae absent.

Elytra 1.8 times as long as wide, obliquely subtruncate apically; omoplates slightly indicated, postbasal impression absent. Surface with conspicuously large, at places somewhat serial punctures, becoming smaller towards elytral apices. Setation silvery, scaly, clearly double, appressed and evenly developed, comprised of large scales arising from coarse punctures, and small scales covering interspaces (Fig. 174); large scales oval, flake-like, small scales identical with those of head and pronotum; erect tactile setae absent.

Male characters. Head vertex with rather distinct deep median incision / cavity. Protibiae with small tooth-like subapical tubercle on inner side (Fig. 137). Sternum VII conspicuously modified (Fig. 44). Tergum VIII truncate posteriorly (Fig. 45). Aedeagus as in Fig. 46.

Variation. Body length (♂♀) 3.1–3.3 mm; pronotal horn with 3–6 lobules on each side, apical lobule usually distinctly bilobed. Elytra in females distinctly excavate apically (Fig. 134).**Differential diagnosis.** *Mecynotarsus excavatus* sp. nov. is a very conspicuous species, showing a number of unique external characters: coarse elytral punctures with rounded,

flake-like scales; elytra obliquely truncate (male) to excavate (female) apically; head vertex in male with rather distinct, deep median incision or cavity; male protibiae with small tooth-like subapical tubercle on inner side. Moreover, it possesses a quite distinctive morphology of male sternum VII, tergum VIII, and the aedeagus.

Etymology. The species name is a Latin adjective, *excavatus*, -a, -um (= hollowed); named in reference to the presence of the small median cavity on the head vertex of males, and the excavate elytral apices of females.

Distribution. New Caledonia.

***Mecynotarsus exophthalmus* sp. nov.**

(Figs 47, 48, 131)

Type locality. Australia, Western Australia, 13 km E by N of Newman, 23°15'S 119°52'E.

Type material. HOLOTYPE: ♂, '(23.15S 119.52E) 13 km. E. by N. of Newman, WA. 12.xi.70. E. B. Britton [p] // ANIC Specimen [p; green label]' (ANIC).

Description (holotype, male). Body length 2.5 mm. Body, legs, and antennae reddish brown.

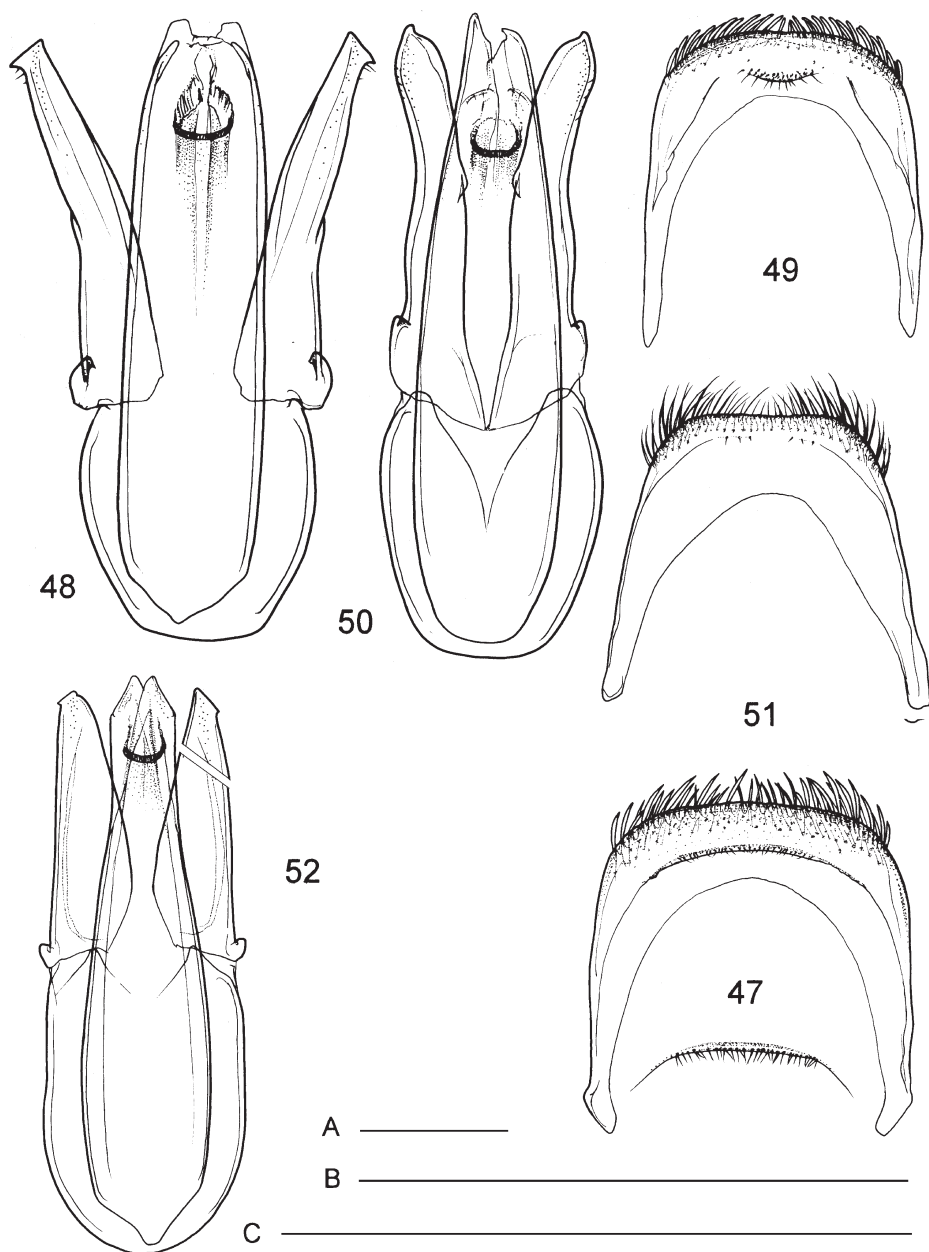
Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules distinct. Head vertex distinctly impressed along median margins of eyes (Fig. 131). Setation of head rather fine, hairy, appressed to subdecumbent on vertex, with some longer, more erect setae near base, and distinctly coarser ventro-laterally. Antennae rather moderately long; antennomeres III–V at most 1.8 times as long as wide, X nearly as long as wide; setation generally rather hairy, mostly fine, coarser and longer in basal antennomeres, especially antennomere I with numerous longer, stiff setae.

Pronotum globose to moderately transverse, 1.4 times as long as wide, its lateral margins rather strongly, nearly evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust, subtriangular, wide basally, posterior angles distinct; horn margins armed with 4 wide lobules on each side, apical lobule distinctly bilobed; horn crest conspicuous, strongly raised, situated rather posteriorly, with coarse rugules on margins; submarginal rugules numerous, rather coarse and distinctly spaced; median rugules largely fused and forming irregular sculpture, which is narrowly connected even with rugules of crest margins, some minute granules scattered posteriorly. Setation whitish, scaly and appressed, indistinct on pronotal horn dorsally; scales on pronotal disc of two sizes, generally rather short and widely rounded apically, somewhat glossy; antebasal paired setae absent medially and present laterally, but difficult to distinguish from additional tactile setae (several on each side).

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation whitish to pale reddish, uniformly scaly, appressed and evenly ordered; scales shortly oval, rounded to subtruncate apically, densely but distinctly spaced; humeri and basal margin with numerous bristly setae, scattered tactile setae absent.

Male characters. Sternum VII slightly sinuous posteriorly. Tergum VIII and aedeagus as in Figs 47, 48.

Differential diagnosis. *Mecynotarsus exophthalmus* sp. nov. may resemble *M. pilbarensis* sp. nov. by the body form and setal characters, but differs by the shorter, more compact and



Figs 47–52. 47–48 – *Mecynotarsus exophthalmus* sp. nov.: 47 – tergum VIII, 48 – aedeagus in dorsal view. 49–50 – *M. fallax* sp. nov.: 49 – tergum VIII, 50 – aedeagus in dorsal view. 51–52 – *M. festivus* sp. nov.: 51 – tergum VIII, 52 – aedeagus in dorsal view. Scale (0.1 mm): A – Fig. 50; (0.5 mm): B – Fig. 51; C – Figs 47–49, 52.

posteriorly situated horn crest, the more robust antennae, the head vertex distinctly narrowly impressed along the median margins of the eyes, and by the shape of the parameres (cf. Fig. 48 *versus* 103).

Etymology. The species epithet is Latinized adjective *exophthalmus*, -a, -um, composed of the Greek words *exo* (= outer) and *ophthalmos* (= eye); named in reference to the bulging eyes of this species.

Distribution. Australia: Western Australia.

***Mecynotarsus fallax* sp. nov.**

(Figs 49, 50)

Type locality. Australia, Northern Territory, 1 km ENE of Jarnam, Keep River National Park, Keep River, Xing [= river crossing], 15°45'S 129°06'E.

Type material. HOLOTYPE: ♂, '15.45S 129.06E NT GPS Keep River Xing, 1 km ENE of Jarnam, Keep River Nat. Pk. 25 - 27 May 2001, T. Weir, P. Bouchard [p] // at light open forest [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 7 ♂♂ 10 ♀♀, same data as holotype (ANIC, 2 spec. ZKDC); 1 ♀, '15.44S 129.09E NT GPS 5.5 km NE by E Jarnam, Keep River Nat. Pk. 27 May 2001 T. Weir, P. Bouchard [p] // at light open forest [p] // AUST. NAT. MUS. COLL. [p; green label]' (ANIC); 1 ♀, '15.48S 129.07E NT GPS 4 km S by E Jarnam, Keep River Nat. Pk. 27 - 29 May 2001 T. Weir, P. Bouchard [p] // FIT ANIC 1955, open forest, sandy soil [p] // AUST. NAT. MUS. COLL. [p; green label]' (ANIC); 3 ♂♂ 4 ♀♀, '18.37S 137.59E GPS Border Waterhole, Musselbrook Ck 15 km W by S Musselbrook Mining Camp (QLD)NT 14 May 1995 T. Weir [p] // at light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 1 spec. ZKDC); 1 ♂ 1 ♀, 'N.T. Junction WH 16 km SW Austral Downs. At light. 22 Sept. 1977. G.F. Gross. [p] // SAMA Database No. 25-028904 [or 25-028905; p]' (SAMA); 1 ♂, 'N.T. Katherine P. 25 km NE Katherine. At light. 4 Oct. 1977. G.F. Gross, J.A. Forrest [p] // SAMA Database No. 25-028922[p]' (SAMA); 1 ♂, 'N.T. Lake Woods. 15 km SW Elliot. At light. 5 Oct. 1977. G.F. Gross. [p] SAMA Database No. 25-028920 [p]' (SAMA); 1 ♂ 1 ♀, '12.40S 142.40E QLD Batavia Downs 22 Jul 1992 at light P. Zborowski & E. S. Nielsen [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.27S 142.38E QLD Moreton, 10Dec.1992 W. Dressler, P. Zborowski, at light [p] // AUS. NAT. INS. COLL. [p]' (ANIC); 1 ♂, '100 Km South Nebo at Isaac River, Qld., Australia XI-6-90, At Light W.F. Chamberlain [p]' (DCDC); 1 ♂, '4 m. [sic!] W. of Dimbola, Vic. 8 Aug. 1968 Colless & Liepa [p] // ANIC Specimen [p]' (ANIC); 1 ♂, 'S.Aust. Mudla Eore 35 km NNE Billa Kalina HS. At light. 4 Dec. 1974. J.A. Herridge. [p] // SAMA Database No. 25-028921 [p]' (SAMA); 2 ♂♂, 'N.S. Wales Narromine [p+h] // M. close to ziczac Id. By A. M. Lea [p+h] // 143 [h] // E. W. Ferguson Collection [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, 'Walgett, N.S.W. 30.xii.1971. B. Cantrell [p]' (QMBA).

Description (holotype, male). Body length 2.1 mm. Body largely dark brown, legs and antennae reddish brown.

Antero-lateral margins of frons simple. Gular rugules minute and scattered. Clypeal granules minute. Setation of head rather evenly short and appressed, dense, finer medially on vertex, coarser to scaly around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V at most 1.5 times, X about as long as wide; setation fine in apical and distinctly coarser to scaly in basal half.

Pronotum 1.6 times as long as wide, its lateral margins unevenly shaped, moderately convex anteriorly, somewhat angled at widest point and then straight to slightly concave in narrowing towards base in dorsal view; posterior collar narrow but distinct, somewhat concealed by scaly setation. Pronotal horn robust, rather short, moderately wide, its posterior angles obsolete in dorsal view; horn margins armed with 5 lobules on each side; horn crest distinct, clearly raised, long and rather narrow, with coarse, separate rugules on margins; numerous

minute submarginal rugules; 6 median rugules densely spaced. Setation whitish and brownish (dorsally), largely appressed and scaly, including dorsal surface of pronotal horn; scales on pronotal disc of two sizes, smaller and narrower or larger and wider, both widely rounded to truncate apically; antebasal paired setae short but distinct laterally (somewhat thickened) and absent medially, another tactile setae absent.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish and brownish, partly mixed anteriorly and forming brownish marking, evenly developed / ordered; scales distinctly elongate, rounded to subtruncate apically, very densely spaced but distinct; erect tactile setae absent.

Male characters. Sternum VII nearly simple, at most slightly produced and rounded medially. Tergum VIII and aedeagus as in Figs 49, 50; parameres only moderately curved in lateral view.

Variation. Body length (♂♀) 1.9–2.3 mm; pronotal horn with 4–5 lobules on each side; 5–8 median rugules; darker markings on elytra usually rather extensive and distinct, rarely reduced to narrow transverse band (spec. from Dimboola).

Differential diagnosis. *Mecynotarsus fallax* sp. nov. is externally very similar to *M. ziczac* and *M. albellus*. It may be easily confused especially with *M. ziczac* in sharing the narrower horn crest, but differs (from both species) by male characters, mainly by the shape of the parameres (cf. Fig. 50 *versus* 8, 117).

Etymology. The species name is a Latin adjective, *fallax* (= deceptive, false); named in reference to its external similarity to *M. ziczac* and *M. albellus*.

Distribution. Australia: New South Wales, Northern Territory, Queensland, South Australia, Victoria.

Mecynotarsus festivus sp. nov.

(Figs 51, 52, 150, 194)

Type locality. Australia, Northern Territory, 9 km NE of Mudginbarry Homestead, 12°31'S 132°54'E.

Type material. HOLOTYPE: ♂, '12.31S 132.54E 9 km N by E of Mudginbarry HS. NT. 30.x.72, at light, E. B. Britton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 5 ♀♀, '12.40S 132.54E Magela Creek, N.T. 9 km SSE of Mudginbarry HS. 6.xi.72, at light, E. Britton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 1 spec. ZKDC); 2 ♀♀, '12.40S 132.54E Magela Creek, 9 km SSE of Mudginbarry HS., N.T. 7.xi.1972, M. S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.41S 130.58E Berry Springs, N.T. 30 km SSE of Darwin 11.xi.72, at light, E. Britton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '12.06S 133.04E Cooper Creek, NT. 19 km E. by S. of Mt. Borradaile, 9.xi.72, M. S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '12.06S 133.04E Cooper Creek, NT., 19 km E. by S. of Mt. Borradaile, 2.xi.72, at light, E. Britton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '13.35S 132.36E NT: Kakadu NP Upper S. Alligator R. 4-5 June 1988 P. S. Cranston ex light trap [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♂♂ 1 ♀, 'Bessie Springs 16.40S 135.51E 8 km ESE of Cape Crawford, NT. 26 Oct. 1975 M. S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC).

Additional specimens. WESTERN AUSTRALIA: Drysdale River, 15°02'S 126°55'E, 3.–8.viii.1975, I. F. B. Common & M. S. Upton leg. (ANIC).

Description (holotype, male). Body length 2.1 mm. Body reddish brown, elytra with dark transverse paired spot in posterior half; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules minute and scattered. Clypeal granules indistinct, Setation of head vertex mostly short and fine, appressed, with few longer,

raised setae near base, coarser along eyes, especially ventro-laterally. Antennae moderately long; antennomeres III–V twice, X 1.2 times as long as wide; setation mostly rather short and fine, distinctly coarser to scaly on basal 3–4 antennomeres.

Pronotum 1.6 times as long as wide, its lateral margins somewhat unevenly convex, slightly angled at widest point; posterior collar narrow but distinct. Pronotal horn robust, moderately wide, its posterior angles slightly indicated in dorsal view (Fig. 150); horn margins armed with 4 narrow lobules on each side, apical lobule widely rounded and slightly emarginate medially; horn crest distinct, clearly raised, with rather small, separate rugules on margins; submarginal rugules minute, distinctly spaced; 9 median rugules, mostly well spaced. Setation whitish, scaly, much finer but conspicuous (dense) on dorsal surface of pronotal horn; scales on pronotal disc of two sizes, smaller and appressed or longer and subdecumbent, truncate to obtusely rounded apically; antebasal paired setae well-developed both laterally and medially (much longer and conspicuous laterally, all articulated near small, pointed granules), another tactile setae absent.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish and brownish, forming dark markings (Fig. 194), evenly developed and ordered; scales distinctly elongate, uniform, appressed and rounded to subtruncate apically, very densely spaced (surface hardly visible); erect tactile setae absent.

Male characters. Sternum VII simple. Tergum VIII and aedeagus as in Figs 51, 52.

Variation. Body length (♂♀) 1.7–2.1 mm; pronotal horn with 3–5 lobules on each side, apical lobule simply rounded to distinctly bilobed; 6–9 median rugules; elytra sometimes with two additional pairs of dark smaller spots (subapically and near base) and somewhat darkened medially along suture.

Differential diagnosis. *Mecynotarsus festivus* sp. nov. may resemble *M. weiri* sp. nov. by body coloration (largely whitish to greyish, with rather conspicuous dark markings on elytra), but differs clearly by setal characters (scales generally longer, finer on head, most antennomeres, and legs, dorsal surface of pronotal horn finely setose), by much wider and shorter pronotal horn and its crest (cf. Fig. 150 *versus* 167), as well as by the male characters.

Etymology. The species name is the Latin adjective *festivus*, -a, -um (= lively, festive, merry); named in reference to the conspicuous color pattern of specimens with well-developed dark markings on the elytra.

Distribution. Australia: Northern Territory.

Remarks. A single additional specimen from Drysdale River shares all important external characters of *M. festivus* sp. nov., but differs by the conspicuously longer antennae (antennomeres III–V 2.5–2.8 times, X 1.6 times as long as wide). It displays also a slightly different, more rounded apex of the parameres, and its identification is therefore tentative.

Mecynotarsus grandior sp. nov.

(Figs 53, 54, 135, 151, 195)

Type locality. Australia, Western Australia, 13 km ESE of Wittenoom, 22°18'S 119°52'E.

Type material. HOLOTYPE: ♂, '(22.18S 119.52E) 13 km. ESE. of Wittenoom, W.A. 11.xi.70. E. B. Britton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 2 ♂♂ 5 ♀♀, same data as holotype (ANIC); 6 ♀♀,

'Kimberley Research Station, Kununurra, nr. Wyndham, W.A. (15.28S 128.06E) 27.xi.1956 [p] // AUST. NAT. INS. COLL. [p]' (ANIC, 1 spec. ZKDC); 2 ♂♂, 'Kimberley Res. Stn., Light Trap W.A. October 1961. K. T. Richards [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂, '20.19S 119.15E WA North of Pilbara, De Grey River 25 April 1992 P. Gullan, P. Cranston [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '3 km. NWbyW. of Millstream HS., 21.34S 117.03E WA, 22 Apr. 1971 Upton & Mitchell [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♀♀, '1 km N of Millstream, W.A. (21.35S 117.04E) 9-10.iv.1971, M. S. Upton [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♀, 'Australien, WA, 52 Fortescue River, 137 km sw Roeburne 5.-6.12.1984 M. + B. Baehr [p] // *Mecynotarsus lateroalbus* Lea det. G. Uhmman 1992 [p+h]' (ZSMC); 1 ♂, '24.20S 132.53E NT Finke River at Running Water 15 March 1995 T. Weir, at light [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂ 1 ♀, '18.37S 137.59E GPS Border Waterhole, Musselbrook Ck 15 km W by S Musselbrook Mining Camp (QLD)NT 14 May 1995 T. Weir [p] // at light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, ZKDC); 1 ♀, 'Qld. Greenvale 70 km SW at light. 12-21 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028982 [p]' (SAMA); 1 ♀, same data, except: '22-30 Nov. 95' and 'SAMA Database No. 25-029030' (SAMA); 1 ♀, same data, except: '17-24 Jan 1997' and 'SAMA Database No. 25-029050' (SAMA); 2 ♂♂ 1 ♀, 'W. Normanby R., N. Qld., 40 ml. W. of Cooktown 2.i.1964. G. Monteith' (QMBA); 1 ♂, 'AUSTRALIA: N. Queensland 1917/1918 [p] // *Mecynotarsus concolor* King det. G. Uhmman 1994' (ZSMC).

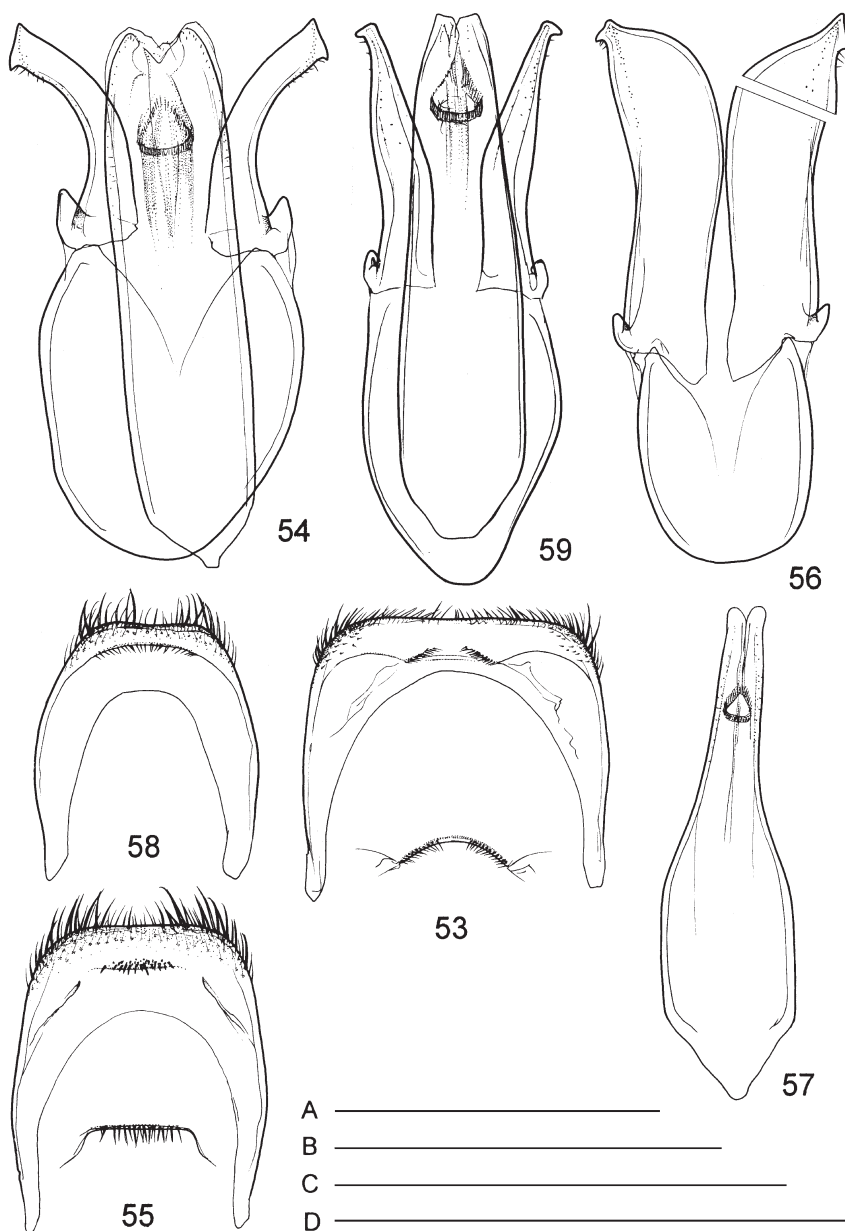
Description (holotype, male). Body length 2.8 mm. Head and pronotum largely reddish brown, pronotal disc distinctly darkened, elytra dark brown, with very vague markings; legs and antennae reddish brown.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules minute. Setation of head mostly rather coarsely hairy and appressed, especially around eyes and ventro-laterally, distinctly finer only posteriorly on vertex, and with some raised setae near base. Antennae rather long; antenno-meres III–V twice, X nearly 1.7 times as long as wide; setation mostly fine, distinctly coarser to scaly on basal 3–4 antennomeres.

Pronotum moderately globose, 1.7 times as long as wide, its lateral margins somewhat unevenly, moderately convex in dorsal view; posterior collar narrow. Pronotal horn robust, moderately wide, its posterior angles slightly indicated in dorsal view (Fig. 151); horn margins armed with 3 rather widely spaced lobules on each side, apical lobule simple, widely rounded; horn crest very conspicuous, situated rather posteriorly and forming semioval rim (interrupted anteriorly); submarginal rugules numerous, mostly coarse, distinctly spaced; single large, median longitudinal rugule and several minute granules scattered posteriorly. Setation whitish to greyish or pale brownish, scaly, distinctly finer, sparser and inconspicuous on pronotal horn dorsally; scales on pronotal disc of two sizes, shorter and appressed or longer and subdecumbent, both elongate, truncate apically and distinctly spaced (surface visible); antebasal paired setae absent medially, difficult to recognize laterally owing to presence of numerous additional tactile setae.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish to greyish and brownish, mixed medially and also forming vague markings (Fig. 195), scaly, appressed and evenly ordered; scales linear, rounded to subtruncate apically, dense but distinctly spaced (surface visible); erect tactile setae present, rather short and sparsely scattered, more numerous near base.

Male characters. Elytra subapically with a pair of long, moderately oblique, narrow, asetose strips (Fig. 135). Sternum VII moderately produced and rounded apically. Tergum VIII and aedeagus as in Figs 53, 54.



Figs 53–59. 53–54 – *Mecynotarsus grandior* sp. nov.: 53 – tergum VIII, 54 – aedeagus in dorsal view. 55–57 – *M. granulatus* sp. nov.: 55 – tergum VIII, 56 – tegmen in dorsal view, 57 – median lobe in dorsal view. 58–59 – *M. hirtipennis* sp. nov.: 58 – tergum VIII, 59 – aedeagus in dorsal view. Scale (0.5 mm): A – Fig. 58; B – Fig. 53; C – Figs 55–57; D – Figs 54, 59.

Variation. Body length (♂♀) 2.7–3.7 mm. Pronotal horn with 3–4 lobules on each side; apical lobule narrowly to widely rounded, its apex rarely somewhat impressed to bilobed; crest rim more or less widely interrupted anteriorly to nearly complete, rarely narrowly connected anteriorly with median rugule, its margins sometimes uneven (five fused coarse rugules). Markings of elytra may be both vague and rather distinct, with two paired, distinctly paler spots.

Differential diagnosis. *Mecynotarsus grandior* sp. nov. shares the divergent, evenly arcuate, apically obliquely truncate parameres of the aedeagus with *M. bullatus* sp. nov., but differs clearly in the following external characters: body colouration generally darker, scales somewhat finer, denser, and always opaque; pronotum narrower, at most globose (not transverse) and less bulging dorsally before base; pronotal horn more elongate and narrower, horn crest less raised, crest rim semioval and usually distinctly interrupted anteriorly (cf. Figs 151 *versus* 147, 148); antennae longer, basal antennomeres with shorter and finer setation.

Etymology. The species name is a Latin adjective, *grandior* (= larger, more powerful); named in reference to the larger body size and the conspicuous appearance.

Distribution. Australia: Northern Territory, Queensland, Western Australia.

Mecynotarsus granulatus sp. nov.

(Figs 55–57, 152, 175, 196)

Type locality. Australia, Northern Territory, Finke Gorge National Park, Palm Valley, 24°03'S 132°43'E.

Type material. HOLOTYPE: ♂, '24.03S 132.43E NT Finke Gorge NP Palm Valley 14 March 1995 T. Weir, at light [p] // AUST. NAT. INS. COLL. [p]' (ANIC). PARATYPES: 3 ♂♂ 8 ♀♀, '24.20S 132.53E NT Finke River at Running Water 15 March 1995 T. Weir, at light [p] // ANIC Specimen [p]' (ANIC, 2 spec. ZKDC); 1 ♂ 1 ♀, '27.08S 135.33E SA Ross Waterhole 4 Sept. 1989 I. Bunic, coll. attracted to light [p] // AUST. NAT. INS. COLL. [p]' (ANIC); 1 ♀, '25.22S 142.45E QLD Cooper Ck, 11km NE Windorah 4Apr1994 G. Maybard, G. Davis at MV light [p] // AUST. NAT. INS. COLL. [p]' (ANIC); 2 ♂♂ 2 ♀♀, 'Australien Alice Springs, NT 3.10.1972 [p] // Mecynotarsus leai Pic det. G. Uhmann 2006 [p]' (ZSMC); 1 ♀, 'AUSTRALIA, NORTHERN TERRITORY, W McDonell NP, Simpson Gap 23°40'S 133°43'E, 600 m, 3.-4.1.2009, Sv. Bílý leg.' (NMPC); 1 ♀, 'AUSTR. (NT), W McDonell NP, SIMPSON GAP, 23°40'S 133°43'E, 600 m, 3.-4.1.2009, S. Bílý leg. [p]' (ZKDC); 1 ♂ 4 ♀♀, 'AUSTRALIA, N. Territory, West MacDonnell Nat. Park, SIMPSON GAP, 23°40'S 133°43'E, 600 m, 3.-5.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 2 ♂♂ 2 ♀♀, 'Australien Alice Springs, NT 3.10.1972 [p] // Mecynotarsus leai Pic det. G. Uhmann 2006 [p]' (ZSMC, ZKDC); 1 ♂, 'Waterhouse Rg., N. T. 19.ix.63, P. Ranford [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂ 1 ♀, 'AUSTRALIA, QLD, „Dig Tree“, UV light trap, 22.XI.1998, G. Hangay' (HNHM); 1 ♂, 'Broken Hill New South Wales K. Dansie 1962 [p+h] // SAMA Database No. 25–028894' (SAMA); 2 ♂♂ 3 ♀♀, same data, but different numbers: 25–028892, 25–028893, 25–028897 to 99 (SAMA).

Description (holotype, male). Body length 3.1 mm. Head and pronotum reddish brown, elytra reddish, with darker markings; legs and antennae reddish.

Antero-lateral margins of frons slightly raised near insertion of antennae. Gular rugules of different sizes, anteriorly larger and ordered as in Fig. 138. Clypeal granules minute, nearly indistinct. Setation of head vertex mostly fine, appressed, with some long, more erect setae medially, shorter and coarser to scaly around eyes and ventro-laterally. Antennae conspicuously long; antennomere II distinctly shorter than III, antennomeres V–VII most elongate, 2.5 times as long as wide, antennomere X nearly twice as long as wide; basal 4–5 antennomeres with coarse to scaly setation.

Pronotum 1.6 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar very distinct; surface of pronotal disc with numerous scattered,

pointed granules (sparser and coarser dorso-laterally; Fig. 152), posterior collar medially with a pair of similar granules. Pronotal horn rather robust, moderately wide, subtriangular, its posterior angles moderately indicated in dorsal view (Fig. 152); horn margins armed with 4 rounded lobules on each side, apical lobule simple, widely rounded; horn crest distinct, rather wide, with coarse, separate rugules on margins; submarginal rugules numerous and distinct; 7 median rugules, rather coarse and mostly well-spaced, and some minute granules posteriorly. Setation scaly, whitish and pale reddish; scales on pronotal disc of two sizes, smaller scales appressed and whitish, larger scales subdecumbent and pale reddish, both elongate, widened and truncate apically; antebasal paired setae present both laterally and medially, somewhat difficult to recognize owing to presence of numerous additional tactile setae (especially laterally, including posterior collar).

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation scaly, pale reddish to brownish, forming rather distinct markings (Fig. 196), appressed and evenly ordered; scales rather uniform, linear, subtruncate apically and very dense (surface barely visible, Fig. 175); erect tactile setae absent.

Male characters. Sternum VII moderately produced and rounded medially. Tergum VIII and aedeagus as in Figs 55–57.

Variation. Body length (♂♀) 2.9–3.1 mm. Pronotal horn with 4–5 lobules on each side; 4–8 median rugules. Dark markings on elytra more or less extensive and conspicuous.

Differential diagnosis. *Mecynotarsus granulatus* sp. nov. is close especially to *M. nobilis* sp. nov. and *M. imitator* sp. nov. in having a granulate pronotal disc and uniformly short, rather dense setation of the elytra. It resembles the first species in male characters, but differs by the well-shaped smaller scales of the pronotal disc (bifurcate to somewhat frayed apically in *M. nobilis* sp. nov.), quite uniformly appressed setation of the elytra, and by the shape of the parameres (cf. Figs 56 *versus* 83). It differs from *M. imitator* sp. nov. by the somewhat more robust appearance, the rather extensive and conspicuous markings of the elytra, but primarily by the much wider, medially somewhat lobed and apically obliquely truncate parameres.

Etymology. The species name is a Latin adjective, *granulatus*, -a, -um (= granulate); named in reference to the granulate pronotal disc.

Distribution. Australia: New South Wales, Northern Territory, Queensland.

Mecynotarsus hirtipennis sp. nov.

(Figs 58, 59, 176)

Type locality. Australia, Northern Territory, Hull River, 33 km ESE of Docker River, 24°58'S 129°23'E.

Type material. HOLOTYPE: ♂, '24.58S 129.23E Hull River 33 km ESE of Docker River NT 17.xi.1977 T. A. Weir [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 1 ♀, same data as holotype (ANIC); 2 ♂♂, 'Hull River 33 km ESE of Docker River NT 17 Nov. 1977 J. A. L. Watson [h] // ANIC Specimen [p; green label]' (ANIC); 2 ♂♂ 2 ♀♀, 'Regans Ford W.A. 18 Oct. 1978 on Brand Hwy. at light K. & E. Carnaby [p] // AUST. NAT. INS. COLL. [p]' (ANIC); 4 ♂♂ 6 ♀♀, '(23.15S 119.52E) 13 km. E. by N. of Newman, WA. 12.xi.70. E. B. Britton [p] // ANIC specimen [p; green label]' (ANIC, 2 spec. ZKDC); 1 ♂, 'West Peawah R. WA 14.iv.1976 K. & E. Carnaby [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, 'Qld. Greenvale 70 km SW at light. 12-21 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028973 [p]' (SAMA); 1 ♀, same data, but database number 25-028985 (SAMA); 1 ♂, 'Qld. Greenvale 70 km SW at light. 28 Mar-7 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028952 [p]' (SAMA); 1 ♂, 'Qld. Greenvale 70 km SW at light 21-31 Oct. 95 A. J. Watts [p] // SAMA Database No. 25-029036 [p]' (SAMA); 2 spec.,

‘QLD. 70 km SW GREENVALE 15-24 FEB 95 A. J. Watts [p] // SAMA Database No. 25-029043 [p]’ (SAMA); 1 ♀, ‘AUSTR. (NT), W McDonnell NP, SIMPSON GAP, 23°40’S 133°43’E, 600 m, 3.-4.1.2009, S. Bílý leg.’ (NMPC); 1 ♂ 2 ♀♀, ‘AUSTRALIA, N. Territory West MacDonnell Range Nat. Park, SIMPSON GAP 23°40’S 133°43’E, 600 m, 3.-5.01.2009, St. Jakl leg. [p]’ (ZKDC, NMPC); 3 ♂♂, same data, except: 11.01.2009 (ZKDC).

Description (holotype, male). Body length 2.6 mm. Body reddish to reddish brown, elytra with vague darker markings; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different size, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules minute and distinct. Setation of head generally rather fine and sparse, hairy, mostly appressed on vertex, with a few longer, raised setae medially near base. Antennae moderately long; antennomeres III–V 1.8 times, X 1.3 times as long as wide; setation mostly fine, antennomere I conspicuously setose, including several long bristly setae.

Pronotum globose, 1.5 times as long as wide, its lateral margins rather strongly, evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust and wide, subtriangular, its posterior angles distinct in dorsal view; horn margins armed with 3 lobules on each side, posterior lobules very wide, apical lobule simple, widely rounded; horn crest very conspicuous, strongly raised, short and situated rather posteriorly, with rugules mostly fused and forming complete semicircular rim; submarginal rugules mostly coarse and distinctly spaced; single large, longitudinal median rugule and several minute granules scattered posteriorly. Setation whitish to pale yellowish, largely scaly, fine and inconspicuous on pronotal horn dorsally; scales on pronotal disc rather uniform, appressed, elongate, truncate apically, glossy, distinctly spaced (surface visible); antebasal paired setae absent medially, difficult to recognize laterally owing to presence of numerous additional tactile setae.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish and pale brownish, forming very vague brownish marking, coarse to nearly scaly, appressed, evenly ordered; scales linear, rounded to subtruncate apically, somewhat glossy, rather widely spaced (surface clearly visible, Fig. 176); tactile setae rather numerous and distinct, also present in apical third.

Male characters. Sternum VII nearly simple. Tergum VIII and aedeagus as in Figs 58, 59.

Variation. Body length (♂♀) 2.2–2.6 mm. Elytra rarely unicolorous and scales uniformly whitish to silvery (single specimen from Regans Ford).

Elytra in females nearly subtruncate apically, with apical margin slightly concave near median apical angle.

Differential diagnosis. *Mecynotarsus hirtipennis* sp. nov. is undoubtedly close to *M. bullatus* sp. nov. as suggested by similarity of both external (triangular pronotal horn, semicircular crest rim, numerous tactile setae) and male characters. It differs from the latter species especially by the somewhat shorter, uniformly appressed, simple setation of the pronotal disc, more slender antennae (basal antennomeres), longer tactile setae on the elytra, nearly subtruncate elytral apices in the females, and by the unevenly narrowing, apically rounded parameres.

Etymology. The species name is a Latin adjective *hirtipennis*, *-is*, *-e*, composed from the Latin words *hirtus* (= hirsute) and *pennes* (= wings, elytra); named in reference to the numerous, very long tactile setae of the elytra.

Distribution. Australia: Northern Territory, Queensland, Western Australia.

***Mecynotarsus hortensis* Lea, 1922**

(Figs 60, 61, 153, 197)

Mecynotarsus hortensis Lea, 1922: 511.*Mecynotarsus hortensis*: UHMANN (2007): 24 (redescription).*Mecynotarsus lateroalbus* Lea, 1922: 511, **syn. nov.***Mecynotarsus lateroalbus*: UHMANN (2007): 22 (redescription).**Type locality.** Australia, Western Australia, Swan River env.

Type material. *M. hortensis* – SYNTYPES: 2 ♂♂ 4 ♀♀ [mounted on the same card], ‘hortensis Lea TYPE Swan R [h+p] // 3483 *Mecynotarsus hortensis* Lea W. Australia TYPE [h] // SAMA Database No. 25-028559 [p]’ (SAMA); 2 ♂♂ 2 ♀♀, ‘Swan R Lea [p] // Co-type. [p] // I. 15331 *Mecynotarsus hortensis* Lea W. Australia Cotype [h] // SAMA Database No. 25-028560 [p]’ (SAMA); 1 ♂ 1 ♀, ‘Swan R Lea [p] // Co-type [p] // SAMA Database No. 25-028561’ (SAMA); 2 spec. [mounted on single card], ‘Swan R. Lea [p] // *Mecynotarsus hortensis* Lea, Co-type [p+h] // Paratype [p; bluish label] // A. H. Elston Collection [p] // Australian Museum K 269830 [p]’ (AMSA); 1 spec., ‘[bluish round label] // K49902 [h] // *Mecynotarsus hortensis* Lea, Co-type Swan R [p+h] // PARATYPE [p; bluish label] // Australian Museum K 269831 [p]’ (AMSA); 1 ♂ 1 ♀, ‘Swan R Lea [p] // PARATYPE [p; blue label] // On permanent loan from MACLEAY MUSEUM University of Sydney [p] // *Mecynotarsus hortensis* Lea W. Australia Cotype [h] AUST. NAT. INS. COLL. [p; green label] // ANIC Database No. 25 054224 [p]’ (ANIC); 1 ♂ 1 ♀, ‘Swan R Lea [p] // C/2604 [h] // CO-TYPE [p] // *Mecynotarsus hortensis* Lea, Co-type Swan R [p+h]’ (QMBA).

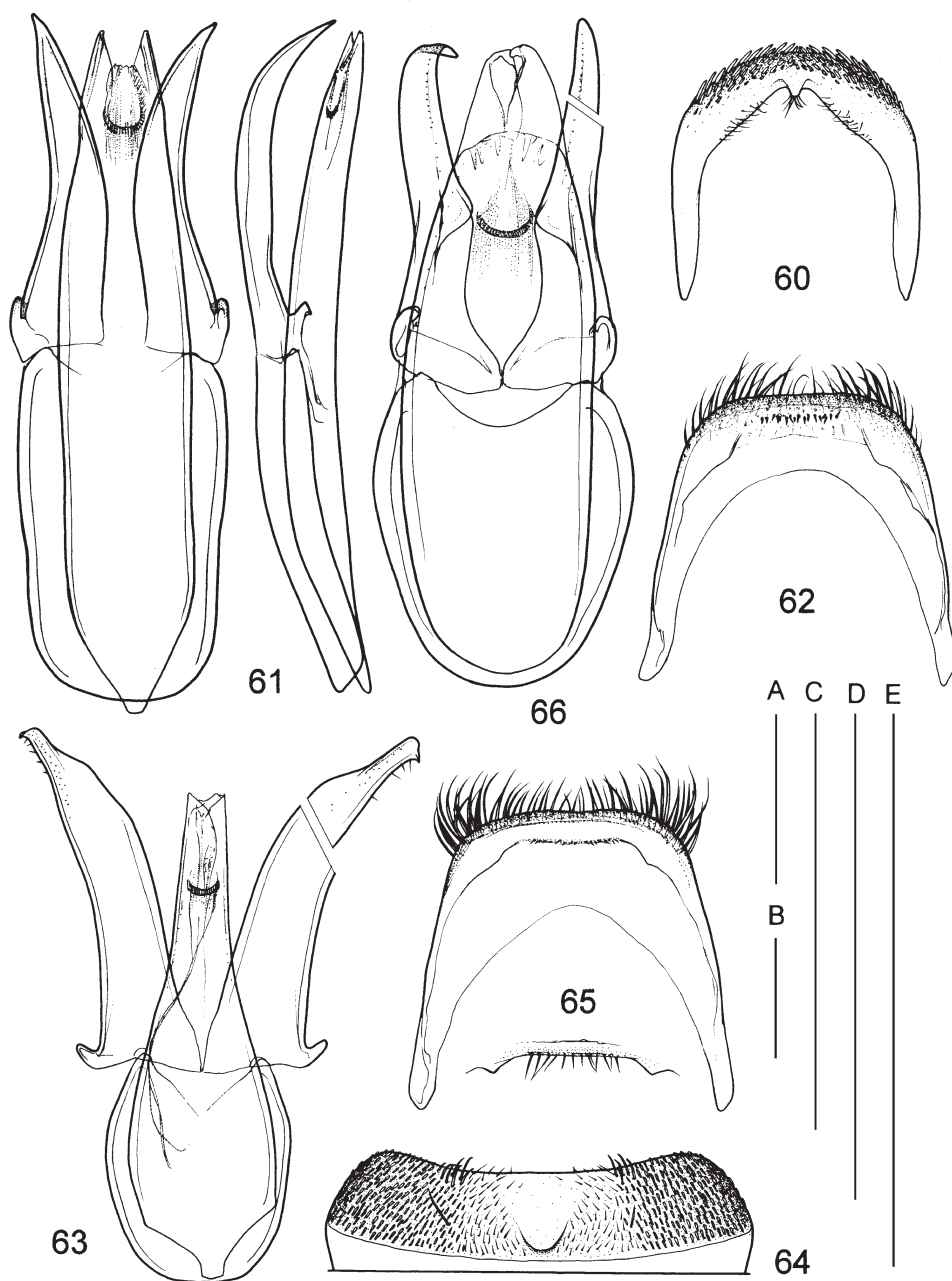
M. lateroalbus – SYNTYPES: 1 ♀, ‘lateroalbus Lea, TYPE Parachilna [p+h] // I. 15270 *Mecynotarsus lateroalbus* Lea S. Australia TYPE [h] // S.A. Museum Specimen [p; red label]’ (SAMA); 1 ♀, ‘Mt. Painter Flinders range H. G. Stokes [p] // Co-type [p] S.A. Museum Specimen [p]’ (SAMA); 1 ♀, ‘Cue, W.A. H. W. Brown [p] // Co-type [p] // 20637 *Mecynotarsus lateroalbus* Lea W. Australia Cotype [h] // S.A. Museum Specimen [p; red label]’ (SAMA).

Additional material. **AUSTRALIA: AUSTRALIAN CAPITAL TERRITORY:** 5 ♂♂ 2 ♀♀, Paddy’s River, 1.6 km S of Cotter Dam, 17.iv.1969, S. Misko leg. (ANIC); 1 ♂, Casuarina Sands, near Cotter Dam, ex stem *Acacia dealbata*, 28.xii.1981, P. J. Gullan leg. (ANIC); 1 ♂, Uriarra Crossing, 30 Dec. 1985, K. R. Pullen leg. (ANIC); 1 f *, Kambah Pool, flood debris, 15.ix.1978, Lawrence & Weir leg. (ANIC). **NEW SOUTH WALES:** 4 ♂♂ 3 ♀♀, Fowlers Gap Research Station, 31°05’S 141°42’E, at light, 29.xi.–2.xii.1981, J. C. Cardale leg. (ANIC, 2 spec. ZKDC); 1 ♂, Bungonia State Park, Shoalhaven River gorge, collected in sand / mud, 5.–7.x.1985, C. Reid leg. (ANIC); 1 ♂, 15 km NW of Moruya, Moruya River, 3.x.1982, J. & E. Doyen (ANIC); 1 ♀, Numbla Vale, Dalgety, 26.xi.1993, V. R. Bejsak leg. (ZKDC). **NORTHERN TERRITORY:** 1 ♂ 1 ♀, Trephina Gorge National Park, creek above John Hayes Rockhole, 23°32’S 134°21’E, 5.iii.1995, T. Weir leg. (ANIC). **QUEENSLAND:** 1 ♂, Cooper Creek near Dig Tree, UV light trap, 2.ii.1998, G. Hangay leg. (HNHM).

Redescription (syntype, male). Body length 2.4 mm. Dark reddish brown; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different size, anterior coarse rugules ordered, contiguous to nearly fused as in Fig. 139. Clypeal granules nearly indistinct. Setation of head evenly short, dense, finer and appressed on vertex, somewhat coarser laterally along eyes and ventrally. Antennae moderately long; antennomeres III–V about twice, X 1.5 times as long as wide; setation mostly rather short and fine, distinctly coarser in basal third / half, and with several long, stiff setae on basal antennomere.

Pronotum 1.4 times as long as wide, its lateral margins somewhat unevenly shaped, angled at widest point and then straight to slightly concave while narrowing towards base in dorsal view; posterior collar narrow but distinct. Pronotal horn robust, rather wide, its posterior angles distinct in dorsal view (Fig. 153); horn margins armed with 3–4 widely rounded lobules on each side; horn crest very distinct, clearly raised, coarse rugules on its margins nearly completely fused; submarginal rugules numerous, distinct, forming rather dense row laterally; single large median longitudinal rugule and few minute rugules posteriorly. Setation pale



Figs 60–66. 60–61 – *Mecynotarsus hortensis* Lea, 1922: 60 – tergum VIII, 61 – aedeagus in dorsal (left) and lateral (right) view. 62–63 – *M. imitator* sp. nov.: 62 – tergum VIII, 63 – aedeagus in dorsal view. 64–66 – *M. iuvenis* sp. nov.: 64 – sternum VII, 65 – tergum VIII, 66 – aedeagus in dorsal view. Scale (0.2 mm): A – Fig. 66; B – Fig. 65; (0.5 mm): C – Fig. 60; D – Fig. 64; E – Figs 61–63.

brownish, scaly and quite appressed; pronotal horn largely rather sparsely indistinctly setose dorsally; scales on pronotal disc with indistinct fine margins, nearly merging and entirely covering surface; antebasal paired setae distinct (somewhat thickened) both laterally and medially, another tactile setae absent.

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation similar to that on pronotum, scaly, whitish to pale brownish and brown, forming rather distinct markings, at places (antero-medially) somewhat mixed (Fig. 197); scales elongate, rounded apically, nearly merging and entirely covering surface; erect tactile setae absent.

Male characters. Sternum VII nearly simple. Tergum VIII and aedeagus as in Figs 60, 61.

Variation. Body length (♂♀) 1.9–2.7 mm. Pronotal horn with 3–5 lobules on each side; rugules of crest margins may be partly (narrowly) to completely fused, mostly distinct, rarely forming semioval rim with evenly shaped margins (specimens from Trephina Gorge National Park). Markings on elytra (brownish and whitish to silvery spots / bands) may be both conspicuous and partly (dorsally) or entirely absent.

Differential diagnosis. *Mecynotarsus hortensis* is nearly identical with *M. concolor*, showing usually somewhat darker colouration of the body scales (especially on the elytra, elytral apices brownish), and slightly different form of the parameres and the ventral lamina of male tergum VIII (median process narrower and more protruding, lateral sides setose) (cf. Figs 60, 61 and 40, 41).

Distribution. Australia: Australian Capital Territory (new record), New South Wales (new record), Northern Territory (new record), Queensland (new record), South Australia (LEA 1922, as *M. lateroalbus*), Western Australia (LEA 1922).

Mecynotarsus imitator sp. nov.

(Figs 62, 63)

Type locality. Australia, Northern Territory, 9 km SSE of Mudginbarry Homestead, Magela Creek, 12°40'S 132°54'E.

Type material. HOLOTYPE: ♂, '12.40S 132.54E Magela Creek, 9km SSE. of Mudginbarry HS., N.T. 7.xi.72, M.S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 1 ♂ 1 ♀, same data as holotype (ANIC); 7 spec., same data, except: 6.xi.72, at light, E. Britton (ANIC, 2 spec. ZKDC); 2 ♂♂ 2 ♀♀, 'Magela Ck., NT. 9 km SSE of Mudginbarry HS. 6 Nov. 1972 D.H. Colles [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.40S, 132.54E Magela Creek, 9 km SSE of Mudginbarry HS., N.T., 7.xi.1972, M. S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.52S, 132.46E Nourlangie Creek, 6km E. of Mt. Cahill, N.T. 18.xi.72, M.S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♂♂, '12.52S 132.50E Koongarra, 15km E. of Mt. Cahill, N.T. 15.xi.1972, M.S. Upton [p] // ANIC Specimen [p; green label]' (ANIC). 1 ♀, '12.06S 133.04E Cooper Creek, N.T. 19 km E. by S. of Mt. Borradaile, 31.v.73, E.G. Matthews [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 3 ♂♂ 1 ♀, 'AUSTRALIA, N. Territory Nitmiluk National Park, Edit Falls, 37 m alt, 14°10'S 132°06'E, 3.12.2008, St. Jakl leg. [p]' (ZKDC, NMPC).

Description (holotype, male). Body length 2.2 mm. Body, legs and antennae reddish to reddish brown.

Antero-lateral margins of frons nearly simple (at most slightly raised near insertion of antennae). Gular rugules coarser and ordered anteriorly, as in Fig. 138. Clypeal granules minute, nearly indistinct. Setation of head vertex mostly fine and appressed, coarser to scaly around eyes and ventro-laterally. Antennae conspicuously long; antennomeres V–VII most

elongate, about 2.5 times as long as wide, antennomere II rather moderately shorter than III, antennomere X 1.8 times as long as wide; basal 4–5 antennomeres with coarser to scaly setation, especially antennomere I with some distinct scales.

Pronotum 1.7 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar distinct; surface of pronotal disc with numerous minute granules, several coarser granules scattered also dorso-laterally (near tactile setae). Pronotal horn rather long, moderately wide, its posterior angles at most indicated in dorsal view; horn margins armed with 4 rather long, apically rounded lobules on each side, apical lobule widely rounded and slightly emarginate medially; horn crest distinct, moderately wide, with coarse, separate rugules on margins; submarginal rugules distinct, somewhat unevenly spaced; about 6 median rugules, partly contiguous. Setation whitish to pale reddish, mostly scaly, with some erect tactile setae; scales on pronotal disc of two sizes, smaller scales appressed, truncate to nearly bifurcate apically, larger scales linear, rather subdecumbent and truncate apically; antebasal paired setae present both laterally and medially; about 5 additional tactile setae present laterally on each side (articulated near granules).

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation scaly, pale reddish, rather uniform, with slight indication of brownish transverse band at mid-length; scales linear, rounded to subtruncate apically, evenly ordered and very densely spaced (surface barely visible); tactile setae absent.

Male characters. Sternum VII moderately produced and rounded medially. Tergum VIII and aedeagus as in Figs 62, 63.

Variation. Body length (♂♀) 2.2–2.6 mm. Pronotal horn with 5–9 contiguous to well-spaced median rugules. Brownish transverse band on elytra mostly vague to absent, rarely distinct.

Differential diagnosis. *Mecynotarsus imitator* sp. nov. belongs to a small group of species sharing the granulate surface of the pronotal disc. It resembles especially *M. nobilis* sp. nov. and *M. granulatus* sp. nov. by the comparatively short and dense setation of the elytra, but differs by the uniformly appressed elytral scales, lack of any tactile setae on the elytra (scales both appressed and subdecumbent, tactile setae present at least basally in *M. nobilis* sp. nov.), and by the narrower parameres with a strongly elongate, rounded apex, and a small subapical denticle (cf. Fig. 63 *versus* 56, 83).

Etymology. The species name is a Latin noun in apposition, *imitator* (= imitator, mimic); named in reference to the external similarity with *M. nobilis* sp. nov.

Distribution. Australia: Northern Territory.

Mecynotarsus juvenis sp. nov.

(Figs 64–66)

Type locality. Australia, Western Australia, 12 km S of Kalumburu Mission, 14°25'S 126°38'E.

Type material. HOLOTYPE: 1 ♂, '14.25 S 126.38 E CALM Site 13/4 12 km S of Kalumburu Mission W.A. 7-11 June 1988, T. A. Weir [p] // at light closed forest // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 5 ♀♀, same data as holotype (ANIC); 3 ♂♂ '16.02S 130.48E NT Jasper Gorge GPS 15 Oct. 2000 T. Weir & D. Yeates at light [p] // ANIC Specimen [p; green label]' (ANIC, 1 spec. ZKDC); 2 ♂♂ 1 ♀, '17.25S 124.56E WA Lennard River, 29 April 1992 P. J. Gullan, at light [p] // AUST. NAT. INS. COLL. [p]' (ANIC); 1 ♂, '13.45S 131.34E GPS Butterfly Gorge Nature Pk Douglas River NT 19 Jul. 1994, at light T. Weir, A. Roach [p] // AUST. NAT. INS. COLL.

[p; green label]' (ANIC); 6 ♂♂, 'AUSTRALIA, N. Territory Nitmiluk National Park, Edit Falls, 37 m alt, 14°10'S 132°06'E, 3.12.2008, St. Jakl leg. [p]' (ZKDC, NMPC).

Description (holotype, male). Body length 2.0 mm. Body, legs, and antennae reddish brown.

Antero-lateral margins of frons simple. Gular rugules minute and scattered. Clypeal granules minute to indistinct. Setation of head rather evenly short and appressed, dense and finer medially on vertex, coarser to scaly around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V at most nearly twice as long as wide, X about as long as wide; setation fine in apical half, and distinctly coarser to scaly in basal half.

Pronotum 1.6 times as long as wide, its lateral margins unevenly shaped, somewhat angled at widest point and then straight to slightly concave while narrowing towards base in dorsal view; posterior collar narrow but distinct, somewhat concealed by scaly setation. Pronotal horn moderately robust and wide, its posterior angles obsolete in dorsal view; horn margins armed with 4 lobules on each side; horn crest distinct, clearly raised, long and rather narrow, with coarse separate rugules on margins; submarginal rugules numerous, small and well-spaced; 5 small median rugules, mostly well-spaced, with some minute granules posteriorly. Setation whitish and reddish (dorsally), largely appressed and scaly, including dorsal surface of pronotal horn; scales on pronotal disc of two sizes / shapes, smaller and narrower or larger and wider, both widely rounded to truncate apically; antebasal paired setae short but distinct (somewhat thickened) laterally and absent medially, another tactile setae absent.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish and pale reddish to brownish, somewhat mixed anteriorly and forming darker marking, evenly developed / ordered; scales distinctly elongate, rounded to subtruncate apically, very densely spaced but distinct; erect tactile setae absent.

Male characters. Sternum VII with small, sharply bordered median impression near base (Fig. 64). Tergum VIII and aedeagus as in Figs 65, 66; parameres strongly curved in apical third in lateral view.

Variation. Body length (♂♀) 1.8–2.2 mm. Pronotal horn with 4–5 lobules on each side; 5–8 median rugules. Dark markings of elytra in some specimens less distinct to absent.

Differential diagnosis. *Mecynotarsus iuvenis* sp. nov. is very close to *M. albellus* and also to *M. ziczac*, as suggested by the similar form of the parameres. It differs from both of these species by the presence of a small, sharply bordered median impression on male sternum VII, and the long, conspicuously raised setation of male tergum VIII; and from *M. albellus* by the evenly narrowing parameres that lack a small denticle / angulation on the lateral margins shortly before the apex.

Etymology. The species name is a Latin adjective, *iuvenis* (= young); named in reference to rather detailed differences distinguishing this species from *M. ziczac* and *M. albellus*.

Distribution. Australia: Northern Territory, Western Australia.

Remarks. Since females of *Mecynotarsus iuvenis* sp. nov. cannot really be distinguished from those of *M. ziczac*, only males of the former species are included in the types series for the localities that are shared between these two species (Jasper Gorge, Edit Falls; females are all tentatively identified as *M. ziczac*).

***Mecynotarsus kingii* MacLeay, 1872**

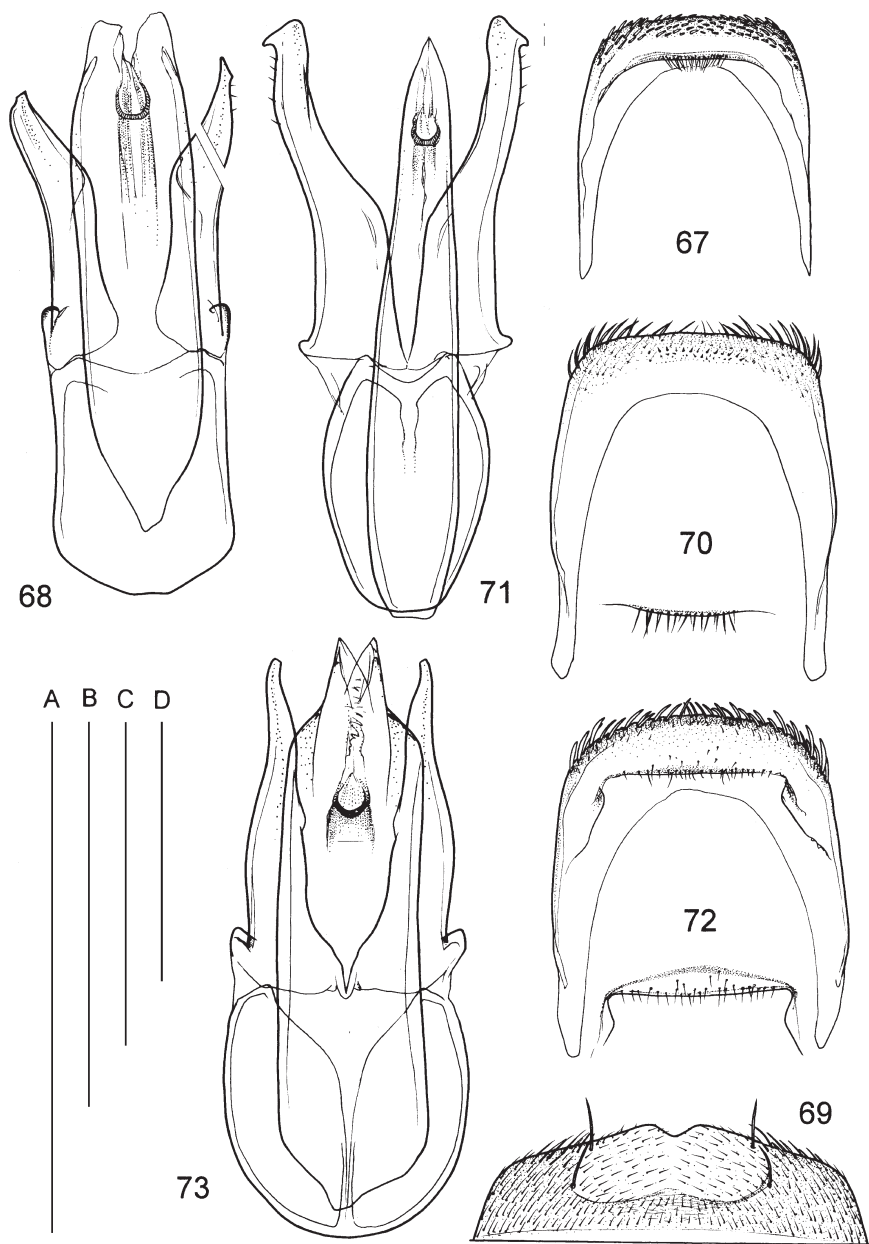
(Figs 67, 68, 121, 132, 154, 177, 198)

Mecynotarsus kingii MacLeay, 1872: 305.*Mecynotarsus kingii*: PIC (1911): 14 (catalogue); LEA (1922): 472 (catalogue).**Type locality.** Australia, Queensland, Gayndah.**Type material.** LECTOTYPE [here designated; Fig. 121]: ♀, '[orange round label] // K35019 [h] // *Mecynotarsus* Kingi MacL. W. Gayndah [h] // HOLOTYPE [p; red label] // K 269832 [p]' (AMSA). PARALECTOTYPES: 1 ♀, same data as lectotype [mounted on same card] (AMSA); 1 ♀ (Fig. 198), 'Gayndah [p] // *Mecynotarsus* Kingi McL [h] // Co-type [p] // 19041 *Mecynotarsus* Kingi MacL Queensland Cotype [h] // SAMA Database No. 25-028562 [p]' (SAMA); 1 spec. [fragments], 'Gayndah [p] // SYNTYPE [p; red-orange label] // On permanent loan from MACLEAY MUSEUM University of Sydney [p] // *Mecynotarsus* Kingii MacL. Gayndah [h] // AUST. NAT. INS. COLL. [p; green label] // ANIC Database No. 25 054225 [p]' (ANIC); 3 ♂♂ [mounted on single card], the same data, except: '*Mecynotarsus* Kingi' and 'ANIC Database No. 25 054226' (ANIC).**Additional material.** **AUSTRALIA: AUSTRALIAN CAPITAL TERRITORY:** 1 ♂, Ginninderra, at light, 19.ii.1975, K. R. Pullen (ANIC); 1 ♀, Uriarra Crossing, 30.xii.1985, K. R. Pullen (ANIC). **SOUTH AUSTRALIA:** 4 ♂♂ 1 ♀, Murray River, A. H. Elston leg. (AMSA); 6 ♂♂ 1 ♀, Adelaide, at beach, xii.1958, C. Watts leg. (SAMA). **NEW SOUTH WALES:** 1 ♂ 5 ♀♀, Bungonia State Park, Shoalhaven River Gorge, 5.–7.x.1985, C. Reid leg. (ANIC, 1 spec. ZKDC); 1 ♂ 2 ♀♀, Moree, 29.xii.1971, B. Cantrell leg. (QMBA). **QUEENSLAND:** 1 ♀, Canungra ca. 75 km S of Brisbane, UV light near creek, 175 m, 9.–10.i.1991, Pollock & Reichert leg. (DCDC); 3 ♀♀, Carnarvon National Park, Sect. Salvator Rosa, i.97, Wachtel leg. (ZSMC); 1 ♂ 1 ♀, Carnarvon National Park, S of Lake Nuga Nuga, i.1997, Wachtel leg. (ZSMC, ZKDC).**Redescription** (paralectotype, female, SAMA). Body length 2.8 mm. Body largely reddish brown, pronotal disc distinctly darker, nearly brown black, elytra with rather vague markings, darker medially, especially in basal third, paler reddish apically and laterally.

Antero-lateral margins of frons distinctly raised to somewhat lobed near insertion of antennae (Fig. 132). Gular rugules of different sizes, anteriorly larger, nearly contiguous and ordered similarly as in Fig. 138. Clypeal granules rather distinct. Setation of head largely short, fine and appressed on vertex, with numerous distinctly longer, mostly raised setae in median line, somewhat coarser, subdecumbent laterally along eyes. Antennae moderately long; antennomeres III–V about twice, X 1.2 times as long as wide; setation mostly fine, distinctly coarser to scaly on three basal antennomeres, with several long, stiff setae on antennomere I.

Pronotum globose, its lateral margins rather strongly, evenly convex in dorsal view; posterior collar narrow but distinct. Pronotal horn robust and wide, subtriangular, its posterior angles distinct in dorsal view (Fig. 154); horn margins armed with 4 and 5 lobules on lateral sides, apical lobule simple; horn crest distinct, wide, with coarse rugules on margins; distinct submarginal rugules somewhat unevenly spaced; numerous median rugules of different sizes. Setation whitish, largely scaly and appressed, inconspicuous on pronotal horn dorsally; scales on pronotal disc of different sizes, widely rounded to truncate apically; antebasal paired setae present laterally and absent medially, numerous additional tactile setae present antero-laterally.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation scaly, appressed, evenly developed, whitish and brownish, forming rather distinct markings (Fig. 198); scales shortly oval, subtruncate apically, opaque, densely spaced but distinct (Fig. 177); erect tactile setae absent.



Figs 67–73. 67–68 – *Mecynotarsus kingii* MacLeay, 1872: 67 – tergum VIII, 68 – aedeagus in dorsal view. 69–71 – *M. kreusleri* King, 1869: 69 – sternum VII, 70 – tergum VIII, 71 – aedeagus in dorsal view. 72–73 – *M. leai* Pic, 1942: 72 – tergum VIII, 73 – aedeagus in dorsal view. Scale (0.5 mm): A – Figs 70–73; B – Fig. 69; C – Fig. 67; D – Fig. 68.

Male characters (paralectotype, ANIC). Sternum VII moderately produced and slightly emarginate apically. Tergum VIII and aedeagus as in Figs 67, 68; parameres rather strongly curved in apical third.

Variation. Body length (♂♀) 2.8–3.4 mm. Pronotal horn usually with four lobules on each side; median rugules sometimes fused and forming coarse sculpture. Dark markings of elytra vaguely indicated to rather distinct.

Differential diagnosis. *Mecynotarsus kingii* resembles especially *M. pilbarensis* sp. nov. by the similar body shape, morphology of the pronotal horn, setation, and the male characters. It can be distinguished by the somewhat prolonged frontal portion of the head, the antero-lateral margins of the frons subparallel, distinctly raised to somewhat lobed near insertion of antennae (Fig. 132), and by the apically strongly narrowed and more curved parameres (cf. Figs 68 versus 103).

Distribution. Australia: Australian Capital Territory (new record), New South Wales (new record), Queensland (MACLEAY 1872), South Australia (new record).

Remarks. MACLEAY (1872) described *M. kingii* from an unstated number of specimens collected near Gayndah in Queensland. The seven type specimens must be regarded as syntypes, and together represent three different species. At least some of the printed type labels were subsequently added by curators. They are stored in three institutions (AMSA, ANIC and SAMA): AMSA – two females of two clearly different species, one designated as lectotype, the other is very close or even conspecific with *M. granulatus* sp. nov.; SAMA – a female in very good condition (Fig. 198), conspecific with the lectotype; ANIC – a strongly damaged torso and three males in good condition, mounted on the same label and belonging to two very close species (one of them conspecific with the lectotype, and used herein for description of male characters of *M. kingii*, the other two probably specimens of *M. pilicornis* sp. nov.).

Mecynotarsus kreusleri King, 1869

(Figs 69–71, 199)

Mecynotarsus kreusleri King, 1869: 4.

Mecynotarsus kreusleri: MACLEAY (1872): 305 (record); LEA (1895): 609 (record); PIC (1911): 14 (catalogue); LEA (1922): 473 (catalogue); UHMANN (2007): 23 (redescription, record).

Type locality. South Australia, Gawler, dried riverbed of the Gawler River.

Type material. SYNTYPES: 3 spec. [mounted on single card], '[round, orange label] // K 36015 [h] // Mecynotarsus Kreusleri Gawler Mrs Kr. [h] // HOLOTYPE [p; red label] Australian Museum K 269874 [p]' (AMSA).

Additional material. AUSTRALIA: AUSTRALIAN CAPITAL TERRITORY: 1 ♀, Tidbinbilla, 1.iv.1961, B. P. Moore leg. (ANIC); 8 ♂♂ 4 ♀♀, Kambah Pool, Murrumbidgee River, 30.x.1989, J. & R. Bell leg. (DCDC, 4 spec. ZKDC); 1 ♀, Uriarra Crossing, 20.xii.1985, K. R. Pullen leg. (ANIC). NEW SOUTH WALES: 1 ♂ 1 ♀, Woodbrook, 32°29'S 149°35'E, UV light, 26.i.1991, V. Lorimer leg. (ANIC); 6 ♂♂, Baragoo, Grattai Creek, 32°40'S 149°29'E, washed gravel, 27.i.1991, V. Lorimer leg. (ANIC); 1 ♀, 12 km N of Melong, 32°59'S 148°52'E, riverside, 27.x.1991, T. Gush leg. (ANIC); 1 ♀, 10 km NE of Moree, 29°25'S 149°54'E, gravely riverside, 26.x.1991, T. Gush leg. (ANIC); 1 ♀, Eshton, 32°29'S 149°30'E, gravely riverside, 27.i.1991, V. Lorimer leg. (ANIC); 1 ♂, Khancoban, below Khancoban dam, 36°13'S 148°06'E, 300 m, UV light near river, 13.ii.1987, A. Newton & M. Thayer leg. (ANIC); 1 ♂, Barraba, ii.1933, C. Hapsou leg. (ANIC); 5 ♂♂ 1 ♀, Araluen, Apple tree Creek, 6.xii.1975, W. & S. Allen leg. (ANIC); 2 ♂♂ 2 ♀♀, Numbla Vale, Dalgety, 26.xi.1993, V. R. Bejśák leg. (ZKDC). QUEENSLAND: 2 spec., Gayndah [no date and collector] (AMSA, ZSMC); 11 spec., Kuranda, viii.1949, J. G. Brooks leg. (AMSA, ANIC); 10 spec., Cairns [no date and collector] (QMBA); 2 spec., Cairns district [no date], A. M. Lea leg. (AMSA); 7 ♂♂ 6 ♀♀, Stewart's Creek, Daintree, cantharidin lure, 15.x.1967, J. G. Brooks leg. (ANIC, BMNH); 1 spec., Brandy Creek, 8

miles NE of Proserpine, 20°20'S 148°41'E, at light, 11.xii.1968, Britton & Misko leg. (ANIC); 1 ♀, 11 km ENE of Mount Tozer, 11.–16.vii.1986, T. Weir & A. Calder leg. (ANIC); 1 ♂, Cardstone, 3.ii.1966, K. Hyde leg. (ANIC); 1 ♀, Cardstone, 2.iv.1967, J. G. Brooks leg. (ANIC); 1 ♂ 3 ♀♀, Canungra, ca. 75 km S of Brisbane, UV light near creek, 175 m, 9.–10.I.1991, Pollock & Reichert leg. (DCDC); 1 ♂, Tamborine Mountains, Cedar Creek National Park, Picnic Area, dry sclerophyll forest, UV light, 575 m, 9.i.1991, Pollock & Reichert leg. (DCDC); 1 ♂, Kuranda, sandy riverbank, 1.xi.1950, W. L. Brown leg. (DCDC); 2 ♂♂ 1 ♀, Davies Creek, Kuranda – Mareeba Road, x.1950, W. L. Brown leg. (DCDC); 1 ♂, Upper Mulgrave River, 1.–3.xii.1965, G. Monteith leg. (QMBA); 1 ♀, Mossman Gorge, via Mossman, 7.xii.1966, B. Cantrell leg. (QMBA); 4 ♂♂, 'The Boulders' via Babinda, 15.xii.1966, B. Cantrell leg. (QMBA). **SOUTH AUSTRALIA:** 13 ♂♂ 14 ♀♀, Gawler [no date], Odewahn leg. (NMPC); 1 ♂ 1 ♀, Mt. Remarkable, x.1925, F. E. Wilson leg. (ANIC); 1 ♂ 2 ♀♀, South Australia [no date and collector] (ANIC); 1 ♀, Eringunda Valley, Flinders Ranges, 6.iv.1973, E. G. Matthews leg. (SAMA); 1 ♀, Brisbane, v.1981, Wachtel leg. (ZSMC); 1 ♀, Gympie, Brooyar State Forest, 12.iii.1997, Wachtel leg. (ZSMC). **VICTORIA:** 1 ♂, Cann River, flood debris, 20.–25.v.1978, S. & J. Peck leg. (ANIC); 3 ♀♀, Lake Burrumbeet [no date and collector] (BMNH).

Redescription (male, Gawler, NMPC). Body length 2.6 mm. Body brown, at places with reddish tinge, elytra unicolorous; legs and antennae pale reddish brown.

Antero-lateral margins of frons simple, at most slightly raised. Gular rugules of different sizes, anteriorly ordered as in Fig. 138. Clypeal granules indistinct. Setation of head vertex mostly short and fine, appressed, with some longer suberect setae medially, especially near base. Antennae rather long; antennomeres III–V about 1.8 times, X 1.4 times as long as wide; setation generally rather hairy, somewhat coarser on basal antennomeres.

Pronotum 1.6 times as long as wide, its lateral margins somewhat unevenly shaped, slightly angled at widest point and straight while narrowing towards base in dorsal view; posterior collar narrow but distinct. Pronotal horn rather robust, moderately wide, its posterior angles obsolete in dorsal view; horn margins armed with 4 mostly wide lobules on each side; horn crest distinct, clearly raised, rather narrow, with coarse, separate rugules on margins; submarginal rugules numerous, somewhat unevenly spaced; single, somewhat uneven, longitudinal median rugule. Setation mostly whitish, pale brownish with slight cupreous reflection dorsally, rather coarsely hairy (not really scaly), finer on pronotal horn dorsally, but even here rather distinct; setae on pronotal disc of two sizes, shorter and appressed or longer and subdecumbent, both rather linear and truncate apically; antebasal paired setae rather long and conspicuous laterally, absent medially, another tactile setae absent.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish and brownish, forming rather distinct transverse bands / spots (Fig. 199), uniformly short and appressed; setae coarsely hairy to scaly (linear), truncate apically, evenly ordered and sparse (surface clearly visible); erect tactile setae absent.

Male characters. Sternum VII distinctly modified (Fig. 69). Tergum VIII and aedeagus as in Figs 70–71.

Variation. Body length (♂♀) 2.1–2.9 mm. Pronotal horn with 4–5 lobules on each side. Body typically brown black (old specimens from Gawler seem to be faded).

Differential diagnosis. *Mecynotarsus kreusleri* can be easily recognized by the body colouration (brown black with rather contrastingly whitish setose bands / spots on the elytra), elytral setae / scales linear, truncate apically and distinctly spaced (surface visible), as well as by the male characters (modified sternum VII and rather distinctive shape of parameres).

Distribution. Australia: Australian Capital Territory (new record), New South Wales (LEA 1895), Queensland (MAC LEAY 1872), South Australia (KING 1869, UHMANN 2007), Victoria (new record).

***Mecynotarsus leai* Pic, 1942**

(Figs 72, 73, 155, 200)

Mecynotarsus maculatus Lea, 1922: 510 (preoccupied by *M. maculatus* Pic, 1916).*Mecynotarsus leai* Pic, 1942: 16 (substitute name for *M. maculatus* Lea, 1922).*Mecynotarsus leai*: UHMANN (1922): 23 (redescription).**Type locality.** Australia, Tasmania, Hobart.

Type material. SYNTYPES: 4 ♂♂ 4 ♀♀ [mounted on single card, Fig. 125], 'maculatus Lea, TYPE Hobart [p+h] // I. 15313 *Mecynotarsus maculatus* Lea Tasmania TYPE [h] // SAMA database 25-028563 [p]' (SAMA); 2 ♀♀ [mounted on single card], 'Hobart [h] // *Mecynotarsus maculatus* Lea, Co-type [p+h] // Griffith Collection Id. by A. M. Lea [p] // SAMA Database No. 25-028567 [p]' (SAMA); 4 ♂♂ 4 ♀♀ [mounted on single card, handwritten sex-marks near specimens], 'Hobart Tas Lea [p] // Co-type [p] 1808 . 2282 *Mecynotarsus maculatus* Lea Tasmania Cotype [h] // SAMA Database No. 25-028566 [p]' (SAMA); 4 ♀♀ [mounted on single card], 'Sydney Beach...H. W. Cox [h; partly illegible] // Co-type [p] // maculatus N. S. Wales Cotype [h] SAMA Database No. 25-028568 [p]' (SAMA); 3 ♂♂ 4 ♀♀ [two cards, single pin], 'Pt. Lincoln S.A.; Lea [p] // Co-type [p] // maculatus S. Australia Cotype [h] // SAMA Database No. 25-028564 [p]' (SAMA); 3 ♂♂ 1 ♀ [two cards with handwritten N.Q.v., single pin], 'N. Queensland Blackb's Coll. [p] // Co-type [p] // maculatus Queensland Cotype [h] // SAMA Database No. 25-028565 [p]' (SAMA); 2 ♀♀ [single card], 'Co-type [p; round label, yellow margin] // Brit. Mus. 1927-139 [p] *Mecynotarsus maculatus* Lea, Co-type Tasmania [p+h]' (BMNH); 2 spec. [strongly damaged], 'Tasmania [p] // 2925 *Mecynotarsus maculatus* Lea, Co-type Tasmania [p+h] // A. H. Elston Collection. [p] // PARATYPE [p; bluish label] // Australian Museum K 269837 [p]' (AMSA); 1 ♂ 1 ♀, 'Hobart Tas. Lea [p] // [blue round label] // K49901. [h] // *Mecynotarsus maculatus* Lea, Co-type [p+h] // PARATYPE [p; blue label] // Australian Museum K269836 [p]' (AMSA); 1 ♂ 1 ♀, 'Hobart Tas: Lea [p] // PARATYPE [p; blue label] // On permanent loan from MACLEAY MUSEUM University of Sydney [p] // *Mecynotarsus maculatus* Lea Tasmania Cotype [h] AUST. NAT. INS. COLL. [p; green label] // ANIC Database No. 25 054227 [p]' (ANIC); 1 ♂ 1 ♀, 'Hobart Tas. Lea [p] // C/2603 [h] // CO-TYPE [p] // *Mecynotarsus maculatus* Lea, Co-type [p+h]' (QMBA).

Additional material. AUSTRALIA: NEW SOUTH WALES: 3 ♂♂ 1 ♀, Sydney [no date, E. W. Fergusson Collection] (ANIC); 2 ♂♂, Congo, 8 km SEbyE of Moruya, 35°58'S 150°09'E, 15.-19.ii.1982, M. S. Upton leg. (ANIC); 6 ♂♂ 5 ♀♀, Tomakin Beach, sand dunes, at night, 26.x.1982, Doyen & Lawrence leg. (ANIC); 11 ♂♂ 29 ♀♀, Richmond Beach, 35°24'S 150°18'E, pitfall traps, 17.-18.xi.1991, P. Greenslade, Y. Suhardjono leg. (ANIC). VICTORIA: 2 ♂♂ 1 ♀, 'E. Smith VICT. 7/49' (ANIC); 7 ♂♂ 1 ♀, 5 km E of Marlo, in dune sand, 22.v.1984, J. F. Lawrence leg. (ANIC); 1 ♂ 2 ♀♀, Barwood Homestead [?, illegible, no date and collector] (BMNH); 2 ♀♀, Wilson, i.1961 [no collector] (SAMA). TASMANIA: 1 ♂ 3 ♀♀, 'Hobart Tas: Lea' [identification label '*Mecynotarsus albellus*' by Uhmman] (HNHM, ZSMC); 1 ♂, same locality label (QMBA).

Redescription (male, Hobart, QMBA). Body length 2.8 mm. Body reddish brown, elytra unicolorous, legs and antennae slightly paler.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger somewhat ordered. Clypeal granules minute but distinct. Setation of head very short and fine, appressed medially on vertex, distinctly coarser around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V nearly 1.9 as long as wide, X slightly transverse, 0.9 times as long as wide; setation mostly fine, rather coarse to scaly on basal 3–4 antennomeres.

Pronotum 1.8 times as long as wide, its lateral margins somewhat unevenly shaped, rather rounded at widest point and nearly straightly narrowing towards base in dorsal view; posterior collar narrow but distinct. Pronotal horn robust, moderately wide, its posterior angles obsolete in dorsal view (Fig. 155); horn margins armed with five, comparatively small (narrow) lobules on each side, apical lobule bilobed, dorsal side evenly vaulted and covered by rugules, horn crest at most slightly indicated. Setation whitish, mostly scaly; scales on pronotal disc of two lengths, shorter and appressed or longer and subdecumbent,

both truncate apically; erect tactile setae absent; antebasal paired setae rather long and conspicuous laterally, absent medially.

Elytra nearly 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish and reddish, forming rather vague, transverse spot at mid-length (Fig. 200), uniformly short and appressed, scaly, evenly ordered; scales rather elongate, nearly linear, rounded apically, densely spaced but distinct (surface visible); erect tactile setae absent.

Male characters. Sternum VII moderately produced and slightly emarginate apically. Tergum VIII and aedeagus as in Figs 72, 73.

Variation. Body length (♂♀) 2.3–3.0 mm. Pronotal horn with 4–5 lobules on each side; apical lobule sometimes nearly simple, widely rounded, with slight median incision. Reddish transverse spot on elytra distinct to vaguely indicated.

Differential diagnosis. *Mecynotarsus leai* displays a rather distinctive morphology of the pronotal horn (indistinct crest, evenly scattered rugules). In addition, it can be easily recognized by the male characters, mainly by the tegmen being strongly narrowed apically, and by the somewhat sinuous, apically narrowed, simply rounded to subtruncate parameres.

Distribution. Australia: New South Wales (LEA 1922), Victoria (new record), Tasmania (LEA 1922).

The records of *M. maculatus* from Queensland and South Australia (LEA 1922) refer to misidentified specimens of *M. albellus*.

Mecynotarsus magelae sp. nov.

(Figs 74, 75, 156–158, 201, 202)

Type locality. Australia, Northern Territory, 9 km SSE of Mudginbarry Homestead, Magela Creek, 12°40'S 132°54'E.

Type material. HOLOTYPE: ♂, '12.40S 132.54E Magela Creek, N.T. 9 km SSE of Mudginbarry HS. 6.xi.72, at light E. Britton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC). PARATYPES: 4 ♂♂ 4 ♀♀, same data as holotype (ANIC, 1 spec. ZKDC); 1 ♂ 1 ♀, 'Magela Ck., NT. 9km. SSE of Mudginbarry HS. 6 Nov. 1972 D. H. Colless [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC, ZKDC); 3 ♀♀, '12.40S, 132.54E Magela Creek, 9 km SSE. of Mudginbarry HS., N.T. 7.xi.72, M. S. Upton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.06S 133.04E Cooper Creek, N.T., 19 km E. by S. of Mt. Borradaile, 2.xi.72, at light, E. Britton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♀, same data, except: 9.xi.72, M. S. Upton (ANIC); 1 ♀, 'Cooper Ck., N.T. 19 km. E by S of Mt. Borradaile, 2 Nov. 1972 D. H. Colless [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♀, '12.17S 133.20E Cooper Creek, NT. 11 km S. by W. of Nimbuwah Rock 1.xi.72, at light E. B. Britton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 5 ♀♀, '12.52S, 132.50E Koongarra, 15 km E. of Mt. Cahill, N.T. 15.xi.1972, M. S. Upton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC, 2 spec. ZKDC); 2 ♂♂ 1 ♀, '12.47S, 132.51E 19 km NE. By E. of Mt. Cahill, N.T. 16.xi.1972, M. S. Upton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♂ 3 ♀♀, 'Bessie Spring 16.40S 135.51E 8 km ESE of Cape Crawford, NT. 26 Oct. 1975 M. S. Upton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♂, '13.45S 131.34E GPS Butterfly Gorge Nature Pk Douglas River NT 19 Jul. 1994, at light T. Weir, A. Roach [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♂, '8 km ENE of Victoria Riv. Downs, N.T. 12 July, 1973 L. P. Kelsey [p] // At light [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂, '13.15S, 131.06E Adelaide River, N. T. 17.x.72, M.S. Upton [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♂, 'McArthur River 16.27S 136.05E 48 km SW by S of Borroloola, N.T. 13.iv.1976 at light J.E. Feehan [p] // ANIC Specimen [p; green label]' (ANIC); 3 ♂♂, 'AUSTRALIA, N. Territory, Banka Banka env., road to Tennanth Creek 14°53'S 132°01'E, 316 m, 12.-13.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 2 ♂♂ 4 ♀♀, 'Kimberley Res. Stn. Light Trap W.A. October 1961. K. T. Richards // ANIC Specimen [p; green label]' (ANIC); 1 ♂ 1 ♀, 'Kimberley Research Station, Kununurra, nr. Wyndham, W.A. (15.28S 128.06E) 27.xi.1956 [p] // AUST. NAT. MUS. INS. COLL. [p;

green label]' (ANIC); 1 ♂, '16.22S 125.12E W.A. Charnley Riv. 2 km SW Rolly Hill CALM Site 25/2 16-20 June 1988 I. D. Naumann [p] // at light, open forest near closed forest margin // *Mecynotarsus* sp. 4 det. T.A. Weir 1989 [p+h] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 4 ♀♀, same data, but lacking 3rd label (ANIC, 1 spec. ZKDC); 3 ♂♂ 1 ♀, '14.49S 126.49E Carson escarpment W.A. 9-15 Aug. 1975 I.F.B. Common and M.S. Upton [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♀, '15.38S 125.15E W.A. CALM Site 28/3 4km W of King Cascade 12-16 June 1988 T.A. Weir [p] at light, open forest [p] // *Mecynotarsus* sp. 5 det. T.A. Weir 1989 [p+h] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 2 ♀♀, '12.27S 142.38E QLD Moreton, 10 Dec. 1992 W. Dressler, P. Zborowski, at light [p] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♂, 'Qld. Greenvale 70 Km SW at light 1-13 Jan. 96 A.J. Watts [p] // SAMA Database No. 25-029048 [p]' (SAMA); 2 ♀♀, same data, except: '14-24 Mar 1995' and database number 25-028959 (SAMA); 1 ♀, 'Karumba, Qld. 27-28.v.1972 G.B. & S.R. Monteith [p]' (QMBA).

Description (holotype, male). Body length 1.8 mm. Head largely brown black, somewhat paler ventrally, pronotum and elytra reddish brown, elytra with vague darker marking; legs and antennae reddish.

Antero-lateral margins of frons simple (not raised near antennal insertion). Gular rugules anteriorly coarser, contiguous to fused as in Figs 138, 139. Clypeal granules minute. Setation of head short and appressed, rather fine medially on vertex (erect setae absent), distinctly coarser to scaly around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V about twice, X as long as wide; setation mostly fine, coarser on basal four antennomeres, especially antennomere I with some whitish scales.

Pronotum moderately transverse, 1.4 times as long as wide, its lateral margins rather strongly, somewhat unevenly convex in dorsal view; posterior collar narrow but distinct. Pronotal horn rather robust and wide, triangular, its posterior angles projecting in dorsal view (Fig. 156); horn margins armed with 4 lobules on each side, apical lobule simple, widely rounded; horn crest very conspicuous, strongly raised, short and situated rather posteriorly, forming nearly complete semicircular rim with single small, separate rugule posteriorly on each side; submarginal rugules numerous, distinctly spaced; single large, longitudinal median rugule and several minute granules posteriorly. Setation whitish, scaly, much finer and rather inconspicuous on pronotal horn dorsally; scales on pronotal disc quite appressed, somewhat variable in length (not clearly of two sizes), longitudinally oval, rounded to subtruncate apically, very densely spaced and somewhat glossy; antebasal paired setae present both medially and laterally (median pair shorter and coarser); additional tactile setae absent.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation greyish and brownish, forming vague brownish markings (Fig. 201), scaly, appressed and evenly ordered; scales similar to those on pronotal disc, but smaller and rather opaque, very densely spaced (surface not visible); erect tactile setae absent.

Male characters. Sternum VII slightly produced medially. Tergum VIII and aedeagus as in Figs 74, 75; parameres evenly curved in apical half.

Variation. Body length (♂♀) 1.7–2.4 mm. Pronotal horn with 3–4 (mostly 4) lobules on each side, varying in shape; apical lobule simply and widely rounded to nearly bilobed; rugules of crest margins mostly fused and forming evenly shaped rim (Figs 156, 157), rarely separate (Fig. 158). Dark markings of elytra reduced (Fig. 201) to extensive (Fig. 202) and more or less sharply outlined.

Differential diagnosis. *Mecynotarsus magelae* sp. nov. may resemble *M. pilbarensis* sp. nov., especially for specimens with more extensive dark markings of the elytra (cf. Fig. 202 *versus* 206) or lacking the evenly shaped crest rim of the pronotal horn (Fig. 158). It differs from this species by the shorter and more compact, posteriorly situated crest of the pronotal horn (rugules mostly fused and forming a semicircular rim as in Figs 156, 157), the single and rather simply shaped median rugule, the dense fringe of whitish scales on the posterior margin of the pronotum (sparser, pale and rather linear scales in the other species), and by the male characters (cf. Figs 74, 75 *versus* 102, 103).

Etymology. The species name is a noun in genitive case; named after the type locality.

Distribution. Australia: Northern Territory, Queensland, Western Australia.

Mecynotarsus mastersii MacLeay, 1872

(Figs 76–79, 159, 203)

Mecynotarsus mastersii MacLeay, 1872: 305.

Mecynotarsus mastersii: Pic (1911): 14 (catalogue); LEA (1922): 473 (catalogue); UHMANN (2007): 2 (redescription, record).

Type locality. Australia, Queensland, Gayndah.

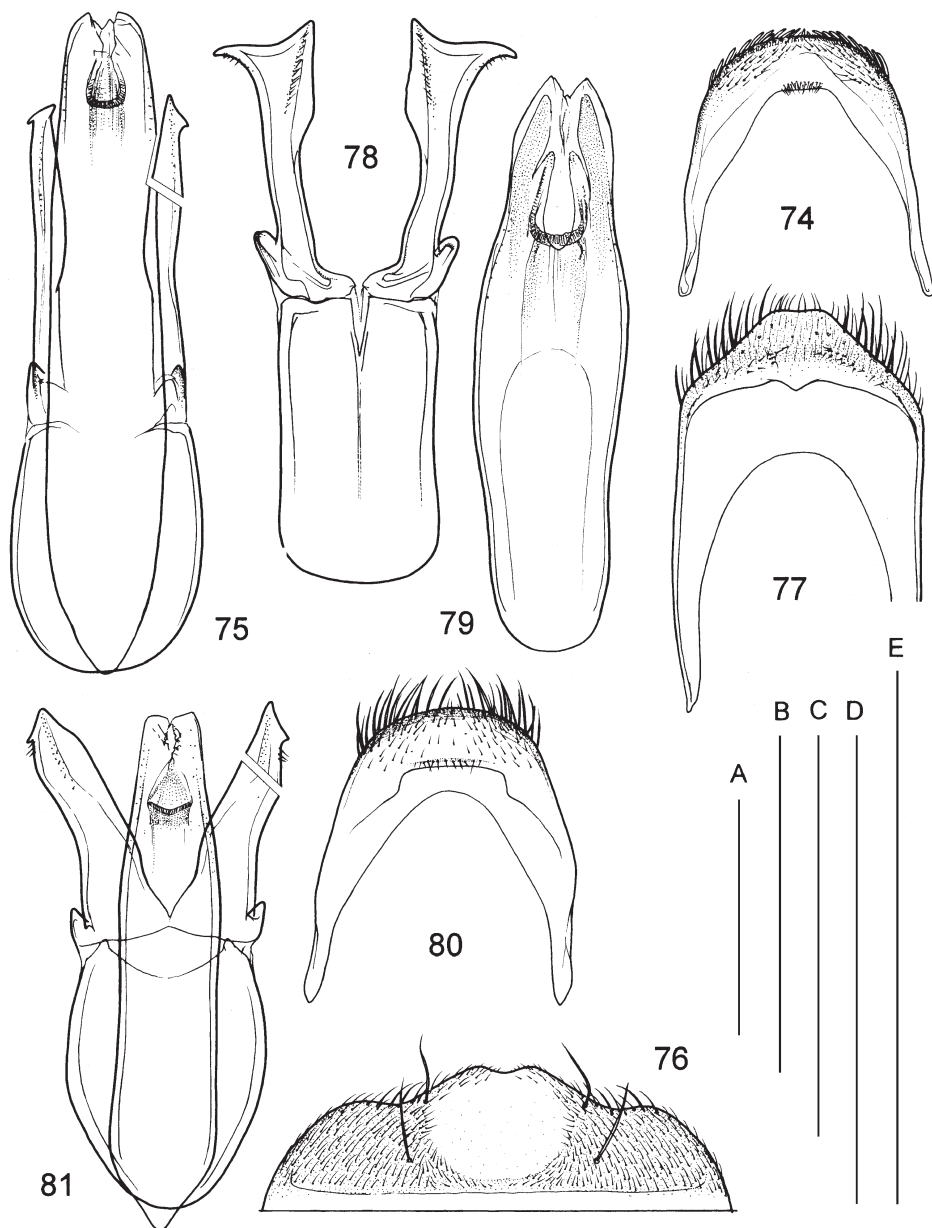
Type material. SYNTYPE: ♀, [‘round orange label’ // 667 [h] // A35018 [h] // *Mecynotarsus Mastersi* MacL. W. Gayndah [h] // HOLOTYPE [p; red label] // Australian Museum K 269875 [p] (AMSA).

Additional material. AUSTRALIA: AUSTRALIAN CAPITAL TERRITORY: 1 ♂, Paddy’s River, 1.6 km S of Cotter Dam, 17.iv.1969, S. Misko leg. (ANIC). QUEENSLAND: 1 ♂, Mulgrave River [no date], Hacker leg. (BMNH); 6 ♂♂ 7 ♀♀, Tamborine Mountains, Cedar Creek National Park, Picnic Area, dry sclerophyll forest, UV light, 575 m, 9.i.1991, Pollock & Reichert leg. (DCDC, 4 spec. ZKDC); 1 ♂, 13 km W of Kuranda, 1.xii.1982, J. T. Doyen leg. (ANIC); 1 ♂, Davies Creek, Kuranda – Mareeba Road, x.1950, W. L. Brown leg. (DCDC); 5 ♂♂ 3 ♀♀, 9 km ENE of Mount Tozer, 12°43’S 143°17’E, 5.–10.vii.1986, T. Weir & A. Calder leg. (ANIC, 1 spec. ZKDC); 3 ♀♀, 3 km ENE of Mount Tozer, ex pan traps, 28.vi–4.vii.1986, J. C. Cardale leg. (ANIC); 1 ♂, Upper Cedar Creek, via Samford, 14.iv.1972, I. Naumann leg. (QMBA); 2 ♂♂, Cape York Peninsula, Iron Range, 11.–17.v.1968, G. Monteith leg. (QMBA); 2 ♂♂, East Barron, 17°18’S 145°31’E, rainforest, dung pitfall trap, 12.–13.v.2007, G. Monteith leg. (QMBA). NEW SOUTH WALES: 1 ♀, Tumut River, 1500, 3.x.1955, J. Sedlacek leg. (ZKDC).

Redescription (male, Cedar Creek, ZKDC). Body length 2.9 mm. Body brown black, pronotal horn somewhat paler; legs and antennae dark brown.

Antero-lateral margins of frons simple. Gular rugules generally small and scattered. Clypeal granules indistinct. Setation of head vertex short and fine, appressed, as such also on lateral sides. Antennae rather long and slender; antennomeres III–V about 2.4 times, X 1.6 times as long as wide; setation generally rather fine and less conspicuous.

Pronotum nearly 1.9 times as long as wide, its lateral margins somewhat unevenly shaped, rounded at widest point and straight to concave while narrowing towards base in dorsal view; posterior collar quite distinct. Pronotal horn rather long, moderately wide, its posterior angles obsolete in dorsal view (Fig. 159); horn margins armed with 5 lobules on each side, apical lobule simple; horn crest distinct, clearly raised, rather wide, with coarse, separate rugules on margins; submarginal rugules minute, somewhat unevenly spaced; 9 median rugules of different sizes, minute to rather large / coarse. Setation brownish, dorsally with cupreous reflection, rather coarsely hairy, generally fine and inconspicuous on pronotal horn dorsally; setae on pronotal disc of two lengths, short setae appressed and rather fine, long setae subdecumbent,



Figs 74–81. 74–75 – *Mecynotarsus magelae* sp. nov.: 74 – tergum VIII, 75 – aedeagus in dorsal view. 76–79 – *M. mastersii* MacLeay, 1872: 76 – sternum VII, 77 – tergum VIII, 78 – tegmen in dorsal view, 79 – median lobe in dorsal view. 80–81 – *M. mollis* sp. nov.: 80 – tergum VIII, 81 – aedeagus in dorsal view. Scale (0.2 mm): A – Fig. 75; (0.5 mm): B – Fig. 76; C – Fig. 77; D – Figs 80, 81; E – Figs 74, 78, 79.

coarser and with frayed apices; antebasal paired setae rather long and conspicuous laterally, absent medially, another tactile setae absent.

Elytra 1.7 times as long as wide; omoplates and postbasal impression distinct. Setation mostly brownish, at places with cupreous reflection, with silvery setae forming two transverse bands in postbasal impression and posterior half; setae uniformly long and subdecumbent, rather coarse and sparse (surface clearly visible), bifurcate apically, unevenly ordered, especially silvery setae of transverse bands pointing mostly laterad (Fig. 203); erect tactile setae absent.

Male characters. Sternum VII distinctly modified (Fig. 76). Tergum VIII and aedeagus as in Figs 77–79.

Variation. Body length (♂♀) 2.6–2.9 mm. Pronotal horn with 3–5 distinct lobules on each side, and 8–12 median rugules. Apex of male tergum VIII nearly bluntly pointed for the specimens from Cape York Peninsula (QMBA).

Differential diagnosis. *Mecynotarsus mastersii* can be easily distinguished from all species by the unevenly shaped dorsal surface of the elytra (with distinct omoplates and a postbasal impression), unevenly ordered elytral setation (whitish setae of transverse bands pointing mostly laterad), as well as by the male characters.

Distribution. Australia: Australian Capital Territory (new record), Queensland (MACLEAY 1872, UHMANN 2007), New South Wales (new record).

Mecynotarsus mollis sp. nov.

(Figs 80, 81)

Type locality. Australia, Northern Territory 12°35'S 132°52'E.

Type material. HOLOTYPE: ♂, '12.35S, 132.52E Magela Creek, 2km N. of Mudgibarry HS., N.T. 14.xi.72, M.S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 4 ♂♂ 1 ♀, same data as holotype (ANIC, 1 spec. ZKDC); 1 ♂, '[p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '16.08S 136.06E 22km WSW of Borroloola, NT. 2 Nov. 1975 M.S.Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.52S 132.47E Nourlangie Creek, N.T. 8km E of Mt. Cahill, 22.v.73, at light, E.G. Matthews [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '12.52S, 132.50E Koongarra, 15km E. of Mt. Cahill, N.T. 15.xi.1972, M.S.Upton [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂, 'Bessie Spring 16.40S 135.51E 8 km ESE of Cape Crawford, N.T. 12.iv.1976, at light J.E. Feehan [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂ 1 ♀, 'AUSTRALIA, N. Territory Nitmiluk National Park, Edit Falls, 37 m alt, 14°10'S 132°06'E, 3.12.2008, St. Jakl leg. [p]' (ZKDC).

Description (holotype, male). Body length 2.2 mm. Body, legs, and antennae reddish to reddish brown; elytra with vague brownish markings.

Antero-lateral margins of frons simple (not raised / lobed near insertion of antennae). Gular rugules somewhat coarser and ordered anteriorly as in Fig. 138. Clypeal granules indistinct. Setation of head vertex mostly fine, appressed (no long raised setae), distinctly coarser around eyes and ventro-laterally. Antennae conspicuously long; antennomere II at most slightly shorter than III, antennomeres III–V 2.6–2.7 times as long as wide, X nearly twice as long as wide; basal 4–5 antennomeres with coarser setation.

Pronotum 1.7 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar quite distinct; surface of pronotal disc with minute granules, especially medially near base of pronotal horn. Pronotal horn moderately robust and wide, its posterior angles at most indicated in dorsal view; horn margins armed with 4 rather long, apically rounded lobules on each side, apical lobule simple, widely rounded; horn crest

distinct, with coarser, separate rugules on margins; submarginal rugules small, partly serial; about 7 distinct median rugules, well-spaced. Setation whitish to pale reddish, scaly, mostly appressed to subdecumbent, with a few erect setae, finer and sparser on pronotal horn dorsally, indistinct subapically; scales on pronotal disc of two sizes, smaller scales appressed, larger scales subdecumbent, linear and truncate apically; antebasal paired setae present both laterally and medially; several additional tactile setae present laterally on each side.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish to pale reddish and brownish, somewhat mixed and also forming vague brownish markings, scaly, appressed to subdecumbent and evenly ordered; scales linear, somewhat unevenly long but not clearly double (uniform), rounded to subtruncate apically, moderately dense (surface visible); erect tactile setae absent.

Male characters. Sternum VII moderately produced and rounded medially. Tergum VIII and aedeagus as in Figs 80, 81.

Variation. Body length (♂♀) 2.1–2.5 mm. Pronotal horn with 5–8 median rugules. Brownish markings of elytra vaguely indicated to quite distinct.

Differential diagnosis. *Mecynotarsus mollis* sp. nov. resembles *M. regalis* sp. nov. by the longer and sparser setation of the elytra (scales linear, surface visible), but differs by the somewhat more slender body, less conspicuous granules of the pronotum, lack of tactile setae on the elytra, and mainly by the shape of the parameres of the aedeagus (cf. Fig. 81 *versus* 107).

Etymology. The species name is a Latin adjective, *mollis*, -is, -e (= soft, delicate, subtle); named in reference to its delicate appearance.

Distribution. Australia: Northern Territory.

Mecynotarsus nobilis sp. nov.

(Figs 82, 83, 178)

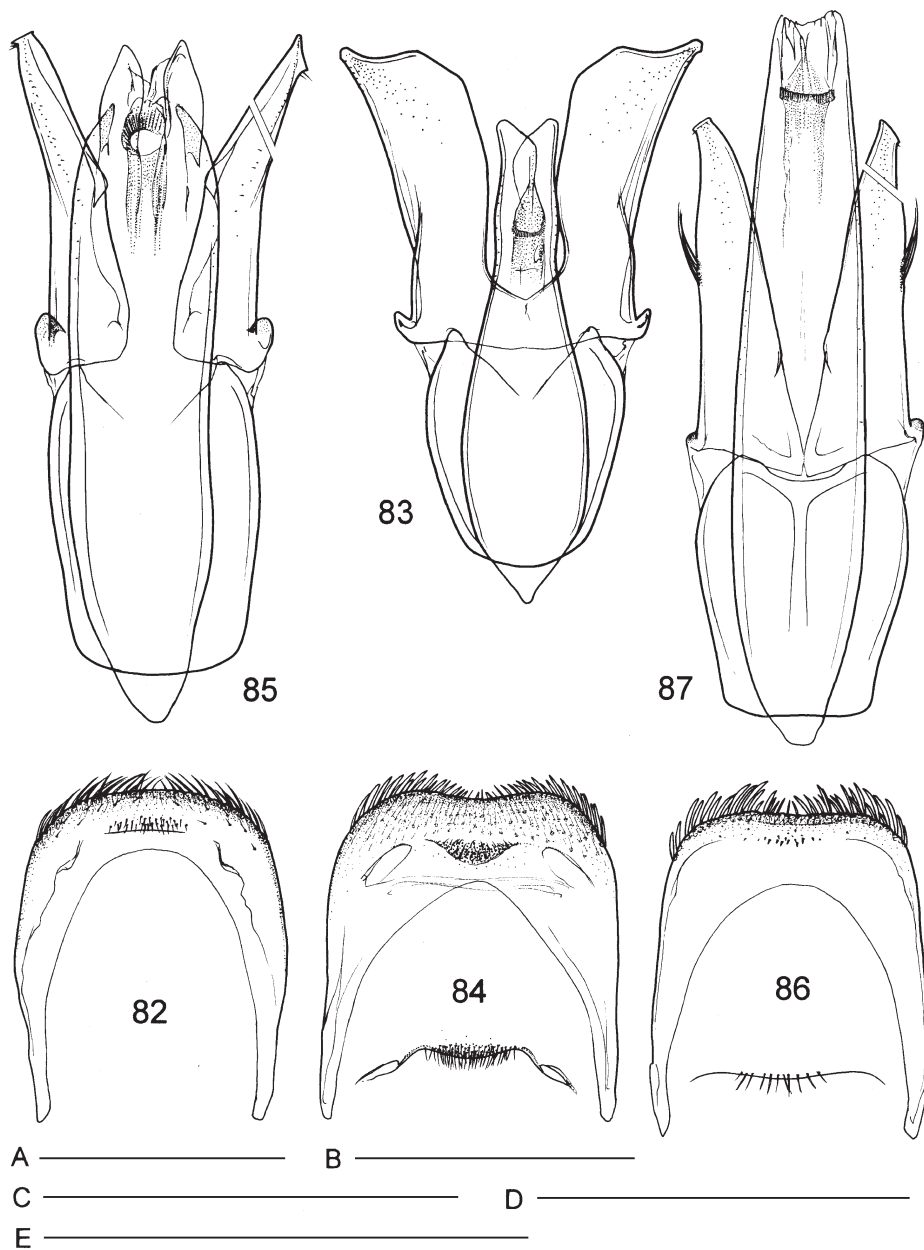
Type locality. Australia, Northern Territory, Keep River Xing [= crossing], 1 km ENE of Jarnarm, Keep River National Park, 15°45'S 129°06'E.

Type material. HOLOTYPE: ♂, '15°45'S 129°06'E GPS NT: Keep River Xing 1km ENE Jarnarm Keep River Nat. Pk. 25–27 May 2001 T.Weir & P. Bouchard [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 1 ♂, 'Qld. Greenvale 70 Km SW at light 22–31 Oct. 95 A.J.Watts [p] // SAMA Database No. 25-029010 [p]' (SAMA); 1 ♂, 'Australien, QLD Carnarvon Nat. P. Sekt. Salvator Rosa 1.97, leg. Wachtel [p] // *Mecynotarsus amabilis* Lea det. G. Uhmann 2002 [p] // compared with type [p]' (ZSMC); 1 ♀, 'Christmas Ck, 15 km W. of Fairview, via Laura, N. Qld. 26–27.vi.1975 G.B. Monteith' (QMBA).

Description (holotype, male). Body length 2.6 mm. Body, legs and antennae reddish to reddish brown.

Antero-lateral margins of frons slightly raised near insertion of antennae. Gular rugules coarser and somewhat ordered anteriorly as in Fig. 138. Clypeal granules minute to indistinct. Setation of head rather hairy, mostly appressed, with some long, more raised setae medially on vertex and basally. Antennae conspicuously long; antennomere II distinctly shorter than III, antennomeres V–VII most elongate, 2.2–2.5 times as long as wide, X 1.6 times as long as wide; basal 4–5 antennomeres with coarser to scaly setation.

Pronotum 1.8 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar distinct; surface of pronotal disc with numerous scattered granules (sparser and coarser dorso-laterally), posterior collar medially with a pair of similar minute granules.



Figs 82–87. 82–83 – *Mecynotarsus nobilis* sp. nov.: 82 – tergum VIII, 83 – aedeagus in dorsal view. 84–85 – *M. obesus* sp. nov.: 84 – tergum VIII, 85 – aedeagus in dorsal view. 86–87 – *M. parvulus* sp. nov.: 86 – tergum VIII, 87 – aedeagus in dorsal view. Scale (0.2 mm): A – Fig. 86; B – Fig. 87; (0.5 mm): C – Fig. 85; D – Figs 84; E – Figs 82, 83.

Pronotal horn rather long, moderately wide, its posterior angles at most slightly indicated in dorsal view; horn margins armed with 4 rather long, apically rounded lobules on each side, apical lobule widely rounded and slightly emarginate medially; horn crest distinct, moderately wide, with coarse, separate rugules on margins; submarginal rugules distinct, numerous, somewhat unevenly spaced; about 7 median rugules, rather coarse and well-spaced. Setation whitish to silvery and pale reddish, rather heterogeneous, comprised of very fine, bifurcate to somewhat frayed undersetae (covering also dorsal side of pronotal horn), longer and coarser subdecumbent setae, and very long tactile setae; subdecumbent setae on pronotal disc linear and truncate apically; antebasal paired setae present both laterally and medially, somewhat difficult to recognize laterally owing to presence of numerous additional tactile setae (articulated near granules).

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish to pale reddish and brownish, forming brownish markings (Fig. 178); scales of two sizes, shorter scales appressed, longer scales subdecumbent, both linear and rounded to subtruncate apically, evenly ordered, densely spaced (surface barely visible); several short tactile setae present near base.

Male characters. Sternum VII moderately produced and rounded medially. Tergum VIII and aedeagus as in Figs 82, 83.

Variation. Body length (♂♀) 2.6–3 mm. Pronotal horn with 5–7 median rugules. Tactile setae of elytra longer and more numerous, present even in apical half for all three specimens from Queensland.

Differential diagnosis. *Mecynotarsus nobilis* sp. nov. appears to be closest to *M. granulatus* sp. nov. in sharing similarly widened to moderately lobed parameres, but differs clearly by the more heterogeneous setation of the elytra that is comprised of shorter appressed scales, somewhat longer, subdecumbent scales and tactile setae (elytral setation uniformly appressed in the latter species), as well as by the angled median margin (distally) and rather simply rounded apex of parameres.

Etymology. The species name is a Latin adjective, *nobilis*, -is, -e (= noble, high-born, famous); named in reference to the conspicuous setation of the elytra.

Distribution. Australia: Northern Territory, Queensland.

Mecynotarsus obesus sp. nov.

(Figs 84, 85, 136, 160, 179, 204)

Type locality. Australia, Northern Territory, 39 km E of Alice Springs, 23°41'S 134°15'E.

Type material. HOLOTYPE: ♂, '23.41S 134.15E 39 km E of Alice Springs NT, 5 Oct. 78 Upton & Barrett [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 1 ♂ 10 ♀♀, '24.58S 129.23E Hull River 33 km ESE of Docker River NT 17.xi.1977 T. A. Weir [p] // ANIC Specimen [p; green label]' (ANIC, 2 spec. ZKDC); 1 ♀, same data, except 'S. A. L. Watson' on the 1st label [h] (ANIC); 1 ♂, '23.35S 134.22E 53 km E by N of Alice Springs N.T. 6 Oct. 1978 M. S. Upton' (ANIC); 5 ♂♂ 10 ♀♀, 'Australien Alice Springs, NT 3.10.1972 [p] // *Mecynotarsus albellus* Pascoe det. G. Uhmann 2004 [p]' (ZSMC, ZKDC); 2 ♂♂ 3 ♀♀, 'AUSTRALIA, N. Territory, West MacDonnell Nat. Park, SIMPSON GAP, 23°40'S 133°43'E, 600 m, 3.-5.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 1 ♀, same data, except: 11.01.2009 (ZKDC); 1 ♀, 'AUSTRALIA: N. Queensland 1917/1918 [p] // HUGHENDEN N. QUEENSL. F. M. 12.I.1918 [h]] // *Mecynotarsus albellus* Pascoe det. G. Uhmann 2004 [p]' (ZSMC).

Description (holotype, male). Body length 3.7 mm. Body reddish brown, elytra with rather vague darker marking; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules minute to indistinct. Setation of head rather coarse and conspicuous, hairy, mostly appressed to subdecumbent, with numerous long, more raised setae medially on vertex, especially near base. Antennae rather moderately long; antennomeres III–V nearly twice, X 1.3 times as long as wide; setation mostly fine, coarser on basal antennomeres, especially antennomere I conspicuously setose, with numerous long, stiff setae.

Pronotum moderately transverse, 1.4 times as long as wide, its lateral margins rather strongly, nearly evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust, subtriangular, its posterior angles distinct in dorsal view (Fig. 160); horn margins armed with 4 wide lobules on each side, apical lobule simple, widely rounded; horn crest distinct, raised, with coarse, contiguous to partly fused rugules on margins, evenly lowering anteriorly in lateral view; submarginal rugules rather coarse and distinctly spaced; median rugules largely fused and forming irregular longitudinal sculpture, numerous minute granules scattered posteriorly. Setation whitish, slightly yellowish to pale reddish dorsally, largely scaly and appressed; scales on pronotal disc of two sizes, larger scales rather glossy and distinctly truncate apically; antebasal paired setae absent medially and present laterally, somewhat difficult to recognize owing to presence of another tactile setae (about 15 on each side, especially antero-laterally; also posterior collar dorsally with some longer, bristly setae).

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation whitish, to pale reddish and brownish, forming rather vague brownish markings (Fig. 204), scaly, appressed and evenly ordered; scales moderately elongate, rounded to subtruncate apically, glossy, densely but distinctly spaced (surface visible, Fig. 179); scattered tactile setae absent, but humeri with numerous bristly setae on basal margins.

Male characters. Sternum VII moderately produced and rounded medially. Tergum VIII and aedeagus as in Figs 84, 85.

Variation. Body length (♂♀) 3.5–4.2 mm. Pronotal horn with 4–5 lobules on each side (sometimes contiguous or fused at base); rugules of crest margin sometimes fused and forming uneven rim, frequently connected with median rugules. Darker marking on elytra absent in some specimens.

Differential diagnosis. *Mecynotarsus obesus* sp. nov. is a larger robust species, that seems to be very close to *M. phanophilus* in the male and numerous external characters, e.g. pronotum globose with numerous tactile setae, pronotal horn subtriangular, and elytra with appressed, glossy scales and some bristly setae on the humeri. It differs mainly by the longer, anteriorly evenly lowering crest of the pronotal horn, by the wider, more rounded body scales that are entirely appressed on the pronotal disc (scales narrower, nearly linear and truncate apically, partly subdecumbent on pronotum in *M. phanophilus*; cf. Fig. 179 versus 181), more prolonged and bluntly pointed apex of the parameres, and by the emarginate posterior margin of male tergum VIII.

Etymology. The species name is a Latin adjective, *obesus*, -a, -um (= corpulent, robust); named in reference to its robust appearance.

Distribution. Australia: Northern Territory, Queensland.

Mecynotarsus parvulus sp. nov.

(Figs 86, 87, 161, 180, 205)

Type locality. Australia, Northern Territory, Butterfly Gorge Nature Park, Douglas River, 13°45'S 131°34'E.

Type material. HOLOTYPE: ♂, '13.45S 131.34E GPS Butterfly Gorge Nature Pk Douglas River NT 19 Jul. 1994, at light T. Weir, A. Roach [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 2 ♀♀, same data as holotype (ANIC); 1 ♀, '16.34S 135.41E 14 km NW of Cape Crawford, NT. 6 Nov. 1975 M. S. Upton [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♂♂, '13.03S 132.19E South Alligator River, N.T. 46 km WSW of Mt. Cahill 20.v.73, Matthews & Upton [p] // ANIC Specimen [p; green label]' (ANIC); 2 ♀♀, 'AUSTRALIA, N. Territory Nitmiluk National Park, Edit Falls, 37 m alt, 14°10'S 132°06'E, 3.12.2008, St. Jakl leg. [p]' (ZKDC, NMPC); 1 ♂, 'Annan Riv 3 km W by S of Black Mt QLD 27 Sept 1980 D. H. Colless [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂, '15.41S 145.12E Annan R. 3 km W by S of Black Mt. QLD 27 Sept. 1980 T. Weir [p] // at light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '12.42S 144.30E QLD Moonlight Creek 13 Nov. 1993 P. Zborowski & M. Horak, at light [p] // ANIC Specimen [p; green label]' (ANIC); 4 ♀♀, '13.40S 142.40E QLD Coen river, Rokeby H. S. 24 Jul. 1998 K. R. Pullen margin of river [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 1 spec. ZKDC); 3 ♂♂ 1 ♀, 'Davies Creek, Kuranda - Mareeba Rd., N. Qld., AUST. X-1950 W L Brown [h]' (DCDC, ZKDC); 1 ♂, 'Qld. Greenvale 70 km SW at light, 12-21 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028960 [p]' (SAMA); 4 spec., same data, except database numbers: '25-028977, 25-028986, 25-028980 or 25-029022' (SAMA); 1 spec., 'AUSTRALIA: Queensland Townsville, 16.-22.III.1965. Exp. Dr. J. Balogh [p] // Mecynotarsus ziczac King det. G. Uhmann 1998[p]' (HNHM); 2 ♀♀, 'W. Normanby R., N. Qld., 40 ml. W. of Cooktown 2.i.1964. G. Monteith [p]' (QMBA).

Description (holotype, male). Body length 1.8 mm. Head and pronotum reddish brown, head vertex darker, nearly brown black, elytra reddish, with vague darker markings; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules indistinct. Setation of head uniformly short and appressed, finer medially on vertex, distinctly coarser to scaly around eyes and ventro-laterally. Antennae rather moderately long; antennomeres III–V 1.7 times, X 1.2 times as long as wide; setation mostly fine, distinctly coarser to scaly on basal 2–3 antennomeres.

Pronotum moderately transverse, 1.4 times as long as wide, its lateral margins somewhat unevenly shaped in dorsal view, slightly angled at widest point and nearly straight in narrowing towards base in dorsal view; posterior collar narrow but distinct. Pronotal horn robust and wide, its posterior angles indicated in dorsal view (Fig. 161); horn margins armed with 4 lobules on each side, apical lobule distinctly bilobed; horn crest very distinct, raised, with coarse rugules on margins; submarginal rugules rather coarse and distinctly spaced; median rugules largely fused and forming longitudinal sculpture, with single minute granule posteriorly. Setation whitish, with slight reddish tinge dorsally, largely scaly, appressed to subdecumbent, distinctly finer, hairy dorsally on pronotal horn (even here rather distinct and dense); scales on pronotal disc of two sizes, larger scales more raised and distinctly truncate apically; antebasal paired setae present laterally and absent medially, another tactile setae absent.

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation brownish and whitish, mixed and forming also rather vague brownish markings (Fig. 205), scaly and appressed, evenly ordered; scales elongate, rounded to subtruncate apically, densely spaced (surface barely visible, Fig. 180); erect tactile setae absent.

Male characters. Sternum VII simple. Tergum VIII and aedeagus as in Figs 86, 87.

Variation. Body length (♂♀) 1.8–2.1 mm. Pronotal horn with 4–5 lobules on each side. Body colouration reddish to dark brown.

Differential diagnosis. *Mecynotarsus parvulus* sp. nov. can be easily recognized by combination of the following external characters: small body size; elytra rather elongate, subparallel; pronotal horn distinctly, rather finely and densely setose dorsally, apical lobule bilobed, single longitudinal median rugule; elytral scales rather contrastingly bicoloured, evenly mixed in basal half (Fig. 180). Moreover, the presence of a small tuft of setae on the parameres (Fig. 87) is a quite distinctive character, unique within *M. ziczac* species-group.

Etymology. The species name is a Latin adjective, *parvulus*, -a, -um (= little, slight); named in reference to the small body size.

Distribution. Australia: Northern Territory, Queensland.

Mecynotarsus phanophilus Lea, 1922

(Figs 88–97, 162, 163, 181)

Mecynotarsus phanophilus Lea, 1922: 511.

Mecynotarsus phaenophilus (incorrect subsequent spelling): UHMANN (2007): 21 (redescription).

Type locality. Australia, Queensland, Cairns.

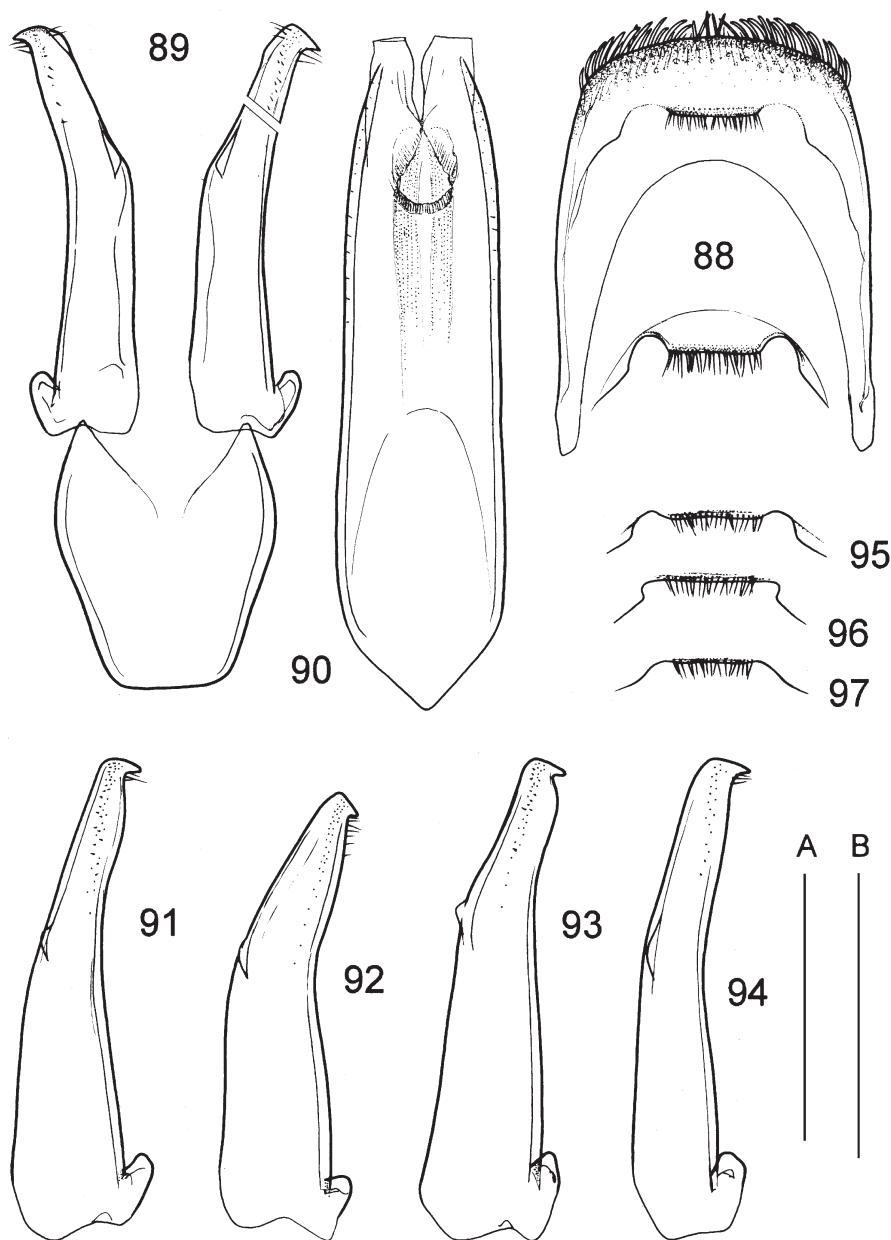
Type material. SYNTYPES: 1 ♀, 'phanophilus Lea, TYPE Cairns [p+h] // I. 15269 *Mecynotarsus phanophilus* Lea Queensland TYPE [h] // S.A. Museum Specimen [p; red label]' (SAMA); 1 ♀, 'Cairns dist. A. M. Lea [p] // Attracted to light [p] Co-type [p] // S.A. Museum specimen [p; red label]' (SAMA).

Additional material. AUSTRALIA: QUEENSLAND: 13 ♂♂ 17 ♀♀, 70km SW of Greenvale, at light, 1995–1996 [various dates], A. J. Watts leg. (SAMA); 1 ♀, 1 km S of Musselbrook Mining Camp, Musselbrook Creek, 18°37'S 138°08'E, at light, 10.v.1995, T. Weir leg. (ANIC); 1 ♀, Funnel Creek, 21°47'S 148°55'E, at light, 12.xii.1968, Britton & Misko leg. (ANIC); 1 ♀, Townsville 12.–16.viii.1918 [no collector] (ZSMC); 1 ♂, Townsville, 16.–22.iii.1965, Exp. J. Balogh [identification label '*M. amabilis*' by Uhmman] (HNHM); 1 ♂ 1 ♀, 20 km N of Townsville, Bushmans Beach, at light, 16.–18.i.1998, A. J. Watts leg. (SAMA). NORTHERN TERRITORY: 1 ♂, 48 km SWS of Borroloola, Mc Arthur River, 16°27'S 136°05'E, 29.x.1975, M. S. Upton leg. (ANIC); 1 ♂, 14 km NW of Cape Crawford, 16°34'S 135°41'E, 6.xi.1975, M. S. Upton leg. (ANIC); 7 ♂♂ 8 ♀♀, West MacDonnell Range National Park, Simpson Gap, 23°40'S 133°43'E, 3.–5.i.2009, S. Jakl leg. (ZKDC, NMPC); 1 ♀, same data, except: 600 m, 3.–4.i.2009, S. Bílý leg. (ZKDC); 1 ♀, same data, except: 11.i.2009, S. Bílý leg. (NMPC); 1 ♀, Carnarvon Gorge, 26.–30.iii.1964, G. Monteith leg. (QMBA); 2 ♂♂, S of Mackay, Boothill Creek, 24.v.1968, G. Monteith leg. (QMBA). NEW SOUTH WALES: 1 ♂ 1 ♀, Moree, 29.xii.1971, B. Cantrell leg. (QMBA); 1 ♂ [strongly abraded], Mulwala [partly illegible, no date and collector] (SAMA). SOUTHERN AUSTRALIA: 2 ♂♂ 1 ♀, Ross Waterhole, 27°08'S 135°33'E, at light, 4.ix.1989, I. Bunic leg. (ANIC); 1 ♂ 1 ♀, Mudla Eore, 35 km NNE Billa Kalina Homestead, at light, 4.xii.1974, J. A. Herridge leg. (SAMA).

Redescription (Holotype, female). Body length 2.6 mm. Body reddish brown, elytra slightly paler, unicolourous; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, ordered, contiguous to fused as in Fig. 139. Clypeal granules minute but distinct. Setation of head vertex fine, appressed, with some longer, more raised setae at base, distinctly coarser and subdecumbent around eyes and ventro-laterally. Antennae rather moderately long; antennomeres III–V nearly 1.8 times, X 1.2 times as long as wide; setation mostly fine, distinctly coarser to scaly and with some long, raised setae on basal two antennomeres.

Pronotum moderately transverse, its lateral margins rather strongly, evenly convex in dorsal view; posterior collar very narrow and inconspicuous. Pronotal horn robust and wide, triangular, its posterior angles distinct in dorsal view (Fig. 162); horn margins armed with 4 lobules on each side, apical lobule simple, widely rounded; horn crest very distinct, strongly raised, rather short, with coarse rugules on margins; submarginal rugules mostly coarse and



Figs 88–97. *Mecynotarsus phanophilus* Lea, 1922: 88 – tergum VIII, 89 – tegmen in dorsal view, 90 – median lobe in dorsal view. 91–94 – paramera: 91 – Simpson Gap, 92 – Moree, 93 – Levi Creek, 94 – Mc Arthur River. 95–97 – postero-ventral margin of tergum VIII: 95 – Simpson Gap, 96 – Moree, 97 – Levi Creek. Scale (0.2 mm): A – Figs 88–93, 95–97; B – Fig. 94.

distinctly spaced; median rugules largely fused and forming irregular sculpture, with several minute granules scattered posteriorly. Setation whitish, slightly yellowish to reddish dorsally, largely scaly and appressed to subdecumbent, finer, much sparser and raised on pronotal horn dorsally; scales on pronotal disc of two sizes, larger scales more raised, subdecumbent and distinctly truncate apically, their surface somewhat glossy; antebasal paired setae absent medially and probably present laterally, difficult to recognize owing to presence of another tactile setae (especially antero-laterally).

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation scaly, reddish to brownish and whitish, mixed and forming also rather vague darker markings, appressed and evenly ordered; scales nearly linear, rounded to truncate apically, glossy, distinctly spaced (surface visible, Fig. 181); scattered tactile setae absent, but humeri with several longer and more raised, stiff setae.

Male characters (Bushmans Beach, SAMA). Sternum VII nearly simple, slightly produced medially. Tergum VIII and aedeagus as in Figs 88–90.

Variation. Body length (♂♀) 2.1–2.8 mm. Pronotal horn with 3–4 lobules on each side, varying in prominence of posterior angles and shape of lobules (Figs 162, 163). Brownish setose markings may be reduced to absent (Levi Creek). The specimens from the southernmost (Levi Creek, Moree) and deep inland localities (Simpson Gap) show more or less distinct differences in the shape of the parameres and the postero-ventral margin of male tergum VIII (Figs 91–94, 95–97).

Differential diagnosis. *Mecynotarsus phanophilus* seems to be very close to *M. obesus* sp. nov., both in male and external characters, however, it differs by the shorter, more compact horn crest, by the narrower, nearly linear and apically rather truncate body scales (cf. Fig. 181 versus 179) that are partly subdecumbent on the pronotum, by the less prolonged and rounded apex of the parameres, and by the rounded posterior margin of male tergum VIII (not emarginate). Externally, it may also resemble *M. bullatus* sp. nov., but differs by the smaller body size, distinct and more or less separate rugules of the crest margins (never fused and forming a strongly raised and evenly shaped, semicircular rim), the somewhat denser setation of the elytra, the somewhat slender antennae (especially the less robust basal antennomere), the absence of scattered tactile setae on the elytra, and mainly by the form of the parameres (cf. Fig. 89 versus 34).

Distribution. Australia: New South Wales (new record), Northern Territory (new record), Queensland (LEA 1922), South Australia (new record).

Mecynotarsus pilbarensis sp. nov.

(Figs 102, 103, 182, 206)

Type locality. Australia, Western Australia, 1 km NNE of Millstream, 21°35'S 117°04'E.

Type material. HOLOTYPE: ♂, '1 km NNE Millstream, W.A. (21.35S 117.04E) 3–4.iv.1971, M.S. Upton [p] // ANIC Specimen [p, green label]' (ANIC). PARATYPES: 6 ♂♂ 2 ♀♀, same data as holotype (ANIC); 4 ♂♂ 4 ♀♀, '3 Km. NWbyW. of Millstream HS., 21.34S 117.03E WA. 22 Apr. 1971 Upton & Mitchell [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, same data, except: 11. Apr. 1971 (ANIC); 1 ♀, '5 km. SE. Of Millstream HS., 21.37S 117.06E WA. 17 Apr. 1971 Upton & Mitchell [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 2 ♂♂, '(21.35S 117.04E) Millstream, WA. Deep Reach, 8.xi.70, at light E.B. Britton [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♀, '(21.35S 117.04E) Millstream, W.A. Crystal Pool, 28.x.70, at light E.B. Britton [p] // ANIC Specimen

[p; green label]' (ANIC); 7 ♂♂ 3 ♀♀, '1 km N of Millstream, W. A. (21.35S 117.04E) 9–10.iv.1971, M.S. Upton [p] // ANIC Specimen [p, green label]' (ANIC, 2 spec. ZKDC); 1 ♂ 1 ♀, '½ km WNW Millstream, W.A. (21.35S 117.04E) 7.iv.1971, M.S. Upton [p] // ANIC Specimen [p, green label]' (ANIC, ZKDC); 4 ♀♀, '17 km. NbyE. Of Cane River HS., 21.56S 115.39E WA. 27 Apr. 1971 Upton & Mitchell [p] // ANIC Specimen [p; green label]' (ANIC); 4 ♂♂ 2 ♀♀, 'West Peawah R. WA 14.iv.1976 K. & E. Carnaby [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '16.22S 125.12E W.A. Charnley Riv. 2 km SW Rolly Hill CALM Site 25/2 16–20 June 1988 I. D. Naumann [p] // at light, open forest near closed forest margin // *Mecynotarsus* sp. 6 det. T.A. Weir 1989 [p+h] // AUST. NAT. MUS. INS. COLL. [p; green label]' (ANIC); 1 ♀, same data, except: *Mecynotarsus* sp. 2 det. T.A. Weir 1989 [p+h]' (ANIC); 2 ♂♂ 5 ♀♀, same data, but lacking identification label by T. Weir (ANIC, 2 spec. ZKDC).

Description (holotype, male). Body length 2.1 mm. Body reddish to dark reddish brown, elytra with vague darker markings; legs and antennae reddish.

Antero-lateral margins of frons simple (not raised near antennal insertion). Gular rugules anteriorly coarser, contiguous to fused as in Figs 138, 139. Clypeal granules minute. Setation of head rather coarsely hairy, comparatively long antero-medially on frons, mostly appressed, with some raised setae dorsally near base. Antennae moderately long; antennomeres III–V at most 1.8 times, X about as long as wide; setation mostly fine, coarser to scaly on basal four antennomeres.

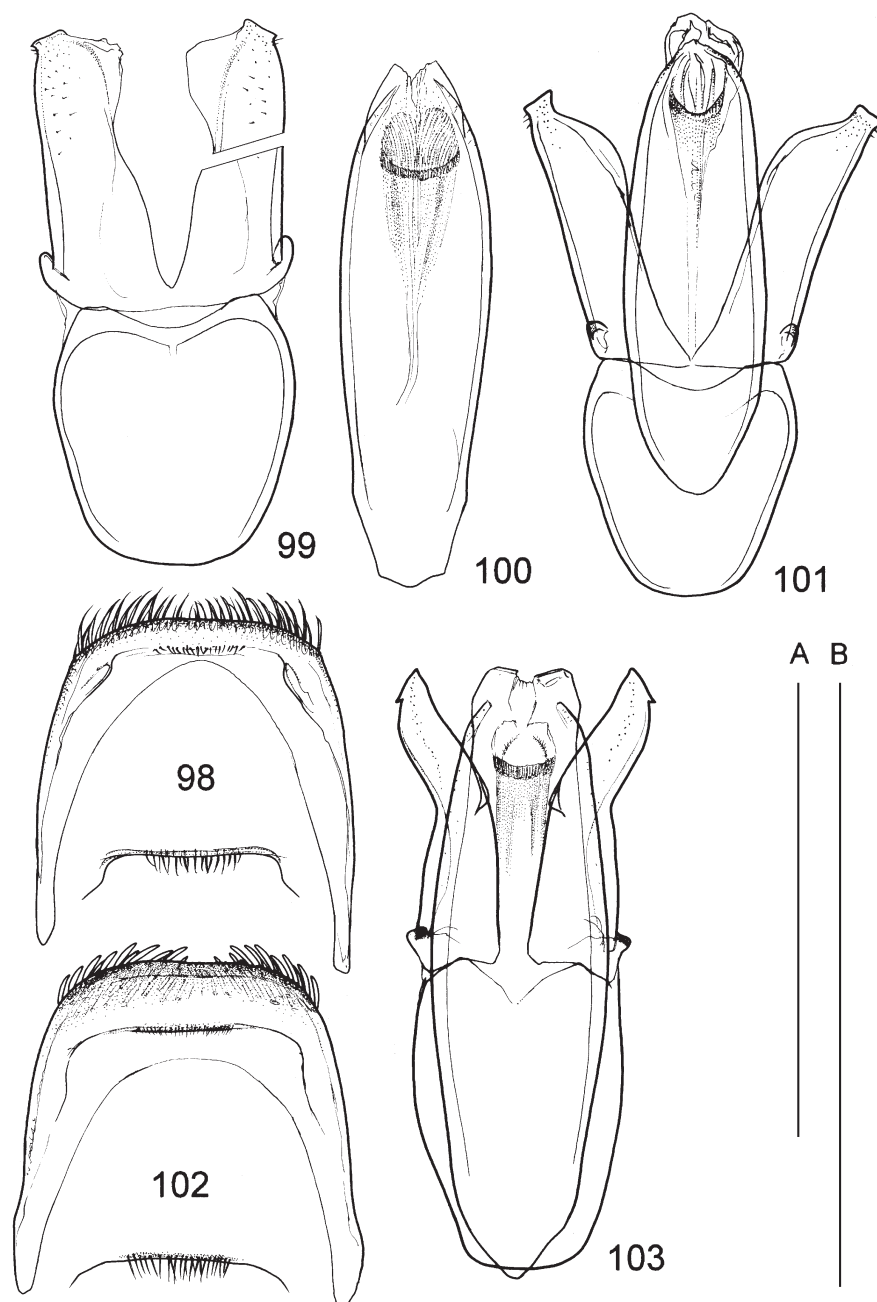
Pronotum moderately transverse, 1.5 times as long as wide, its lateral margins rather strongly and somewhat unevenly convex in dorsal view; posterior collar narrow but distinct. Pronotal horn moderately long and wide, subtriangular, its posterior angles distinct in dorsal view; horn margins armed with 4 lobules on each side, apical lobule simple, broadly rounded; horn crest distinct, with coarse, partly contiguous rugules on margins, evenly lowering anteriorly; submarginal rugules rather distinct and mostly well-spaced; median rugules partly fused and forming irregular sculpture, with several minute granules scattered posteriorly. Setation whitish (laterally) to reddish (dorsally), scaly, much finer / sparser to indistinct on pronotal horn dorsally; scales on pronotal disc of two sizes, generally appressed and very densely spaced, larger scales widely rounded apically, slightly glossy; antebasal paired setae present and rather long laterally, absent medially, several additional tactile setae present antero-laterally.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation reddish and brownish, forming rather sharply outlined brownish markings (Fig. 206), scaly and appressed, evenly ordered; scales shortly oval, slightly glossy, very dense and entirely covering surface (Fig. 182); erect tactile setae absent.

Male characters. Sternum VII nearly simple. Tergum VIII and aedeagus as in Figs 102, 103.

Variation. Body length (♂♀) 2.0–2.4 mm. Pronotal horn with 3–4 lobules on each side; median rugules separate to fused and forming irregular sculpture. Brownish markings of elytra may be both conspicuous, mostly so (Fig. 206), and vaguely indicated to absent.

Differential diagnosis. *Mecynotarsus pilbarensis* sp. nov. resembles *M. exophthalmus* sp. nov., *M. kingii*, and *M. magelae* sp. nov. in external characters (body form, setation). It differs from *M. exophthalmus* sp. nov. mainly by the evenly shaped vertex (lacking narrow impressions along the median margins of the eyes), from *M. kingii* by the short frontal portion of the head with distinctly narrowing, simple margins, and from *M. magelae* sp. nov. by the wider and longer horn crest with separate rugules on the margins (never fused and forming evenly shaped rim), the numerous median rugules that are sometimes fused and forming an



Figs 98–103. 98–101 – *Mecynotarsus pilicornis* sp. nov.: 98 – tergum VIII, 99 – tegmen in dorsal view, 100 – median lobe in dorsal view, 101 – aedeagus in dorsal view (Gayndah). 102–103 – *M. pilbarensis* sp. nov.: 102 – tergum VIII, 103 – aedeagus in dorsal view. Scale (0.5 mm): A – Fig. 101; B – Figs 98–100, 103, 102.

irregular sculpture (single, rather evenly shaped, longitudinal median rugule in *M. magelae* sp. nov.), and by the sparser fringe of pale, narrower scales on the posterior collar of the pronotum (dense fringe of whitish, wider scales in *M. magelae* sp. nov.). Moreover, males of *M. pilbarensis* sp. nov. can be easily distinguished from those of the other mentioned species by the shape of the parameres (cf. Fig. 103 versus Figs 48, 68, 75).

Etymology. The species name is a Latin adjective *pilbarensis*, *-is*, *-e*; named in reference to the type locality, which is located in the Pilbara region in Western Australia.

Distribution. Australia: Western Australia.

***Mecynotarsus pilicornis* sp. nov.**

(Figs 98–101, 164)

Type locality. Australia, Queensland, 17.7 km N of Mount Molloy, Station Creek, 426.7 m.

Type material. HOLOTYPE: ♂, '17.7km N. of Mt. Molloy, Station Ck 426.7m, Q. 21.xii.70, J.G.Brooks [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 1 ♀, 'Qld Laura Stn. Laura N QLD 4 April 1983 A.Walford-Huggins at M.V. light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♀, '13.41S 143.08E Peach Ck QLD 15 Sep 1992 at light P.Zborowski & L.Miller [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂ 1 ♀, 'Leo Creek Road, ca. 500 m., McIlwraith Range, 30 km N.E. of Coen, N. Qld. June 29–July 4, 1976 G. B. & S. R. Monteith [p]' (QMBA); 1 ♂ 1 ♀, 'W. Normanby R., N. Qld., 40 ml.W. of Cooktown 2.i.1964. G. Monteith' (QMBA).

Additional specimens. AUSTRALIA: NEW SOUTH WALES: 1 ♂ 3 ♀♀, Namoi River, Narrabri, 30°19'S 149°47'E, 10.iii.1969, at light, J. A. L. Watson leg. (ANIC); 1 ♀, Moree, 29.xii.1971, B. Cantrell leg. (QMBA). QUEENSLAND: 1 ♂, Carnarvon National Park, Sekt. Salvator Rosa, i.1997, Wachtel leg. (ZKDC); 2 ♀♀, Gympie, Brooyar State Forest, 12.iii.1997, Wachtel leg. (ZSMC); 2 ♂♂, Gayndah [no date and collector; syntypes of *M. kingii*] (ANIC).

Description (holotype, male). Body length 2.5 mm. Body largely reddish brown, elytra with vague darker markings dorsally along suture. Legs and antennae reddish.

Antero-lateral margins of frons slightly raised near insertion of antennae. Gular rugules of different sizes, anteriorly larger, nearly contiguous and ordered as in Fig. 138. Clypeal granules minute. Setation of head rather uniformly short, finer and appressed posteriorly on vertex, somewhat coarser anteriorly on frons, subdecumbent and coarser around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V about 1.5 times, X 1.1 times as long as wide; setation mostly fine, distinctly coarser to scaly on 3–4 basal antennomeres.

Pronotum globose, 1.4 times as long as wide, its lateral margins rather strongly and somewhat unevenly convex in dorsal view; posterior collar narrow but distinct. Pronotal horn robust and wide, subtriangular, its posterior angles distinct in dorsal view (Fig. 164); horn margins armed with 5 and 6 lobules (posteriorly smaller), apical lobule simple, broadly rounded; horn crest distinct, wide, with coarse rugules on margins; submarginal rugules rather distinct; about 7 larger, contiguous median rugules and several minute granules posteriorly. Setation whitish to greyish, largely scaly and appressed, distinctly finer on pronotal horn dorsally (even here rather quite distinct, dense); scales on pronotal disc of two sizes, larger scales widely rounded to truncate apically; antebasal paired setae present laterally and absent medially, another tactile setae absent.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation scaly and appressed, uniform, whitish to pale reddish; scales elongate, rounded to subtruncate apically, opaque, densely spaced but distinct; erect tactile setae absent.

Male characters. Sternum VII moderately sinuous posteriorly, with slightly produced, rounded apex. Tergum VIII and aedeagus as in Figs 98–100.

Variation. Body length (♂♀) 2.2–2.6 mm. Pronotal horn with 4–6 lobules on each side. Elytra in some specimens (mostly from New South Wales) with more or less distinct darker markings from reddish to brownish scales; scales of pronotal disc medially reddish.

Differential diagnosis. *Mecynotarsus pilicornis* sp. nov. may somewhat resemble *M. kingii* by body shape, colouration, and the dense, uniform, opaque scales of the pronotal disc and elytra. It differs from this species mainly by the morphology and dense setation of the pronotal horn (cf. Fig. 164 versus 154), comparatively short frontal portion of the head with simple lateral margins of the frons, and by the shape of the parameres in males (cf. Figs 99, 100 versus 68).

Etymology. The species name is a Latin adjective composed from the words *pilosus* (= hairy) and *cornu* (= horn); named in reference to the densely setose dorsal surface of pronotal horn.

Distribution. Australia: Queensland, New South Wales.

Remarks. The additional specimens from New South Wales agree well in external characters, but differ in the shape of the parameres, that mainly lack the fine subapical lobe on the median margin (Fig. 101). They may possibly represent a different taxon (geographical subspecies), however, more material is needed to exclude possible intraspecific variability.

Mecynotarsus pusillus sp. nov.

(Figs 104, 105, 165)

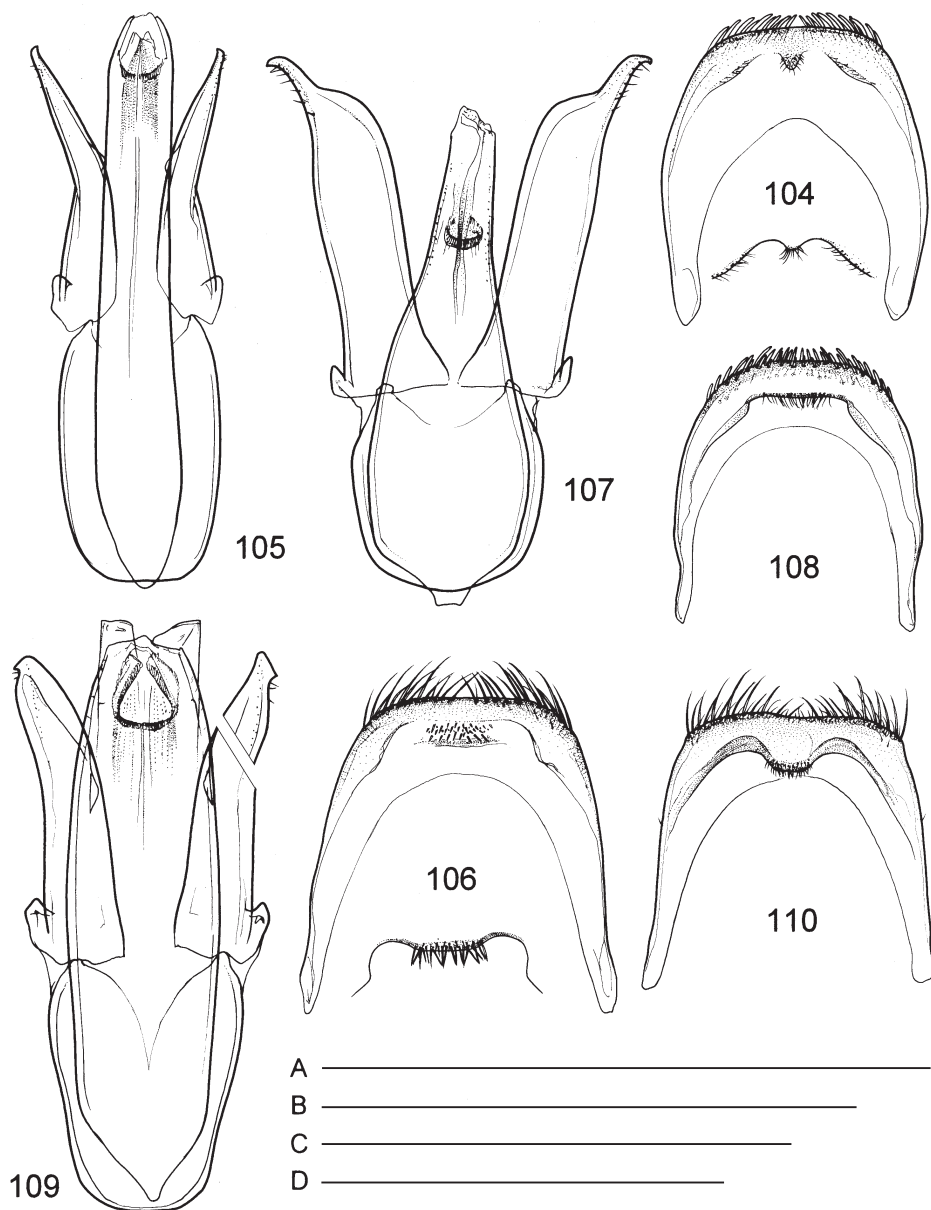
Type locality. Australia, Western Australia, 13 km EN of Newman, 23°15'S 119°52'E.

Type material. HOLOTYPE: ♂, '(23.15S 119.52E) 13 km. E. by N. of Newman, WA. 12.xi.70. E. B. Britton [p] // ANIC Specimen [p; green label]' (ANIC). PARATYPES: 1 ♀, same data as holotype (ANIC).

Description (holotype, male). Body length 1.6 mm. Body largely brownish, pronotal horn reddish, elytra with vague paler markings; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, ordered and fused as in Fig. 139. Clypeal granules minute to indistinct. Setation of vertex uniformly fine, short and appressed, distinctly coarser around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V about twice, X 1.25 times as long as wide; setation mostly fine, somewhat coarser on basal antennomeres.

Pronotum globose to moderately transverse, 1.5 times as long as wide, its lateral margins nearly evenly and strongly convex in dorsal view; posterior collar narrow but distinct. Pronotal horn robust and wide, subtriangular, its posterior angles distinct in dorsal view (Fig. 165); horn margins armed with 3 lobules on each side, posterior lobules conspicuously wide, apical lobule simple, widely rounded; horn crest quite distinct and raised, forming complete semioval rim with nearly evenly shaped margins; submarginal rugules ordered in rows and contiguous to fused; single evenly shaped, longitudinal median rugule and several minute scattered granules. Setation scaly, greyish to pale brownish, hairy and inconspicuous on pronotal horn dorsally; scales on pronotal disc uniform, appressed, rather glossy and contiguous, entirely covering surface (Fig. 165); antebasal paired setae present both laterally and medially (longer and conspicuous laterally), another tactile setae absent.



Figs 104–110. 104–105 – *Mecynotarsus pusillus* sp. nov.: 104 – tergum VIII, 105 – aedeagus in dorsal view. 106–107 – *M. regalis* sp. nov.: 106 – tergum VIII, 107 – aedeagus in dorsal view. 108–109 – *M. setulosus* sp. nov.: 108 – tergum VIII, 109 – aedeagus in dorsal view. 110 – *M. speciosus* sp. nov., tergum VIII. Scale (0.5 mm): A – Figs 102, 105; B – Fig. 109; C – Figs 106, 107; D – Figs 108, 110.

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation scaly, brownish and silvery, forming rather vague markings, appressed and evenly ordered; scales smaller than on pronotal disc, elongate, rounded to subtruncate apically, glossy and contiguous, entirely covering surface; erect tactile setae absent.

Male characters. Sternum VII simple. Tergum VIII and aedeagus as in Figs 104, 105.

Differential diagnosis. *Mecynotarsus pusillus* sp. nov. can be easily recognized by its external characters. Both specimens are extremely small, showing rather a distinctive morphology of the pronotal horn (few lobules on margins, complete crest rim, single median rugule, ordered contiguous to fused submarginal rugules), and the glossy setation of the pronotal disc and elytra, with dense appressed scales entirely covering the surface.

Etymology. The species name is a Latin adjective, *pusillus*, -a, -um (= very little, very small); named in reference to the small body size.

Distribution. Australia: Western Australia.

***Mecynotarsus regalis* sp. nov.**

(Figs 106, 107, 183, 207)

Type locality. Australia, Queensland, 70 km SW of Greenvale.

Type material. HOLOTYPE: ♂, 'Qld. Greenvale. 70 km SW at light. 28 Mar - 7 Apr. 1995 A. J. Watts [p] // SAMA Database No. 25-029006 [p]' (SAMA). PARATYPES: 1 ♂, 'Australien, QLD Carnavon Nat. P. Sekt. Salvator Rosa I.97, leg. Wachtel [p; black frame] // *Mecynotarsus amabilis* Lea det. G.Uhmann 2002 [p; black frame] // compared with type [p; black frame]' (ZSMC); 1 ♀, 'Australien, QLD Carnavon Nat. P. S Lake Nuga Nuga I.97, leg. Wachtel [p; black frame]' (ZSMC); 1 ♂, 'Boothill Ck., 80 m S. of Mackay, N. Qld. 24.v.1968. G. Monteith [p]' (QMBA).

Description (holotype, male). Body length 2.8 mm. Body largely reddish brown, head vertex somewhat darker, elytra with vague darker markings; legs reddish, antennae reddish brown.

Antero-lateral margins of frons moderately raised (lobed) near insertion of antennae. Gular rugules rather coarse anteriorly and ordered as in Fig. 138. Clypeal granules minute. Setation of head vertex mostly fine, appressed, with few long, more raised setae medio-basally, and somewhat coarser to scaly setae around eyes and ventro-laterally. Antennae conspicuously long; antennomere II distinctly shorter than III, antennomeres III–V 2.2–2.4 times as long as wide, X 1.8 times as long as wide; basal 4 antennomeres with coarser to scaly setation, especially antennomere I with linear scales and numerous bristly setae.

Pronotum 1.6 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar distinct; surface of pronotal disc, including dorso-lateral sides, with numerous scattered granules, posterior collar medially with pair of similar minute granules. Pronotal horn rather robust and wide, its posterior angles moderately indicated in dorsal view; horn margins armed with 4 conspicuous, apically rounded lobules on each side, apical lobule simple, widely rounded apically; horn crest distinct, wide, with coarse separate rugules on margins; submarginal rugules minute; 6 median rugules, mostly coarse and well-spaced. Setation whitish to silvery, rather heterogeneous, comprised of very fine bifurcate to somewhat frayed undersetae (covering also base of pronotal horn dorsally), numerous longer and coarser subdecumbent setae and scattered very long tactile setae; subdecumbent setae on pronotal disc linear, rather long and truncate apically; antebasal paired setae present

both laterally and medially, somewhat difficult to recognize owing to presence of numerous additional tactile setae (articulated near granules).

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation whitish to pale reddish and brownish, somewhat mixed and also forming vague brownish transverse band at about mid-length (Fig. 207), mostly scaly, with numerous erect setae; scales linear, rather uniform (not clearly double), appressed, rounded to subtruncate apically, evenly ordered and distinctly spaced (surface visible, Fig. 183); tactile setae present, scattered and mostly rather long.

Male characters. Sternum VII moderately produced medially. Tergum VIII and aedeagus as in Figs 106, 107.

Variation. Body length (♂♀) 2.6–2.7 mm. Pronotal horn with 3–6 median rugules. Two specimens from Carnarvon National Park have rather conspicuous dark markings on the elytra (brown black transverse band and wide strip on / along suture), and mostly whitish setation.

Differential diagnosis. *Mecynotarsus regalis* sp. nov. somewhat resembles *M. mollis* sp. nov. by the longer and sparser setation of the elytra, but differs by the somewhat more robust body, rather conspicuous granules of the pronotum, by the presence of long scattered tactile setae on the elytra, and by the shape of the parameres of the aedeagus (cf. Figs 107 *versus* 81).

Etymology. The species name is a Latin adjective, *regalis*, -is, -e (= regal, royal); named in reference to its restricted occurrence in Queensland.

Distribution. Australia: Queensland.

Mecynotarsus setulosus sp. nov.

(Figs 108, 109, 133)

Type locality. Australia, Queensland, 70 km SW of Greenvale.

Type material. HOLOTYPE: ♂, 'Qld. Greenvale 70 km SW at light. 12-21 Apr 1995 A. J. Watts [p] // SAMA Database No. 25-028972 [p]' (SAMA). PARATYPES: 3 ♂♂ 5 ♀♀, same data, except: '17-26 Jan. 96' and different database numbers: 25-028989, 25-029012, 25-028995, 25-028999, and 25-029004 (SAMA); 3 ♂♂ 1 ♀, same data, except: '14-24 Mar 1995' and different database numbers: 25-028943, 25-0289581, and 25-028966 (SAMA); 4 ♂♂, same data, except: '12-21 Apr 1995' and different database numbers: 25-028970 and 25-028983 (SAMA); 4 ♂♂, same data, except: '28 Mar -7 Apr 1995' and different database numbers: 25-028992, 25-029005, and 25-029044 (SAMA); 1 ♀, same data, except: '29 Jan - 4 Feb 1997' and database number 25-029049 (SAMA); 1 ♂, same data, except: '1-10 Mar. 96' and database number 25-028994 (SAMA); 1 ♂ 6 ♀♀, same data, except: '22-30 Nov. 95' and database numbers: 25-028996, 25-029013, 25-029015, and 25-028987 (SAMA); 2 ♂♂ 3 ♀♀, same data, except: '21-31 Oct. 95' and different database numbers: 25-029025, 25-029035, and 25-029016 (SAMA); 1 ♀, 'Qld. Bushmans Beach 20Km N Townsville [sic!], at light A.J.Watts 16-18 Jan 1998 [p] // SAMA Database No. 25-028935' (SAMA); 1 ♀, 'AUSTRALIA, Queensland "Dig Tree", U.V. light trap 22. XI.1998 leg. George Hangay [p]' (HNHM); 1 ♂, 'AUSTRALIA: Queensland Townsville 16.-22. III. 1965. Exp. Dr. J. Balogh [p] // Mecynotarsus amabilis Lea det. G. Uhmann 1998' (HNHM); 1 ♂, 'S.AUST. Mt Sarah Stn 12.4 km ENE Alberga 27°07'31"S 135°32'50"E 30Apr-02May 2005, pit trap Arid Rivers Svy, ANB 00101 [p] // Open Forest; *Eucalyptus camaldulensis* over *Acacia stenophylla* [p] // SAMA Database No. 25-028789 [p]' (SAMA); 6 ♂♂ 13 ♀♀, same data, but different database numbers: 25-028790 to 25-028808 (SAMA); 1 ♂, 'S.A. Eringunda Valley. Flinders Ranges, 6th March, 1973. E.G. Matthews. [p] // SAMA Database No. 25-028912 [p]' (SAMA); 2 ♂♂ 3 ♀♀, same data, except database numbers: 25028908 to 25-028910, and 25-028914 (SAMA); 1 ♂, same but handwritten data and database number: 25-028915 and 25-028906 (SAMA); 1 ♂, 'S. Aust. Arkaroola Stn. Kingsmill Ck. 30.20S 139.24E 22/10/1999 Flinders Ra survey [p] // SAMA Database No. 25-028942 [p]' (SAMA); 2 ♂♂ 2 ♀♀, 'Olary, S.A. (32.17S 140.19E) 24 km. WNW. 20.xii.70, at light Britton, Misko, Pullen [p] // ANIC Specimen [p]; green

label]' (ANIC, 1 spec. ZKDC); 1 ♀, 'Aroona Dam site, S. AUSTRALIA red gum area XI-30-1951 WLBrown It. [p]' (DCDC); 1 ♀ '23.44S 133.44E Temple Bar Gap 15 km W by S of Alice Springs N.T. 7 Nov. 1979 T. Weir [p] // ANIC Specimen [p]' (ANIC); 2 ♂♂, 'Hull River 33km ESE of Docker River NT 17 Nov. 1977 J. A. L. Watson [p] // ANIC Specimen [p; green label]' (ANIC); 3 ♂♂, '19.34S 134.13E 9 km N by E of Tennant Creek N.T. 10 Nov. 1979 T. Weir [p] // ANIC Specimen [p; green label]' (ANIC); 1 ♂ 1 ♀ '31.05S 141.42E Fowlers Gap Res. Stn NSW 29Nov-2Dec1981 J. C. Cardale taken at light [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC); 1 ♂ 3 ♀♀, 'Bungonia St. Pk. NSW, Shoalhaven River gorge 5-7 Oct. 1985 C. Reid, coll. [p] // collected in sand/mud [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC, 1 spec. ZKDC); 3 ♀♀, 'AUSTRALIA, NW NSW. 102 km N from Broken Hill, Fowlers Gap [p] // at light 15. I. 1981. coll. Hangay & Vojnits [p] // No. 275 [p] // *Mecynotarsus amabilis* Lea det. G. Uhmann 1998 [p] // compared with type [p; black frame]' (HNHM, ZSMC); 2 ♀♀, 'AUSTR. (NT), W McDonell NP, SIMPSON GAP, 23°40'S 133°43'E, 600 m, 3.-4.1.2009, S. Bílý leg. [p]' (ZKDC, NMPC); 5 ♀♀, 'AUSTRALIA, N. Territory, West MacDonnell Nat. Park, SIMPSON GAP, 23°40'S 133°43'E, 600 m, 3.-5.01.2009, St. Jakl leg. [p]' (ZKDC, NMPC); 2 ♀♀, same data, except: 11.01.2009 (ZKDC); 1 ♀, 'AUSTRALIA, NT, Watarka Nat. Park, near Kathleen Springs, sand dunes, 24°18'S 131°34'E, 620 m, 6.-8.01.2009, St. Jakl leg. [p]' (ZKDC).

Description (holotype, male). Body length 2.1 mm. Body dark reddish brown, elytra unicolourous; legs and antennae reddish.

Antero-lateral margins of frons simple. Gular rugules of different sizes, anteriorly larger, contiguous and ordered as in Figs 138, 139. Clypeal granules indistinct. Setation of head vertex mostly short, fine and appressed, with some longer setae more raised medially, distinctly coarser ventro-laterally; antero-lateral sides (between eyes and antennal sockets) with coarse, bristly and conspicuously ordered setation (Fig. 133). Antennae rather moderately long; antennomeres II and III about 1.8 times as long as wide, IV and V somewhat more robust, X nearly 1.2 times as long as wide; setation mostly fine, distinctly coarser and longer on basal antennomere.

Pronotum globose to moderately transverse, 1.4 times as long as wide, its lateral margins rather evenly convex in dorsal view; posterior collar narrow and inconspicuous. Pronotal horn rather robust and wide, its posterior angles indicated in dorsal view; horn margins armed with 4 lobules on each side, apical lobule broadly rounded and slightly emarginate medially; horn crest very distinct, raised, with few mostly coarse rugules on margins; submarginal rugules rather distinct, mostly well-spaced; median rugules largely fused and forming longitudinal sculpture (connected with one of rugules of crest margin), several smaller granules present posteriorly. Setation whitish to greyish, scaly, appressed to subdecumbent, distinctly finer and hairy, inconspicuous on pronotal horn dorsally; scales on pronotal disc clearly of two sizes, larger scales slightly raised, distinctly truncate apically; antebasal paired setae absent medially and probably present laterally, difficult to distinguish laterally from another tactile (4 on each side).

Elytra 1.8 times as long as wide; omoplates and postbasal impression absent. Setation greyish to brownish, forming rather vague brownish markings, scaly and appressed, evenly ordered; scales elongate, rounded to subtruncate apically, very densely spaced (surface barely visible); scattered tactile setae absent, but several short erect setae present on humeri and very near base.

Male characters. Sternum VII simple. Tergum VIII and aedeagus as in Figs 108, 109.

Variation. Body length (♂♀) 1.9–2.1 mm. Pronotal horn with 3–5 lobules on each side; apical lobule rarely bilobed. Brownish markings of elytra vague to rather distinct; brownish and greyish scales may be partly mixed in basal half.

Differential diagnosis. *Mecynotarsus setulosus* sp. nov. may somewhat resemble small specimens of *M. kingii* or *M. exophthalmus* sp. nov. by body shape, morphology of the pronotal horn, and setation (dense, appressed uniform scales on elytra, numerous tactile setae laterally on pronotum), but differs by the coarse, bristly and conspicuously ordered setation of the antero-lateral sides of the head (Fig. 133), as well as by the male characters (cf. Figs 108, 109 *versus* 67, 68 and 47, 48).

Etymology. The species name is a Latin adjective, *setulosus*, *-a*, *-um* (= bearing many small bristles); named in reference to the peculiar setation of the head.

Distribution. Australia: New South Wales, Northern Territory, Queensland, South Australia.

***Mecynotarsus speciosus* sp. nov.**

(Figs 110, 111, 166, 184)

Type locality. Australia, Western Australia, Drysdale River, 15°02'S 126°55'E.

Type material. HOLOTYPE: ♂, '15.02S 126.55E Drysdale River, W.A. 3–8 Aug. 1975 I.F.B. Common and M.S. Upton [p] // ANIC Specimen [p; green label]' (ANIC).

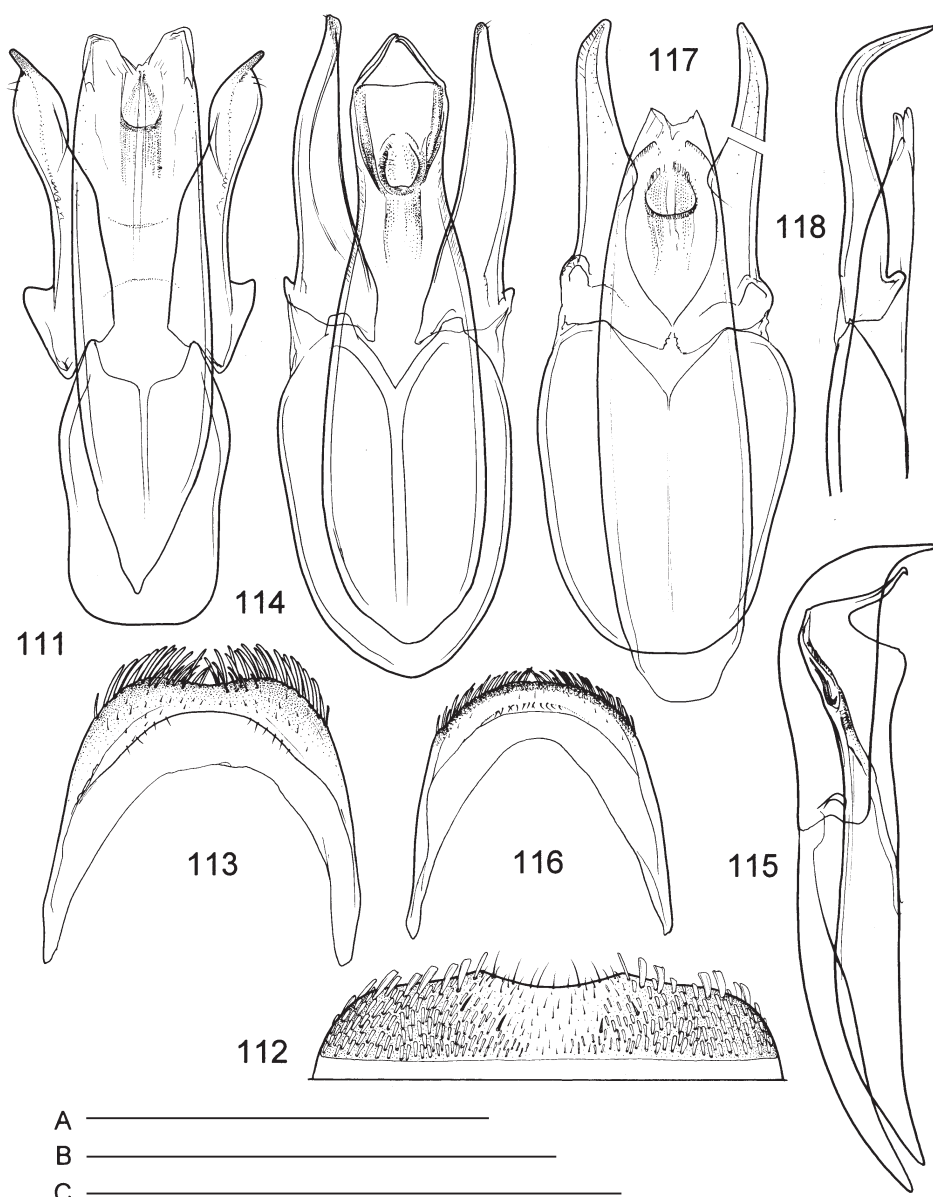
Description (holotype, male). Body length 2.6 mm. Body, legs, and antennae reddish to reddish brown.

Antero-lateral margins of frons distinctly raised (angulately lobed) near insertion of antennae. Gular rugules coarser anteriorly and here ordered as in Fig. 138. Clypeal granules rather distinct. Setation of head mostly fine and appressed, with numerous very long, more or less raised setae on vertex. Antennae moderately long; antennomere II about as long as III, antennomeres III–V 1.8–1.9 times as long as wide, X nearly 1.2 times as long as wide; basal 4–5 antennomeres with longer and coarser setation (not scaly).

Pronotum 1.6 times as long as wide, its lateral margins somewhat unevenly convex in dorsal view; posterior collar distinct; surface of pronotal disc, including dorso-lateral sides, with numerous scattered granules (Fig. 166). Pronotal horn rather robust, moderately wide, subtriangular, its posterior angles moderately indicated in dorsal view (Fig. 166); horn margins armed with 3 or 4 rather long, apically rounded lobules on each side, apical lobule simple, broadly rounded; horn crest distinct, rather wide, with coarse, separate rugules on margins; submarginal rugules numerous, somewhat unevenly spaced; 5 median rugules rather coarse and well-spaced. Setation whitish to silvery, appressed and very dense, sparser to absent antero-dorsally on pronotal horn, with numerous long erect setae; appressed setae on pronotal disc bifurcate to somewhat frayed apically, very dense laterally, here nearly felt-like, entirely covering surface; antebasal paired setae probably present probably both laterally and medially, but difficult to recognize owing to presence of many additional tactile setae.

Elytra 1.6 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish to silvery and reddish, forming vague reddish markings; scales appressed and rather long, bifurcate to frayed apically, densely and evenly spaced, nearly entirely covering surface (Fig. 184); erect tactile setae very numerous, moderately long and evenly scattered, including apical portion of elytra.

Male characters. Sternum VII moderately sinuous posteriorly. Tergum VIII and aedeagus as in Figs 110, 111.



Figs 111–118. 111 – *Mecynotarsus speciosus* sp. nov., aedeagus in dorsal view. 112–115 – *M. weiri* sp. nov.: 112 – sternum VII, 113 – tergum VIII, 114 – aedeagus in dorsal view, 115 – the same, lateral view. 116–118 – *M. ziczac* King, 1869: 116 – tergum VIII, 117 – aedeagus in dorsal view, 118 – the same, lateral view. Scale (0.5 mm): A – Figs 111, 116; B – Figs 112, 113; C – Figs 114, 117, 118.

Differential diagnosis. *Mecynotarsus speciosus* sp. nov. can be easily distinguished from all species by the setation characters of the body: pronotal disc and elytra densely covered by silvery, bifurcate to frayed setae (Fig. 184), and hirsute, with many erect tactile setae. Additionally, it is conspicuous in having a granulate pronotum, comparatively short antennae (most species with a granulate pronotum have conspicuously long antennae), distinctly lobed lateral margins of the frons, and a rather distinctive form of the parameres.

Etymology. The species name is a Latin adjective, *speciosus*, *-a*, *-um* (= beautiful, splendid); named in reference to the unique body setation.

Distribution. Australia: Western Australia.

***Mecynotarsus weiri* sp. nov.**

(Figs 112–115, 167, 185, 208)

Type locality. Australia, Western Australia, 4 km W of King Cascade, 15°38'S 125°15'E.

Type material. HOLOTYPE: ♂, '15.38 S 125.15 E CALM Site 28/3 4 km W of King Cascade W.A. 12–16 June 1988 T. A. Weir [p] // at light closed forest [p] // AUST. NAT. INS. COLL. [p; green label]' (ANIC). PARATYPES: 4 ♂♂ 7 ♀♀, same data as holotype (ANIC, 2 spec. ZKDC); 1 ♀, same data, lacking the 2nd label, in addition: 'Mecynotarsus sp. 1 det. T. A. Weir 1989 [p+h]' (ANIC); 3 ♀♀, '14.49S 126.49E Carson escarpment W.A. 9–15 Aug. 1975 I. F. B. Common and M. S. Upton [p] // AUS. NAT. INS. COLL. [p; green label]' (ANIC); 3 ♂♂, '12.52S, 132.50E Koongarra, 15 km E. of Mt. Cahill, N. T. 15.xi.1972, M. S. Upton [p] // ANIC Specimen [p; green label]' (ANIC).

Description (holotype, male). Body length 2.1 mm. Head and pronotum largely brown black, at places reddish brown, elytra reddish brown; legs and antennae reddish to reddish brown.

Antero-lateral margins of frons simple. Gular rugules minute and scattered. Clypeal granules indistinct. Setation of head short, appressed, mostly scaly, finer only medially on vertex. Antennae moderately long; antennomeres III–V 1.7 times, X 1.2 times as long as wide; setation mostly scaly, whitish, finer on apical 3–4 antennomeres.

Pronotum narrow, 1.9 times as long as wide, its lateral margins somewhat unevenly and moderately convex; posterior collar narrow but distinct. Pronotal horn very narrow, its posterior angles indistinct in dorsal view (Fig. 167); horn margins armed with 4 narrow lobules on each side, apical lobule strongly bilobed; horn crest distinctly raised, very narrow, with coarse rugules on margins; 4 minute submarginal rugules subapically; single median rugule posteriorly. Setation whitish to greyish, scaly, covering even dorsal side of pronotal horn; scales on pronotal disc rather uniform, about as long as wide, hexagonal, appressed and contiguous; antebasal paired setae present, rather short and thick, especially median pair, another tactile setae absent.

Elytra 1.5 times as long as wide, rather convex; omoplates and postbasal impression absent. Setation scaly, grey and brown black, forming rather conspicuous markings (Fig. 208), appressed and evenly ordered; scales elongate, rounded to subtruncate apically, contiguous, entirely covering surface (Fig. 185); erect tactile setae absent.

Male characters. Sternum VII moderately emarginate postero-medially (Fig. 112). Tergum VIII and aedeagus as in Figs 113–115.

Variation. Body length (♂♀) 1.9–2.1 mm. Pronotal horn with 3–5 lobules on each side, apical lobule always strongly bilobed; 1–5 submarginal rugules (always in apical third) and 1–5 median rugules. Black markings on elytra always distinct, rarely reduced to small paired apical and rather rounded lateral spots.

Differential diagnosis. *Mecynotarsus weiri* sp. nov. is a very conspicuous species, which can be easily recognized by its very dense, uniformly scaly setation, whitish to greyish colouration with conspicuous, sharply outlined dark markings on the elytra, extremely narrow and elongate pronotal horn with reduced median and submarginal rugules, as well as by the rather distinctive morphology of the aedeagus.

Etymology. Dedicated to Tom Weir (CSIRO, Australia), who collected this species.

Distribution. Australia: Western Australia, Northern Territory.

Mecynotarsus ziczac King, 1869

(Figs 116–118, 140, 209)

Mecynotarsus ziczac King, 1869: 4.

Mecynotarsus ziczac: Pic (1911): 15 (catalogue); LEA (1895): 609 (record); UHMANN (2000): 146 (records); UHMANN (2007): 24 (redescription, records).

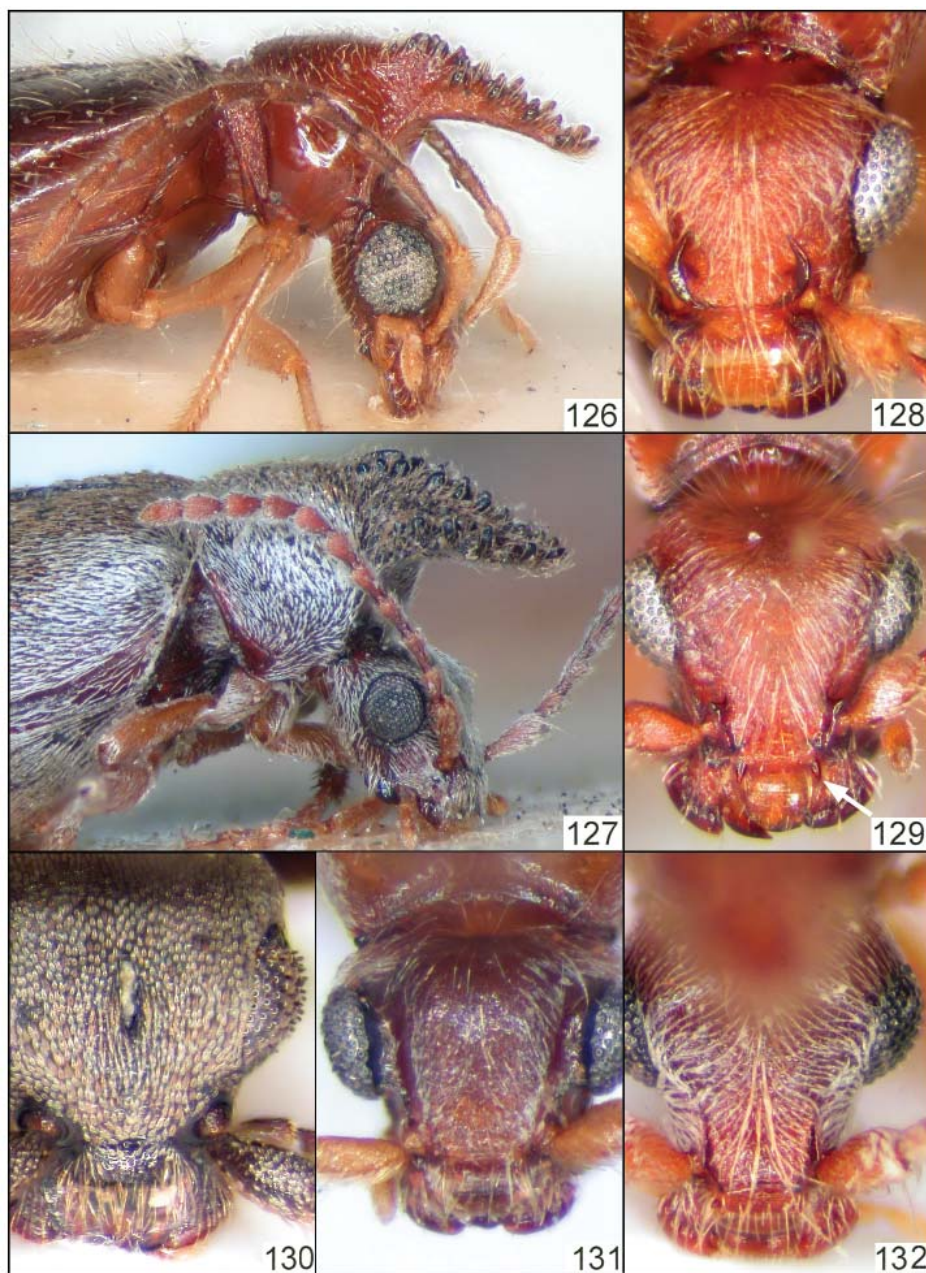
Type locality. South Australia, Gawler, dried riverbed of the river Gawler.

Type material (not available for study; see Remarks).

Additional material. **AUSTRALIA:** **AUSTRALIAN CAPITAL TERRITORY:** 2 ♂♂, Casuarina Sands, 35°19'S 148°57'E, in flood refuse, 1.v.1988, C. Reid leg. (ANIC); 1 ♀, Paddy's River, 1.6 km S of Cotter Dam, 17.iv.1969, S. Misko leg. (ANIC). **NEW SOUTH WALES:** 1 ♂ 9 km NNE of Coonabarabran, Newell Highway, 24.x.1980, E. Britton leg. (ANIC); 4 ♂♂ 2 ♀♀, Sydney [no date, E. W. Fergusson Collection, bearing label 'amabilis' by Lea] (ANIC); 1 ♂, Warrumbungle NP, main camping ground, in flight, evening, 20.–24.xi.1985, C. Reid leg. (ANIC); 1 ♂, Newcastle Grain Terminal, 21.ii.1992, D. Moore leg. (ANIC); 1 ♂, CSIRO Laboratory, Chiswick, near Armidale, x.1965, B. Clydesdale leg. (ANIC); 1 ♂ 2 ♀♀, Narrabeen, 28.x.1983, G. Hangay leg. (HNHM); 1 ♂, same data, except: 27.i.1985 (HNHM); 7 ♂♂ 4 ♀♀, Pinnocle, village (camping), 13.i.1999, A. Podlussány leg. (HNHM); 1 ♂, Narrabri, Mount Kaputar env., 27.–28.xi.1984, W. H. Mucche leg. (SMNS); 2 ♀♀, Eccleston [no date], in flood debris, J. Hopson leg. (SAMA). **NORTHERN TERRITORY:** 6 ♂♂ 7 ♀♀, 48 km SWbyS of Borroloola, McArthur River, 16°27'S 136°05'E, 29.x.1975, M. S. Upton leg. (ANIC); 1 ♀, McArthur River, 14 km SW of Cape Crawford, 16°47'S 135°45'E, 11.iv.1976, J. E. Feehan leg. (ANIC); 4 ♀♀, 80 km SW of Borroloola, McArthur River, 16°39'S 135°51'E, 13.v.1973, M. S. Upton leg. (ANIC); 2 ♂♂, 3 ♀♀, Jasper Gorge, 16°02'S 130°48'E GPS, at light, 15.x.2000, T. Weir & D. Yates leg. (ANIC); 1 ♂, 14 km NW of Cape Crawford, 16°34'S 135°41'E, 6.xi.1975, M. S. Upton leg. (ANIC); 1 ♂, Cooper Creek, 11 km SbyW of Nimbuwah Rock, 12°17'S 133°20'E, at light, 1.xi.1972, E. B. Britton leg. (ANIC); 2 ♂♂ 4 ♀♀, Nitmiluk National Park, Edit Falls, 14°10'S 132°06'E, 37 m, 3.xii.2008, S. Jakl leg. (ZKDC); 1 ♂, Magela Creek, 2 km N of Mudginbarry Homestead, 14.xi.1972, M. S. Upton leg. (ANIC); 1 ♂, Magela Creek, 9 km SSE of Mudginbarry Homestead, 12°40'S 132°54'E, at light, 6.xi.1972, E. Britton leg. (ANIC). **QUEENSLAND:** 16 ♂♂ 15 ♀♀, Great Barrier Reef, Swain Reefs, Price Cay, 21°47'S 152°26'E, i.1985, H. Heatwole leg. (ANIC); 9 ♂♂ 9 ♀♀, Heron Island, 23°44'S 151°95'E, 0–5 m, pitfall trap, 13.–14.xi.2007 (QMBA); 3 ♀♀, same data, except: 5.viii.–26.ix.2008 (QMBA); 1 ♂ 2 ♀♀, Masthead Island, 23°53'S 151°725'E, 0–5 m, pitfall trap, 17.–18.ix.2007 (QMBA); 4 ♂♂ 1 ♀, same locality, beach, 5.–7.x.2008 (QMBA); 1 ♂ 1 ♀, same locality, 7.x.–27.xi.2008 (QMBA); 9 ♂♂ 11 ♀♀, Wreck Island, 23°33'S 151°959'E, pitfall trap, 0–5 m, 15.–16.ix.2007 (QMBA); 1 ♂ 3 ♀♀, same locality, 29.iv.–1.v.2008 (QMBA); 1 ♂, 1 ♀, 1.v.–24.vi.2008 1 ♀, Tryon Island, 23°24'S 151°779'E, 0–5 m, pitfall trap, 18.–22.viii.2007 (QMBA); 1 ♂ 1 ♀, West Fairfax Island, 23°859'S 152°368'E, beach, pitfall trap, 1–5 m, 12.–14.v.2008 (QMBA); 1 ♂ 2 ♀♀, North West Island, 23°296'S 151°708'E, 0–5 m, pitfall trap, 12.–13.ix.2007 (QMBA); 1 ♂, Bucasia, 18.ix.1995, K. J. Sandery leg. (ANIC); 1 ♀, same data, except 16.iii.2003 (ANIC); 2 ♂♂ 1 ♀, 27 km SE Prosperine, Conway Beach, 10.xii.1986, H. & A. Howden leg. (ANIC); 3 ♂♂ 1 ♀, Canungra, ca. 75 km S of Brisbane, 175 m, UV light near creek, 9.–10.i.1991, Pollock & Reichert leg. (DCDC); 4 ♂♂ 2 ♀♀, Warwick [no date], E. T. Smith leg. (BMNH, DCDC); 2 ♂♂, Annan River, 3 km WbyS of Black Mt., 15°41'S 145°12'E, 27.ix.1980, T. Weir leg. (ANIC); 1 ♂ 4 ♀♀, Townsville, 16.–22.iii.1965, J. Balogh leg. (HNHM); 2 ♂♂ 2 ♀♀, 20 km N of Townsville, Bushmans Beach, at light, 16.–18.i.1998, A. J. Watts leg. (SAMA); 1 ♂, same data, except: 4–5.v.1998 (SAMA); 2 ♂♂ 1 ♀, Maryborough [no date], E. W. Fischer leg. (SAMA); 2 ♂♂ 6 ♀♀, Cooper Creek, near 'Dig Tree', UV light, 22.ii.1998, G. Hangay leg. (HNHM); 1 ♂, Tibrogargan Creek, 18.iv.1965, T. Weir leg. (QMBA); 1 ♂ 1 ♀,



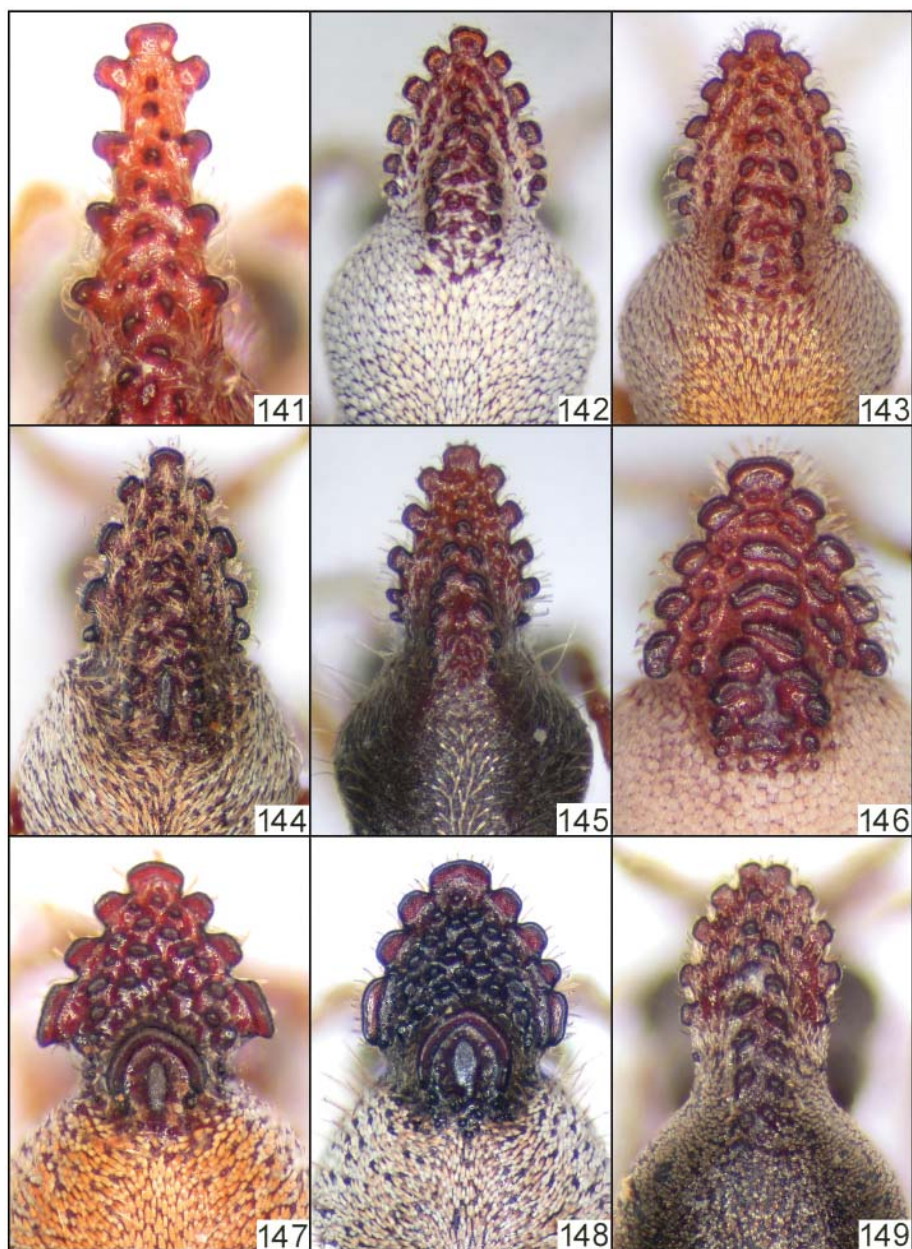
Figs 119–125. 119–124 – labels of type specimens: 119 – *Leptoprion angulatus* Krekich-Strassoldo, 1914 (holotype, NCB); 120 – *Mecynotarsus concolor* King, 1869 (syntype, AMSA); 121 – *M. kingii* MacLeay, 1872 (lectotype, AMSA); 122 – *M. amabilis* Lea, 1922 (type series, SAMA); 123 – *Notoxus decemdentatus* Pic, 1899 (syntypes, MNHN); 124 – *M. albellus* Pascoe, 1866 (syntype, BMNH). 125 – *M. maculatus* Lea, 1922, card with type specimens, lectotype marked by 'TY' (SAMA).



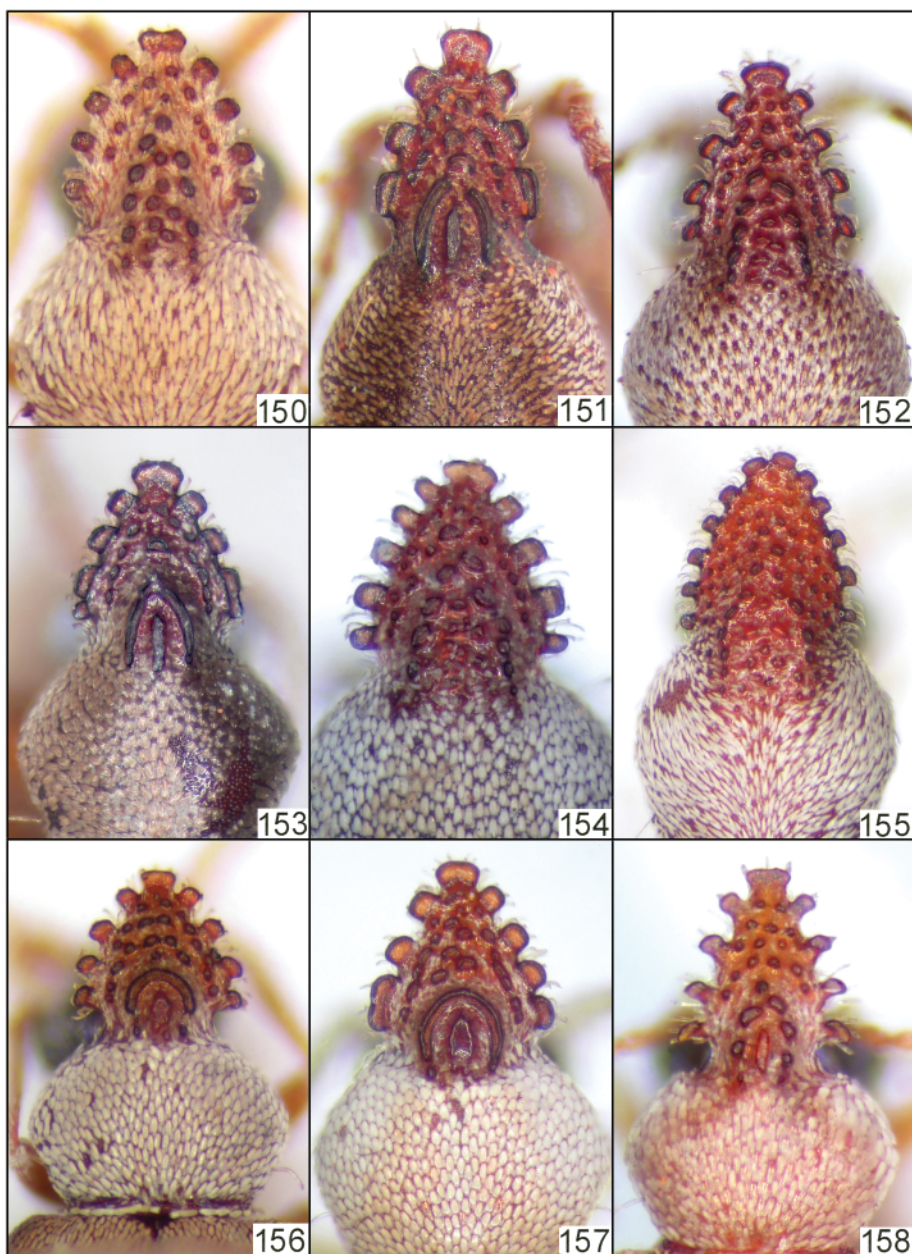
Figs 126–132. 126–127 – body in lateral view: 126 – *Leptoprion angulatus* Krekich-Strassoldo, 1914, 127 – *Mecynotarsus apicipennis* Lea, 1895 (syntype). 128–133 – head: 128 – *M. bicornis* sp. nov., 129 – *M. bidens* sp. nov. (paratype, Onheva Creek), 130 – *M. excavatus* sp. nov. (paratype, Aoue-Enga), 131 – *M. exophthalmus* sp. nov., 132 – *M. kingii* MacLeay, 1872 (Shoalhaven River Gorge).



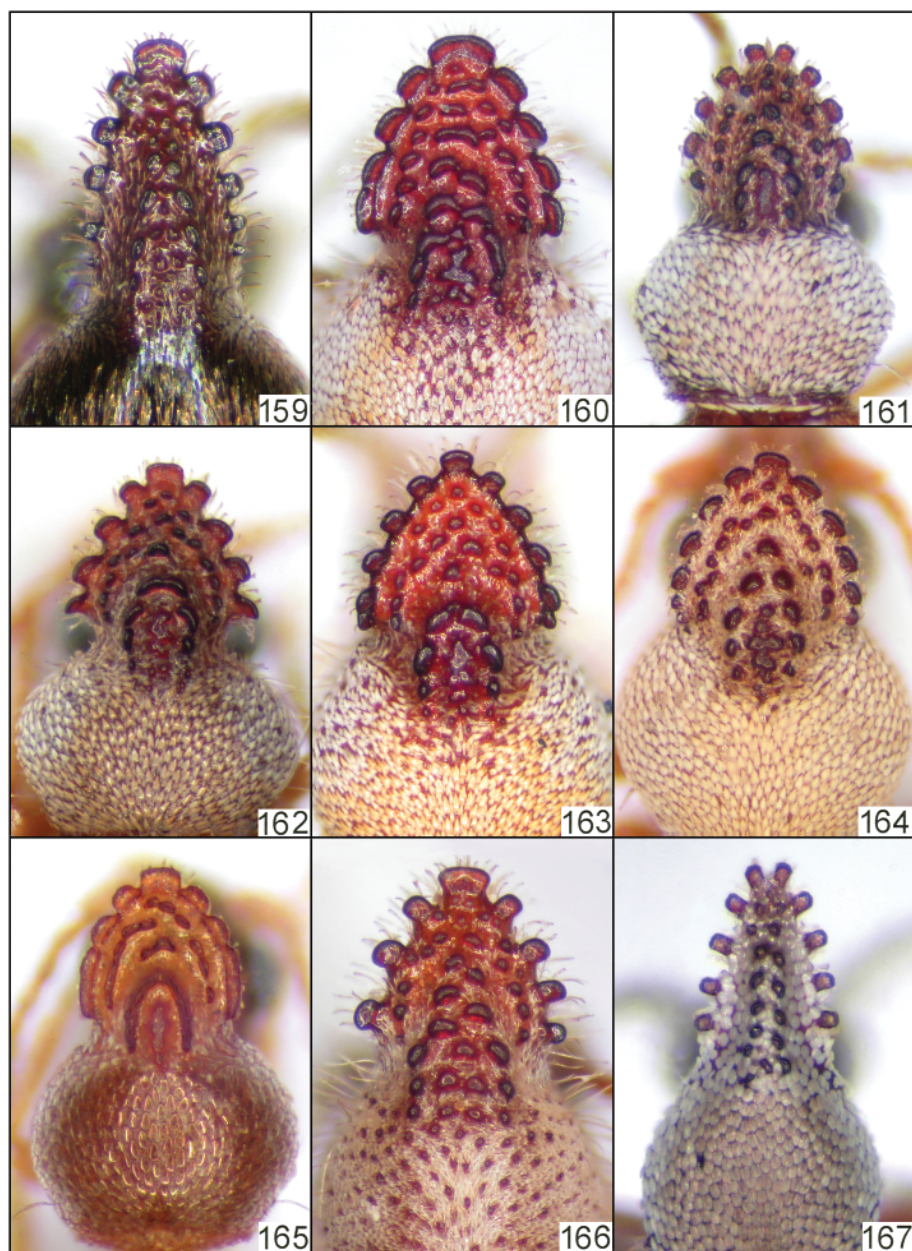
Figs 133–140. 133 – *Mecynotarsus setulosus* sp. nov., head in lateral view (paratype, Fowlers Gap), 134 – *M. excavatus* sp. nov., apex of elytra in female (paratype, Aoue-Enga), 135 – *M. grandior* sp. nov., apex of elytron in male (paratype, Kimberley Research Station), 136 – *M. obesus* sp. nov., metatibia with tarsus (paratype, Hull River), 137 – *M. excavatus* sp. nov., male protibia (paratype, Aoue-Enga). 138–140 – head in ventral view: 138 – *M. auripilosus* sp. nov. (paratype, Kambah Pool), 139 – *M. bullatus* sp. nov. (paratype, Regans Ford), 140 – *M. ziczac* King, 1869 (Swain Reefs).



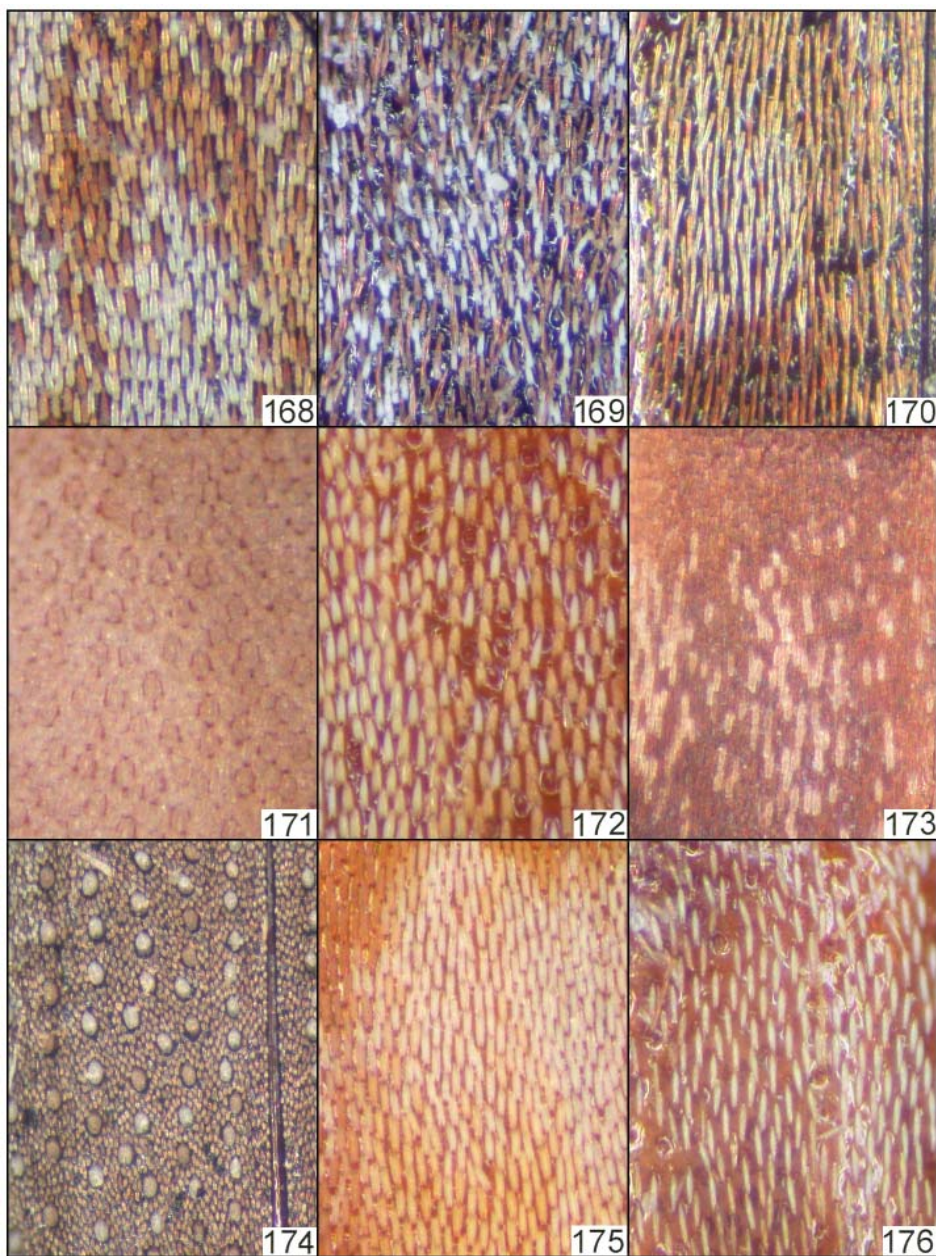
Figs 141–149. Pronotal horn in dorsal view: 141 – *Leptoprion angulatus* Krekich-Strassoldo, 1914, 142 – *Mecynotarsus albellus* Pascoe, 1866 (Wemen), 143 – *M. amabilis* Lea, 1895 (Shoalhaven River), 144 – *M. apicipennis* Lea, 1922 (syntype), 145 – *M. auripilosus* sp. nov., 146 – *M. bidens* sp. nov., 147 – *M. bullatus* sp. nov., 148 – the same (paratype, Daintree), 149 – *M. excavatus* sp. nov.



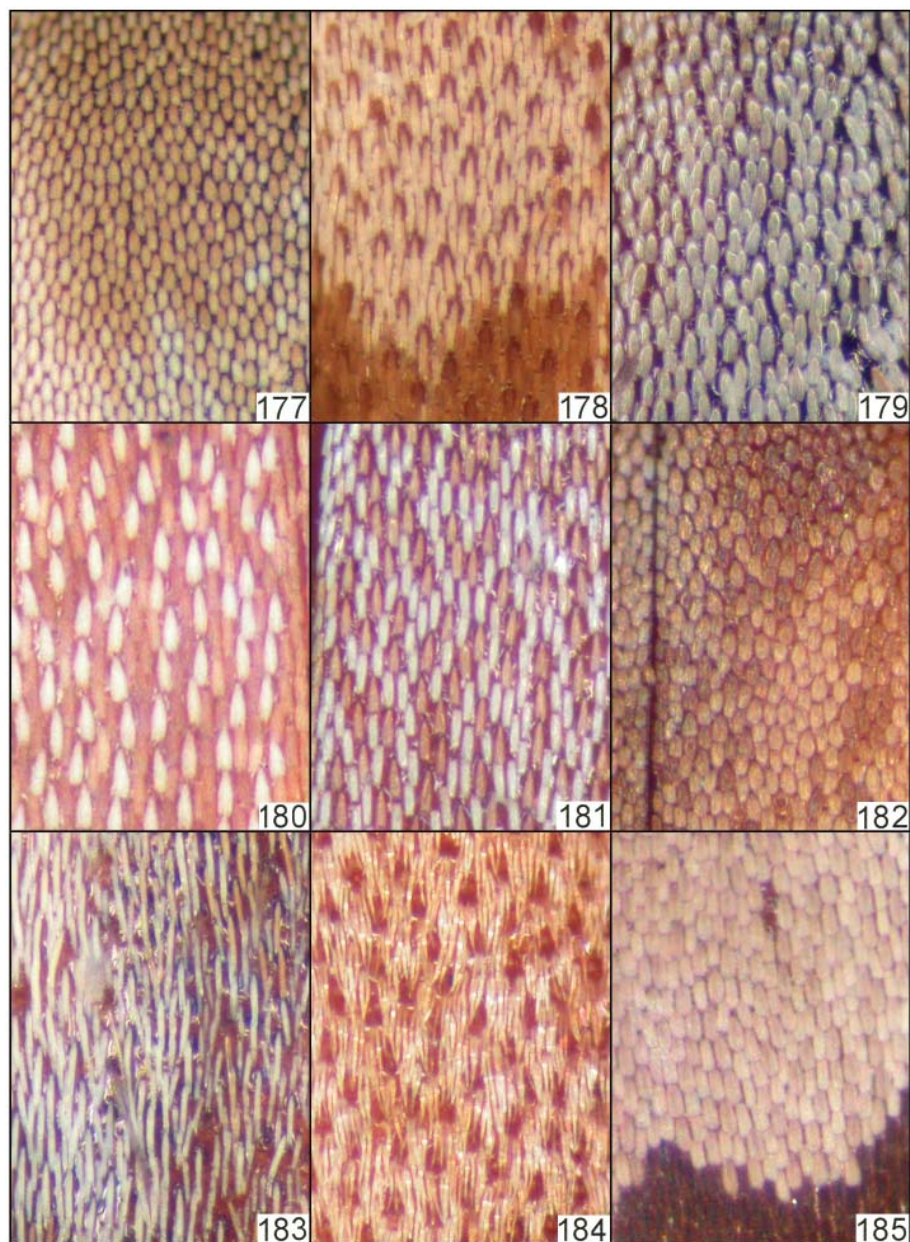
Figs 150–158. Pronotal horn in dorsal view: 150 – *Mecynotarsus festivus* sp. nov., 151 – *M. grandior* sp. nov., 152 – *M. granulatus* sp. nov., 153 – *M. hortensis* Lea, 1922 (syntype, SAMA), 154 – *M. kingii* MacLeay, 1872, 155 – *M. leai* Pic, 1942 (Richmond), 156 – *M. magelae* sp. nov., 157 – the same (paratype, Carson Escarpment), 158 – the same (paratype, Charnley River).



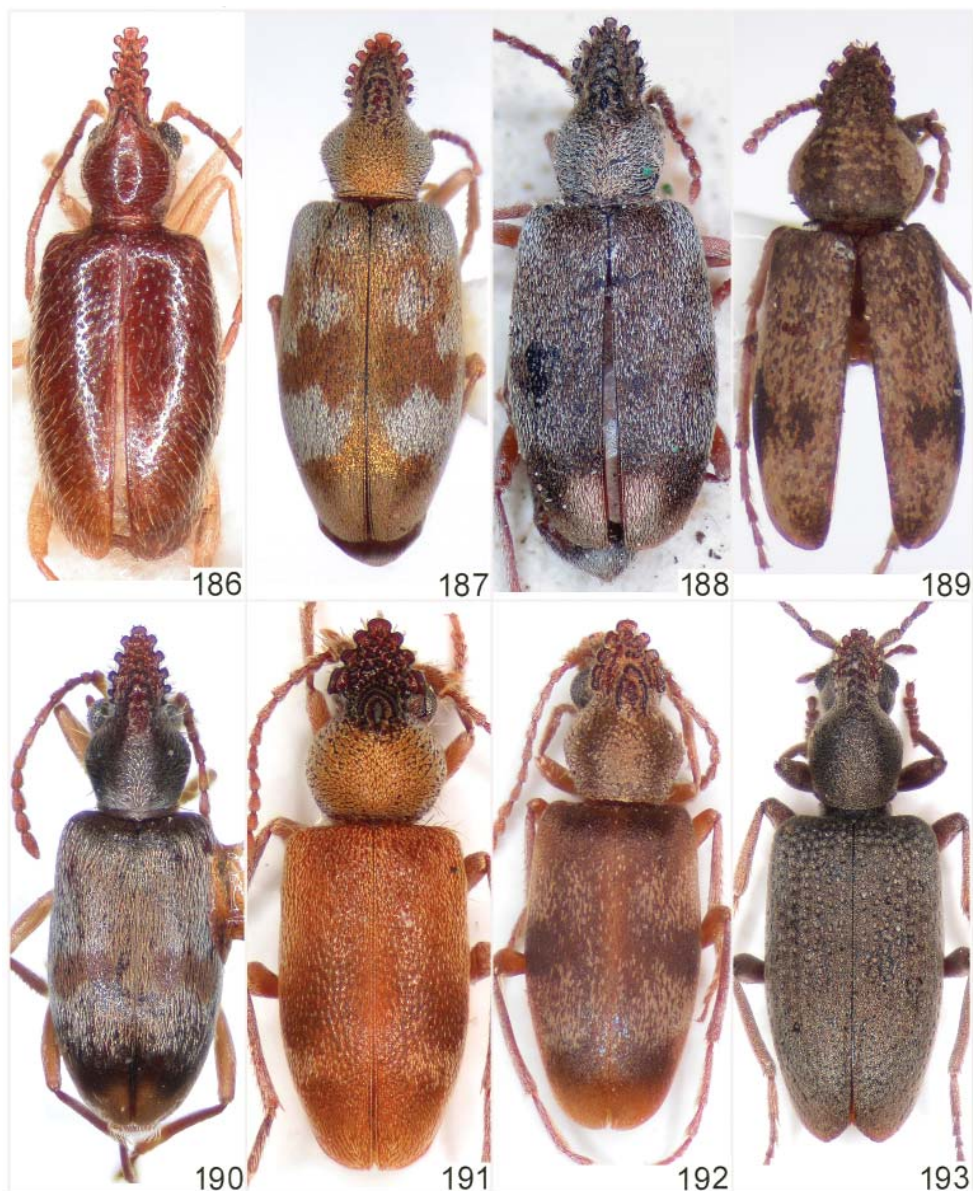
Figs 159–167. Pronotal horn in dorsal view: 159 – *Mecynotarsus mastersii* MacLeay, 1872 (Cedar Creek National Park), 160 – *M. obesus* sp. nov., 161 – *M. parvulus* sp. nov., 162 – *M. phanophilus* Lea, 1922 (Greenvale), 163 – the same (Ross Waterhole), 164 – *M. pilicornis* sp. nov., 165 – *M. pusillus* sp. nov., 166 – *M. speciosus* sp. nov., 167 – *M. weiri* sp. nov.



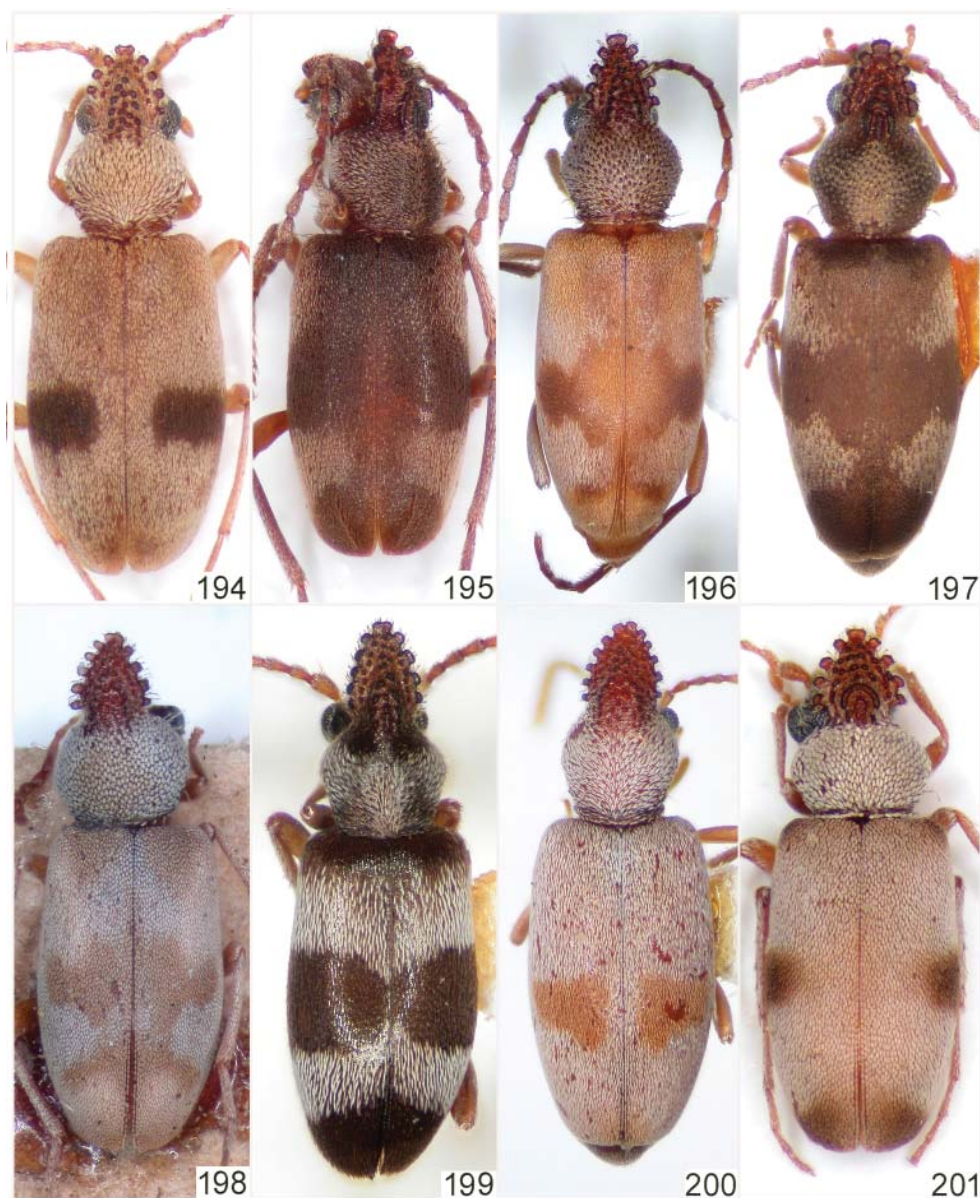
Figs 168–176. Setation of elytra: 168 – *Mecynotarsus amabilis* Lea, 1895 (Shoalhaven River), 169 – *M. apicipennis* Lea, 1922, 170 – *M. auripilosus* sp. nov. (paratype, Kambah Pool), 171 – *M. bidens* sp. nov., 172 – *M. bullatus* sp. nov. (paratype, Minilya River), 173 – *M. concolor* King, 1869 (Olary), 174 – *M. excavatus* sp. nov., 175 – *M. granulatus* sp. nov., 176 – *M. hirtipennis* sp. nov.



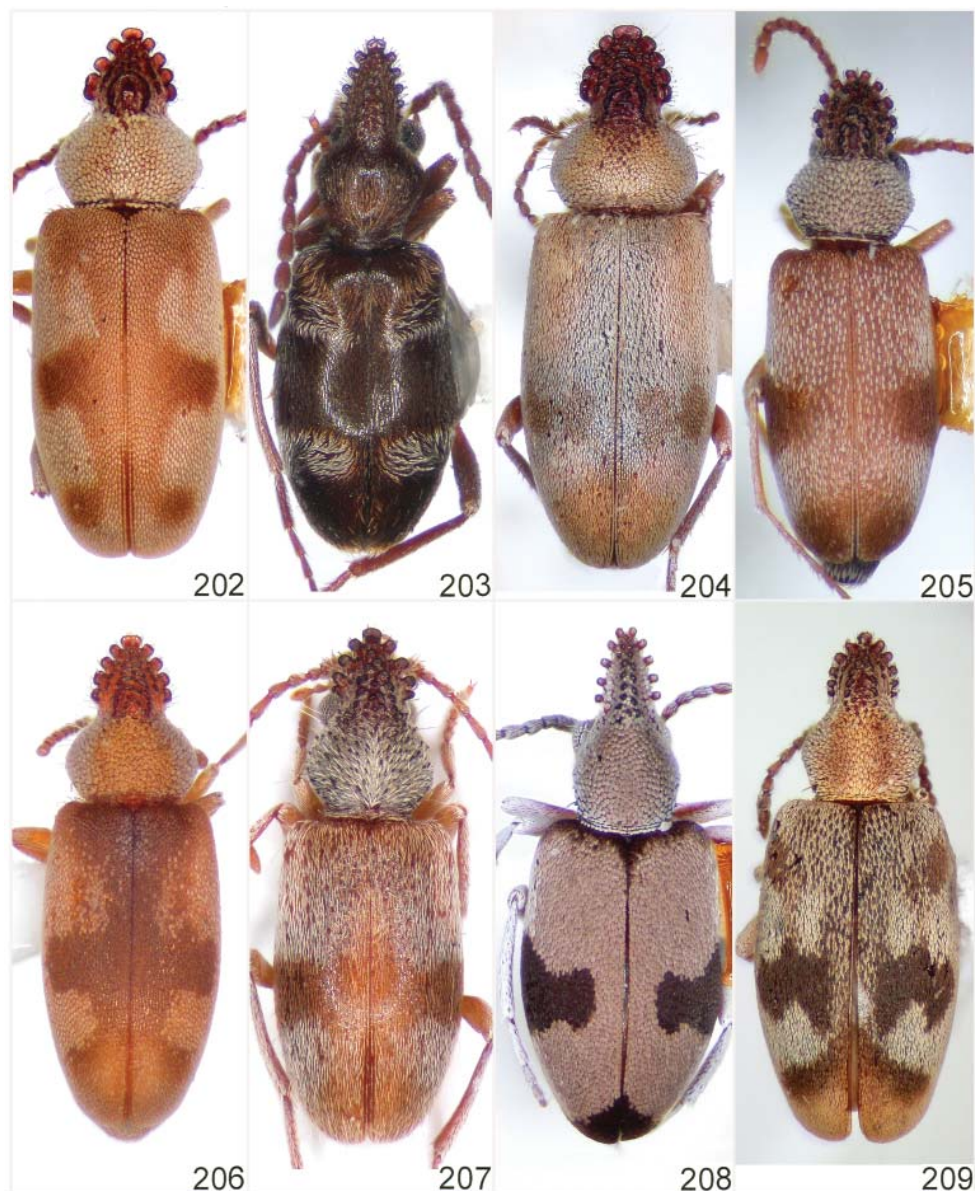
Figs 177–185. Setation of elytra: 177 – *Mecynotarsus kingii* MacLeay, 1872 (Shoalhaven River), 178 – *M. nobilis* sp. nov., 179 – *M. obesus* sp. nov., 180 – *M. parvulus* sp. nov., 181 – *M. phanophilus* sp. nov., 182 – *M. pilbarensis* sp. nov., 183 – *M. regalis* sp. nov., 184 – *M. speciosus* sp. nov., 185 – *M. weiri* sp. nov.



Figs 186–193. Habitus: 186 – *Leptoprion angulatus* Krekich-Strassoldo, 1914, 187 – *Mecynotarsus amabilis* Lea, 1895 (Shoalhaven River), 188 – *M. apicipennis* Lea, 1922, 189 – *M. auceps* sp. nov., 190 – *M. auripilosus* sp. nov., 191 – *M. bullatus* sp. nov., 192 – *M. concolor* King, 1869 (Olary), 193 – *M. excavatus* sp. nov.



Figs 194–201. Habitus: 194 – *Mecynotarsus festivus* sp. nov., 195 – *M. grandior* sp. nov., 196 – *M. granulatus* sp. nov., 197 – *M. hortensis* Lea, 1922 (Fowlers Gap), 198 – *M. kingii* MacLeay, 1872, 199 – *M. kreusleri* King, 1869 (Mount Tozer), 200 – *M. leai* Pic, 1942 (Richmond), 201 – *M. magelae* sp. nov.



Figs 202–209. Habitus: 202 – *Mecynotarsus magelae* sp. nov. (Charnley River), 203 – *M. mastersii* MacLeay, 1872 (Cedar Creek National Park), 204 – *M. obesus* sp. nov., 205 – *M. parvulus* sp. nov., 206 – *M. pilbarensis* sp. nov. (paratype, Millstream Homestead), 207 – *M. regalis* sp. nov., 208 – *M. weiri* sp. nov., 209 – *M. ziczac* King, 1869 (Newcastle Grain Terminal).

Davies Creek, x.1950, J.G. Brooks Bequest leg. (ANIC). **VICTORIA:** 1 ♂, Melbourne, Clayton, viii.1972, P. Zwick leg. (MHNG). **SOUTH AUSTRALIA:** 4 ♂♂ 4 ♀♀, Gawler [no date], Odewahn leg. (NMPC); 1 ♂, 1 ♀, Lucindale [no date], Feuerheerdt leg. (QMBA). **WESTERN AUSTRALIA:** 2 ♂♂ 1 ♀, Millstream, 21°35'S 117°04'E, eucalyptus-paperbark woodland, at light, 28.x.1970, E. Britton leg. (ANIC); 1 spec., same data, except: 1.xi.1970 (ANIC).

Redescription (male, Gawler, NMPC). Body length 2.3 mm. Body, legs and antennae reddish to reddish brown.

Antero-lateral margins of frons simple. Gular rugules minute and rather scattered (Fig. 140). Clypeal lobules minute to indistinct. Setation of head rather evenly short and appressed, dense, finer medially on vertex, somewhat coarser to scaly around eyes and ventro-laterally. Antennae moderately long; antennomeres III–V about 1.8 times, X nearly as long as wide; setation mostly rather short and fine, distinctly coarser on basal 2–3 antennomeres.

Pronotum nearly 1.7 times as long as wide, its lateral margins unevenly shaped, moderately convex anteriorly, somewhat angled at widest point and then rather straight while narrowing towards base in dorsal view; posterior collar narrow but distinct, somewhat concealed by scaly setation. Pronotal horn robust, moderately long and wide, its posterior angles obsolete in dorsal view; horn margins armed with 5 rounded lobules on each side (posterior lobules smaller); horn crest distinct, clearly raised, moderately wide, with coarse, rather widely spaced rugules on margins; submarginal rugules minute; about 10 median rugules, unevenly and mostly narrowly spaced. Setation whitish, largely appressed and scaly, including most of dorsal surface of pronotal horn (here somewhat more raised and finer towards apex); scales on pronotal disc of two sizes, smaller and narrower or larger and wider, both elongate, rounded to truncate apically; antebasal paired setae short but distinct (somewhat thickened) laterally and absent medially, another tactile setae absent.

Elytra 1.7 times as long as wide; omoplates and postbasal impression absent. Setation scaly, whitish and reddish to brownish, somewhat mixed dorsally in basal half, and also forming dark markings (Fig. 209), evenly developed / ordered; scales distinctly elongate, nearly linear, rounded to subtruncate apically, very densely spaced (covering nearly entire surface); erect tactile setae absent.

Male characters. Sternum VII moderately produced postero-medially. Tergum VIII and aedeagus as in Figs 116, 118.

Variation. Body length (♂♀) 2.2–2.4 mm. Pronotal horn with 5–6 lobules on each side; 7–12 median rugules, with usually some minute additional granules posteriorly. Markings on elytra usually rather distinct, strongly reduced to absent in all specimens from islands of the Great Barrier Reef in Queensland.

Differential diagnosis. *Mecynotarsus ziczac* is very close to *M. albellus* and *M. iuvenis* sp. nov., as suggested by the similar form of the parameres. It differs from *M. iuvenis* by the simple male sternum VII (lacking sharply bordered medio-basal impression), and by the short and less raised, scaly setation of male tergum VIII; and from *M. albellus* by the somewhat narrower crest of pronotal horn, and the evenly narrowing parameres that lack a small pre-apical denticle / angulation on the outer margin.

Distribution. Australia: Australian Capital Territory (new record), New South Wales (LEA 1895, UHMANN 2000), Northern Territory (new record), Queensland (UHMANN 2000), South Australia (KING 1869, UHMANN 2007), Victoria (new record), Western Australia (new record).

The records from New South Wales and Queensland by UHMANN (2000) are partly based on misidentified specimens of *M. albellus* (Round Hill, near Lake Cargillego) and *M. parvulus* sp. nov. (Townsville, single specimen).

Remarks. KING (1869) described all his *Mecynotarsus* species, *M. concolor*, *M. kreusleri*, and *M. ziczac*, from an unstated number of specimens collected by Marianne Kreusler near Gawler in the South Australia. The type material is deposited in AMSA, however, that of *M. ziczac* was not available at the time of my studies (probably on loan). For this reason, the redescription is based solely on the topotypic specimens collected by the German naturalist Johannes Odewahn, who had been living in South Australia, who had assisted M. Kreusler in collecting beetles (JONES 2011), and later sold part of his Australian insect collection to the Czech entomologist Otakar Nickerl (HORN et al. 1990). The Nickerl Collection is now deposited in NMPC and contains identified specimens of King's three species. These specimens of *M. ziczac* were used as the basis for the identification of this species.

Check list of the Australian *Mecynotarsus* LaFerté-Sénectère, 1849

<i>M. albellus</i> Pascoe, 1866	New South Wales, South Australia, Victoria, Western Australia
<i>M. amabilis</i> Lea, 1895	New South Wales, Queensland
<i>M. apicipennis</i> Lea, 1895	New South Wales
<i>M. armifer</i> sp. nov.	Northern Territory, Queensland, Western Australia
<i>M. auceps</i> sp. nov.	Victoria
<i>M. auripilosus</i> sp. nov.	Australian Capital Territory, Victoria
<i>M. bicornis</i> sp. nov.	Western Australia
<i>M. bidens</i> sp. nov.	New South Wales, Northern Territory, Queensland, South Australia
<i>M. bidentatus</i> sp. nov.	Western Australia
<i>M. bullatus</i> sp. nov.	Northern Territory, Queensland, Western Australia
<i>M. canthariphilus</i> sp. nov.	Queensland
<i>M. centralis</i> sp. nov.	Northern Territory
<i>M. concolor</i> King, 1869	New South Wales, South Australia
= <i>Notoxus decemdentatus</i> Pic, 1899, syn. nov.	
<i>M. dearmatus</i> sp. nov.	Northern Territory, Western Australia
<i>M. excavatus</i> sp. nov.	New Caledonia
<i>M. exophthalmus</i> sp. nov.	Western Australia
<i>M. fallax</i> sp. nov.	New South Wales, Northern Territory, Queensland, South Australia, Victoria
<i>M. festivus</i> sp. nov.	Northern Territory
<i>M. grandior</i> sp. nov.	Northern Territory, Queensland, Western Australia
<i>M. granulatus</i> sp. nov.	New South Wales, Northern Territory, Queensland
<i>M. hirtipennis</i> sp. nov.	Northern Territory, Queensland, Western Australia

<i>M. hortensis</i> Lea, 1922 = <i>M. lateroalbus</i> Lea, 1922, syn. nov.	Australian Capital Territory, New South Wales, Northern Territory, Queensland, South Australia, Western Australia
<i>M. imitator</i> sp. nov.	Northern Territory
<i>M. iuvenis</i> sp. nov.	Northern Territory, Western Australia
<i>M. kingii</i> MacLeay, 1872	Australian Capital Territory, New South Wales, Queensland, South Australia
<i>M. kreusleri</i> King, 1869	Australian Capital Territory, New South Wales, Queensland, South Australia, Victoria
<i>M. leai</i> Pic, 1942	New South Wales, Victoria, Tasmania
<i>M. magelae</i> sp. nov.	Northern Territory, Queensland, Western Australia
<i>M. mastersii</i> MacLeay, 1872	Australian Capital Territory, New South Wales, Queensland
<i>M. mollis</i> sp. nov.	Northern Territory
<i>M. nobilis</i> sp. nov.	Northern Territory, Queensland
<i>M. obesus</i> sp. nov.	Northern Territory, Queensland
<i>M. parvulus</i> sp. nov.	Northern Territory, Queensland
<i>M. phanophilus</i> Lea, 1922	New South Wales, Northern Territory, Queensland, South Australia
<i>M. pilbarensis</i> sp. nov.	Western Australia
<i>M. pilicornis</i> sp. nov.	New South Wales, Queensland
<i>M. pusillus</i> sp. nov.	Western Australia
<i>M. regalis</i> sp. nov.	Queensland
<i>M. setulosus</i> sp. nov.	New South Wales, Northern Territory, Queensland, South Australia
<i>M. speciosus</i> sp. nov.	Western Australia
<i>M. weiri</i> sp. nov.	Northern Territory, Western Australia
<i>M. ziczac</i> King, 1869	Australian Capital Territory, New South Wales, Northern Territory, Queensland, South Australia, Victoria, Western Australia

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