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Introduction to the knowledge of the subfamily Aleocharinae from the Australian Region (Part I) (Coleoptera, Staphylinidae)*,**

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Abstract – The present study treats 42 species belonging to 8 tribes (Leucocraspedini, Pronomaeini, Gyrophaenini, Homalotini, Diestotini, Bolitocharini, Falagriini, Athetini (Part I)) and 16 genera (*Leucosraspedum, Myllaena, Gyrophaena, Brachida, Austrobrachida, Sternotropa, Brachyglyptaglossa, Coenonica, Diestota, Tasgnathusa, Falagria, Ischnopoda, Aloconota, Australoconotida, Australoconota, Giachinusa)*, 3 of them being new to science (*Austrobrachida, Tasgnathusa, Australoconotida).* Of these species, 33 are described as new to science: *Myllaena gullyensis* sp. n., *Gyrophaena fustigans* sp. n., *Gyrophaena nadgeensis* sp. n., *Brachida caraiensis* sp. n., *Austrobrachida conwayensis* sp. n., *Sternotropa australicola* sp. n., *Brachyglyptaglossa australiae* sp. n., *Coenonica wilsonensis* sp. n., *Coenonica brownicola* sp. n., *Coenonica orbicularis* sp. n., *Coenonica perpusilla* sp. n., *Coenonica coffsensis* sp. n., *Coenonica micropapuana* sp. n., *Diestota hartzmontium* sp. n., *Tasgnathusa hartzmontium* sp. n., *Tasgnathusa australiana* sp. n., *Falagria neoguineana* sp. n., *Ischnopoda benepicta* sp. n., *Aloconota cabbagicola* sp. n., *Aloconota lornensis* sp. n., *Aloconota microculata* sp. n., *Aloconota lawersensis* sp. n., *Australoconotida caudapiscis* sp. n., *Australoconota microtheca* sp. n., *Giachinusa wilsonmontis* sp. n., *Giachinusa brownicola* sp. n., *Giachinusa alternata* sp. n., *Giachinusa superba* sp. n., *Giachinusa wilsonicola* sp. n., *Giachinusa truncata* sp. n., *Giachinusa minor* sp. n., *Giachinusa lamingtonicola* sp. n., and *Giachinusa forticornis* sp. n. With 112 figures.

Key words – Staphylinidae, Aleocharinae, taxonomy, new genera, new species, New Guinea, Australia, Tasmania

INTRODUCTION

It is already clear that the beetle subfamily Aleocharinae from Australia is rich in species yet is still poorly known. The very large subfamily Aleocharinae has, more than any other subfamily of Staphylinidae, produced the evolution of many highly specialised species, documented from the shape of mouthpart structures. The material treated here was collected or donated to HNHM by

* The paper is dedicated to Dr László Móczár, doyen of the Hungarian hymenopterists, celebrating his 100th birthday.
** 295th contribution to the knowledge of Aleocharinae.

Hungarian entomologists. Most specimens originated from György Bornemissza (1924–2014), Hungarian coleopterist who emigrated to Australia in 1950, and made a lot of collecting and research in that country, worked for CSIRO and later retired and settled in Tasmania. Large amounts of his collected material were donated to HNHM. Other parts of the material were obtained by regular Hungarian entomological expeditions to Australia.

MATERIAL AND METHODS

The specimens studied in the present paper were originally deposited in the Hungarian Natural History Museum of Budapest. After ownership issues of old borrowed portions of the samples were clarified, holotypes and a few other specimens were returned to Australian museums. The large proportion of new species in the material may be accounted for the use of Berlese funnels for extraction, a method that collects many cryptic species never found using standard sampling techniques.

For the non-specialist, identification of Australian species of Aleocharinae presents an almost impossible task. The taxonomic study of the species from Australia, compared with those of other zoogeographic regions, presents major problems that are best resolved by examination of the characters of aedeagus, of the spermatheca and of the shape of the ligula and the maxillae. Both adult male and female specimens were dissected, and the genital and mouthpart structures mounted in Canada balsam (on small transparent plastic slides pinned with the specimen). The genital and mouthpart structures were studied using a compound microscope and drawn by means of an eyepiece reticule. The drawings of complex spermathecae, such as those of *Apimela* and *Zyras,* were copied from macro-photographic tracings of microscope slides. The habitus illustrations of the new species were photographed using a digital Canon Power Shot A610, 5.0 megapixel camera. All the figures I made are finished drawings modified and arranged in plates using Adobe Photoshop software.

The species described here are clearly recognizable by means of the illustrations of habitus, aedeagus and spermatheca. For this reason, the descriptions are kept short and concise, focusing only on characters that are not readily recognizable in the illustrations, such as the reticulation and the granulation of body surfaces. In the case of the subfamily Aleocharinae, a very long and detailed description does not always enable an accurate identification of species, rather the illustrations of the aedeagus and/or of spermatheca, and of the habitus, as has been confirmed by experienced colleagues. For this reason, the descriptions in this paper omit statements that are obvious from the photographs of the habitus. Features of the new species are often compared to those of already described spe-

cies known from the Austral region (Cameron 1921, Fauvel 1878, Pace 2000, 2002, 2009, Stephens 1832).

Under the Material examined and Type material data are faithfully given from the original labels. Additional information obtained from the locality list of the collecting trip by Attila Podlussány in 2000 is in brackets.

Acronyms of specimen depositories – AMSA = Australian Museum, Sydney, Australia; ANIC = Australian National Insect Collection, Canberra, Australia; HNHM = Hungarian Natural History Museum, Budapest, Hungary; IRSN = Institut Royal des Sciences Naturelles, Bruxelles, Belgium; MSNG = Museo Civico di Storia Naturale, Genoa, Italy; NHML = Natural History Museum, London, United Kingdom; SDEI = Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany.

LIST OF THE SPECIES, GROUPED IN TRIBES, WITH DESCRIPTIONS

Leucocraspedini

Leucocraspedum antennarium (Pace, 2003), **comb. n.**

Chariusa antennaria Pace, 2003*b*: 168.

Material examined – Tasmania, Bruny Island, 6.XII.1982, leg. Bornemissza, KZ 158 (2 ♂♂, 1 ♀, HNHM); Tas.[mania], 8 km NW St. Helens, 13.XII.1981, leg. Bornemissza, KZ 87, beating flowering bushes (1 ♀, HNHM).

Distribution – Australia, Tasmania.

Pronomaeini

Myllaena gullyensis sp. n.
(Figs 1, 34)

Type material – Holotype ♀, Australia, W, Gully Rd., Nornalup-Walpole N.P., 25.I–6.III.1979, coll. Austr. Mus. & TTM, N° 1496 (AMSA).

Description – Habitus as in Fig. 1. Length 1.8 mm. Wingless species with elytra shorter than pronotum. Body shiny, yellowish-red, antennae yellowish-red with two basal antennomeres yellow, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere longer than first, third shorter than second, fourth longer than wide, fifth to tenth transverse. Body devoid of reticulation. Whole body covered with dense and superficial granulation and of silky pubescence. Spermatheca as in Fig. 34.

Comparative notes – In the shape of the spermatheca and the reduced elytra, the new species is similar to *Myllaena neozelandensis* Pace, 2000 from New Zealand. The elytra of the new species are still shorter than that of *M. neozelandensis*. The distal bulb of the spermatheca is shorter, with apical umbilicus of the distal bulb deeper than that of *M. neozelandensis*. The proximal portion of the spermatheca of the new species is widely sinuate, that of *M. neozelandensis* is entangled. The new species is clearly distinguished by *M. intermedia* Erichson, 1839, present also in Australia, because this species has elytra longer than that of the new species and the proximal portion of the spermatheca it is alone curved.

Etymology – The new species derives its name from the toponym Gully.

Gyrophaenini

Gyrophaena fustigans sp. n.
(Figs 2, 35–36)

Type material – Holotype ♂, Australia, NSW, Clyde Mt. wet schlerophill, Taylor, Brooks c. 2450 ft, leaf mould, ANIC Berlesate N° 33, 4.XI.1967, leg. Bornemissza (ANIC).

Description – Habitus as in Fig. 2. Length 2.4 mm. Body shiny and yellow, head and a median spot around fourth free tergite yellowish-red, antennae brown with three basal antennomeres yellow, legs yellow. Specimen teneral. Eyes longer than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth very transverse, fifth longer than wide, sixth and seventh as long as wide, eighth to tenth transverse. Reticulation of forebody superficial, absent on abdomen, but on fifth free tergite of male vanishing. Puncturation of head strong and absent on longitudinal median strip. Puncturation of pronotum distinct and irregularly distributed, that of elytra dense and well visible, that of abdomen dense, but absent on posterior portion of fifth free tergite of male. Aedeagus as in Fig. 35, sixth free tergite of male as in Fig. 36.

Comparative notes – In the shape of the aedeagus and the sixth free tergite of the male, the new species is comparable with *Gyrophaena appendiculata* Pace, 2009 from New Guinea. The pronotum of the new species is yellow, that of *G. appendiculata* reddish-brown. The sternal blade of the aedeagus of the new species is short and wide, that of *G. appendiculata* narrow and very long. The lateral teeth of the sixth free tergite of the male are very long in the new species, short in *appendiculata*.

Etymology – The new species takes its name from the long flagellum of the aedeagus similar to a whip.

Gyrophaena nadgeensis sp. n.
(Figs 3, 37–38)

Type material – Holotype ♂, Australia, NSW, Nadgee, coll. Austr. Mus. & TTM, N° 1176, Nadgee Nature reserve (37°22'S, 149°55'E), 24.V.1978, G. Gowing (AMSA).

Description – Habitus as in Fig. 3. Length 1.5 mm. Body shiny and yellow, head and free tergites fourth and fifth reddish-brown, elytra brown except shoulders yellow, antennae brown with three basal antennomeres yellow pale, legs yellow pale. Eyes longer than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth longer than wide, fifth to tenth transverse. Reticulation of head and pronotum very superficial, that of elytra and abdomen vanishing. Puncturation of head very superficial, that of the pronotum composed of four superficial discal points in square and of other isolated points hardly visible. Very superficial granulation of elytra, that of abdomen inconspicuous. Aedeagus as in Fig. 37, sixth free tergite of male as in Fig. 38.

Comparative notes – The aedeagus of the new species has a dorsal apical appendix. A similar aedeagus is found in *Gyrophaena difficilis* Cameron, 1939 from India, of which I have examined the male holotype (NHML). The ventral laminar appendix of the aedeagus of the new species is not present in the aedeagus of *G. difficilis*.

Etymology – The new species takes its name from the toponym Nadgee.

Brachida callicornis Pace, 2003

Brachida callicornis Pace, 2003*b*: 125.

Material examined – Australia, NSW, Sydney, Ingleside, Katandra Bushland Sanctuary, 159 m, 33°40'S, 151°16'E, 19–21.XI.2000, leg. A. Podlussány [in Hawkesbury Sandstone, wet and closed sclerophyll forest, sandy loam] (1 ♂, HNHM).

Distribution – Australia.

Brachida caraiensis sp. n.
(Figs 4, 39–40)

Type material – Holotype ♂, Australia, NSW, Carai State Forest, Kookaburra, 943 m, 31°01'43"S,152°20'28"E, 27–28.X.2000, leg A. Podlussány [in rainforest, red soil] (ANIC). Paratypes (4 specimens): same data as holotype (1 ♂, 1 ♀, HNHM), Australia, NSW, Great Dividing Range, Mt. Coricudgy, 1284 m, 32°50'S, 150°21'E, 23.X.2000, leg A. Podlussány [in Hawkesbury Sandstone, montane forest] (1 ♂, 1 ♀, HNHM).

Description – Habitus as in Fig. 4. Length 2.3–2.4 mm. Body shiny, yellowish-red, head reddish, bases of free tergites yellowish-brown, antennae brown with three basal antennomeres and tenth yellowish-red, eleventh yellow, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth and fifth longer that wide, sixth as long as wide, seventh to tenth transverse. Body devoid of reticulation. Puncturation of head and pronotum dense, fine and very superficial. Granularity of elytra and abdomen fine and vanishing. Aedeagus as in Fig. 39, spermatheca as in Fig. 40.

Comparative notes – The new species for the form of the aedeagus is similar to *Brachida callicornis* Pace, 2003 from Sydney. It differs in the sternal blade of the aedeagus very narrow, in lateral view, and not as wide as in *B. callicornis*. The spermatheca of the new species has apical umbilicus of the distal bulb, that of *B. callicornis* is without.

Etymology – The new species takes its name from the Carai State Forest.

Austrobrachida gen. n.
(Figs 5, 41–45)

Diagnosis – The new genus, as regards the widely separated mesocoxae and the mesosternal process that is wide in between, similar to the genus *Brachida* Mulsant et Rey, 1871, but the abdomen is posteriorly a little narrower, the first article of metatarsus is short and not longer than the second as in *Brachida*. Maxilla as in Fig. 44. The ligula of the new genus is larger than that of *Brachida* and possesses an elliptic median callus (Fig. 43), absent on the ligula of *Brachida*. The mentum of the new species (Fig. 45) is sinuate to the anterior angles, not sinuate in *Brachida*. The aedeagus of the new genus is completely different from that of the species of *Brachida*.

Type species – Austrobrachida conwayensis sp. n.

Etymology – The name of the new genus is composed from Australia and *Brachida*.

Austrobrachida conwayensis sp. n.
(Figs 5, 41–45)

Type material – Holotype ♂, Australia, NE QLD, Conway Range N.P., E from Proserpine, at light, 17–23.II.1981, leg. Hangay & Herczeg & Vojnits, N° 205 (ANIC).

Description – Habitus as in Fig. 5. Length 2.4 mm. Body shiny, yellowish-red, head reddish, fourth free tergite of male with great brown median spot, antennae reddish-brown with three basal antennomeres yellow and eleventh yellowish-red,

legs yellow. Eyes longer than postocular region in dorsal view. Second antennomere as long as first, third shorter than second, fourth longer than wide, fifth as long as wide, sixth to tenth transverse. Reticulation of head superficial, that of pronotum and elytra rather vanishing, that of abdomen distinct only on basal half of every free abdiminal segments, on distal half devoid of reticulation. Puncturation of head dense and less deep, that of pronotum and elytra very superficial and very dense. Granularity of abdomen dense and distinct. Aedeagus as in Figs 41–42.

Etymology – The new species takes its name from the Conway Range National Park.

Sternotropa australicola sp. n.
(Figs 6, 46)

Type material – Holotype ♂, Australia, NSW, Nadgee, coll. Austr. Mus. & TTM, N° 1176, Nadgee Nature reserve (37°22'S, 149°55'E), 24.V.1978, G. Gowing (AMSA).

Description – Habitus as in Fig. 6. Length 1.5 mm. Body shiny, yellowish-red, posterior three fourths of elytra and fourth free tergite reddish-brown, antennae yellow (tenth and eleventh antennomeres lost), legs yellow. Eyes longer than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head absent, that of pronotum and abdomen superficial, that of elytra distinct. Puncturation of head indistinct, that of pronotum dense and superficial. Granularity of elytra dense and less distinct, that of abdomen dense and very superficial. Aedeagus as in Fig. 46.

Comparative notes – The new species is distinct from *Sternotropa nigra* Cameron, 1921 from Singapore, of which I have examined the typical series (NHML), in which the sternal blade of the aedeagus with short ventral lobe, while in *S. nigra* is narrow and very long. The long flagellum of the aedeagus of *S. nigra* is absent in the aedeagus of the new species.

Etymology – The name of the new species means "inhabitant of Australia."

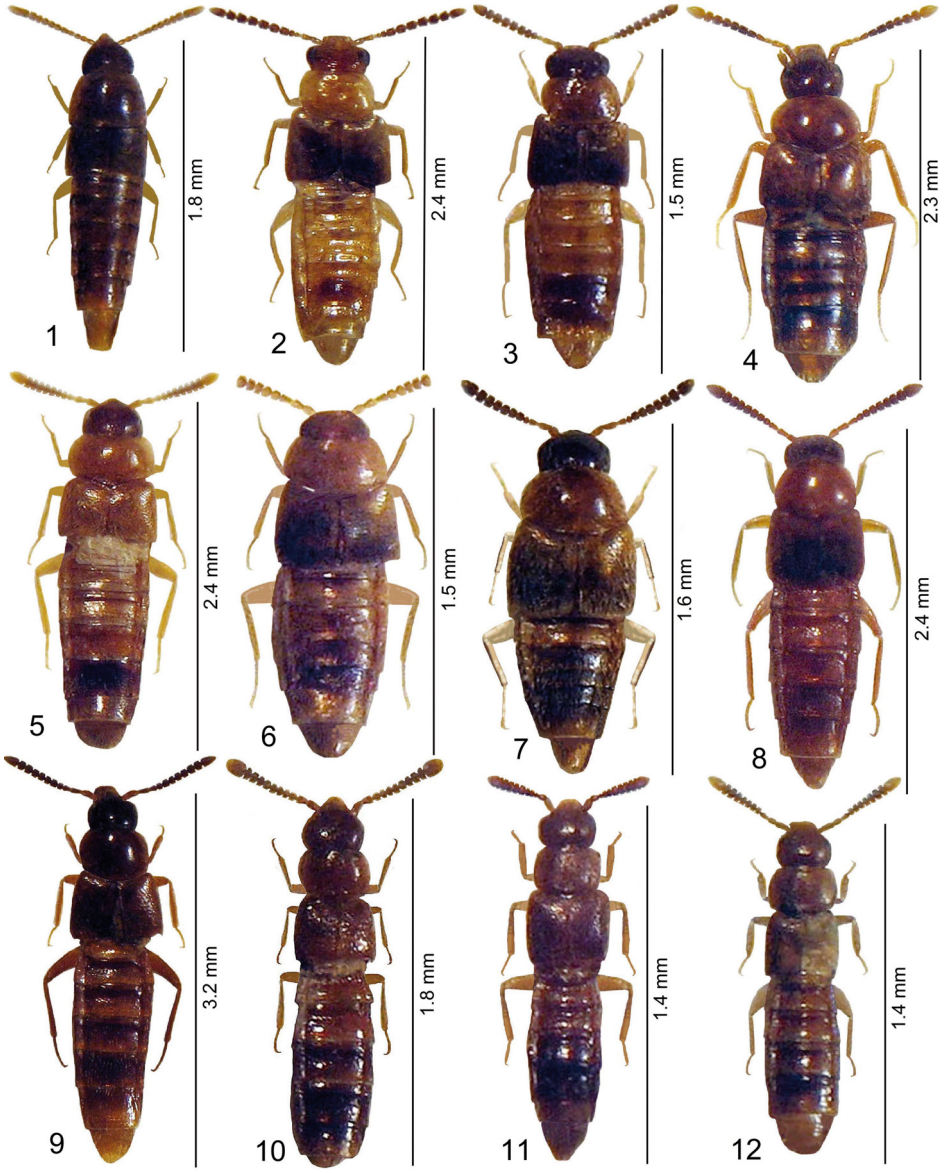
Homalotini

Brachyglyptaglossa tasmaniensis Pace, 2005

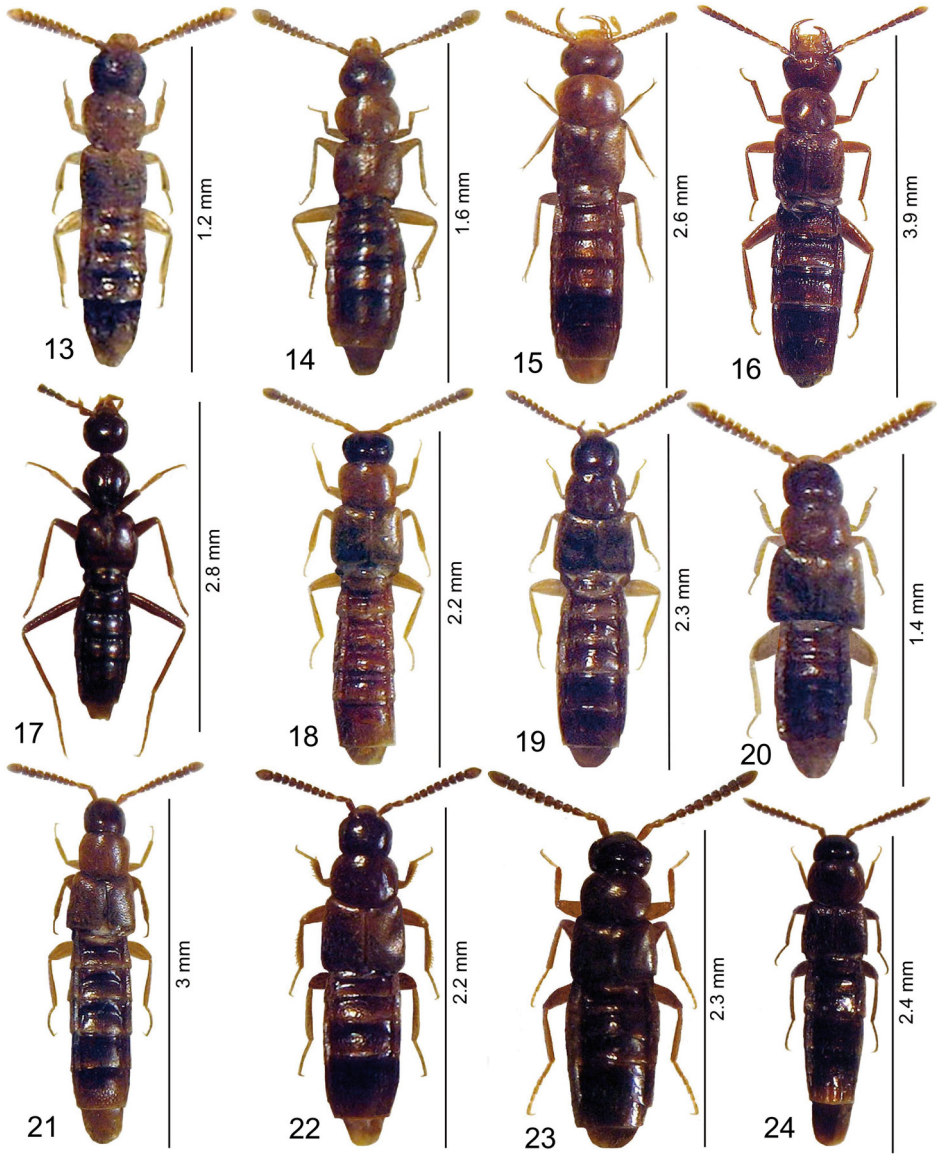
Brachyglyptaglossa tasmaniensis Pace, 2005: 380.

Material examined – 1 ♂, Australia, QLD, Lamington N. P., Canungra, 28°14'76"S, 156°09'19"E, Box forest circuit, over and along creek and trail, 29.VIII.2004, leg. M. Földvári (HNHM).

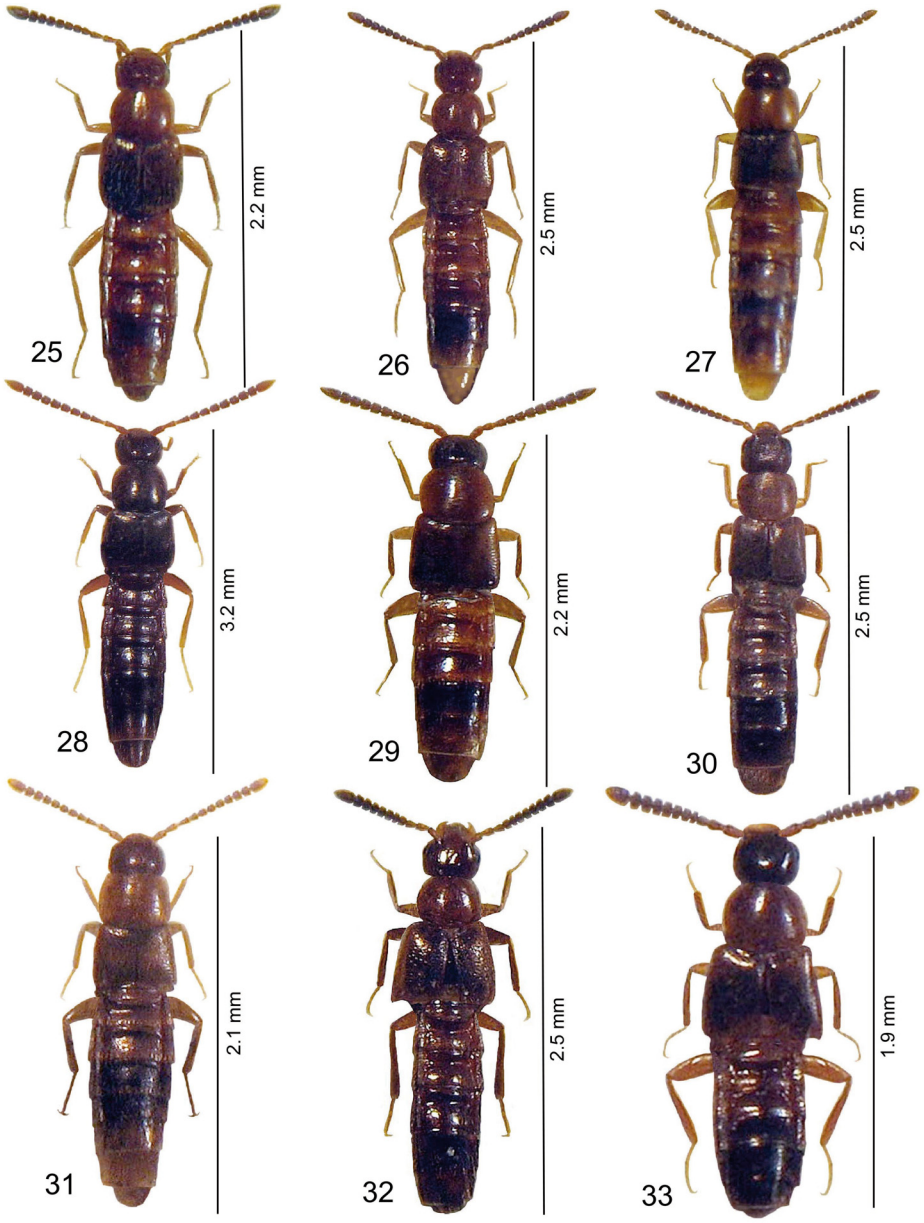
Distribution – Australia, Tasmania.



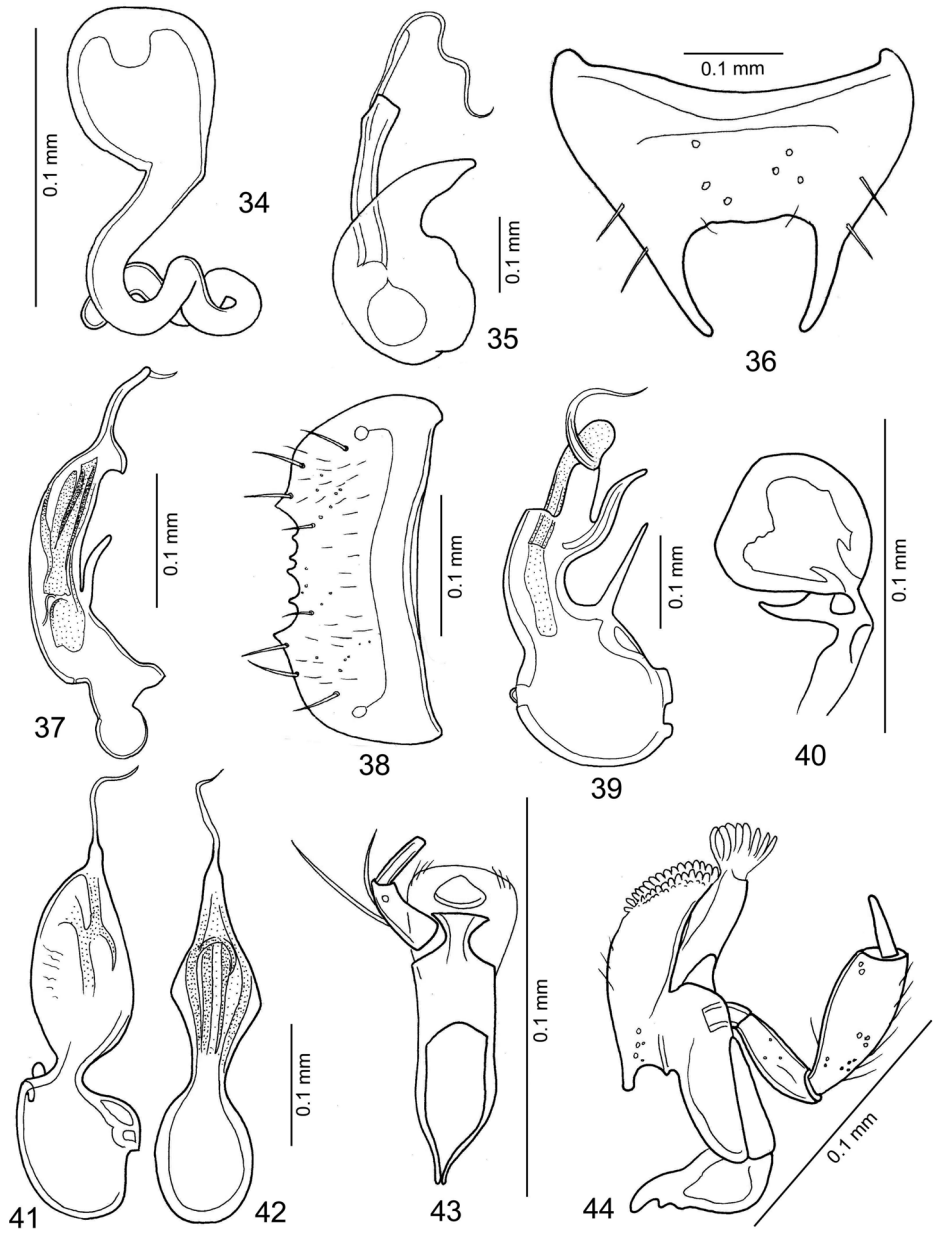
Figs 1–12. Habitus: 1 = *Myllaena gullyensis* sp. n., 2 = *Gyrophaena fustigans* sp. n., 3 = *Gyrophaena nadgeensis* sp. n., 4 = *Brachida caraiensis* sp. n., 5 = *Austrobrachida conwayensis* gen. n., sp. n., 6 = *Sternotropa australicola* sp. n., 7 = *Brachyglyptaglossa australiae* sp. n., 8 = *Coenonica wilsonensis* sp. n., 9 = *Coenonica brownicola* sp. n., 10 = *Coenonica orbicularis* sp. n., 11 = *Coenonica perpusilla* sp. n., 12 = *Coenonica coffsensis* sp. n.



Figs 13–24. Habitus: 13 = *Coenonica micropapuana* sp. n., 14 = *Diestota hartzmontium* sp. n.,15 = *Tasgnathusa hartzmontium* gen. n., sp. n., 16 = *Tasgnathusa australiana* gen. n., sp. n., 17 *Falagria (Myrmecocephalus) neoguineana* sp. n., 18 = *Ischnopoda benepicta* sp. n., 19 = *Aloconota cabbagicola* sp. n., 20 = *Aloconota lornensis* sp. n., 21 = *Aloconota microculata* sp. n., 22 = *Aloconota lawersensis* sp. n., 23 = *Australoconotida caudapiscis* gen. n., sp. n., 24 = *Australoconota microtheca* sp. n.



Figs 25–33. Habitus: 25 = *Giachinusa wilsonmontis* sp. n., 26 = *Giachinusa brownicola* sp. n., 27 = *Giachinusa alternata* sp. n., 28 = *Giachinusa superba* sp. n., 29 = *Giachinusa wilsonicola* sp. n., 30 = *Giachinusa truncata* sp. n., 31 = *Giachinusa minor* sp. n., 32 = *Giachinusa lamingtonicola* sp. n., 33 = *Giachinusa forticornis* sp. n.



Figs 34–44. Spermatheca (34, 40), aedeagus in lateral (35, 37, 39, 41) and ventral view (42), sixth free tergite of male (36, 38), labium with labial palpus (43), and maxilla with maxillary palpus (44): 34 = *Myllaena gullyensis* sp. n., 35–36 = *Gyrophaena fustigans* sp. n., 37–38 = *Gyrophaena nadgeensis* sp. n., 39–40 = *Brachida caraiensis* sp. n., 41–44 = *Austrobrachida conwayensis* gen. n., sp. n.

Brachyglyptaglossa australiae sp. n.
(Figs 7, 47–48)

Type material – Holotype ♂, Australia, NSW, 4 km NE Wog Wog, 17 km SE Bombala, 37°04'30"S, 149°28'00"E, pit trap, II.1996, leg. Milkovits (ANIC).

Description – Habitus as in Fig. 7. Length 1.6 mm. Body shiny, head and free tergites second to fourth brown, pronotum, base of elytra and of abdomen and pygidium yellowish-red, antennae brown with three basal antennomeres yellow, legs yellow with femora brown. Eyes as long as postocular region in dorsal view. Second antennomere as long as first, third shorter than second, fourth to tenth transverse. Body devoid of reticulation. Puncturation of head dense and very superficial. Granularity of pronotum dense and superficial, that of elytra dense, fine and inconspicuous, that of abdomen very dense. Pronotum with some points aranged in an arc on posterior median portion. Aedeagus as in Figs 47–48.

Comparative notes – The new species is distinct from *Brachyglyptaglossa tasmaniensis* Pace, 2005 from Tasmania, for the aedeagus less broadly arched to the ventral side and especially because of the space between two walls in the apical portion of the aedeagus in lateral view, much longer than that of *tasmaniensis*. The femora of the new species are brown, those of *B. tasmaniensis* yellowish-red.

Etymology – The name of the new species means "of Australia."

Coenonica wilsonensis sp. n.
(Figs 8, 49–51)

Type material – Holotype ♂, Australia, NSW, Mt. Wilson, coll. Austr. Mus. & TTM, N° 1263, Waterfall Picnic Area Trail (33°30'S, 150°23'E), 28.V.1979, C. Horseman (AMSA). Paratypes (15 specimens): same data as holotype (6, HNHM); Australia, NSW, Brown Mt., c. 3000 ft, rainforest, RWT leaf mould, ANIC Berlesate N° 9, 5.I.1967, leg. Bornemissza (1, HNHM); Australia, NSW, Clyde Mt., wet sclerophyll, c. 2450 ft, leaf mould, ANIC Berlesate N° 33, 4.XII.1967, leg. Bornemissza (1, HNHM); Australia, NSW, Clyde Mt., rainforest, leafmould, c. 2200 RWT, RJB, ANIC Berlesate N° 18, 21.III.1967, leg. Bornemissza (1, HNHM); Australia, NSW, Clyde Mt., c. 2400', wet sclero. leaf mould, Berlesate N° 19, 21.III.1967, coll. R.W. Taylor & R.J. Bartell (2, ANIC, 1, HNHM); Australia, NSW, Brown Mt., c. 3000', rainforest, leafmould, Berlesate N° 24, 11.IV.1967, coll. R.W. Taylor & R.J. Bartell (2, ANIC, 1, HNHM).

Description – Habitus as in Fig. 8. Length 2.4–2.6 mm. Body shiny and reddish, head brown, elytra reddish-brown, antennae brown with two basal antennomeres and apex of eleventh reddish, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third as long as second, fourth as long as wide, fifth to tenth transverse. Reticulation of head, pronotum and

abdomen absent, that of elytra very superficial. Puncturation of head and pronotum fine, dense and rather vanishing, that of elytra dense, deeper on anterior half than on posterior. Three basal fourths of free tergites with strong puncturation, on fourth posterior puncturation absent. At base of pronotum some strong median punctures irregularly lined up. Aedeagus as in Figs 49–50, spermatheca as in Fig. 51.

Comparative notes – In the shape of the aedeagus the new species is similar to *Coenonica wellingtonica* Pace, 2005 from Australia. The apical interspace of the aedeagus of the new species, in lateral view, is very wide, narrow in *C. wellingtonica*. The "crista apicalis" of the aedeagus of the new species is very long, short in *C. wellingtonica*. The internal tubule of the aedeagus of the new species is flexed to right angle, that of *C. wellingtonica* is rectilinear, with apical hook.

Etymology – The new species takes its name from the Mt. Wilson.

Coenonica brownicola sp. n.
(Figs 9, 52–54)

Type material – Holotype ♂, Australia, NSW, Brown Mt., c. 3000 ft, rainforest, leafmould, Berlesate N° 24, 11.IV.1967, coll. R.W. Taylor & R.J. Bartell (ANIC). Paratypes (4 specimens): same data as holotype (1 ♂, 1 ♀, HNHM); Australia, NSW, Brown Mt., c. 3000', wet schlero, rotten log, Berlesate N° 8, 5.I.1967, coll. R. W. Taylor (1 ♀, HNHM); Australia, ACT, Mt. Gingers, ca. 5500 ft, wet schlero, E. B. Britton, sphagnum, ANIC Berlesate N° 25, 13.IV.1967, leg. Bornemissza (1 ♂, HNHM).

Description – Habitus as in Fig. 9. Length 3.0–3.4 mm. Body shiny, yellowish-red, head brown, pronotum and elytra reddish, antennae brown with two basal antennomeres yellowish-red and eleventh reddish, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth longer than wide, fifth as long as wide, sixth to tenth transverse. Body devoid of reticulation. Puncturation of head very fine and superficial, absent on longitudinal median band. Granularity of pronotum fine and dense, rather vanishing, that of elytra fine among distinct punctures irregularly distributed. Granularity of abdomen dense and conspicuous. Pronotum with some large puncture posteriorly irregularly distributed. Aedeagus as in Figs 52–53, spermatheca as in Fig. 54.

Comparative notes – The aedeagus of the new species, for the form of his internal structure is comparable with that of *Coenonica melanogaster* (Fauvel, 1878), of which I have examined the male holotype from Melbourne (IRSN). The aedeagus of the new species is broadly and deeply arched to the ventral side, while that of *C. melanogaster* it is slight. In ventral view, the aedeagus of the new species is much dilated in the preapical region, scarcely dilated in *C. melanogaster*.

Etymology – The name of the new species means "inhabitant of Brown Mt."

Coenonica orbicularis sp. n.
(Figs 10, 55–57)

Type material – Holotype ♂, Australia, NSW, Brown Mt., c. 3000 ft, wet schlero, rotten log, Berlesate N° 8, 5.I.1967, coll. R.W. Taylor (ANIC).

Description – Habitus as in Fig. 10. Length 1.8 mm. Body shiny and reddish, head and free tergites third to fifth reddish-brown, antennae brown with three basal antennomeres and apex of eleventh reddish, legs yellow. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head vanishing, but distinct in front, that of pronotum and elytra very superficial, that of abdomen absent. Puncturation of head dense and not fine, absent on forehead. Granularity of pronotum fine and distinct, that of elytra dense and conspicuous, that of abdomen sparse and conspicuous. Pronotum with two deep posterior median sulcus, laterally from them a deep fovea to right, a strong puncture to left. Aedeagus as in Figs 55–56, sixth free tergite of male as in Fig. 57.

Comparative notes – The new species is well distinct from the known species of the genus by the aedeagus, because of a unique character: the apex of the aedeagus, in ventral view, separated in two lobes that form in the interval an almost complete circle.

Etymology – The name of the new species refers to the almost circular interval of the apex of the aedeagus, in ventral view.

Coenonica perpusilla sp. n.
(Figs 11, 58–59)

Type material – Holotype ♂, Australia, NSW, Dorrigo N.P., 3000 ft, rainforest, leafmould, Berlesate N° 25, 5.II.1967, coll. E.B. Britton (ANIC). Paratype: 1 ♂, same data as holotype (HNHM).

Description – Habitus as in Fig. 11. Length 1.4 mm. Body moderately shiny, yellowish-red, fourth free tergite brown, antennae brown with basal antennomere yellow and eleventh reddish, legs yellow. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head and pronotum distinct, almost strong, that of elytra superficial, that of abdomen rather vanishing. Puncturation of head and pronotum almost indistinct. Granularity of elytra fine, dense and inconspicuous, that of abdomen fine and superficial. Pronotum with a posterior fovea deep and a feeble, almost indistinct median sulcus. Aedeagus as in Figs 58–59.

Comparative notes – The small size of the aedeagus of the new species allows distinguishing the new species from those known that have aedeagus in average 3–4 times longer. A species with small aedeagus like that of the new species is

Coenonica quadrilobata Pace, 2003 from Borneo (Pace 2003*a*), but this species has aedeagus robust and not slender as that of the new species. The preapical portion of the aedeagus of *C. quadrilobata*, in ventral view, is much dilated, while that of the new species it is not.

Etymology – The name of the new species is the absolute superlative of the Latin adjective "pusillus" = very small. It refers to the small size of the aedeagus.

Coenonica coffsensis sp. n.
(Figs 12, 60–61)

Type material – Holotype ♂, Australia, NSW, Coffs Harbour Bruxner Park, rainforest, leafmoulds, R. W. Taylor, ANIC Berlesate N° 29, 25.VI.1967, leg. Bornemissza (ANIC).

Description – Habitus as in Fig. 12. Length 1.4 mm. Body shiny with base of fourth free tergite brown, antennae yellowish-brown with two basal antennomeres and eleventh yellows, legs yellow. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head distinct, that of pronotum and elytra superficial, that of abdomen absent. Granularity of forebody dense and inconspicuous, that of abdomen very sparse. Pronotum with a feeble posterior median impression. Aedeagus as in Figs 60–61.

Comparative notes – The aedeagus of the new species is less elongate, 0.1 mm, than that of *Coenonica perpusilla* sp. n. described above, 0.12 mm. The aedeagus of the new species is less deeply sinuate to the ventral side that of *C. perpusilla*, and is broader in ventral view.

Etymology – The name of the new species derives from the Coffs Harbour Bruxner Park.

Coenonica micropapuana sp. n.
(Figs 13, 62–63)

Type material – Holotype ♂, NE-New Guinea, Wau, Mt. Kaindi, 10.IX.1968, leg. Dr. J. Balogh (N° NG-W-B. 105) (HNHM).

Description – Habitus as in Fig. 13. Length 1.2 mm. Fore-body weakly opaque, abdomen shiny. Body yellowish-red, head and third and fourth free tergites reddish, antennae reddish with two basal antennomeres and eleventh yellowish-red, legs yellow. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head distinct to sides, absent on forehead. Reticulation of pronotum and elytra distinct, that of abdomen absent. Puncturation of head dense

and less distinct. Granularity of pronotum and elytra dense and indistinct, that of abdomen fine and dense. Aedeagus as in Figs 62–63.

Comparative notes – The aedeagus of the new species, 0.12 mm long, is well distinct from that of the species with similar length, for the ventral profile bisinuate, in lateral view.

Etymology – The name of the new species means "microscopic papuana" because of the small length of the body.

Diestotini

Diestota testacea (Kraatz, 1859)

Bolitochara testacea Kraatz, 1859: 17.
Diestota testacea: Fauvel, 1905: 86; Cameron, 1939: 164; Pace, 1984: 15.

Material examined – 1 ♂, New Guinea: Suambe Plant., 12 mil. S of Lae, 12.IV.1965, coll. Dr. J. Balogh et Dr. J.J. Szent-Iványi (HNHM).

Distribution – Mascarene, Oriental and Austral regions.

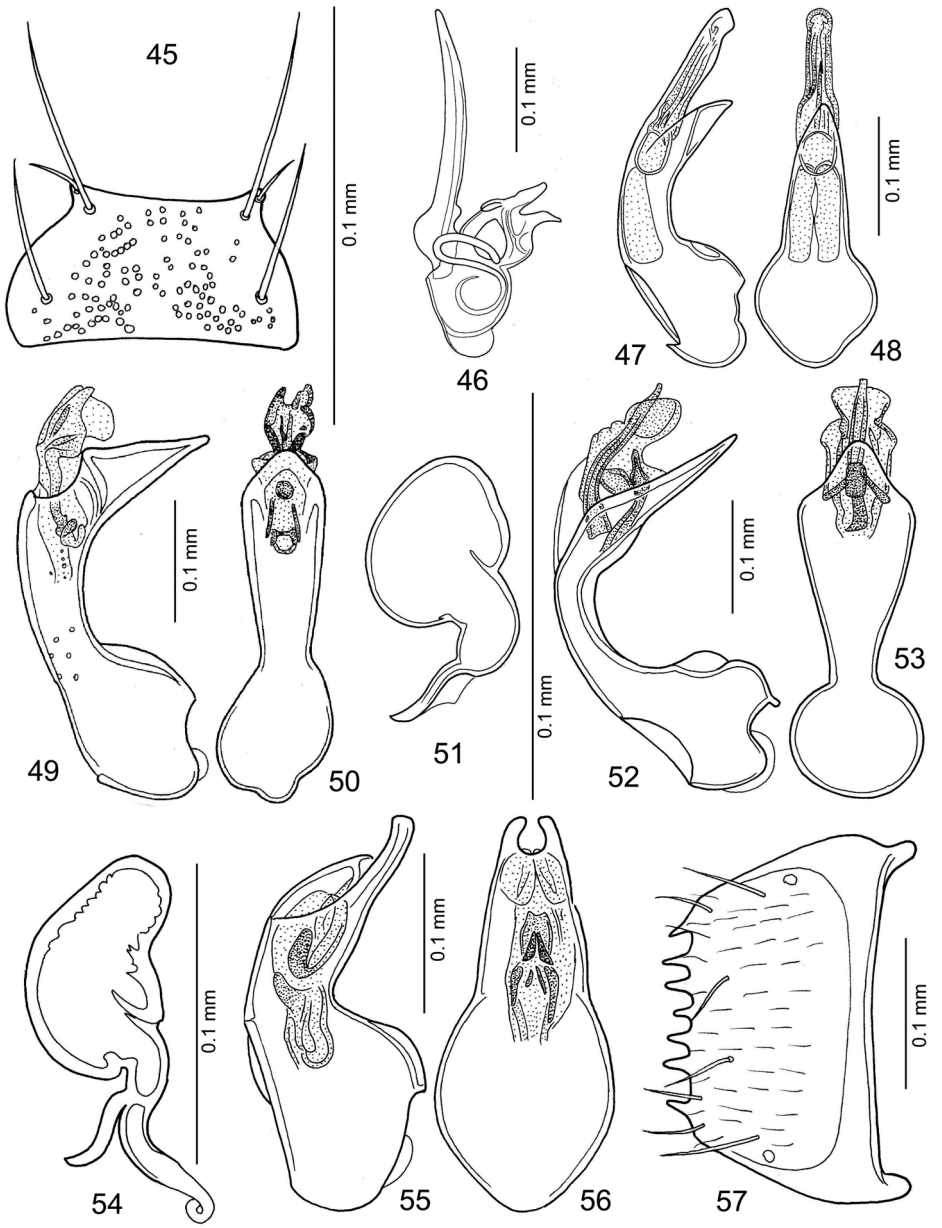
Diestota hartzmontium sp. n.
(Figs 14, 64–66)

Type material – Holotype ♂, Tasmania, Hartz Mts., 575 m, 12.XI.1983, leg Bornemissza, KZ 152 (ANIC). Paratypes (3 specimens): same data as holotype (1 ♂, 2 ♀♀, HNHM).

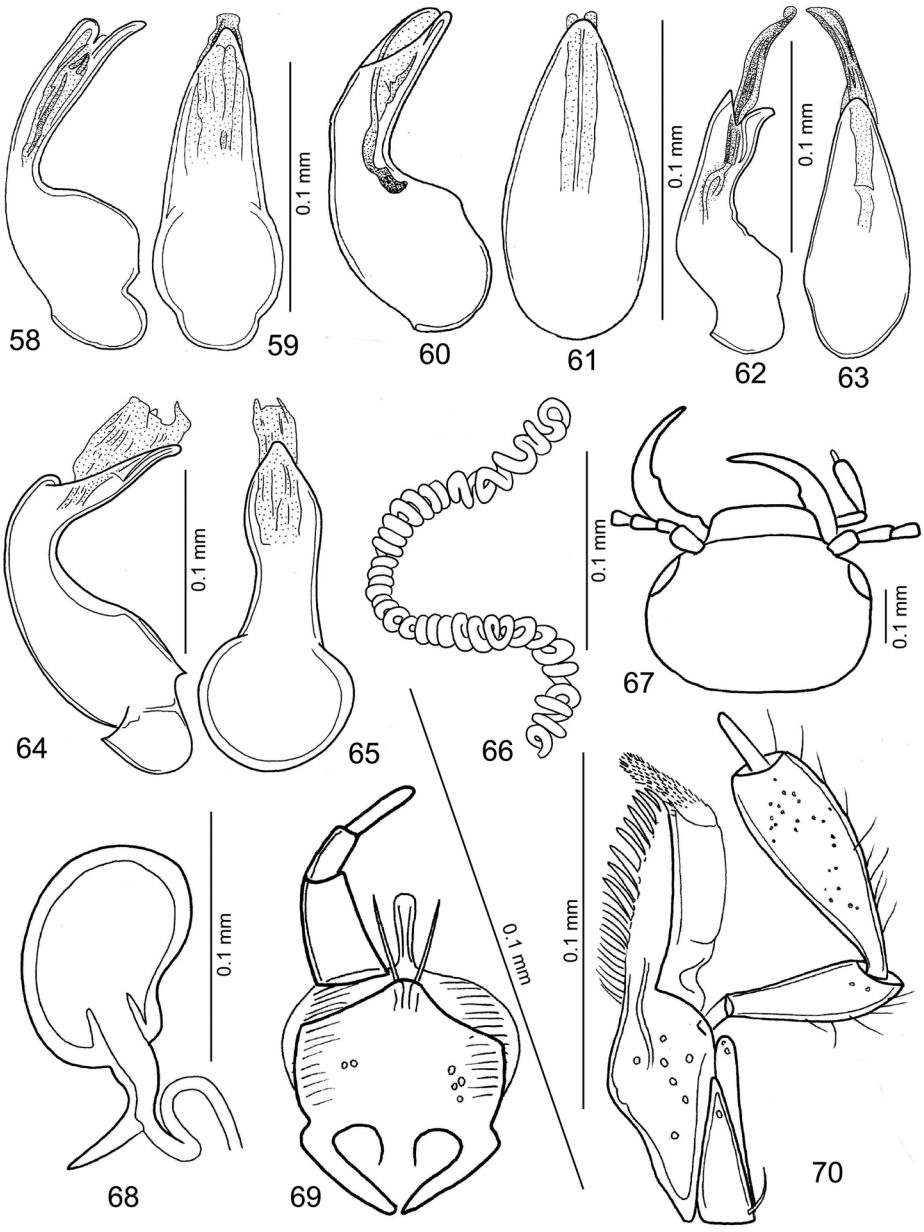
Description – Habitus as in Fig. 14. Length 1.6 mm. Body shiny, yellowish-red, antennae reddish with three basal antennomeres yellow and eleventh yellowish-red, legs yellowish-red. Eyes much shorter than postocular region in dorsal view. Second antennomere as long as first, third shorter than second, fourth as long as wide, fifth to tenth transverse. Reticulation of head and pronotum distinct, that of elytra superficial, that of abdomen absent. Granularity of head and pronotum dense and rather vanishing, that of elytra dense and distinct, that of abdomen almost indistinct. Pronotum with two strong posterior median punctures. Aedeagus as in Figs 64–65, spermatheca as in Fig. 66.

Comparative notes – The aedeagus of the new species is more curved than in *Diestota papuana* Pace, 2000 from New Guinea. It differs in its length, 0.16 mm, smaller than that of *D. papuana*, 0.28 mm, and for the internal structure of the aedeagus deprived of pieces well sclerotised, in *D. papuana* with two brown thorns. The elytra of the new species are as long as the pronotum, those of *D. papuana* longer than the pronotum.

Etymology – The name of the new species means "of the Hartz Mountains."



Figs 45–57. Mentum (45), aedeagus in lateral (47, 49, 52, 55) and ventral view (48, 50, 53, 56), spermatheca (46, 51, 54), and sixth free tergite of male (57): 45 = *Austrobrachida conwayensis* gen. n., sp. n., 46 = *Sternotropa australicola* sp. n., 47–48 = *Brachyglyptaglossa australiae* sp. n., 49–51 = *Coenonica wilsonensis* sp. n., 52–54 = *Coenonica brownicola* sp. n., 55–57 = *Coenonica orbicularis* sp. n.



Figs 58–70. Aedeagus in lateral (58, 60, 62, 64) and ventral view (59, 61, 63, 65), spermatheca (66, 68), head (67), labium with labial palpus (69), and maxilla with maxillary palpus (70): 58–59 = *Coenonica perpusilla* sp. n., 60–61 = *Coenonica coffsensis* sp. n. 62–63 = *Coenonica micropapuana* sp. n., 64–66 = *Diestota hartzmontium* sp. n., 67–70 = *Tasgnathusa hartzmontium* gen. n., sp. n.

Bolitocharini

Tasgnathusa gen. n.
(Figs 15, 67–71)

Diagnosis – For the undivided ligula (Fig. 69) and the careened mesosternum, the new genus is comparable with the genus *Antithetusa* Pace, 2002 from Borneo. The ligula of the new genus is long (Fig. 69), that of *Antithetusa* narrow and short. The mandibles of the new genus are very long and sickle-shaped (Figs 15, 67), those of *Antithetusa* short and not sickle-shaped. Maxilla as in Fig. 70. The anterior border of the mentum of the new genus is arched (Fig. 71), that of *Antithetusa* almost rectilinear. The mesocoxae of the new genus are contiguous, those of *Antithetusa* separated. The abdomen of the new genus has sides almost parallel that of *Antithetusa* are very convergent posteriorly.

Type species – *Tasgnathusa hartzmontium* sp. n.

Etymology – The name of the new genus is composed from Tasmania, the ancient Greek noun γνάθος = mandible, and ούσα = what it is.

Tasgnathusa hartzmontium sp. n.
(Figs 15, 67–71)

Type material – Holotype ♀, Tasmania, Hartz Mts, 575 m, 12.XI.1983, leg. Bornemissza, KZ 152 (ANIC).

Description – Habitus as in Fig. 15. Length 2.6 mm. Body shiny, yellowish-red, fourth free tergite brown, antennae and legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of fore-body superficial, that of abdomen absent. Mandibles sickle-shaped very long. Puncturation of head very dense and distinct, that of pronotum, elytra and of three free basal tergites dense and vanishing, that of free tergites fourth and fifth sparse. Spermatheca as in Fig. 68.

Etymology – The name of the new species means "of the Hartz Mountains."

Tasgnathusa australiana sp. n.
(Figs 16, 72)

Type material – Holotype ♀, Australia, ACT, Brindabelle Rs., Dendora Rd., 3000 ft, wet schl. for. leafmould, RWT, RJD, ANIC Berlesate N° 17, 18.III.1967, leg. Bornemissza (ANIC).

Description – Habitus as in Fig. 16. Length 3.9 mm. Body shiny, yellowish-red, antennae and legs inclusive. Eyes shorter than postocular region in dorsal

view. Second antennomere shorter than first, third to eighth longer than wide, rest of antennomeres lost. Body devoid of reticulation, except on elytra on who is superficial. Puncturation of head and pronotum less dense, fine and superficial, that of elytra dense and strong. Granularity of abdomen sparse and distinct. Bottom of four basal transverse sulci of free tergites and base of fourth and fifth, with strong puncturation. Spermatheca as in Fig. 72.

Comparative notes – The new species is distinct from *Tasgnathusa hartzmontium* sp. n., above described, for the distal bulb of the spermatheca elliptic and not loins-shaped as in *T. hartzmontium*. The antennomeres fourth to eighth of the new species are longer than wide, those of *T. hartzmontium* transverse.

Etymology – The new species takes its name from Australia.

Falagriini

Falagria (Leptagria) giachinoi Pace, 2005

Falagria (Leptagria) giachinoi Pace, 2005: 384.

Material examined – Australia, NSW, 4 km NE Wog Wog, 17 km SE Bombala, 37°04'30"S, 149°28'00"E, [pitfall trap] X.1995, leg. C.R. Margules (Pit 57), (1 ♂, HNHM); Australia, NSW, 4 km NE Wog Wog, 17 km SE Bombala, 37°04'30"S, 149°28'00"E, pit trap, IV.1997, leg. C.R. Margules (1 ♂, ANIC, 1 ♂, HNHM); Australia, QLD, Lamington N.P., Canungra, 28°14'76"S, 156°09'19"E, Box forest circuit, over and along creek and trail, 29.VIII.2004, leg. M. Földvári (2 ♂♂, HNHM); Australia, W, White Gum Flat, Stirling Range N.P., 25.I-6. III.1979, coll. Austr. Mus. & TTM, N° 1514 (1 ♂, AMSA).

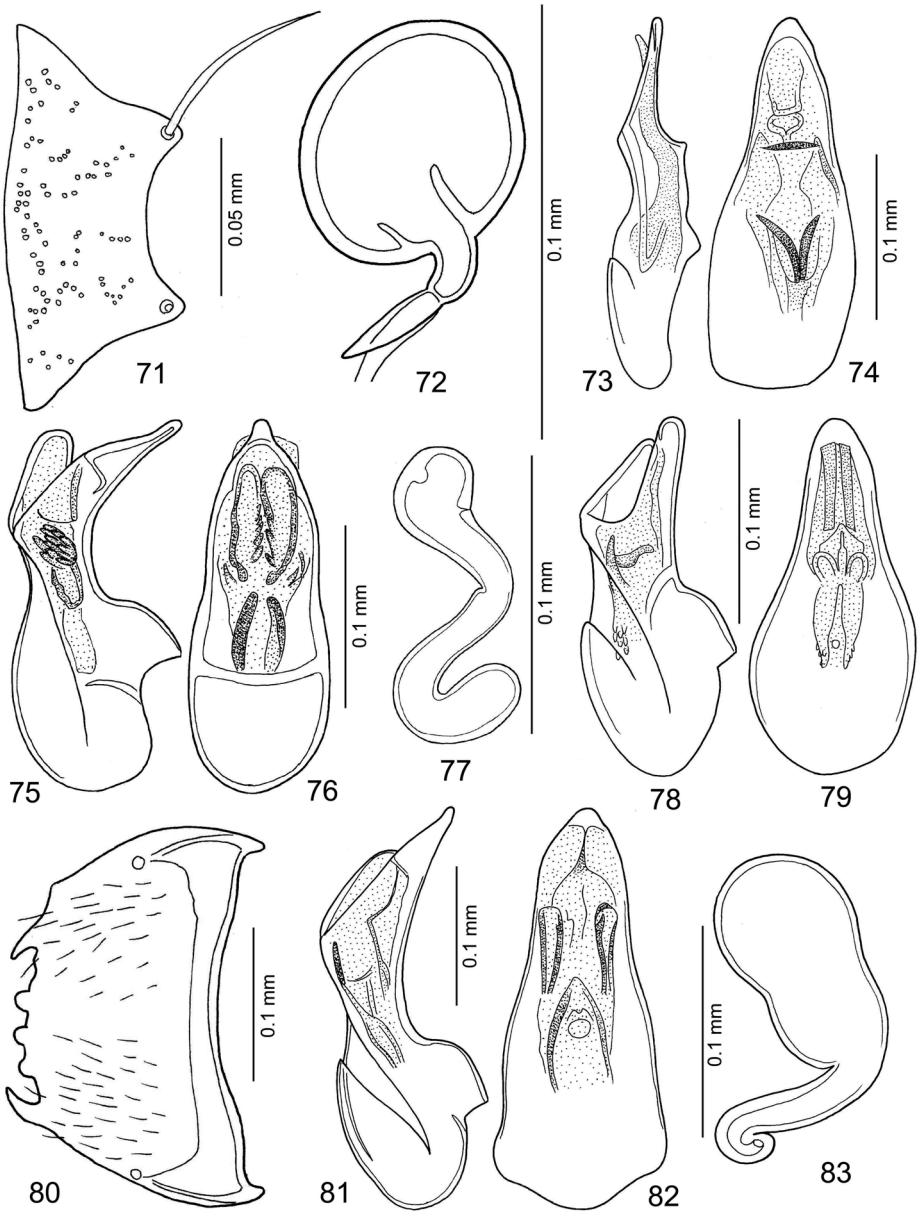
Distribution – Tasmania.

Falagria (Leptagria) pallipes Olliff, 1886

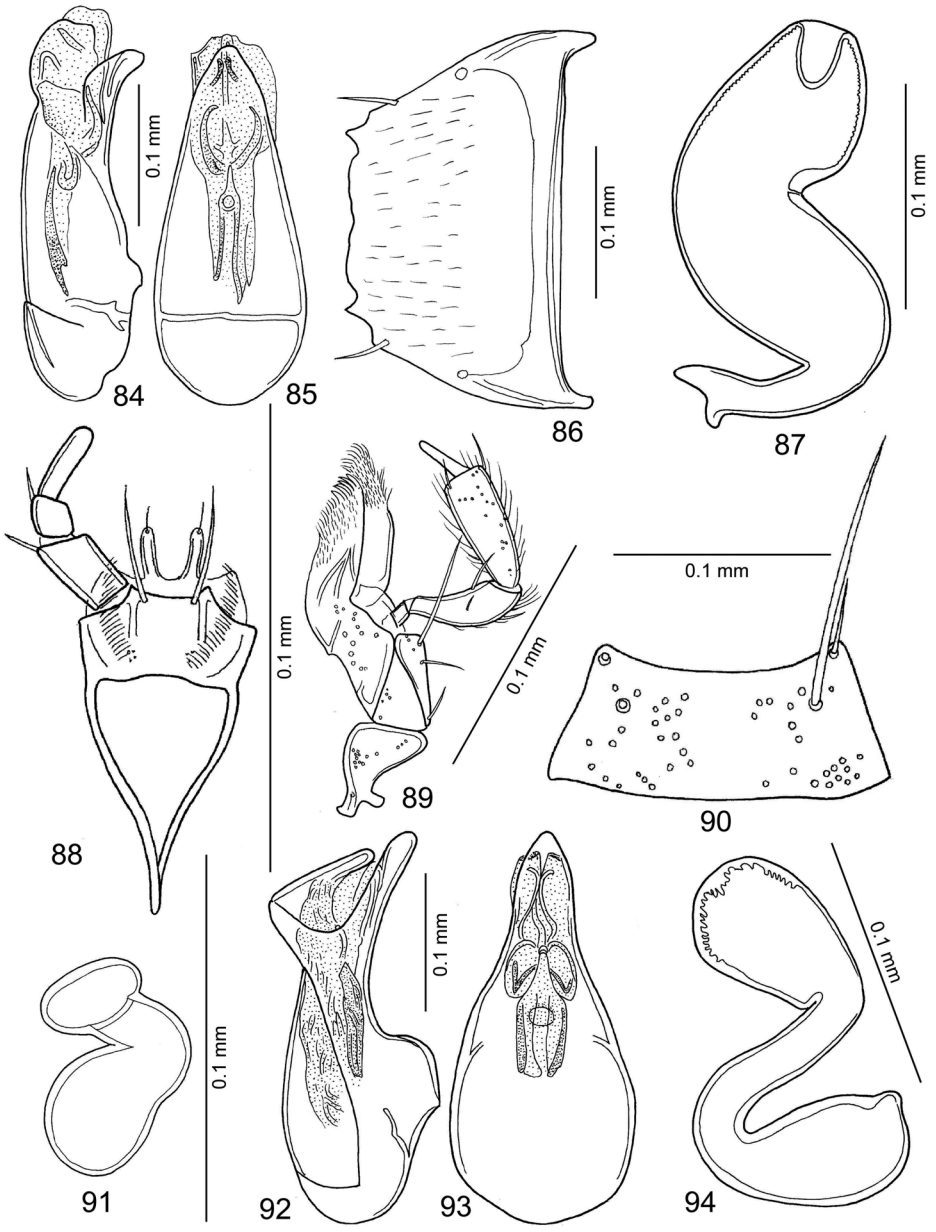
Falagria pallipes Olliff, 1886: 411.

Material examined – Australia ACT, Mt. Gingera, ca 5500 ft, wet schlero, E. B. Britton, leaf mould & soil, ANIC Berlesate N° 26, 13.IV.1867, leg. Bornemissza (1 ♂, ANIC, 1 ♂, 1 ♀, HNHM); Australia ACT 3000 ft, Brindabelle Rs., Dendora Rd., wet schl. for. RWT, RJD, ANIC Berlesate N° 17, 18.III.1967, leg. Bornemissza (1 ♀, HNHM); Australia, VIC, Power's Lk, 28 mil. NE Mansfield, ca. 2000 ft, subalpine, B. McInnes leaf mould, ANIC Berlesate N° 22, 17.V.1967, leg. Bornemissza (1 ♀, HNHM).

Distribution – Tasmania, Australia.



Figs 71–83. Mentum (71), spermatheca (72, 77, 83), aedeagus in lateral (73, 75, 76, 81) and ventral view (74, 76, 79, 82), and sixth free tergite of male (80): 71 = *Tasgnathusa hartzmontium* gen. n., sp. n., 72 = *Tasgnathusa australiana* gen. n., sp. n., 73–74 = *Falagria (Myrmecocephalus) neoguineana* sp. n., 75–76 = *Ischnopoda benepicta* sp. n. 77 = *Aloconota cabbagicola* sp. n., 78–80 = *Aloconota lornensis* sp. n., 81–83 = *Aloconota microculata* sp. n.



Figs 84–94. Aedeagus in lateral (84, 92) and ventral view (85, 93), sixth free tergite of male (86), spermatheca (87, 91, 94), labium with labial palpus (88), maxilla with maxillary palpus (89), and mentum (90): 84–86 = *Aloconota lawersensis* sp. n., 87–90 = *Australoconotida caudapiscis* gen. n., sp. n., 91 = *Australoconota microtheca* sp. n., 92–94 = *Giachinusa wilsonmontis* sp. n.

Falagria (Myrmecocephalus) neoguineana sp. n.
(Figs 17, 73–74)

Type material – Holotype ♂, NE-New Guinea, Wau, Golden Ridge, 3.IX.1968, leg. Dr. J. Balogh (N° NG-W-B. 66) (HNHM).

Description – Habitus as in Fig. 17. Length 2.8 mm. Body shiny and brown, elytra and posterior border of free tergites brown-reddish, antennae (incomplete) brown with two basal antennomeres reddish. Eyes shorter than postocular region in dorsal view. Second antennomere longer than first, third shorter than second, fourth as long as wide, fifth longer than wide, remainders antennomeres lost in phase of gathering or preparation. Reticulation of fore-body very superficial, that of abdomen absent. Puncturation of fore-body almost invisible. Granularity of abdomen less dense and vanishing. Median sulcus of pronotum a little deep in front, deep posteriorly. Aedeagus as in Figs 73–74.

Comparative notes – For the form of the aedeagus the new species is comparable with *Falagria basalis* Fauvel, 1878 also from New Guinea, of which I have examined a male and a female of the typical series (MSNG). The long internal tubule of the aedeagus of *F. basalis* is not present in the aedeagus of the new species. The first basal free tergite of *F. basalis* is yellow, that of the new species brown as the remaining free tergites.

Etymology – The name of the new species derives from that of the New Guinea.

Athetini (Part I)

Ischnopoda benepicta sp. n.
(Figs 18, 75–76)

Type material – Holotype ♂, Australia, NSW, Willowvale, XII.1979, coll. Austr. Mus. & TTM, N° 1623 (AMSA).

Description – Habitus as in Fig. 18. Length 2.2 mm. Body shiny, yellowish-red, head reddish, antennae reddish with three basal antennomeres yellowish-red, legs yellowish-red. Eyes as long as postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Body devoid of reticulation. Puncturation of head fine, dense and distinct, absent on longitudinal median band. Granularity of pronotum and elytra very fine, very dense and distinct, that of abdomen distinct and not much dense. Pronotum with feeble posterior median impression. Aedeagus as in Figs 75–76.

Comparative notes – The new species is different from *Ischnopoda thoracica* (Fauvel, 1878) from New Guinea, of which I have examined the male holotype (MSNG), for the aedeagus without a ventral fold, present in the aedeagus of *I.*

thoracica. The aedeagus of the new species is slender, along 0.24 mm, than that of *I. thoracica* strong and 0.32 mm long.

Etymology – The name of the new species means "well coloured".

Aloconota maculiventris Pace, 2007

Aloconota maculiventris Pace, 2007: 16.

Material examined – Australia, NSW, Kioloa S.F., 4.I.1979, coll. Austr. Mus. & TTM, N° 1225 (1 ♂, 1 ♀, HNHM).

Distribution – Australia.

Aloconota cabbagicola sp. n.
(Figs 19, 77)

Type material – Holotype ♀, Australia, NSW, Cabbage Tree Creek, wet schlero, E.B. Britton, ANIC Berlesate N° 23, 17.V.1967, leg. Bornemissza (ANIC). Paratype: same data as holotype (1 ♀, HNHM).

Description – Habitus as in Fig. 19. Length 2.3 mm. Body shiny and reddish-brown, head brown, abdomen yellowish-brown, antennae brown, legs yellow. Eyes as long as postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head superficial, that of pronotum distinct, that of elytra distinct, that of four basal free tergites very transverse and vanishing, that of fifth free tergite slightly transverse. Puncturation of head dense and very superficial, that of abdomen vanishing and more dense on bases of free tergites than posteriorly. Granulation of pronotum fine and less visible, that of elytra very dense, very fine and distinct. Spermatheca as in Fig. 77.

Comparative notes – The S shape of the spermatheca of the new species is similar to that of *Aloconota sulcifrons* (Stephens, 1832), a cosmopolitan species present also in Australia. The spermatheca of the new species is slender and 0.47 mm long, that of *A. sulcifrons* is robust and 1.03 mm long. The apical umbilicus of the distal bulb of the spermatheca of the new species is very shallow, those of *A. sulcifrons* deep and wide.

Etymology – The new species derives his name from the Cabbage Tree Creek.

Aloconota lornensis sp. n.
(Figs 20, 78–80)

Type material – Holotype ♂, Australia, NSW, Lorne S.F., 10.XII.1978, coll. Austr. Mus. & TTM, N° 1549 (AMSA). Paratype: same data as holotype (1 ♂, HNHM).

Description – Habitus as in Fig. 20. Length 1.4 mm. Body shiny and reddish-brown, elytra yellowish-brown, antennae brown with two basal antennomeres of a dirty yellow, legs yellow. Eyes longer than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head strong, that of pronotum and elytra distinct, that of abdomen weakly transverse and distinct. Puncturation of head invisible. Granularity of pronotum dense and inconspicuous, that of elytra dense and distinct, that of abdomen a little dense on bases of free tergites, sparse posteriorly. Disc of head deeply depressed. Aedeagus as in Figs 78–79, spermatheca as in Fig. 80.

Comparative notes – The new species is distinct from *Aloconota maculiventris* Pace, 2007 also in Australia, for the aedeagus being shorter, 0.18 mm, compared to that of *A. maculiventris*, 0.33 mm. The ventral profile of the aedeagus of the new species is angled, that of *A. maculiventris* deeply sinuate.

Etymology – The new species derives its name from the Lorne S.F.

Aloconota microculata sp. n.
(Figs 21, 81–83)

Type material – Holotype ♂, Australia, NSW, Brown Mt., c. 3000', rainforest, leafmould, Berlesate N° 24, 11.IV.1967, coll. R.W. Taylor & R.J. Bartell (ANIC). Paratypes (2 specimens): same data as holotype (1 ♂, 1 ♀, HNHM).

Description – Habitus as in Fig. 21. Length 3 mm. Body shiny and reddish, pronotum yellowish-red, abdomen brown with posterior border of free tergites and pygidium yellowish-red, antennae brown with two basal antennomeres yellowish-red, legs yellowish-red. Eyes much shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head and elytra distinct, that of pronotum and abdomen superficial. Puncturation of head and pronotum dense and very superficial. Granularity of elytra dense and distinct, that of abdomen less dense and superficial. On fifth free tergite of male lengthened granules dense and conspicuous, absent on base in female. Pronotum with four discal points arranged in square and a feeble posterior median impression. Aedeagus as in Figs 81–82, spermatheca as in Fig. 83.

Comparative notes – The aedeagus of the new species is similar to that of *Aloconota maculiventris* Pace, 2007 also in Australia, but its size is smaller, 0.25 mm, than that of *A. maculiventris*, 0.33 mm. The internal sclerotised structures of the aedeagi are very different in the two species. The pronotum of the new species is yellowish-red, that of *A. maculiventris* brown.

Etymology – The species takes its name from the very small eyes.

Aloconota lawersensis sp. n.
(Figs 22, 84–86)

Type material – Holotype ♂, Australia, W, Lawers Hill, Otway Rge., Victoria, 10.III.1979, coll. Austr. Mus. & TTM, N° 1585 (AMSA). Paratypes (2 specimens): same data as holotype (2 ♂♂, HNHM).

Description – Habitus as in Fig. 22. Length 2.2 mm. Body shiny. Head and fourth free tergite brown, pronotum reddish-brown, elytra, base of abdomen and pygidium yellowish-red, antennae brown, legs yellowish-red. Eyes longer than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth transverse. Reticulation of head and pronotum distinct, that of elytra superficial, that of abdomen distinctly very transverse. Puncturation of head fine and less dense. Granularity of pronotum and elytra fine and inconspicuous, that of abdomen fine. Aedeagus as in Figs 84–85, sixth free tergite of male as in Fig. 86.

Comparative notes – In the habitus, the transverse pronotum and the shape of the aedeagus, the new species is similar to *Aloconota parens* Pace, 2009 from New Guinea. It differs in the fourth antennomere being transverse and not much longer than wide as in *A. parens*. The preapical borders of the aedeagus of the new species, in ventral view are rectilinear, while those of *A. parens* are bisinuate.

Etymology – The new species takes its name from Lawers Hill.

Australoconotida gen. n.
(Figs 23, 87–90)

Diagnosis – The lobes of the ligula of the new genus, among them largely separated, each one with an apical bristle (Fig. 88) and the form of the spermatheca (Fig. 87), demonstrate that the new genus is distinct from the genus *Australoconota* Pace, 2003 that has the broad lobes of the ligula and not largely separated, without apical bristle. The shape of the spermatheca is very different, in any case. Maxilla as in Fig. 89. The anterior border of the mentum of the new genus is arched as in Fig. 90, while that of *Australoconota* is rectilinear.

Type species – Australoconotida caudapiscis sp. n.

Etymology – The name of the new genus is composed from the name of the genus *Australoconota* and from the ancient Greek noun εἶδος = aspect, image.

Australoconotida caudapiscis sp. n.
(Figs 23, 87–90)

Type material – Holotype ♀, Australia, NSW, 4 km NE Wog Wog, 17 km SE Bombala, 37°04'30"S, 149°28'00"E, II.1996, leg. Milkovits (ANIC).

Description – Habitus as in Fig. 23. Length 2.3 mm. Body shiny and reddish-brown, head and abdomen brown, posterior border of free tergites reddish, antennae reddish-brown with two basal antennomeres yellowish-red, legs yellowish-red. Eyes as long as postocular region in dorsal view. Second antennomere shorter than first, third longer than second, fourth as long as wide, fifth to tenth transverse. Body devoid of reticulation. Puncturation of head dense and distinct, absent on a narrow longitudinal median strip. Puncturation of pronotum dense and superficial. Granularity of elytra fine and dense, that of abdomen also dense but less so. Two basal transverse sulci of abdomen. Spermatheca as in Fig. 87.

Etymology – The new species takes its name from the shape of fish-tail of the proximal portion of the spermatheca.

Australoconota microtheca sp. n.
(Figs 24, 91)

Type material – Holotype ♀, Australia NSW 4 km NE Wog Wog, 17 km SE Bombala, 37°04'30"S, 149°28'00"E, pit trap, X.1996, leg. C.R. Margules (ANIC). Paratype: Australia NSW 4 km NE Wog Wog, 17 km SE Bombala, 37°04'30"S, 149°28'00"E, pit trap, VII.1997, leg. C.R. Margules (1 ♀, HNHM).

Description – Habitus as in Fig. 24. Length 2.4 mm. Body shiny and reddish-brown, pygidium yellowish-red, antennae reddish with two basal antennomeres yellowish-red, legs yellowish-red. Eyes longer than postocular region in dorsal view. Second antennomere as long as first, third as long as second, fourth as long as wide, fifth to tenth transverse. Body devoid of reticulation. Puncturation of head fine, distinct, less dense and devoid on a wide longitudinal median strip. Puncturation of pronotum superficial with some greater distinct punctures. Granularity of elytra fine and inconspicuous, that of abdomen fine and very sparse. Spermatheca as in Fig. 91.

Comparative notes – The shape of the spermatheca of the new species is similar to that of *Australoconota fieldimontis* Pace, 2005 also from Australia, but is much shorter, 0.34 mm, compared to that of *A. fieldimontis*, 0.80 mm. In the new species the apical umbilicus of the distal bulb of the spermatheca is absent, in *A. fieldimontis* deep. The elytra of *A. fieldimontis* are very long, those of the new species are as long as the pronotum.

Etymology – The name of the new species means "microscopic spermatheca."

Giachinusa aborigena Pace, 2005

Giachinusa aborigena Pace, 2005: 392.

Material examined – Tasmania, Weldborough Pass, 17.XII.1981, leg. Bornemissza, KZ 138, coprophilous (1 ♀, HNHM).

Distribution – Tasmania.

Giachinusa lamingtonensis Pace, 2003

Giachinusa lamingtonensis Pace, 2003*b*: 172.

Material examined – Australia, QLD, Lamington N.P., Canungra, 28°14'76"S, 156°09'19"E, Box forest circuit, over and along creek and trail, 29.VIII.2004, leg. M. Földvári (2 ♂♂, 1 ♀, HNHM).

Distribution – Australia.

Giachinusa wilsonmontis sp. n.
(Figs 25, 92–94)

Type material – Holotype ♂, Australia, NSW Mt. Wilson, coll. Austr. Mus. & TTM, N° 1202, Cathedral of Ferns area (33°30'S, 150°23'E), 5.X.1978, C. Horseman (AMSA). Paratypes (83 specimens): same data as holotype (11, AMSA, 11, ANIC, 10, HNHM); Australia, NSW Mt. Wilson, 4.IV.1979 (13, AMSA, 1 ♂, 10, HNHM); Australia, NSW Mt. Wilson, 14.III.1978, coll. Austr. Mus. & TTM, N° 1260 (2, HNHM); Australia, NSW Mt. Wilson, 24.VII.1978, coll. Austr. Mus. & TTM, N° 1179 (9, HNHM); Australia NSW, Mt. Keira, 5.X.1978, coll. Austr. Mus. & TTM, N° 1193 (1 ♂, 1 ♀, 2, HNHM); Australia NSW, Mt. Keira, 17.I.1979, coll. Austr. Mus. & TTM, N° 1229 (2 ♂♂, 5, HNHM); Australia NSW, Mt. Keira, 18.IV.1978, coll. Austr. Mus. & TTM, N° 1149 (1, HNHM); Australia NSW, Mt. Keira, 13.VII.1978, coll. Austr. Mus. & TTM, N° 1169/70 (2, HNHM); Australia NSW, Mt. Keira, ca. 1000 ft, E.B. Britton, rainforest, rotting log, ANIC Berlesate N° 16, leg. Bornemissza (1, ANIC); Australia, W Boranup Drive nr. Karridale, 25.I–6.III.1979, coll. Austr. Mus. & TTM, N° 1490 (1 ♂, HNHM).

Description – Habitus as in Fig. 25. Length 2.2–2.4 mm. Body shiny and reddish-brown, head, elytra and fourth free tergite brown, antennae blackish-brown with two basal antennomeres reddish-brown, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third as long as second, fourth longer than wide, fifth and sixth as long as wide, seventh to tenth transverse. Reticulation of head, pronotum and abdomen absent, that of elytra superficial. Puncturation of head dense, great and very superficial, that of pronotum fine and vanishing, that of elytra superficial and irregularly distributed. Granularity of abdomen sparse. Aedeagus as in Figs 92–93, spermatheca as in Fig. 94.

Comparative notes – In the shape of the spermatheca, the new species is similar to *Giachinusa nigricornis* Pace, 2003 also from Australia. It differs in the proximal bulb of the spermatheca, 0.03 mm, longer than that of *G. nigricornis*, 0.02 mm. The distal bulb of the spermatheca of the new species is wide and strong, that of *G. nigricornis* narrow and slender. The aedeagus of *G. nigricornis* is not known.

Etymology – The name of the new species means "from Mt. Wilson."

Giachinusa brownicola sp. n.
(Figs 26, 95–97)

Type material – Holotype ♂, Australia, NSW Brown Mt., c. 2800 ft, rainforest, leafmould, Berlesate N° 20, 30.III.1967, coll. R.W. Taylor & R.J. Bartell (ANIC). Paratypes (4 specimens): Australia, NSW, Brown Mt., c. 3000', rainforest, leafmould, Berlesate N° 24, 11.IV.1967, coll. R.W. Taylor & R.J. Bartell (2 ♀♀, HNHM); Australia, NSW Brown Mt., c. 5200 ft, RWT, wet sclero, leaf mould, ANIC Berlesate N° 11, leg. Bornemissza (1 ♀, HNHM); Australia NSW, Barrengarry Mt., 1500 ft, rainforest, leaf mould, ANIC Berlesate N° 6, leg. Bornemissza (1 ♀, HNHM).

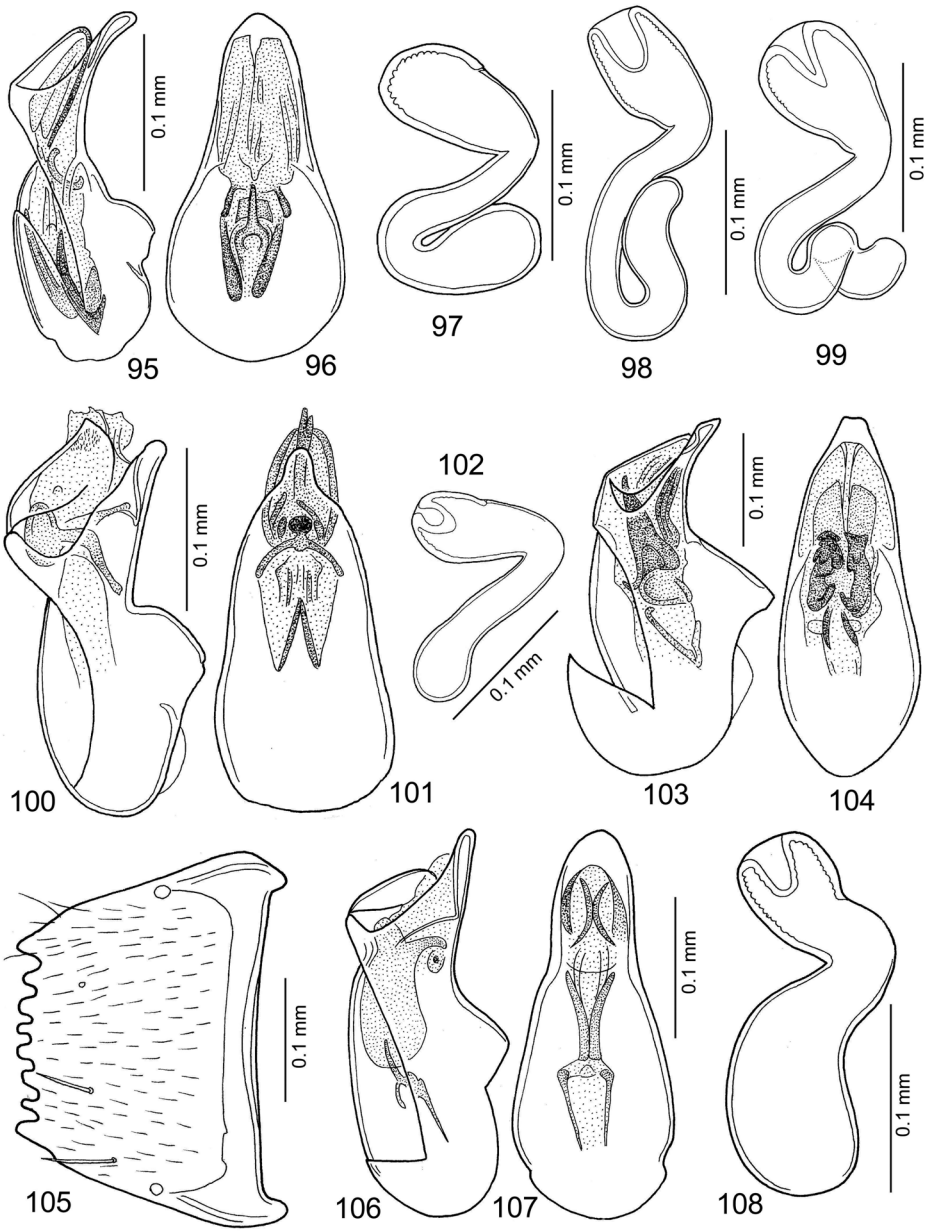
Description – Habitus as in Fig. 26. Length 2.5 mm. Body shiny, yellowish-red, fourth free tergite reddish-brown, pygidium yellow, antennae brown with two basal antennomeres yellowish-red, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth longer than wide, fifth to seventh as long as wide, eighth to tenth transverse. Body devoid of reticulation. Puncturation of head dense and very superficial, that of elytra superficial with sparse distinct punctures. Granularity of pronotum fine and inconspicuous, that of abdomen a less dense and fine. Pronotum with feeble median sulcus and a posterior median fovea. Aedeagus as in Figs 95–96, spermatheca as in Fig. 97.

Comparative notes – The new species is similar to *Giachinusa wilsonmontis* sp. n. above described, distinct because of the presence of two internal sickle-shaped blades of aedeagus, absent in the aedeagus of *G. wilsonmontis*; also differing in the distal bulb of the spermatheca. The aedeagus of the new species is 0.49 mm long, that of *G. wilsonmontis* 0.62 mm. In ventral view, the apical portion of the aedeagus of the new species is wide, that of *G. wilsonmontis* narrow.

Etymology – The name of the new species means "inhabitant of Mt. Brown."

Giachinusa alternata sp. n.
(Figs 27, 98)

Type material – Holotype ♀, Australia, NSW, Willowvale, XII.1979, coll. Austr. Mus. & TTM, N° 1623 (AMSA). Paratype: same data as holotype (1 ♀, HNHM).



Figs 95–108. Aedeagus in lateral (95, 100, 103, 106) and ventral view (96, 101, 104, 107), spermatheca (97–99, 102, 108), and sixth free tergite of male (105): 95–97 = *Giachinusa brownicola* sp. n., 98 = *Giachinusa alternata* sp. n., 99 = *Giachinusa superba* sp. n., 100–102 = *Giachinusa wilsonicola* sp. n., 103–105 = *Giachinusa truncata* sp. n., 106–108 = *Giachinusa minor* sp. n.

Description – Habitus as in Fig. 27. Length 2.5 mm. Body shiny, head, elytra and third to fifth free tergites brown, pronotum, base of abdomen, posterior border of free tergites and pygidium yellowish-red, antennae brown with two basal antennomeres being dirty yellow, legs yellow. Eyes shorter than postocular region in dorsal view. Second antennomere as long as first, third as long as second, fourth and fifth longer than wide, sixth and seventh as long as wide, eighth to tenth transverse. Reticulation of head superficial, that of pronotum and elytra distinct, that of abdomen transverse and rather vanishing. Puncturation of head dense and superficial, more scattered on disc. Granularity of pronotum dense, fine and very superficial, that of elytra dense and conspicuous, that of abdomen denser on abdominal base than on free fourth and fifth tergites. Pronotum with discal punctures and a posterior median fovea. Spermatheca as in Fig. 98.

Comparative notes – The proximal portion of the spermatheca very long and arched, clearly distinguishing the new species from *Giachinusa nigricornis* Pace, 2003 from Australia, as well as from other species.

Etymology – The name of the new species derives from the colours brown and yellowish-red of the body alternating in bands.

Giachinusa superba sp. n.
(Figs 28, 99)

Type material – Holotype ♀, Australia NSW, Benandarah S.F., coll. Austr. Mus. & TTM, N° 1546, 8 km North of Batemans Bay (35°40'S, 150°14'E), 4.XI.1979, D. Milledge (AMSA).

Description – Habitus as in Fig. 28. Length 3.2 mm. Body shiny and brown, posterior border of three basal free tergites and pygidium reddish, antennae reddish-brown with two basal antennomeres and eleventh reddish, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third longer than second, fourth to sixth longer than wide, seventh to ninth as long as wide, tenth transverse. Reticulation of forebody absent, that of abdomen very transverse, on basal half of every free tergite superficial, on posterior half distinct. Puncturation of head very dense, fine and rather vanishing. Granularity of pronotum fine, dense and very superficial, that of elytra dense and vanishing, that of abdomen sparse. Pronotum with posterior median fovea with punctures. Spermatheca as in Fig. 99.

Comparative notes – The new species has the spermatheca a little longer, 0.79 mm, than that of *Giachinusa nigricornis* Pace, 2003 also from Australia but his proximal portion very sinuate, while it is being oval in *G. nigricornis*. The deep apical umbilicus of the distal bulb of the spermatheca of the new species is absent

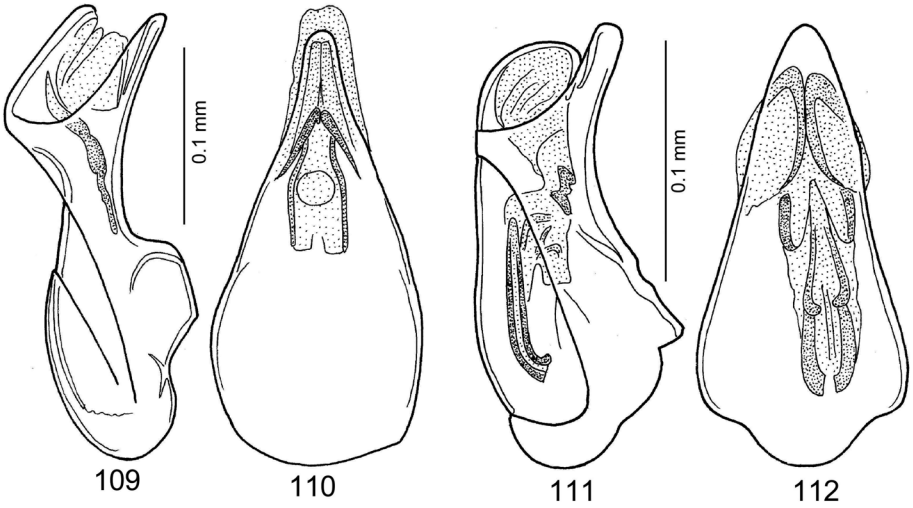
in *G. nigricornis*. The head and the pronotum of *G. nigricornis* are yellowish-red, those of the new species brown.

Etymology – The elegance and the large body size of the new species have suggested calling it "superb".

Giachinusa wilsonicola sp. n.
(Figs 29, 100–102)

Type material – Holotype ♂, Australia NSW, Mt. Wilson, 14.III.1978, coll. Austr. Mus. & TTM, N° 887 (AMSA). Paratypes (6 specimens): same data as holotype (1 ♂, 2 ♀♀, HNHM); Australia NSW, Mt. Keira, 18.IV.1978, coll. Austr. Mus. & TTM, N° 1149 (1 ♀, AMSA, 2 ♀♀, HNHM).

Description – Habitus as in Fig. 29. Length 2.2–2.4 mm. Body shiny and reddish, head, elytra and fourth free tergite brown, antennae brown with two basal antennomeres reddish, legs yellow. Eyes as long as postocular region in dorsal view. Second antennomere shorter than first, third longer than second, fourth to tenth weakly transverse. Reticulation of fore-body absent, that of abdomen transverse and distinct. Puncturation of head dense and superficial, absent on longitudinal median strip. Granularity of pronotum fine, dense and conspicuous, that of elytra dense and very superficial, that of three basal free tergites dense, on fourth and fifth free tergites sparse. Pronotum with feeble posterior median sulcus. Aedeagus as in Figs 100–101, spermatheca as in Fig. 102.



Figs 109–112. Aedeagus in lateral (109, 111) and ventral view (110, 112): 109–110 = *Giachinusa lamingtonicola* sp. n., 111–112 = *Giachinusa forticornis* sp. n.

Comparative notes – The spermatheca of the new species is similar to that of *Giachinusa lamingtonensis* Pace, 2003, also from Australia but its proximal portion less long than that of *G. lamingtonensis*. The apical umbilicus of the distal bulb of the spermatheca is wide in the new species, narrow in *G. lamingtonensis*. The aedeagus of the new species is short, that of *G. lamingtonensis* is long. The ventral profile of the aedeagus of the new species is barely arched, in *G. lamingtonensis* more arched.

Etymology – The name of the new species means "inhabitant of Mt. Wilson."

Giachinusa truncata sp. n.
(Figs 30, 103–105)

Type material – Holotype ♂, Australia, QLD, Lamington N.P., Canungra, 28°14'76"S, 156°09'19"E, Box forest circuit, over and along creek and trail, 29.VIII.2004, leg. M. Földvári (ANIC).

Description – Habitus as in Fig. 30. Length 2.5 mm. Fore-body weakly opaque, abdomen shiny. Body yellowish-red, head and elytra reddish-brown, antennae brown with two basal antennomeres yellowish-red, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth longer than wide, fifth and sixth as long as wide, seventh to tenth transverse. Reticulation of head and pronotum strong, that of elytra fine, that of abdomen distinct. Puncturation of head dense and rather vanishing. Granularity of pronotum and elytra indistinct, that of abdomen less dense and distinct. Aedeagus as in Figs 103–104, sixth free tergite of male as in Fig. 105.

Comparative notes – The new species is distinct from *Giachinusa lamingtonensis* Pace, 2003 also from Australia, for the stout aedeagus and not slender as in *G. lamingtonensis*, for the apex of the aedeagus truncate, in ventral view, and not oval as in *G. lamingtonensis* and for the border of the sixth free tergite of the male with 8 lobes and not 4 as in *G. lamingtonensis*.

Etymology – The name of the new species refers to the truncate apex of the aedeagus in ventral view.

Giachinusa minor sp. n.
(Figs 31, 106–108)

Type material – Holotype ♂, Australia, NSW, Willowvale, XII. 1979, coll. Austr. Mus. & TTM, N° 1623 (AMSA). Paratype: same data as holotype (1 ♀, HNHM).

Description – Habitus as in Fig. 31. Length 2.1 mm. Body shiny, yellowish-red, head reddish, third and fourth free tergites brown, antennae reddish with three basal antennomeres yellowish-red, legs yellow. Eyes shorter than postocular region in dorsal view. Second antennomere longer than first, third shorter

than second, fourth and fifth longer than wide, sixth and seventh as long as wide, eighth to tenth transverse. Reticulation of head superficial, that of pronotum rather vanishing, that of elytra distinct, that of abdomen transverse, well visible. Puncturation of head very superficial. Granularity of pronotum thin, dense and superficial, that of elytra dense and conspicuous, that of abdomen dense and fine. Aedeagus as in Figs 106–107, spermatheca as in Fig. 108.

Comparative notes – The spermatheca of the new species is similar to that of *Giachinusa wilsonicola* sp. n. above described, but it is broadly arched in his proximal portion, while it is narrowly arched in *G. wilsonicola*. In ventral view, the apex of the aedeagus of the new species is ogival and wide, that of *G. wilsonicola* narrow.

Etymology – The new species takes its name from "smallest" for its body size being the smallest of all species examined.

Giachinusa lamingtonicola sp. n.
(Figs 32, 109–110)

Type material – Holotype ♂, Australia, QLD, Lamington N.P., Canungra, 28°14'76"S, 156°09'19"E, Box forest circuit, over and along creek and trail, 29.VIII.2004, leg. M. Földvári (ANIC).

Description – Habitus as in Fig. 32. Length 2.5 mm. Body shiny, yellowish-red, antennae brown with three basal antennomeres yellowish-red, legs yellowish-red. Eyes shorter than postocular region in dorsal view. Second antennomere as long as first, third shorter than second, fourth to tenth transverse. Body devoid of reticulation. Puncturation of head and pronotum dense and very superficial. Granularity of elytra fine and dense, with distinct punctures among, irregularly distributed. Granularity of abdomen fine and less dense. Aedeagus as in Figs 109–110.

Comparative notes – In lateral view, the aedeagus of the new species is similar to that of *Giachinusa lamingtonensis* Pace, 2003 also from Australia, but its length is much smaller, 0.23 mm, than that of *G. lamingtonensis*, 0.32 mm. The apical part of the aedeagus of the new species, in ventral view, is very narrow (Fig. 110), while that of *G. lamingtonensis* very wide.

Etymology – The name of the new species means "inhabitant of Lamington N.P."

Giachinusa forticornis sp. n.
(Figs 33, 111–112)

Type material – Holotype ♂, Australia QLD, Lamington N.P., Canungra, 28°14'76"S, 156°09'19"E, Box forest circuit, over and along creek and trail, 29.VIII.2004, leg. M. Földvári (ANIC).

Description – Habitus as in Fig. 33. Length 1.9 mm. Body shiny. Head, elytra and third to fifth free tergites brown, pronotum, shoulders and two basal free

tergites yellowish-red, antennae brown with reddish basal antennomere, legs yellowish-red. Eyes as long as postocular region in dorsal view. Second antennomere shorter than first, third shorter than second, fourth to tenth very transverse. Body devoid of reticulation. Puncturation of head dense, fine and superficial, absent on a narrow longitudinal median strip. Granularity of pronotum, elytra and abdomen fine, dense and rather vanishing. Aedeagus as in Figs 111–112.

Comparative notes – The new species, with a very short aedeagus, 0.18 mm long, is evidently distinguished from *Giachinusa lamingtonensis* that has the aedeagus 0.32 mm long. The two sickle-shaped laminae of the basal bulb of the aedeagus of the new species are not present in the aedeagus of *G. lamingtonensis*.

Etymology – The name of the new species means "strong antennae."

*

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