



Six new, unusually small ants of the genus *Leptomyrmex* (Hymenoptera: Formicidae)

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Abstract

The ant genus *Leptomyrmex* contains 41 named taxa which are limited to eastern Australia, New Guinea and New Caledonia. While most species are large and distinctive, a few species are much smaller and have only recently been recognised as belonging to this genus. These six species, informally called micro-*Leptomyrmex*, are restricted to rainforests and wet sclerophyll forests in two relatively small regions of eastern Australia. All are described here for the first time and include *L. aitchisoni* n. sp., *L. burwelli* n. sp., *L. dolichoscapus* n. sp., *L. garretti* n. sp., *L. pilosus* n. sp. and *L. ramorniensis* n. sp.

Key words: Hymenoptera, Formicidae, Dolichoderinae, *Leptomyrmex*, taxonomy, new species, Australia

Introduction

The dolichoderine ant genus *Leptomyrmex* Mayr, 1862 is a distinctive element of the ant fauna of eastern Australia, New Guinea and New Caledonia (Wheeler, 1934; Shattuck, 1992). The majority of species are highly distinctive, being moderately large, coloured orange or bicoloured orange and black or, less commonly, black, and with extremely long antennae and legs. They are restricted to the mountains and coastal areas of Eastern Australia, New Guinea (and surrounding islands) and New Caledonia (Shattuck, 1992). However, Shattuck (1992, 1999) mentioned the existence of several small species of *Leptomyrmex* which superficially resemble *Iridomyrmex*. These species differ significantly from “main-line” *Leptomyrmex* and were frequently identified as species of the related genus *Iridomyrmex*. They average much smaller than other species (head width less than 0.80mm versus greater than 0.80mm in the larger species) and are yellow-brown to brown, lacking the large size and bright orange colour common in other species. However, as defined by Shattuck (1992), these species belong to *Leptomyrmex* although their exact placement within the genus has yet to be examined in detail. In total six species are known which belong to this set, all of which are described below as new.

The high level of diversity among these ants has only recently become apparent. In most cases these species had previously been identified as belonging to *Iridomyrmex*. For example a biodiversity survey of the forests of northern NSW undertaken by the Australian Museum and the National Parks and Wildlife Service of NSW in 1993 (Grey & Cassis, 1994) revealed the presence of two micro-*Leptomyrmex* species originally identified as *Iridomyrmex* spp. Examination of material held in the Australian National Insect Collection, Canberra revealed another 3 species of micro-*Leptomyrmex* provisionally identified as *Iridomyrmex*. And finally material loaned from Queensland Museum provided further material for three of these species plus an additional 6th species. This misidentification of micro-*Leptomyrmex* as *Iridomyrmex* in collections implies that more material is awaiting correct identification. The presence of related species from New Guinea (and nearby islands) and New Caledonia, especially from rainforest areas, seems likely and material identified as

Iridomyrmex should be checked as misidentification is likely. It should be noted that examination of all described *Iridomyrmex* species has shown that none of these small *Leptomyrmex* species have been previously described in that genus.

Abbreviations of morphological terms

Size and shape characters were quantified and are reported as lengths or indices. Measurements were made with a stereomicroscope using a dual-axis stage micrometer wired to digital readouts. All measurements were recorded in thousandths of a millimetre, but expressed here to the nearest hundredth. The following measurements and indices are reported: CI (cephalic Index), HW/HL x 100; EL, maximum eye length measured in full-face view; HL, maximum head length in full-face view, measured from the anterior most of the clypeal margin to the midpoint of a line drawn across the posterior margin of the head; HW, maximum head width measured in full-face view (in males this includes the eyes); MTL; maximum length of the tibia of the middle leg, excluding the proximal part of the articulation which is received into the distal end of the femur; SI, scape Index: SL/HW x 100 (in males scape index is scape length relative to the length of funicular segments); SL, scape length, excluding the basal radicle; WL, Weber's length measured from the anterior most point of the pronotal collar to the anterior most point of the propodeal process.

Acronyms for museums

AMSA, Australian Museum, Sydney, New South Wales; ANIC, Australian National Insect Collection, Canberra, A.C.T.; QMBA, Queensland Museum, Brisbane, Queensland.

Taxonomic status of *Leptomyrmex* and diagnosis of the micro-*Leptomyrmex* species

For the current status and identification of *Leptomyrmex*, see Shattuck (1992). These micro-*Leptomyrmex* species can be readily distinguished from the main-line *Leptomyrmex* by their small size and brown colouration. These six species are placed in *Leptomyrmex* based on the presence of the following characters: mandibular dentition 2-5 teeth and 10-15 denticles, the configuration of the anterior clypeal margin (anterolateral region even with the mediolateral region), a medially notched hypostoma (weak in *ramorniensis*), a relatively anterior tentorial pit location, and a keeled fourth gastral sternite. However, they differ from other *Leptomyrmex* in the following characters: shape of the propodeum (dorsum short), shape of the petiole (angular rather than rounded) and shape of the gaster (lacking lateral compression).

Additionally, males of at least one species (*burwelli*) lack the characteristic bend between antennal segments 3 and 4. No ergatoid queens have been found for any of the micro-*Leptomyrmex* species, however a dealate queen is known for one species (*burwelli*). Queens for the other species remain unknown.

The micro-*Leptomyrmex* are not proposed as a formal taxonomic species group since revision of the entire genus will be required to determine the position of these six species in relation to their larger relatives, an undertaking outside the scope of this project.

Key to the workers of micro-*Leptomyrmex* species based on workers

1. Scapes short (scape length < 1.1 mm, SI < 150, Fig. 20); head short (CI > 82, Fig. 19); hind tibial spurs with barbules approximately as long as spur diameter (Fig. 24) *ramorniensis*
- Scapes long (scape length > 1.0 mm, SI > 170, Fig. 20); head long (CI < 81, Fig. 19); hind tibial spurs with barbules approximately half as long as spur diameter (Fig. 23) 2
2. Pubescence long, dense and decumbent *pilosus*
- Pubescence short, sparse and adpressed 3
3. Petiolar node flat dorsally in anterior view *aitchisoni*
- Petiolar node convex dorsally in anterior view 4
4. Antennal scapes relatively long (SI > 220, Fig. 20), extending beyond vertex by more than half their length
..... *dolichoscapus*
- Antennal scapes relatively short (SI < 220, Fig. 20), extending beyond vertex by about half their length 5

5. Anterior mesonotum raised into a bump (Fig. 5), dorsum of node highly and uniformly convex in anterior view..... *burwelli*
 -. Anterior mesonotum without a raised bump (Fig. 11), dorsum of node weakly convex in anterior view, the sides more strongly curved than the central region *garretti*

***Leptomyrmex aitchisoni* sp. n.**

(Figs 1–3, 19–21)

Types. Holotype worker from Doubleduke State Forest, MacFaydens Rd., 1.2km East of junction with Range Rd., 29°13'18"S 153°13'23"E, New South Wales, 4 Feb.-9 Apr. 1993, M.Grey & G.Cassis. (AMSA: K 167550); four paratype workers, same data as holotype (AMSA: K.167551, K.167552, K.167553, K.167554).

Diagnosis. Head relatively elongate (CI less than 79, Fig. 19); antennal scape relatively long (SI > 170, Fig. 20) and extending beyond the vertex of the head by greater than half their length; pilosity short adpressed hairs; palps relatively short, failing to reach the posterior of the head capsule.

Worker description. Vertex of head flat to weakly concave, corners rounded, sides of head almost straight, head widest at the midlength. Scape long, surpassing the vertex by distinctly more than half their length. Medial hypostoma distinctly notched. Palps relatively short, extending about $\frac{3}{4}$ of the length of the head capsule, formula 6:4. Mesonotum without a raised anterior region, propodeum with short dorsum. Legs long. Hind tibial spurs with reduced barbules (barbules shorter than the width of the shaft), absent from basal $\frac{1}{4}$. Scale present, ridged with a distinct angle dorsally, in profile moderately angular, strongly inclined anteriorly, anterior and posterior faces about equal in length. Head, mandibles and mesosoma uniformly light to dark brown in colour, legs and antennae paler, gaster darker.

Measurements. Worker ($n = 63$) - CI 65–74; EL 0.17–0.25; HL 0.79–0.96; HW 0.56–0.65; MTL 0.71–1.08; SI 197–216; SL 1.12–1.32; WL 1.20–1.58.

Additional material examined. New South Wales: 2.8km from Wheatley Creek access road (on camp ck.) (Cassis,G. & Grey,M.) (AMSA); Beaury State Forest, northwards along Wallaby Creek Rd (Cassis,G. & Grey,M.) (AMSA); Boorook S.F., 300m NW of Gilgurry Mt. (Grey,M. & Cassis,G.) (ANIC); Boorook SF, Colonga Rd. crossing of Boorook Ck. (Cassis,G. & Grey,M.) (AMSA); Boorook SF, Midway between Boorook Ck. and Gilgurry Ck. on Conlongan Rd. 1km NW of Boorook Ck. Junction (Cassis,G. & Grey,M.) (AMSA); Boorook SF, near Boonoo Boonoo Falls (Cassis,G. & Grey,M.) (AMSA); Doubleduke SF, junction of Range and Lockleys Rds (Cassis,G. & Grey,M.) (AMSA); Doubleduke SF, Range Rd., 1.5km west of junction with Lockleys Rd (Cassis,G. & Grey,M.) (AMSA); Enfield SF, Mummel Forest Rd., 8.8km N of junction with Enfield Forest Rd (Cassis,G. & Grey,M.) (AMSA); Gibraltar Range N.P., Sugarloaf Pt. 29°26'S 152°23'E (P.S.Ward) (ANIC); Gilgurry SF, Rivertree Fire Trail, on ridge approx. 2km NNE from turnoff (Cassis,G. & Grey,M.) (AMSA); Madmans Creek Flora Reserve, Madman's Ck., 200m upstream from bridge on Murphy's Rd (Cassis,G. & Grey,M.) (AMSA); Oakwood SF, 300m along Sydney Plain Hut Track from London bridge Fire Trail (Cassis,G. & Grey,M.) (AMSA); Ramornie S.F., track off T-Ridge Rd. (Grey,M. & Cassis,G.) (AMSA, ANIC); Sugarloaf Point, Gibraltar Range Natl. Pk. (Ward,P.S.) (ANIC); Washpool N.P., NW Fire Trail (Cassis,G. & Grey,M.) (AMSA); Washpool National Park, Grassy Ck., where crossed by NW Fire Trail/Washpool Trail (Cassis,G. & Grey,M.) (AMSA); Whian Whian SF, Running Rd., 150m" E of Nightcap Range Rd (Cassis,G. & Grey,M.) (AMSA). **Queensland:** Crows Nest Nat. Park, Perseverance Section (QM Party) (QMB).

Comments. This is a relatively common and widespread species in north-eastern NSW and south-eastern Queensland. It is found in a range of forest habitats from wet sclerophyll to rainforest, where it nests under stones. It is readily separated from the sympatric species *L. burwelli* and *L. ramorniensis* as noted in the key. This species has been named after Mr. Ron Aitchison. Mr. Ray Huetter sponsored this patronymic through the Australian Museum's Immortals Project.



FIGURES 1–6. *Leptomyrmex aitchisoni* **sp. n.** worker. Fig. 1, front of head; Fig. 2, lateral view of body; Fig. 3, dorsal view of body. *Leptomyrmex burwelli* **sp. n.** paratype worker. Fig. 4, front of head; Fig. 5, lateral view of body; Fig. 6, dorsal view of body.

***Leptomyrmex burwelli* sp. n.**
(Figs 4–6, 19–21, 23)

Types. Holotype worker from Maijala National Park, Mt. D’Aguilar Range, Queensland, R.W.Taylor, 3 May

1962, under stone, rainforest (ANIC: R.W.Taylor 62.753, ANIC Ants Vial 9/38, ANIC32-002908); six paratype workers, same data as holotype (2 each in AMSA, ANIC, QMBA).

Diagnosis. Scapes long (SI > 170, Fig. 20); pubescence of short, sparse adpressed hairs; dorsum of petiolar node strongly convex in anterior view; anterior mesonotum with a strongly raised bump (Fig. 5).

Worker description. In full face view vertex of head weakly convex, rounding into sides of head, sides of head weakly rounded, widest at mid-length, eyes placed at mid-length of head capsule. Palps long extending about $\frac{3}{4}$ the length of the head capsule. Pronotum even with promesonotal suture, posterior margin of pronotum not rounding sharply to the suture; anterior portion of the mesonotum raised above the promesonotal suture then rounding sharply into descending plane of remainder of mesonotum producing a distinctive strongly raised anterior mesonotal “bump”. Legs long; hind tibial spurs with reduced barbules, barbules absent from basal one-quarter.

Queen description. As described in Shattuck (1992).

Male description. As described in Shattuck (1992), except the antenna lacks the distinctive bend between funicular segments 3 and 4.

Measurements. *Worker* ($n = 117$) - CI 69–79; EL 0.20–0.25; HL 0.79–0.97; HW 0.60–0.70; MTL 0.71–0.96; SI 171–200; SL 1.10–1.29; WL 1.2–1.4. *Queen* ($n = 1$) - CI 91; EL 0.38; HL 0.94; HW 1.03; HL 1.13; MTL 1.075; SI 139; SL 1.43; WL 1.95. *Male* ($n = 3$) - CI 74–76; EL 0.33–0.36; HL 0.60–0.67; HW 0.53–0.65; MTL 0.75–0.81; SI* 10; SL 0.23–0.25; WL 1.23–1.32.

* Only 2 of the available males had all funicular segments attached. SI in males is scape length relative to length of the funicular segments (Shattuck, 1992).

Additional material examined. **New South Wales:** Breakfast Ck., Mt. Warning (Lowery,B.B.) (ANIC). **Queensland:** 7km NNW North Tamborine (Ward,P.S.) (ANIC); Boombana Nat. Park (Burwell,C.J.; Monteith,G.; QM Party; Wright,S.) (QMBA); c. Binna Burra (Taylor,R.W.) (ANIC); Cunninghams Gap (Greenslade,P.J.M.) (ANIC); Joalah NP, Mt. Tambourine (Taylor,R.W.) (ANIC); Lamington Nat. Park (Baehr,B., Grey,J. & Staunton,K.; Burwell,C.J.; Menendez,R. & Monteith,G.) (QMBA); Mary Cairncross Pk., nr. Maleny (Ward,P.S.) (ANIC); Miala NP (Taylor,R.W.) (ANIC); Mt. D'aguilar Ra., Miala NP [as Daguilar] (Taylor,R.W.) (ANIC); Mt. Glorious (Ward,P.S.; Wild,A.L.) (ANIC); Mt. Tamborine (Lowery,B.B.) (ANIC); Numinbah (Lowery,B.B.) (ANIC).

Comments. *Leptomyrmex burwelli* is restricted to rainforest where it is known to nest under rocks or less commonly in rotten wood. It forages on the ground as well as on vegetation. This species has so far only been found in the south-eastern corner of Queensland with one record just over the border in NSW. Given the trapping intensity of the NEFBS project it is thought unlikely that the range of this species will extend further into NSW. It can readily be separated from the sympatric *L. aitchisoni* by the distinctively humped anterior mesonotum.

***Leptomyrmex dolichoscapus* sp. n.**

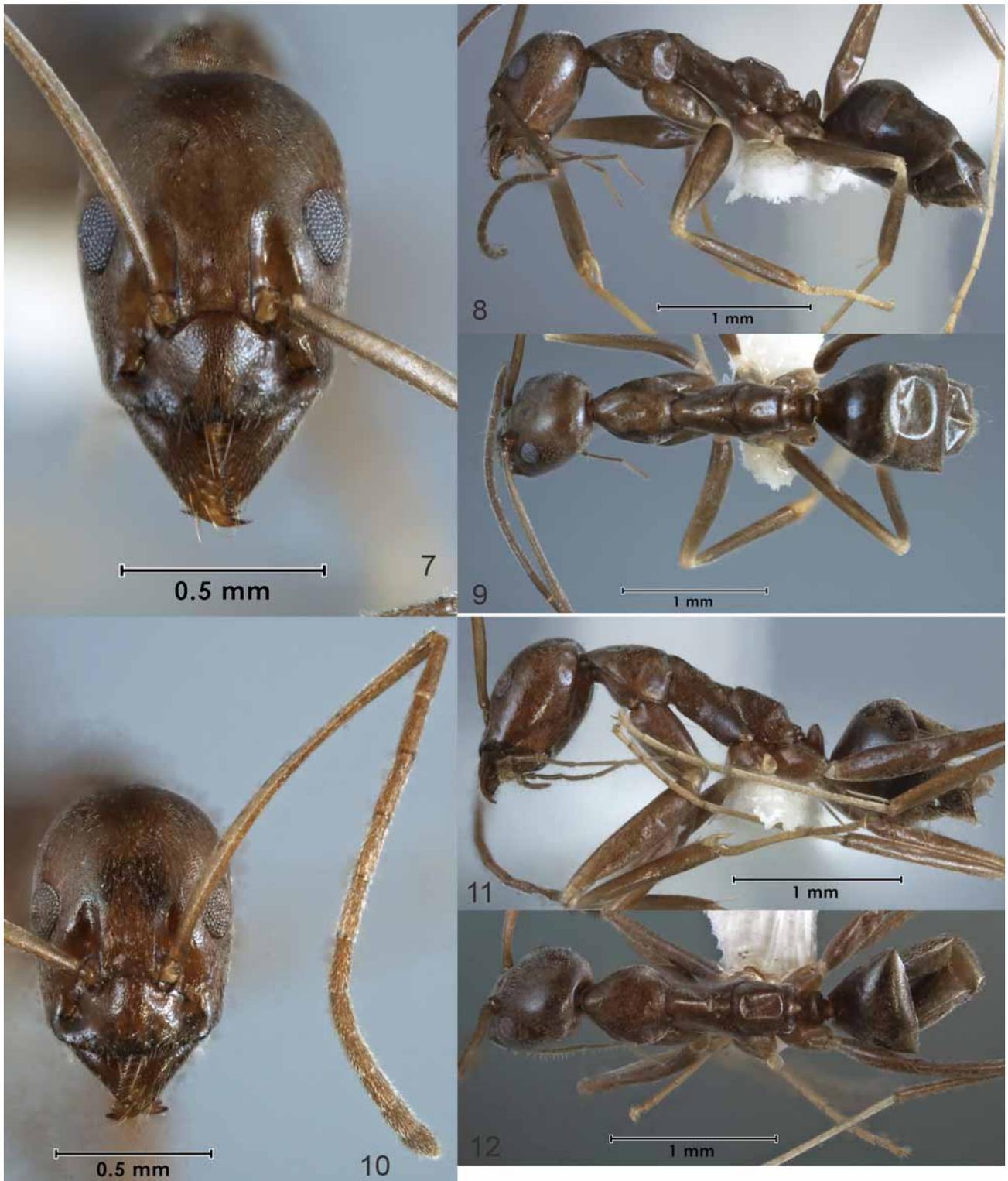
(Figs 7–9, 19, 20, 22)

Types. Holotype worker from Mary Creek site 1, 1000m, 16°33.6'S 145°16.5'E, Queensland, 20 Nov 2005, 12341, Sze Yek, Rainforest, day, hand collect, Steve Williams site CU10A1 (QMBA: QMBA T143382); two paratype workers, same data as holotype (QMBA: QMBA T143384, T143385).

Diagnosis. Head elongated head (CI less than 79, Fig. 19), antennal scape very elongated (SI greater than 220, Fig. 20) and extending beyond the vertex of the head by $\frac{2}{3}$ their length. Palps very long. Anterior mesonotum with a weak “bump”. Pilosity short adpressed hairs.

Worker description. In full face view vertex of head convex, rounding into sides of head, sides of head weakly rounded, widest at mid-length, eyes placed at mid-length of head capsule. Palps long extending to posterior of head capsule or just beyond. Pronotum above level of promesonotal suture, posterior margin of pronotum rounding sharply to the suture; anterior portion of the mesonotum initially in same plane as

pronotum then rounding sharply into descending plane of remainder of mesonotum (Fig. 8) producing a weakly raised anterior mesonotal “bump”. Legs long; hind tibial spurs with reduced barbules, barbules absent from basal ¼. Dark brown in colour.



FIGURES 7–12. *Leptomyrmex dolichoscapus* sp. n. holotype worker. Fig. 7, front of head; Fig. 8, lateral view of body; Fig. 9, dorsal view of body. *Leptomyrmex garretti* sp. n. holotype worker. Fig. 10, front of head; Fig. 11, lateral view of body; Fig. 12, dorsal view of body.

Measurements. *Worker* ($n = 3$) - CI 63–66; EL 0.20–0.22; HL 0.92–0.95; HW 0.58–0.63; MTL 0.98–1.04; SI 230–239; SL 1.37–1.44; WL 1.48–1.64.

Comments. This species is known from only a single locality. It occurs in rainforest and is sympatric with *L. garretti* from which it is readily distinguished from by its extremely long scapes. Given that *L. garretti* is also found at lower altitudes in the area it would be interesting to examine samples from along the ranges to determine whether this species is restricted to higher altitudes within in the wet tropics.

***Leptomyrmex garretti* sp. n.**

(Figs 10–12, 19, 20, 22)

Types. Holotype worker from Mt. Lewis, near Julatten, Queensland, 31 October 1966, R.W.Taylor. (ANIC: ANIC032-038574); eight paratype workers, same data as holotype (2 in AMSA, 4 in ANIC, 2 in QMBA).

Diagnosis. Scapes long (SI > 174, Fig. 20); pubescence short sparse and adpressed; petiolar node weakly convex in anterior view; anterior mesonotum without a raised hump.

Worker description. In full face view vertex of head convex, rounding into sides of head, sides of head weakly rounded, widest at mid-length, eyes placed at mid-length of head capsule. Palps long extending just beyond the length of the head capsule. Posterior of pronotum slightly higher than the promesonotal suture, posterior margin of pronotum rounding to the suture; anterior portion of the mesonotum below the promesonotal suture then without an anterior mesonotal “bump”. Legs long; hind tibial spurs with reduced barbules, barbules absent from basal ¼. Honey brown colour, covered with dense short appressed pilosity, setae present on clypeus and sternites of gaster only.

Measurements. *Worker* ($n = 25$) - CI 69–80; EL 0.17–0.22; HL 0.84–0.97; HW 0.61–0.75; MTL 0.86–1.08; SI 175–214; SL 1.29–1.48; WL 1.35–1.58.

Additional material examined. Queensland: 3.5km W of Cape Tribulation (Site 7) (Monteith,G.B.) (ANIC); 4.5 km W of Cape Tribulation (Site 9) (Monteith, Yeates & Thompson) (ANIC); Devils Thumb area, 10km NW Mossman (Monteith, Yeates & Thompson) (ANIC); 3km W Cape Tribulation (Monteith,G.B.) (ANIC); Mt. Lewis nr. Julatten (Taylor,R.W.) (ANIC); Mary Creek (Burwell,C.J.; Yek,S.) (QMBA).

Comments. This rainforest species nests under rocks. It forages on the ground and on vegetation. Sympatric with *L. dolichoscapus* and *L. pilosus* it is more widespread than these and readily separated from them by the combination of normal length scapes and normal pilosity.

***Leptomyrmex pilosus* sp. n.**

(Figs 13–15, 19, 20, 22)

Types. Holotype worker from 3.0 km W of Cape Tribulation (Site 6), 16°05'S 145°27'E, Queensland, 500m, 5–9 Jan. 1983, G.B.Monteith, rainforest, baited pitfall trap (ANIC: ANIC32-023631); four paratype workers, same data as holotype (2 each in AMSA, ANIC).

Diagnosis. Palps elongated, extending well beyond the posterior margin of the head capsule. Antennal scapes elongated (SI greater than 170, Fig. 20) and extending beyond the vertex of the head by about half their length. Distinctive abundant pilosity consisting of shorter adpressed and longer decumbent hairs.

Worker description. Vertex of head weakly convex to flat, corners rounded, sides of the head almost straight, head widest at mid-length. Scape relatively short, surpassing the vertex by about half its length. Palps long, extending to near the posterior of the head capsule. Medial hypostoma distinctly notched. Anterior mesonotum without a raised anterior region. Legs long. Hind tibial spur with reduced barbules, absent from basal 1/5th. Scale present, ridged and with a distinct angle dorsally, in profile bluntly angular, weakly inclined anteriorly, anterior and posterior faces of the scale approximately equal in length. Abundant relatively long appressed yellowish pubescence on mesosoma and gaster, pubescence short adpressed and long decumbent on

head and antennal scapes.

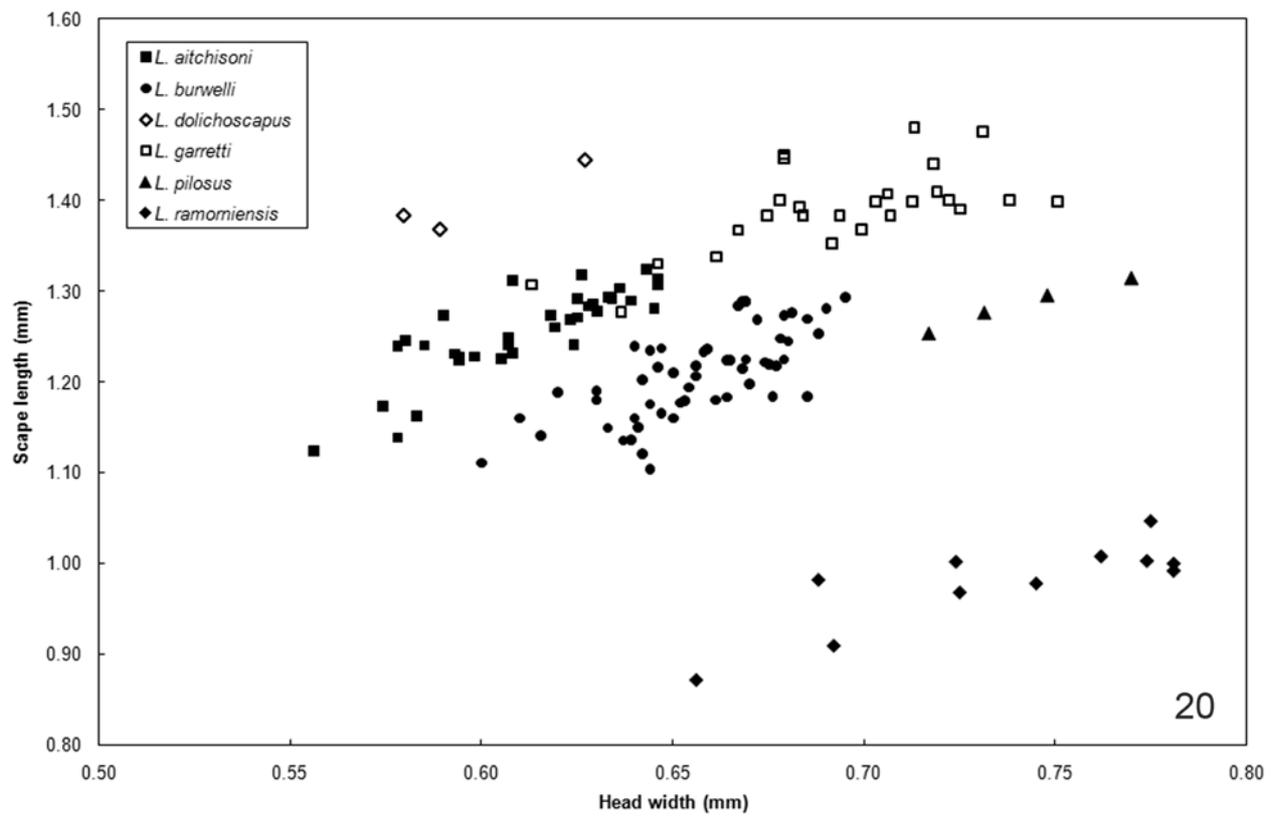
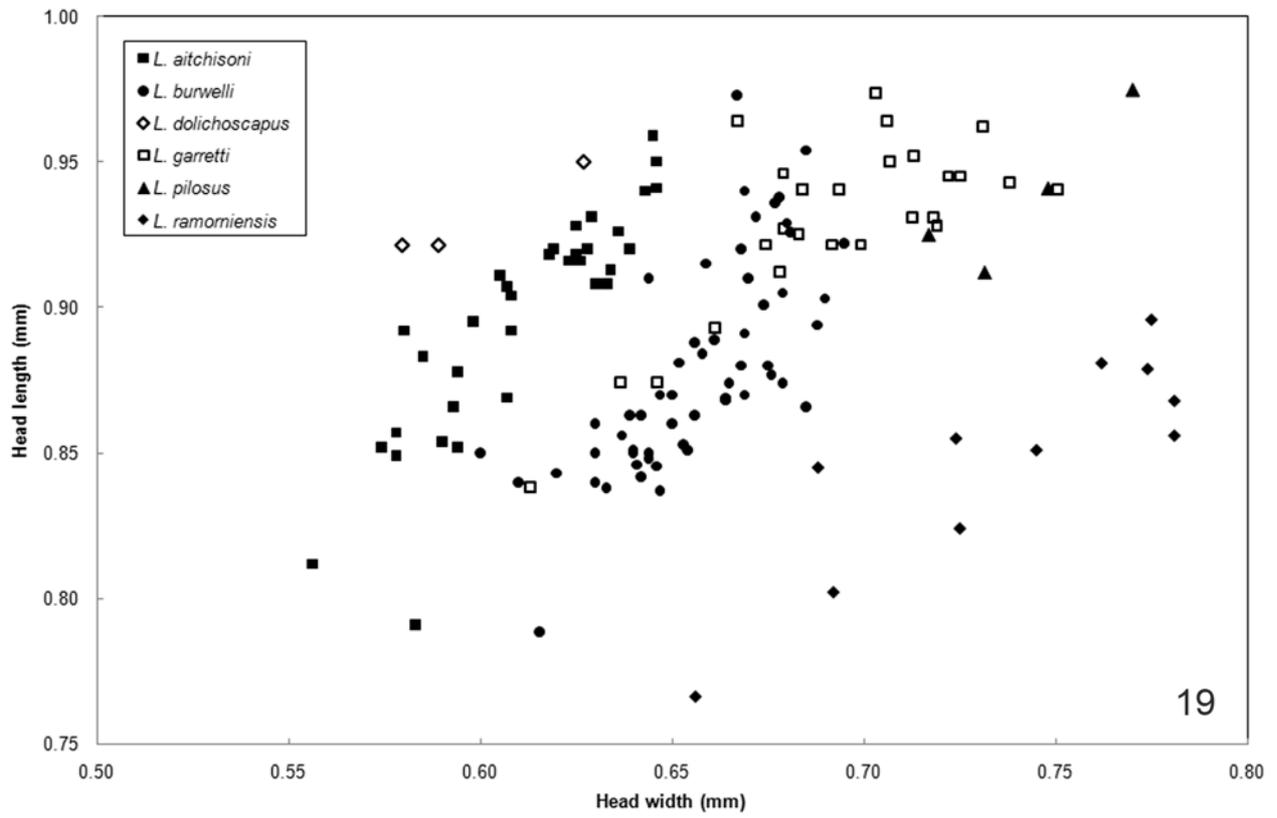
Measurements. *Worker* ($n = 7$) - CI 78–80; EL 0.20–0.23; HL 0.91–0.98; HW 0.72–0.77; MTL 0.93–1.04; SI 171–175; SL 1.25–1.32; WL 1.43–1.53.

Additional material examined. Queensland: 3km W Cape Tribulation (Monteith,G.B.) (ANIC); 3.5km W of Cape Tribulation (Site 7) (Monteith,G.B.) (ANIC); Thornton Peak (Williams,S.) (QMBA).

Comments. *Leptomyrmex pilosus* is restricted to rainforest to the west of Cape Tribulation, Queensland. Morphologically it is similar to *L. aitchisoni* but is readily distinguished by the abundant pilosity on all surfaces.



FIGURES 13–18. *Leptomyrmex pilosus* sp. n. holotype worker. Fig. 13, front of head; Fig. 14, lateral view of body; Fig. 15, dorsal view of body. *Leptomyrmex ramorniensis* sp. n. worker. Fig. 16, front of head; Fig. 17, lateral view of body; Fig. 18, dorsal view of body.



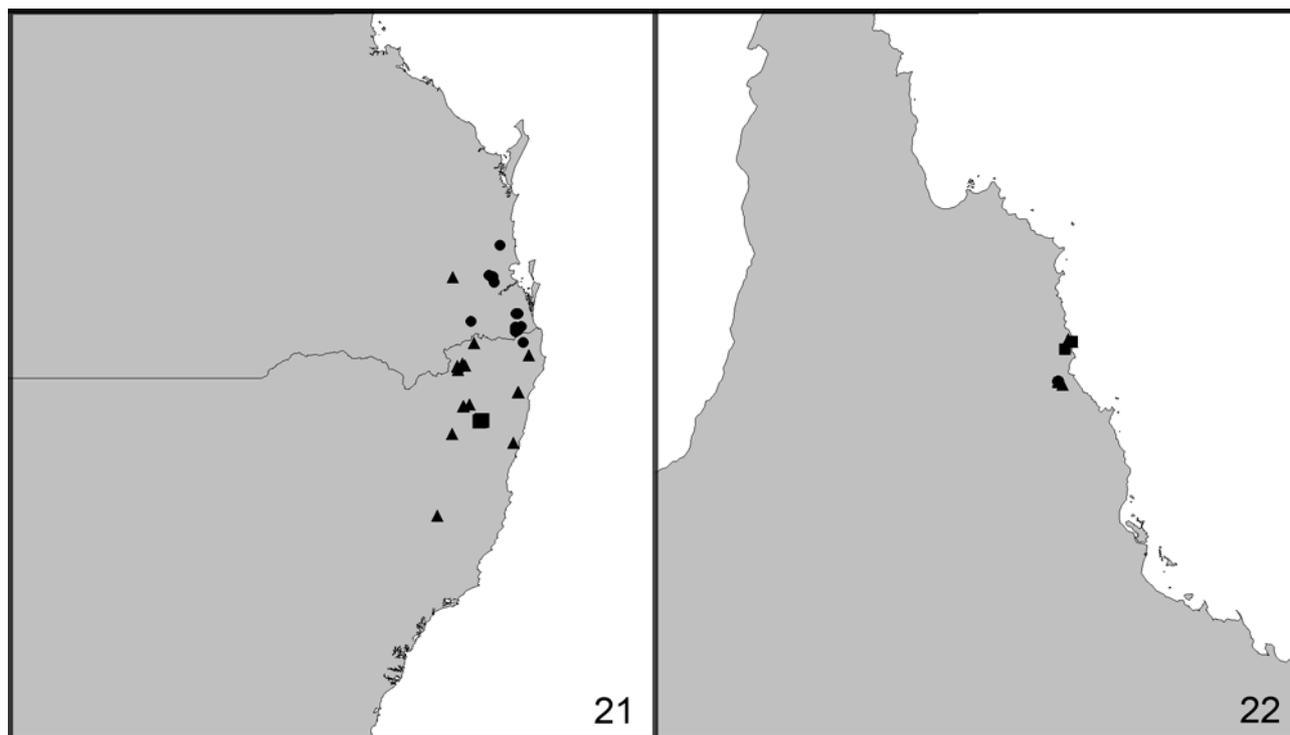
FIGURES 19–20. Fig. 19, graph of head length versus head width. Fig. 20, graph of scape length versus head width.

Leptomymex ramorniensis sp. n.

(Figs 16–18, 19–21, 24)

Types. Holotype worker from Ramornie State Forest, Track off T-Ridge Rd, 29°43'00"S 152°33'23"E, New South Wales, 4 Feb. to 9 Apr. 1993, M.Grey & G.Cassis (AMSA: AMSA K 170875); three paratype workers, same data as holotype (AMSA: AMSA K 170876, AMSA K 170877, AMSA K170878).

Diagnosis. Head relatively short (CI greater than 80, Fig. 19); antennae relatively short (SI less than 150, Fig. 20) and extending beyond the vertex of the head by less than half their length; palps short, not reaching the posterior of the head; hind tibial spurs with barbules longer than the width of the shaft.



FIGURES 21–22. Distribution of material examined during this study. Fig. 21, *L. aitchisoni* (triangle), *L. burwelli* (circle) and *L. ramorniensis* (square). Fig. 22, *L. dolichoscapus* (circle), *L. garretti* (triangle) and *L. pilosus* (square). Note the restricted range of most species, especially the set in Fig. 22, where all species are essentially sympatric.

Worker description. With head in full face view vertex of head flat, corners rounding evenly into sides of head. Sides of head weakly curved, head widest posterior to the eyes, head relatively short and wide in comparison with other species. Eyes relatively small and placed posterior to a line drawn across the mid-length of the head. Antennal scapes relatively short surpassing the vertex by about half its length. Palps relatively short, extending about $\frac{3}{4}$ the length of the underside of the head, palp formula 6, 4. Anterolateral hypostoma reduced to a thin sclerite, medial hypostoma weakly notched. Mesonotum without a raised anterior region. Dorsum of propodeum short, less than $\frac{1}{3}$ the length of the propodeal declivity. Legs short in comparison with the other species of micro-*Leptomymex*. Hind tibial spur with well developed barbules (barbules longer than the width of the shaft), basal section smooth. Petiolar scale present, ridged and with a distinct angle dorsally, in profile acutely angular, weakly inclined anteriorly, anterior and posterior faces of the scale approximately equal in length. Head, mandibles and mesosoma uniformly brown, legs and antennae lighter, gaster darker. Erect setae found only on the clypeus and gaster. Dense white adpressed pilosity of equal length on all surfaces.

Measurements. Worker ($n = 12$) - CI 81–91; EL 0.16–0.19; HL 0.77–0.90 HW 0.66–0.78; MTL 0.62–0.72; SI 127–143; SL 0.87–1.05; WL 1.11–1.37.

Additional material examined. New South Wales: Ramornie S.F., track off T-Ridge Rd. (Grey,M. & Cassis,G.) (AMSA, ANIC); Ramornie SF, Headwaters of Valorem Ck., track off Mt. Tindall Rd (Cassis,G. & Grey,M.) (ASMA); Ramornie SF, Mt. Tindall Rd (Cassis,G. & Grey,M.) (ASMA).

Comments. *Leptomyrmex ramorniensis* is known only from Ramornie State Forest, near Grafton, north-eastern New South Wales. Given the extensive trapping program undertaken in this region by NEFBS (Grey & Cassis, 1994) and the wide distribution found for the closely related *L. aitchisoni*, it seems likely that this single forest represents the total range of the species.

This species is morphologically distinct from all other micro-*Leptomyrmex* species and is in some ways the least typical *Leptomyrmex* species so far known. It differs in having a shorter and wider head and relatively short antennae, palps and legs.



FIGURES 23–24. Fig. 23, hind tibial spur of *L. burwelli*. Fig. 24, hind tibial spur of *L. ramorniensis*.

Acknowledgments

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