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A KEY TO *CAMPONOTUS* MAYR OF AUSTRALIA

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ABSTRACT

This key has been constructed to allow identification of 91 species and 10 subspecies of *Camponotus* workers found in Australia. Species recognized in material examined have been divided into 23 groups and are recorded in a checklist of valid and invalid names, authors, year described and locations of type specimens. Abbreviations are listed for type locations and measurements. A key to the 23 groups is provided followed by a key to each species. Brief diagnoses of the species and distribution maps of material examined are located throughout the key. Diagnoses and keys to the species are placed on adjacent pages for user benefit. A table of relevant character states is provided in the Appendix. Described species not included in the key are recorded in the Appendix. This key is based on characters selected for user convenience and no attempt has been made to correlate the groups with their phylogeny.

Key words: Taxonomy, Hymenoptera, Formicidae, Formicinae, *Camponotus*, distribution

INTRODUCTION

In this paper, a key is presented to allow identification of workers from the species and subspecies of the ant genus *Camponotus* found in Australia. Literature is now available for classifying Australian ants to subfamily and genus (Bolton, 1995; Shattuck, 1999). Little is known of the biology of *Camponotus* ants even though species inhabit all parts of Australia occurring in variable size populations. Species of the *macrocephalus* group nest in vegetation where major workers with their flat truncated heads guard the entrance to their nest (McArthur & Shattuck, 2001), while other species are known to nest in the ground. Many are nocturnal foragers but some forage diurnally. Some are known as “sugar ants” (Froggatt, 1905), some are known to have mutual relationships with butterflies (Braby, 2000), to assist in revegetating disturbed sites by transporting seed (McArthur, 2003b), and to have lived for 23 years (Haskins, 1992). Some notes on biology have been recorded (Greenslade, 1979; Shattuck, 1999). The taxonomy of the genus *Camponotus* is complicated by the wide variation in color, profile and integument of the worker castes within a species. However pilosity is a good character for matching collections of major, medium and minor worker castes because the number and placement of setae (seta, singular; a sclerotized hair like projection, not to be confused with spines on the inner margins of tibiae) is relatively consistent across workers in most Australian species.

Depositories of Type Material

AMS = Australian Museum, Sydney, Australia; ANIC = Australian National Insect Collection, Canberra, Australia; BMNH = The Natural History Museum, London, U.K.; MCG = Museo Civico di Storia Naturale “Giacomo Doria”, Genoa, Italy; MCZ = Museum of Comparative Zoology, Harvard, Cambridge, Massachusetts, U.S.A.; MHNG = Muséum d'Histoire Naturelle, Geneva, Switzerland; NMHW = Naturhistorisches Museum, Vienna, Austria; NHMB = Naturhistorisches Museum, Basel, Switzerland; NMV = Museum of Victoria, Melbourne, Australia; OUM = Oxford University Museum, Oxford, U.K.; SAMA = South Australian Museum, Adelaide, Australia; ZMB = Museum für Naturkunde an der Universität Humboldt zu Berlin, Germany.

Measurements.

Terms are illustrated in Fig. 1. All measurements are expressed in millimetres.

Declivity (D). Length from the center of angle to junction of propodeum with pedicel.

Eye length (EL). Maximum longitudinal length, in dorsal view.

Frontal carinae width (FCW). Maximum distance between carinae, in dorsal view.

Head length (HL). Maximum length measured along center-line of head from anterior margin of clypeus to posterior margin of head, in dorsal view.

Head width (HW). Maximum head width in dorsal view.

Propodeal dorsum (PD). Length from center of angle to anterior margin of the propodeum.

Pronotal width (PW). Maximum width of pronotum in dorsal view.

Scape Index (SI) Ratio scape length / head width.

Scape length (SL). The straight-line length from base, exclusive of basal condyle, to apex.

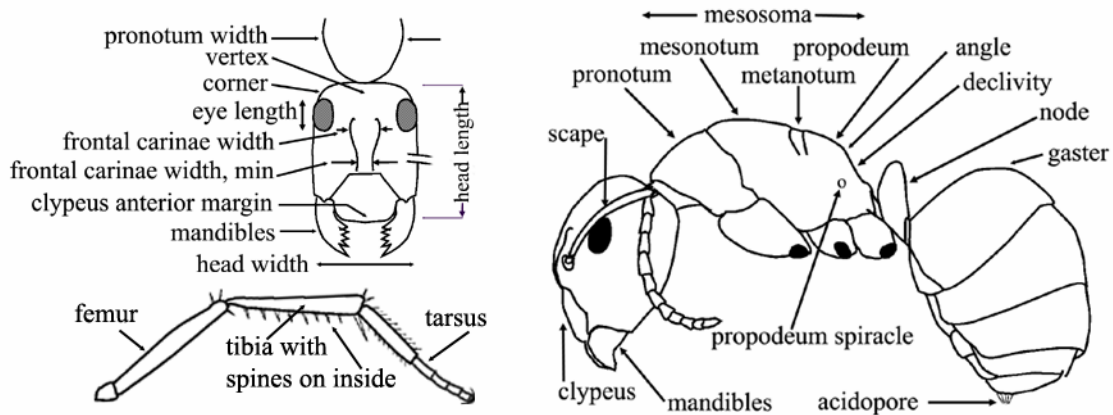


Fig. 1. *Camponotus* worker. Morphology of the head in dorsal view, leg in front view, body in lateral view and some terms used in the text.

TAXONOMIC HISTORY AND CLASSIFICATION

The genus *Camponotus* has been placed in the subfamily FORMICINAE whose members possess a distinctive acidopore (appearing as a cone fringed with fine setae in Fig. 2), a single node on the pedicel and lacking a sting. *Camponotus* can be confused with members of the subfamily DOLICHODERINAE where the acidopore is replaced by a slit as shown in Fig.3.

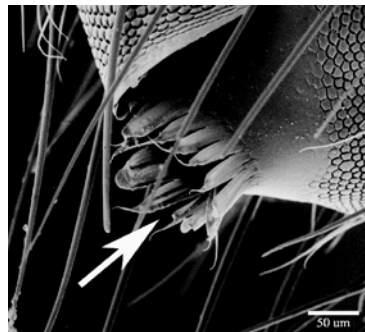


Fig. 2. Side view of *C. loweryi* showing acidopore typical of subfamily FORMICINAE.

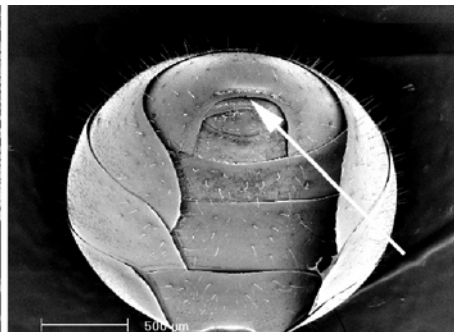


Fig. 3. Posterior view of *Dolichoderus* sp. typical of subfamily DOLICHODERINAE.

Camponotus and *Colobopsis* were described as separate genera (Mayr, 1861). *Colobopsis* was proposed as a subgenus of *Camponotus* (Emery, 1889) and that union has been accepted. Species of *Camponotus* of the world have been divided into numerous groups of species named subgenera (Emery, 1925) and in particular for 'Ancien Continent et Australie' where 21 groups were described. Only two of Emery's groups, viz. *Colobopsis* (as *macrocephalus*) and *nigriceps* have been continued herein as groups 2 and 3. Characters defining groups 2, 3 and 4 have been established previously (McArthur & Adams, 1996; McArthur & Shattuck, 2001; Shattuck & McArthur, 2002) and incorporated into this key, while 20 other groups are proposed for the first time.

Over the last 185 years, 163 species and subspecies of *Camponotus* have been described from Australia. Of these, 28 are invalid names through synonymy or unavailability of a name, leaving a total of 135 valid species and subspecies (Bolton, 1995). Based on the material examined by the author from over 5000 localities, 101 species and subspecies are recognized. Of the 34 taxa not recognized in this study, 6 have types which are believed to be lost (Appendix 1).

Twenty nine subspecies have been described from Australia although the concept is generally considered undesirable. Already 12 of these subspecies have been raised to species rank; three of which resulted from morphological and molecular studies (McArthur & Adams, 1996; McArthur, Adams & Shattuck, 1997) and seven from rigorous morphological examination (McArthur & Shattuck, 2001; Shattuck & McArthur, 2002). It is outside the scope of this paper to revise the status of the 10 subspecies included in this key. A lectotype has been designated for *C. darlingtoni* (McArthur, Adams & Shattuck, 1997).

This key has been constructed to allow identification of 91 species and 10 subspecies of *Camponotus* workers found in Australia. Species recognized in material examined have been divided into 23 groups and are recorded in a checklist of valid and invalid names, authors, year described and locations of type specimens. Abbreviations are listed for type locations and measurements. A key to the groups is provided followed by a key to each species. Brief diagnoses of the species and distribution maps of material examined are located throughout the key. Diagnoses and keys to the species are placed on adjacent pages for user benefit. A table of characters is provided as an appendix. This key is based on characters selected for the user's convenience and no attempt has been made to correlate the groups with their phylogeny. This key should be considered temporary as it will require amendment following the anticipated finding of new species. Twenty one new species have been described during the last eight years. Previously, definitions of the genus *Camponotus* (Bolton, 1995; Shattuck, 1999) in Australia stipulated the absence of a visible metapleural gland (a source of anti-bacterial secretions). *Camponotus thadeus* Shattuck 2004 possesses a metapleural gland and its inclusion in this key is justified since *Camponotus gigas* (a common ant of South East Asia) does possess such a gland and is classified as *Camponotus*. This emphasises the need for a global review of the characters defining the genus *Camponotus*.

Because minor workers comprise the caste most likely to be collected in the field, this key is based on characters of minor workers where possible. However in a few pairs of species, minor workers appear so morphologically similar, it is impossible to find characters to separate them. In these cases it is fortunate that the major workers have distinctive characters for determining identification. On the other hand there are a few pairs of morphologically similar species with workers which can only be separated by color so far. In these and many other cases, it would be advantageous to determine genetic distance by molecular techniques, one of which was employed in the study by McArthur & Adams (1996).

Characters in the key refer to minor workers, unless otherwise stated.

CHECK LIST OF *CAMPONOTUS* SPECIES INCLUDED IN THE KEY

The 101 species and subspecies have been recognized in material examined in this study and are assigned to groups numbered 1 to 23. Valid species names are recorded in bold type (invalid in not-bold).

- 1, *aureopilus* group
thadeus Shattuck, 2004 (ANIC)
- 2, *macrocephalus* group
anderseni McArthur & Shattuck, 2001 (SAMA)

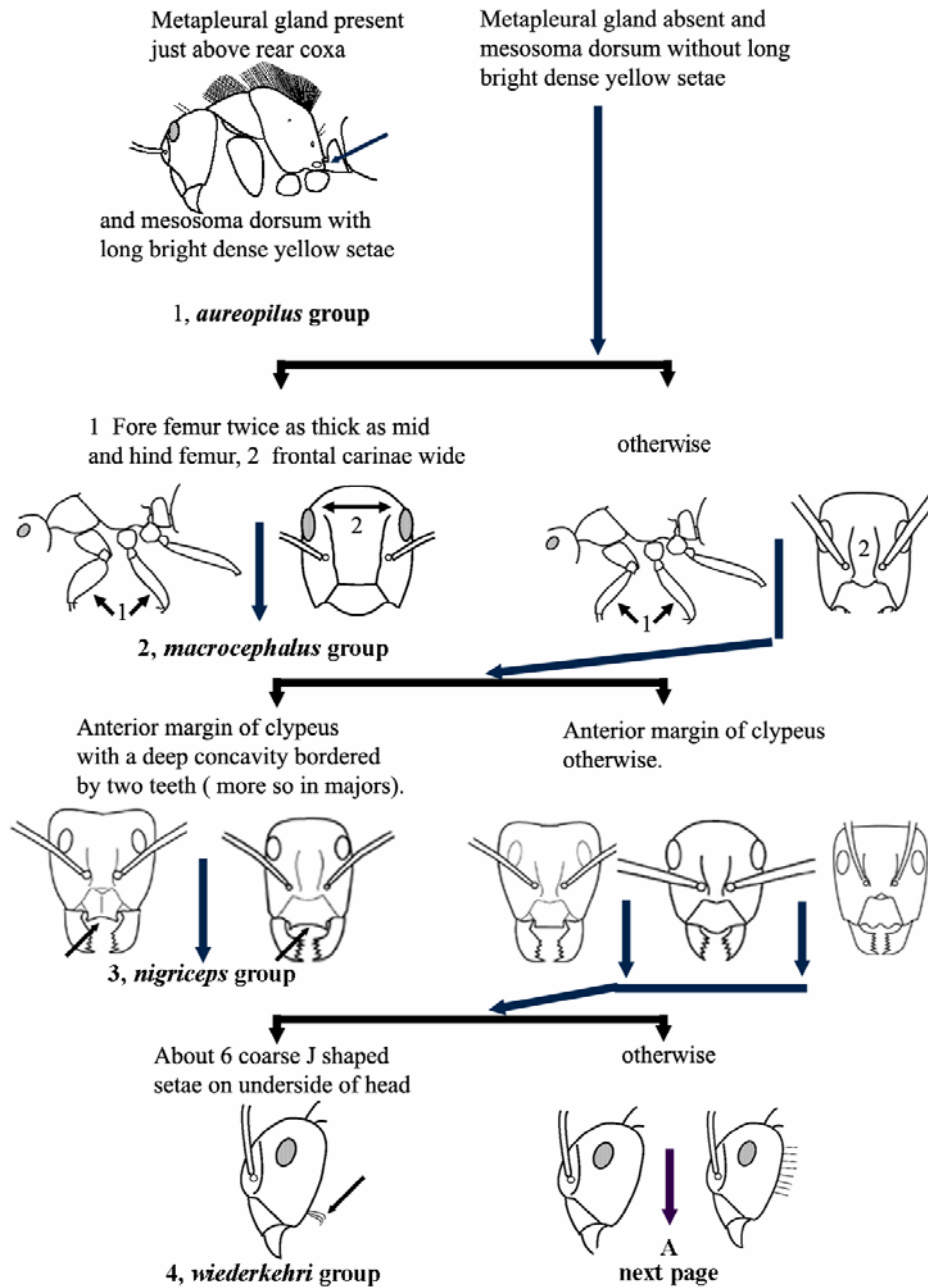
- annetteae* McArthur & Shattuck, 2001 (ANIC)
conithorax Emery, 1914 (MCG)
gasseri Forel, 1894 (MHNG)
 = *gasseri coloratus* Wheeler, 1934
 = *gasseri lysias* Forel, 1913
 = *gasseri obtusitruncatus* Forel, 1902
howensis Wheeler, 1927 (MCZ)
janeti Forel, 1895b (MHNG)
janforrestae McArthur & Shattuck, 2001 (ANIC)
mackayensis Forel, 1902 (MHNG)
 = *reticulatus mackayensis* Forel, 1902
macrocephalus Erichson, 1842 (ZMB)
 = *fictor* Forel, 1902
 = *factor augustulus* Viehmeyer, 1925
 = *semicarinatus* Forel, 1895b
sanguinifrons Viehmeyer, 1925 (ZMB)
vitreus Smith, 1860 (OUM)
 = *nitida* Smith, 1859
- 3, *nigriceps* group
- clarior* Forel, 1902 (MHNG)
 = *nigriceps clarior* Forel, 1902
consobrinus Erichson, 1842 (ZMB)
 = *consobrinus dimidiatus* Roger, 1863
 = *consobrinus obniger* Forel, 1902
dryandrae McArthur & Adams, 1996 (SAMA)
eastwoodi McArthur & Adams, 1996 (SAMA)
longideclivis McArthur & Adams, 1996 (SAMA)
loweryi McArthur & Adams, 1996 (SAMA)
nigriceps Smith, 1858 (BMNH)
 = *nigriceps perthiana* Wheeler, 1933
pallidiceps Emery, 1887 (MCG)
 = *nigriceps pallidiceps* Emery, 1887
prostans Forel, 1910 (MHNG)
- 4, *wiederkehri* group
- arenatus* Shattuck & McArthur, 2002 (ANIC)
aurocinctus Smith, 1858 (BMNH)
 = *midas* Froggatt, 1896
ceriseipes Clark, 1938 (NMV)
donnellani McArthur & Shattuck, 2002 (ANIC)
gouldianus Forel, 1922 (MHNG)
owensae Shattuck & McArthur, 2002 (SAMA)
perjurus Shattuck & McArthur, 2002 (ANIC)
postcornutus Clark, 1930a (NMV)
prosseri Shattuck & McArthur, 2002 (ANIC)
rufonigrus Shattuck & McArthur, 2002 (ANIC)
setosus Shattuck & McArthur, 2002 (ANIC)
terebrans Lowne, 1865 (BMNH)
 = *latrunculus victoriensis* Santschi, 1928
 = *myoporus* Clark, 1938
 = *testaceipes* Smith, 1858
versicolor Clark, 1930a (NMV)

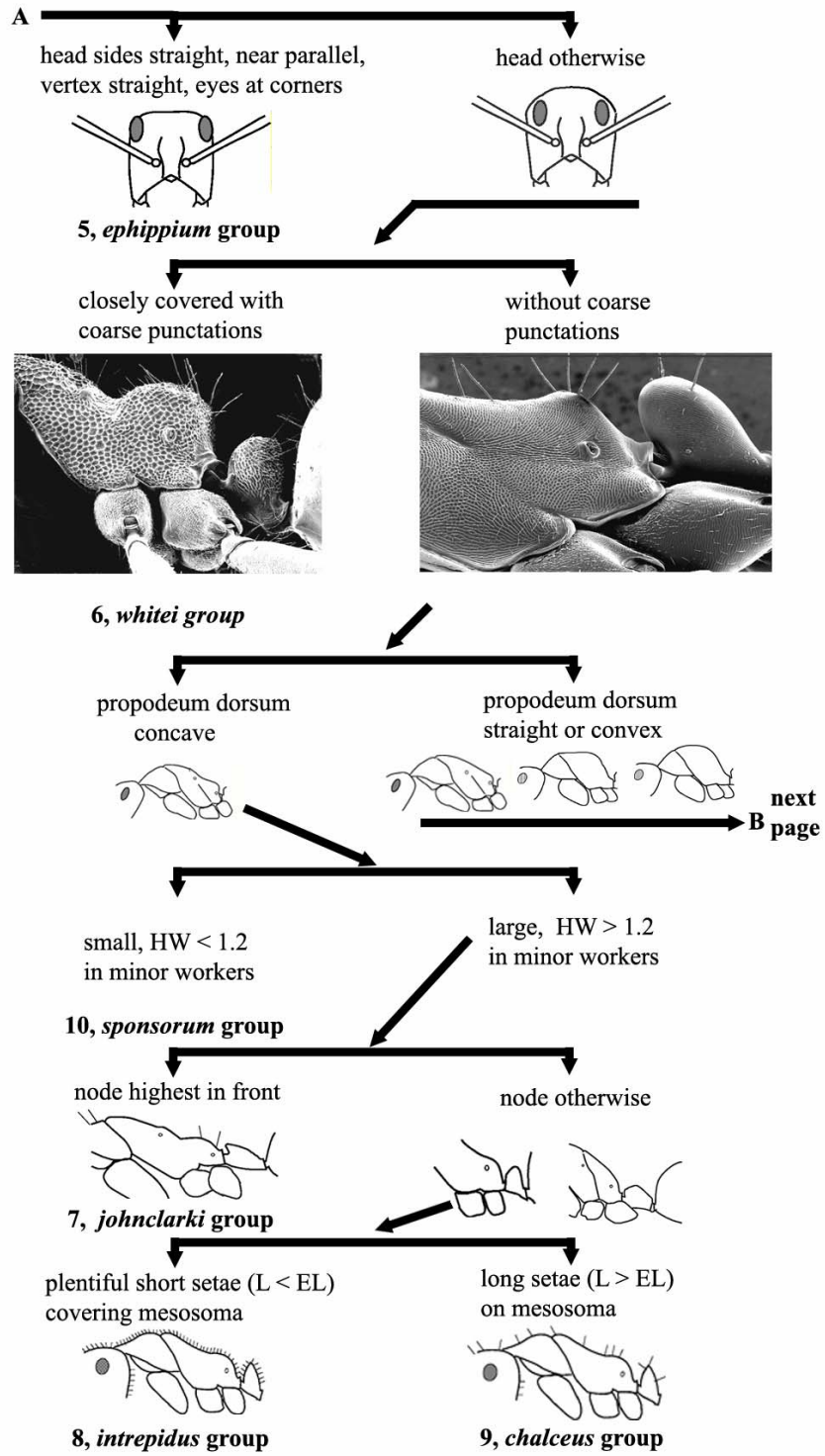
- wiederkehri** Forel, 1894 (MHNG)
 = *denticulatus* Kirby, 1896; Clark 1930b (worker redescribed)
 = *latrunculus lucidor* Forel, 1910
 = *latrunculus* Wheeler, 1915
- 5, *ephippium* group
afflatus Viehmeyer, 1925 (ZMB)
capito Mayr, 1876 (NHMW)
capito ebinithorax Forel, 1915 (MHNG)
dromas Santschi, 1919 (NHMB)
ephippium narses Forel, 1915 (MHNG)
ephippium Smith, 1858 (BMNH)
fieldellus Forel, 1910 (MHNG)
tasmani Forel, 1902 (MHNG)
- 6, *whitei* group
leae Wheeler, 1915 (SAMA)
whitei Wheeler, 1915 (SAMA)
 = *scutellus* Clark, 1930a
- 7, *johnclarki* group
johnclarki Taylor, 1992 (NMV)
 = *Notostigma sanguinea* Clark, 1930a
- 8, *intrepidus* group
intrepidus Kirby, 1819 (BMNH)
 = *agilis* Smith, 1858
 = *magnus* Mayr, 1862
intrepidus bellicosus Forel, 1902 (MHNG)
piliventris Smith, 1858 (BMNH)
suffusus Smith, 1858 (BMNH)
 = *schenki* Mayr, 1862
- 9, *chalceus* group
chalceus Crawley, 1915b (BMNH)
fergusoni McArthur, 2003a (SAMA)
hartogi Forel, 1902 (MHNG)
 = *ferruginipes* Poulton & Crawley, 1922
innexus Forel, 1902 (MHNG)
pawseyi McArthur, 2003a (SAMA)
- 10, *sponsorum* group
froggatti Forel, 1902 (MHNG)
sponsorum Forel, 1910 (MHNG)
- 11, *aeneopilosus* group
aeneopilosus Mayr, 1862 (NHMW)
nigroaeneus Smith, 1858 (BMNH)
- 12, *subnitidus* group
dorycus confusus Emery, 1887 (MCG)
rufus Crawley, 1925 (OUM)
subnitidus Mayr, 1876 (NHMW)
tricoloratus Clark, 1941 (NMV)
- 13, *maculatus* group
extensus Mayr, 1876 (NHMW)
fieldeae Forel, 1902 (MHNG)
maculatus humilior Forel, 1902 (ANIC)
novaehollandiae Mayr, 1870 (NHMW)

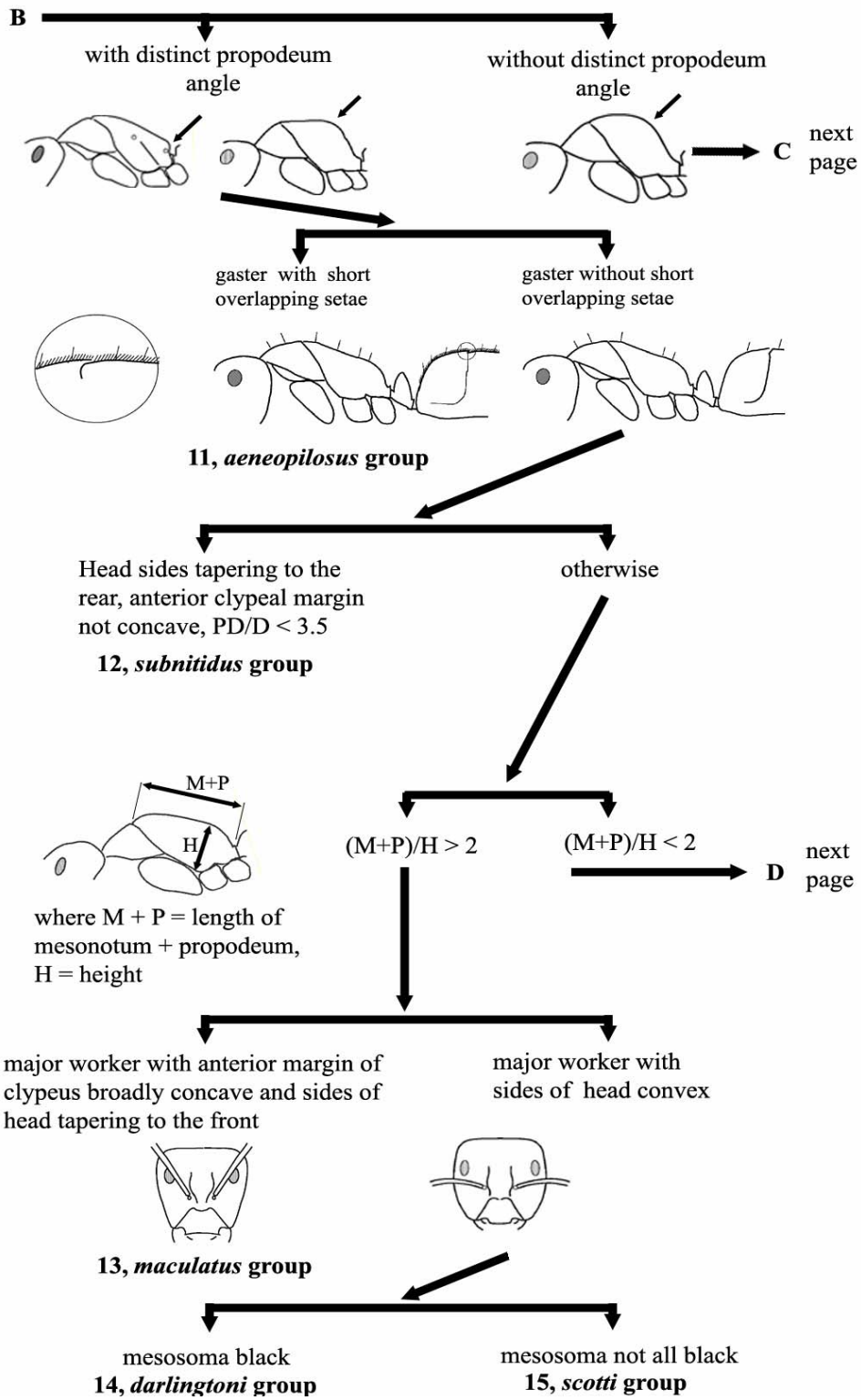
- oxleyi* Forel, 1902 (MHNG)
spenseri Clark, 1930b (NMV)
 = *reticulatus* Kirby, 1896
villosus Crawley, 1915a (BMNH)
- 14, *darlingtoni* group
cinereus amperei Forel, 1913 (MHNG)
claripes elegans Forel, 1902 (MHNG)
darlingtoni Wheeler, 1934 (MCZ)
 = *rotnesti* Donisthorpe, 1941
inflatus Lubbock, 1880 (not known)
 = *aurofasciatus* Wheeler, 1915
pitjantjatarae McArthur, 2003a (SAMA)
- 15, *scotti* group
cinereus Mayr, 1876 (NHMW)
claripes marcens Forel, 1907b (MHNG)
longifacies McArthur, 2003a (ANIC)
scotti McArthur, 2003a (SAMA)
scratius Forel, 1907b (MHNG)
- 16, *esau* group
arcuatus Mayr, 1876 (NHMW)
esau Forel, 1915 (MHNG)
- 17, *gibbinotus* group
cowlei Froggatt, 1896 (AMS)
discors Forel, 1902 (MHNG)
gibbinotus Forel, 1902 (MHNG)
- 18, *walkeri* group
adami Forel, 1910 (MHNG)
walkeri Forel, 1893 (MHNG)
- 19, *armstrongi* group
armstrongi McAreavey, 1949 (NMV)
macareaveyi Taylor, 1992 (NMV)
 = *sanguinea* McAreavey, 1949
- 20, *evae* group
evae Forel, 1910 (MHNG)
rudis McArthur, 2003a (ANIC)
tristis Clark, 1930a (NMV)
- 21, *rubiginosus* group
evae zeuxis Forel, 1915 (MHNG)
lownei Forel, 1895a (MHNG)
rubiginosus Mayr, 1876 (NHMW)
simpsoni McArthur, 2003a (SAMA)
- 22, *oetkeri* group
michaelseni Forel, 1907b (MHNG)
oetkeri Forel, 1910 (MHNG)
- 23, *claripes* group
claripes Mayr, 1876 (NHMW)
claripes minimus Crawley, 1922 (OUM)
eremicus Wheeler, 1915 (SAMA)

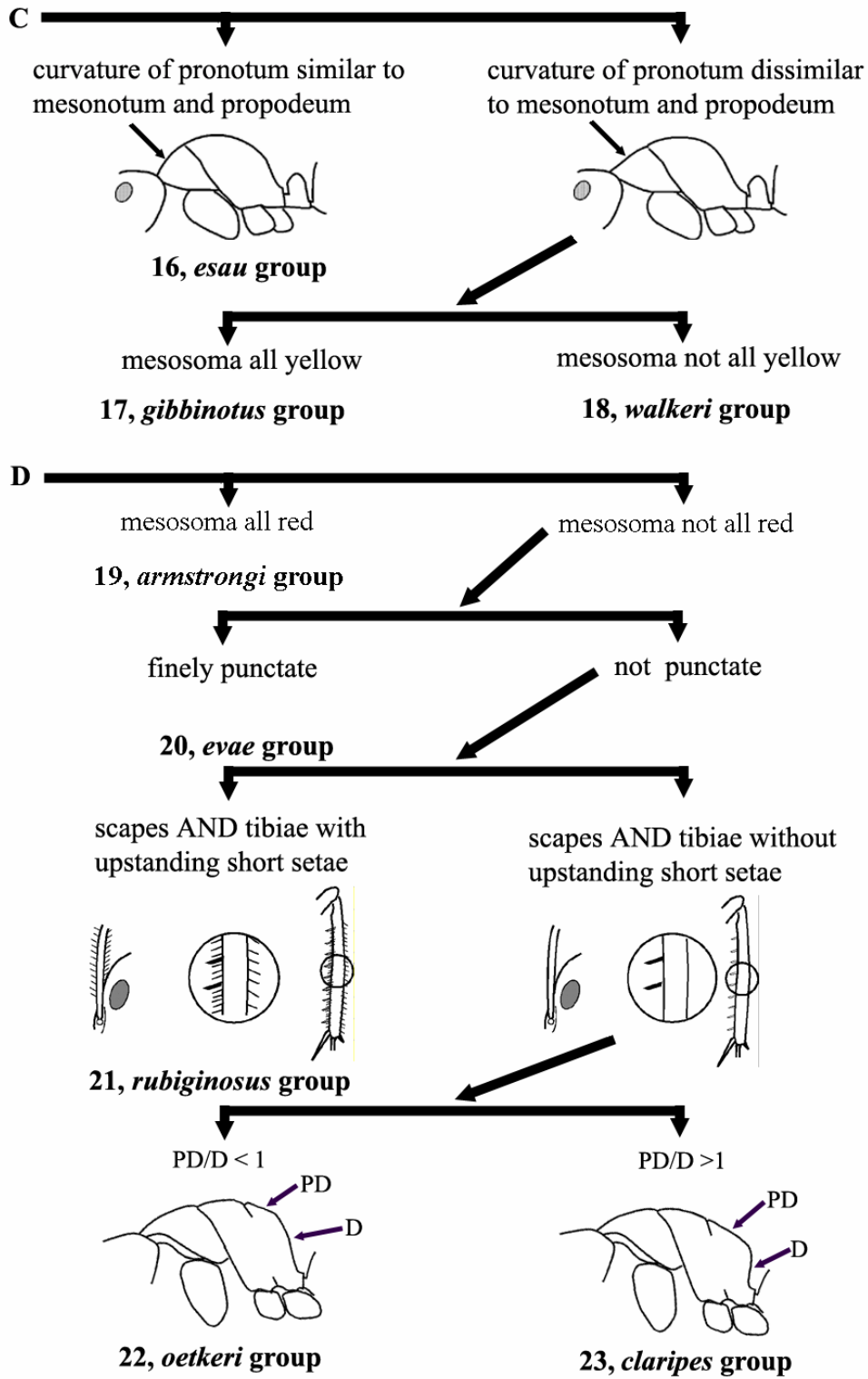
KEY TO GROUPS OF SPECIES

All characters in the key refer to minor workers, unless otherwise stated.





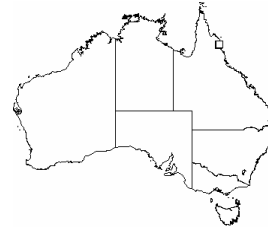
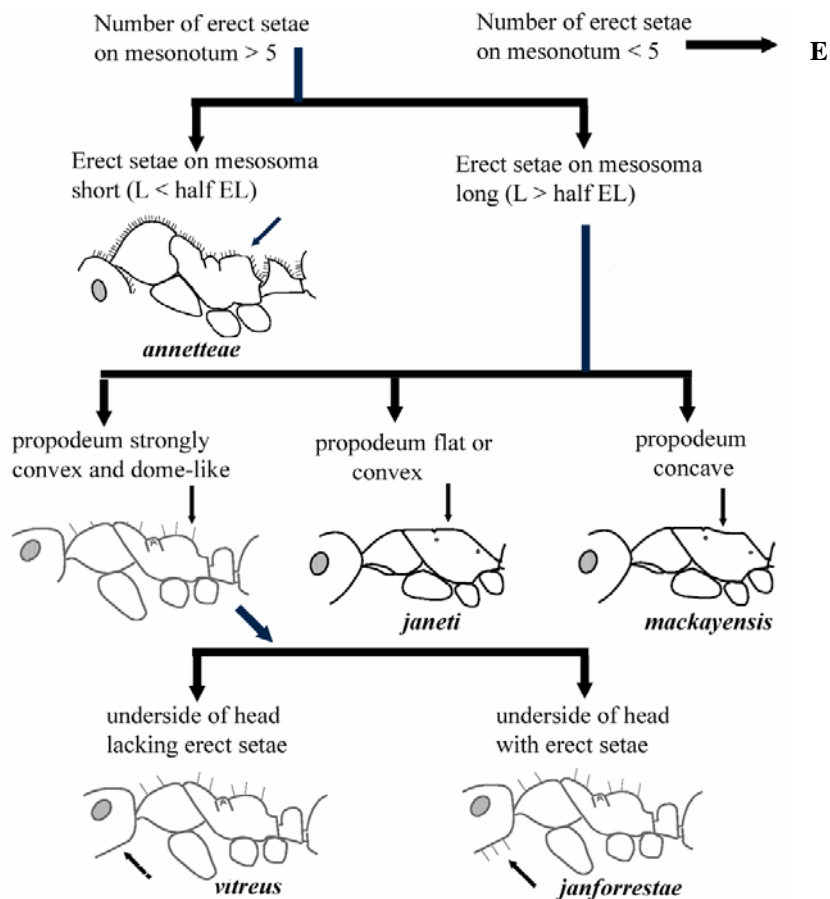




KEY TO SPECIES

1, *aureopilus* group*Camponotus thadeus* Shattuck

Sole species in group. Worker. HW 2.00 - 3.20; HL 2.15 - 2.80; PW 1.85 - 2.15. Black; mesonotum, propodeum and anterior gaster with dense bright yellow setae up to 1 mm long, scapes and tibiae with short setae raised to 20°, no erect setae on underside of head; mesosoma finely reticulate, head finely punctate; metapleural gland opening 0.25 - 0.27; head sides straight tapering forward, widest behind eyes. Major worker. Vertex feebly concave; eyes distant from corners by more than EL; anterior clypeal margin feebly projecting, median section concave between two rounded convexities. Minor worker. Anterior clypeal margin feebly projecting, mostly straight; vertex straight; eyes near corners.

2, *macrocephalus* group

Camponotus annetteae McArthur & Shattuck

Worker. HW 1.40; HL 1.50; PW 1.40. Major worker not yet described. Minor worker. Entirely red; mesosoma, under head, scapes and tibiae covered with dense, erect, short setae < EL; propodeal dorsum nearly hemispherical; node summit sharp, pointing forward in lateral view, concave in rear view; vertex slightly convex in front view, angular in lateral view; clypeus convex in all directions, anterior margin convex.

***Camponotus janeti*** Forel

Worker. HW 0.95 - 1.70; HL 1.00 - 2.00; PW 0.70 - 1.50. Head, mesosoma, legs dark brown; mesosoma, under head covered with dense erect setae nearly EL; scapes and tibiae with short setae raised to 45°; eyes looking sideways. Major worker. Head sides straight; vertex convex; anterior clypeal margin, feebly concave; front of head coarsely punctate, straight anterior separated from posterior by a curve; propodeal dorsum straight, angle nearly 135°; node summit blunt. Minor worker. Head sides straight, tapering forward; vertex convex; anterior clypeal margin projecting feebly convex; front of head finely punctate, not truncate; propodeal dorsum straight, angle well rounded nearly 150°; metanotum distinct.

***Camponotus mackayensis*** Forel

Worker. HW 1.00 - 1.15; HL 1.00 - 1.70; PW 0.80 - 1.05. Red-brown, pronotum lighter than mesonotum; propodeal dorsum a shallow concavity; long erect setae on most surfaces including scape. Major worker. Head sides straight; vertex straight, anterior half coarsely punctate, clypeus oval, widest at truncation, anterior margin narrow; node summit blunt; metanotum a wide shallow groove. Minor worker. Head sides anterior half tapering forward; vertex slightly convex between widely rounded corners; anterior clypeal margin projecting, convex; propodeal dorsum straight, angle well rounded nearly 150°; metanotum a distinct vee; propodeal dorsum anterior inclined upward to a ridge then shallowly concave, then a wide angle; node summit rounded.

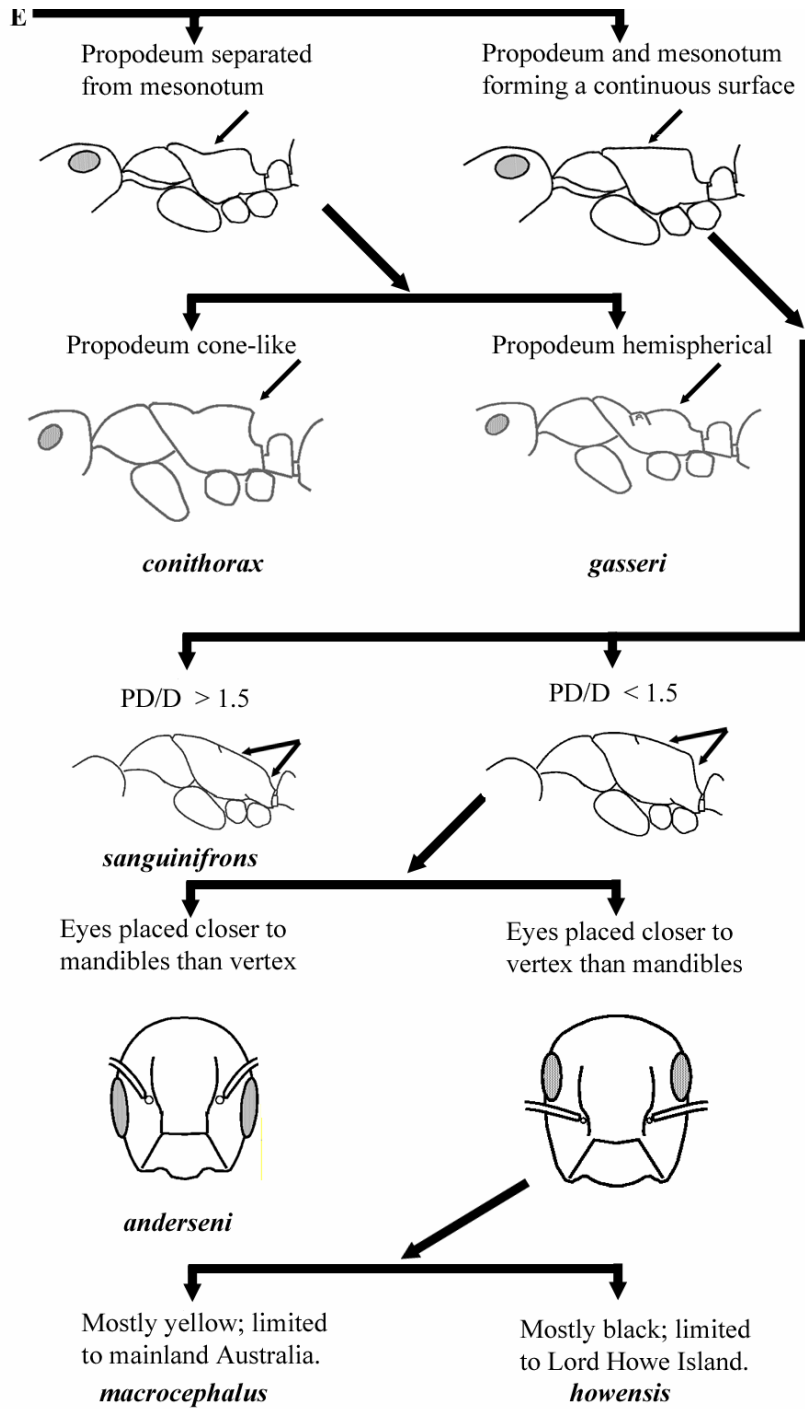
***Camponotus janforrestae*** McArthur & Shattuck

Worker. HW 1.6; HL 1.8; PW 1.2. Major worker not yet described. Minor worker. Black covered in long and short erect white setae including under head, scapes and tibiae; propodeum a hemispherical hump; node summit rounded; head sides straight tapering forward; vertex rounded; clypeus wide, glossy, anterior margin feebly projecting, in center a narrow concavity bounded on each side by a tooth.

***Camponotus vitreus*** Smith

Worker. HW 0.85 - 1.55; HL 0.85 - 1.55; PW 0.60 - 1.05. Black to dark brown; glossy; propodeum hemispherically domed; all surfaces excepting under head covered with erect long setae; node summit sharp; dimorphic. Major worker. Head sides straight, feebly tapering forward; clypeus tapering to a narrow convex anterior margin, in lateral view anterior clypeus straight, smoothly truncated from convex posterior clypeus. Minor worker. Head sides straight tapering forward; clypeus wide, anterior margin convex projecting.





Camponotus conithorax Emery

Worker. HW 1.5 - 2.1; HL 1.6 - 2.3; PW 1.1 - 1.3. Dark brown; glossy; metanotal spiracles well below dorsum; erect setae mostly confined to gaster. Major worker. Head sides straight, nearly parallel; clypeal median portion wide, anterior margin projecting, bounded laterally with angles. Minor worker. Head sides straight, tapering forward, clypeal median portion wide, sides tapering rearward, bounded laterally with angles, feebly concave between.

***Camponotus gasseri*** Forel

Worker. HW 0.9 - 1.6; HL 1.0 - 1.7; PW 0.65 - 1.2. Black to brown; glossy; anterior head often red; metanotum with spiracles above dorsum; propodeum hemispherically domed; erect setae confined to gaster and front of head; node summit rounded; dimorphic. Major worker. Head sides straight, feebly tapering forward; anterior head striate, truncate; clypeus tapering to narrow convex anterior margin. Minor worker. Head sides straight, tapering forward; vertex flattish; clypeus wide, anterior margin convex, projecting; anterior head finely punctate.

***Camponotus sanguinifrons*** Viehmeyer

Worker. HW 0.75 - 1.10; HL 0.85 - 1.40; PW 0.45 - 0.55. Major worker. Dark brown, mandibles and legs lighter; mesonotum a gentle curve; head sides straight, parallel; clypeus, mandibles and cheeks forming flat circular area, coarsely punctate, with few coarse longitudinal striations; plentiful, short, erect, club-like setae; clypeal lateral margins widest at centre of circular area; anterior margin short, straight. Minor worker. A few long erect setae under head and few more on gaster, sparse elsewhere; propodeal dorsum mostly straight and sloping downward; head sides straight, tapering slightly to front; anterior margin projecting, evenly convex, wide.

***Camponotus anderseni*** McArthur & Shattuck

Worker. HW 0.80 - 1.20; HL 0.90 - 1.30; PW 0.60 - 0.90. Light brown; glossy; dorsum of mesosoma flattish, metanotum distinct; mesosoma, under head lacking erect setae, slightly raised on tibiae; eyes elongate looking outward, nearer to mandibles than vertex; dimorphic. Major worker. Clypeus depressed, finely punctate, anterior margin convex. Minor worker. Clypeus wide, anterior margin convex, projecting.

***Camponotus macrocephalus*** Erichson

Worker. HW 0.90 - 1.70; HL 1.10 - 1.90; PW 0.70 - 1.20. Yellow brown; glossy; dorsum of mesosoma evenly flatly convex; erect setae confined to front of head and gaster; eyes placed near vertex; dimorphic. Major worker. Head sides straight, parallel; vertex straight; anterior head sharply truncated, deeply striate lengthwise and at 45°; clypeal median section clearly edged, parallel, anterior margin convex and posterior to mandible insertions. Minor worker. Head sides mostly straight, slightly tapering forward; vertex rounded; clypeus not truncate, anterior clypeal margin convex, projecting past mandibular insertions.

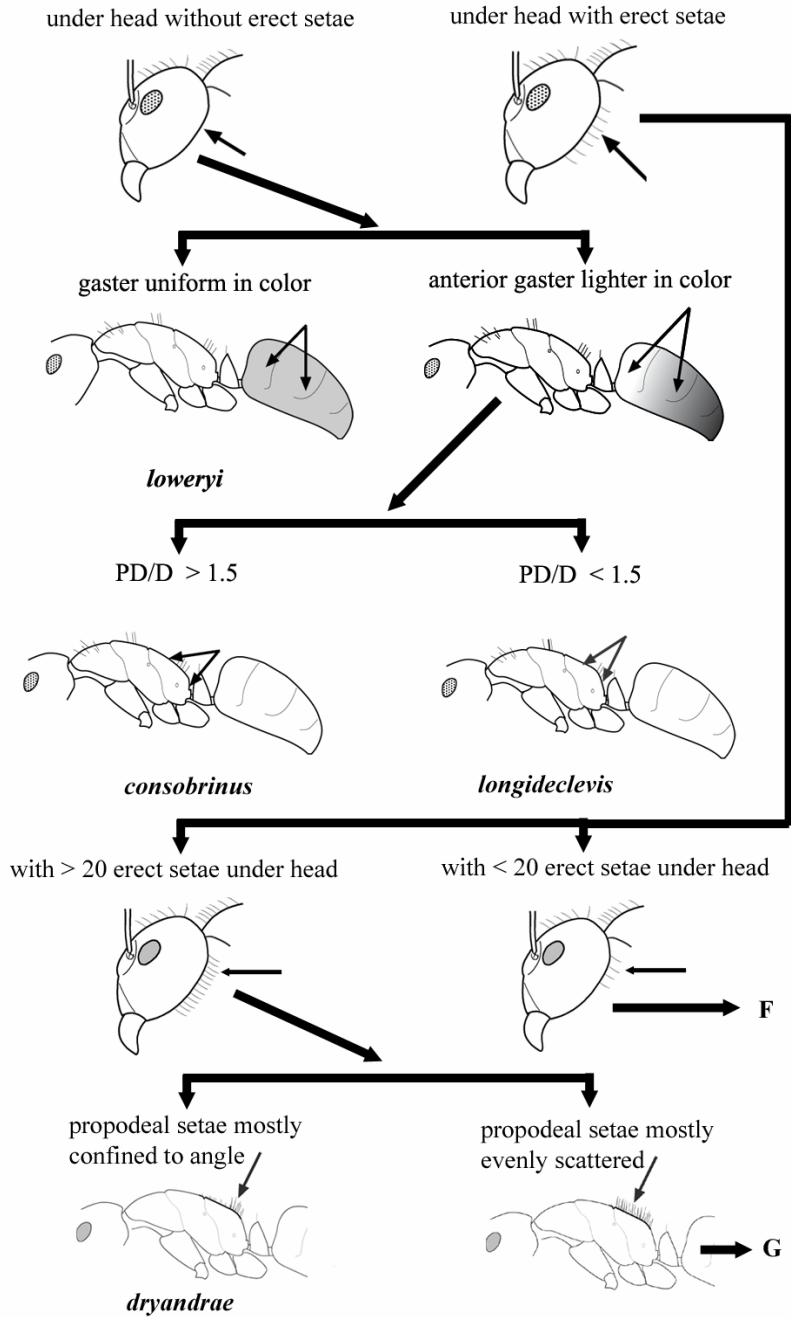


Camponotus howensis Wheeler

Black, otherwise similar to *macrocephalus*, confined to Lord Howe Is.

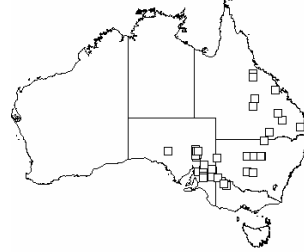


3, *nigriceps* group

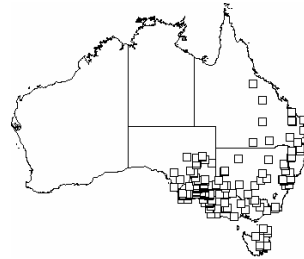


***Camponotus loweryi* McArthur & Adams**

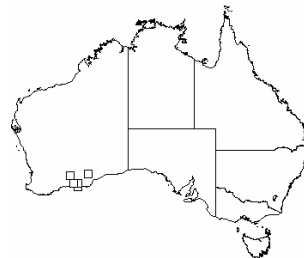
Worker. HW 1.60 - 4.05; HL 2.20 - 4.25; PW 1.50 - 2.50. Whole of gaster uniform in color; under head lacking erect setae, mesosoma with golden erect more plentiful on pronotum than propodeum, all pointing forward, tibiae and scapes with short setae raised to $< 5^\circ$; mesosoma dorsum evenly convex; node sharp; finely reticulate; short flat-lying setae sparse; polymorphic. Major worker. Head sides convex, tapering forward; metanotum distinct, narrow; eyes flat. Minor worker. Head sides straight, parallel; vertex convex; metanotum absent; eyes bulbous.

***Camponotus consobrinus* Erichson**

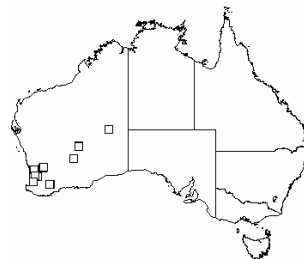
Worker. HW 1.30 - 3.30; HL 1.75 - 3.40; PW 1.4 - 2.30. Under head lacking erect setae, mesosoma with a few scattered golden erect setae, all pointing forward; tibiae and scapes with short setae raised to $< 5^\circ$; anterior gaster lighter color than posterior; mesosoma dorsum evenly convex; node sharp; finely reticulate; short flat-lying setae sparse; polymorphic. Major worker. PD/D about 1.5; head sides convex, tapering forward; metanotum distinct, narrow; eyes flat. Minor worker. PD/D about 2.5; head sides straight parallel; vertex convex; metanotum absent; eyes bulbous.

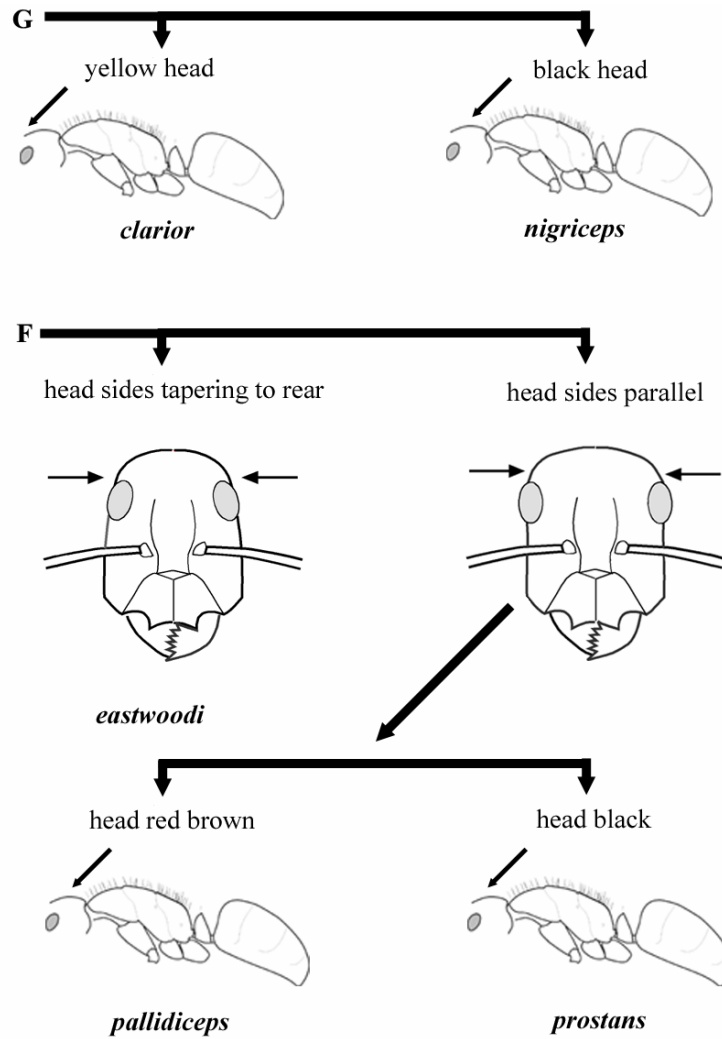
***Camponotus longideclevis* McArthur & Adams**

Worker. HW 1.70 - 3.50; HL 2.20 - 3.30; PW 1.5 - 1.90. Under head lacking erect setae, mesosoma with a few scattered golden erect setae, all pointing forward, short setae raised to $> 5^\circ$ on tibiae and to $< 5^\circ$ on scapes; mid-tibia inside with > 8 spikes; anterior gaster lighter color than posterior; mesosoma dorsum evenly convex; node sharp; finely reticulate; short flat-lying setae sparse; polymorphic. Major worker. PD/D about 1.2; head sides convex, tapering forward; metanotum distinct, narrow; eyes flat. Minor worker. PD/D about 1.5; Head sides straight parallel; vertex convex; metanotum absent; eyes bulbous.

***Camponotus dryandrae* McArthur & Adams**

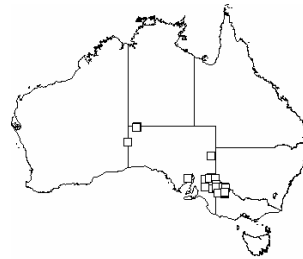
Worker. HW 1.70 - 3.90; HL 2.40 - 3.50; PW 1.60 - 2.5. Under head with a few long erect setae, mesosoma with scattered golden long fine erect setae, on propodeum confined to near angle; mesosoma with plentiful flat-lying short setae; tibiae with short setae raised to 30° ; scapes raised to 10° ; mesosoma dorsum evenly convex; node summit blunt; finely reticulate; polymorphic. Major worker. PD/D about 1.5; head sides convex, tapering forward; metanotum marked by fine lines; eyes flat. Minor worker. PD/D about 3; Head sides straight, parallel; vertex convex; metanotum absent; eyes bulbous.





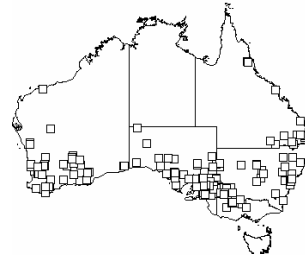
***Camponotus clarior* Forel**

Worker. HW 1.90 - 3.90; HL 2.50 - 3.50; PW 1.6 - 2.2. Mostly yellow; under head with plentiful long erect fine setae, mesosoma with scattered golden long fine erect setae (more plentiful anteriorly) interspersed with plentiful flat-lying short setae; tibiae and scapes with short setae raised to 30°; mesosoma dorsum evenly convex; node summit blunt; finely reticulate; polymorphic. Major worker. PD/D about 1.5; head sides convex, tapering forward; eyes flat; metanotum feeble. Minor worker. PD/D 3; Head sides straight parallel; vertex convex; metanotum absent; eyes bulbous.

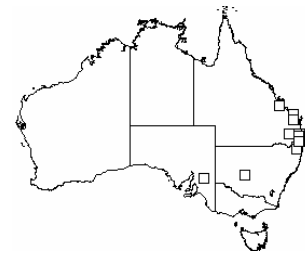


***Camponotus nigriceps* Smith**

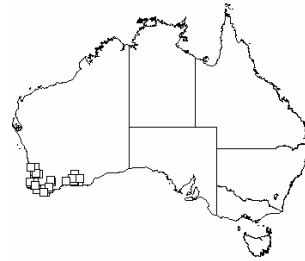
Worker. HW 1.60 - 4.10; HL 2.20 - 4.10; PW 1.4 - 2.6. Black head; under head with plentiful long erect fine setae, mesosoma with scattered golden long fine erect setae, plentiful flat-lying short setae; tibiae and scapes with short setae raised to 30°; mesosoma dorsum evenly convex; node summit sharp; finely reticulate; polymorphic. Major worker. PD/D about 1.5; head sides convex, tapering forward; metanotum marked by fine lines; eyes flat. Minor worker. PD/D about 3; head sides straight parallel; vertex convex; metanotum absent; eyes bulbous.

***Camponotus eastwoodi* McArthur & Adams**

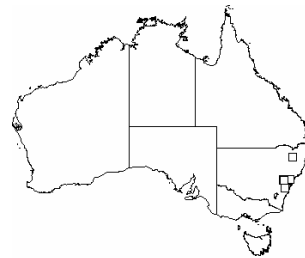
Worker. HW 1.60 - 4.10; HL 2.20 - 4.10; PW 1.4 - 2.6. Under head with a few long erect fine setae, more in minor workers; mesosoma with scattered golden long fine erect setae and plentiful flat-lying short setae; tibiae and scapes with short setae raised to 30°; mesosoma dorsum evenly convex; node summit sharp; finely reticulate; polymorphic; head and mesosoma black or dark brown. Major worker. PD/D about 1.5; head sides convex, tapering forward; metanotum marked by fine lines; eyes flat. Minor worker. PD/D 3; head sides straight, parallel; vertex convex; metanotum absent; eyes bulbous.

***Camponotus prostars* Forel**

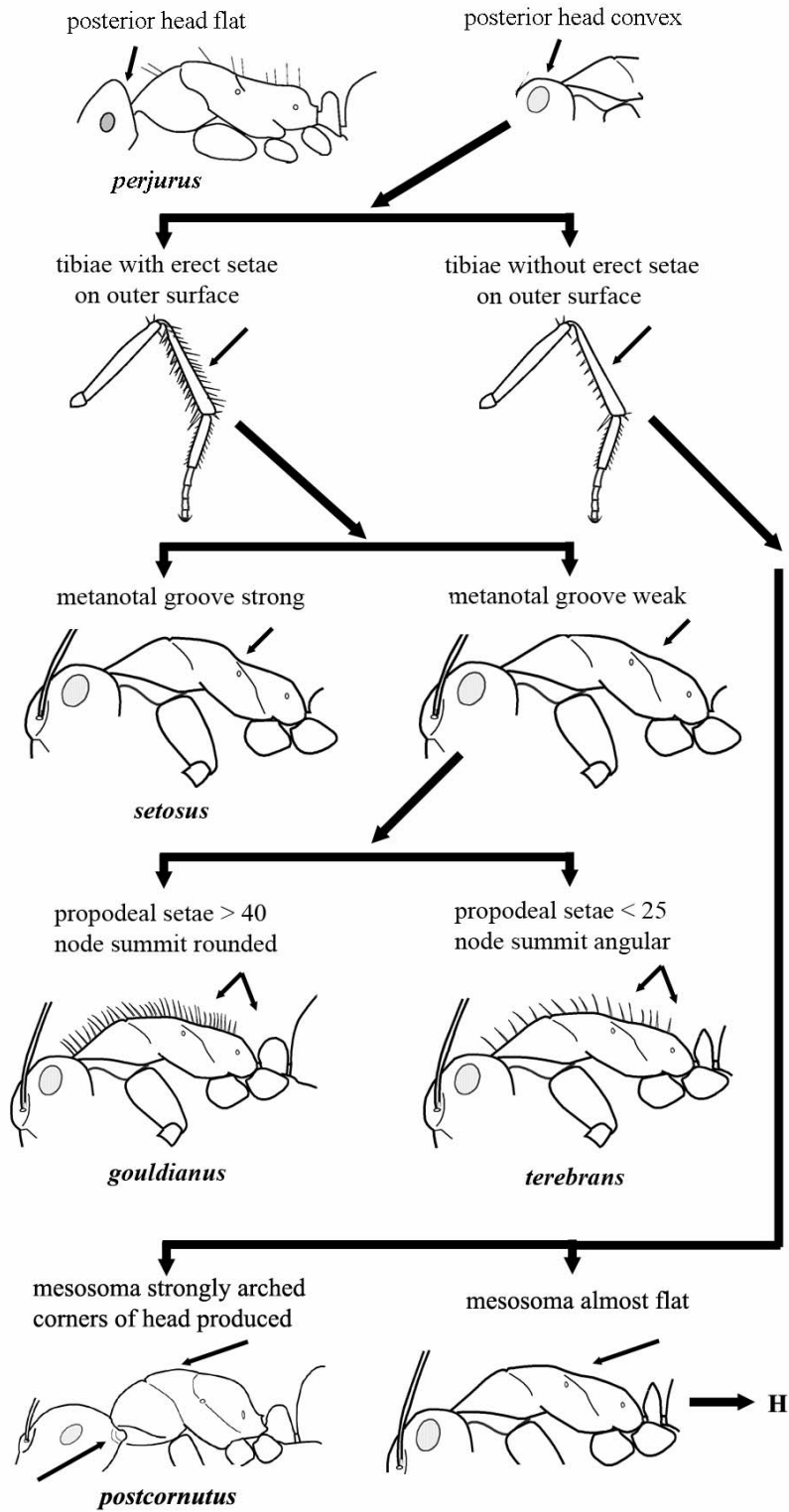
Worker. HW 1.90 - 2.00; HL 2.60 - 3.60; PW 1.5 - 2.2. Black head; under head with a few long erect setae, more with minor workers; mesosoma with a few scattered golden long fine erect setae; mesosoma with plentiful flat-lying short setae; tibiae and scapes with short setae raised to 30°; mesosoma dorsum evenly convex; node summit sharp; finely reticulate; polymorphic. Major worker. PD/D about 1.5; head sides convex, tapering forward; metanotum marked by fine lines; eyes flat. Minor worker. PD/D 3; head sides straight, parallel; vertex convex; metanotum absent; eyes bulbous.

***Camponotus pallidiceps* Emery**

Worker. HW 1.60 - 4.10; HL 2.20 - 4.10; PW 1.4 - 2.6. Light brown head; under head with a few long erect fine setae, more with minor workers; mesosoma with scattered golden long fine erect setae; mesosoma with plentiful flat-lying short setae; tibiae and scapes with short setae raised to 30°; mesosoma dorsum evenly convex; node summit sharp; finely reticulate; polymorphic. Major worker. PD/D about 1.5; head sides convex, tapering forward; metanotum marked by fine lines; eyes flat. Minor worker. PD/D 3; head sides straight, parallel; vertex convex; metanotum absent; eyes bulbous.

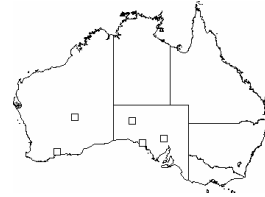


4, *wiederkehri* group

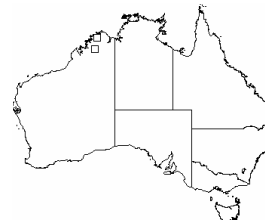


Camponotus perjurus Shattuck & McArthur

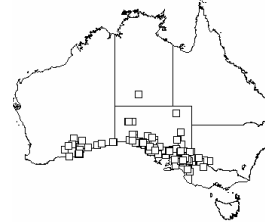
Worker. HW 1.2 - 1.8; HL 1.9 - 2.3; PW 1.4 - 1.55. Major worker not yet described. Minor worker. Purplish, tending iridescent; unique head, pronotum attached well below vertex, resembling *Iridomyrmex purpureus* in attachment; propodeal dorsum concave; a few scattered erect setae, none under head, on tibiae nor on scapes; head sides straight, tapering forward; vertex nearly semicircular; anterior clypeal margin projecting, convex; color mostly red-brown with gaster darker.

***Camponotus setosus*** Shattuck & McArthur

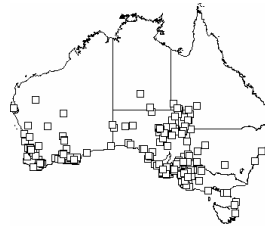
Worker. HW 1.6 - 1.7; HL 1.9 - 2.0; PW 1.5 - 1.54. Major worker not yet described. Minor worker. Gaster black, most of head, mesosoma and node black, remainder with red patches; antennae dark brown; pronotum and mesonotum form together an even, raised convexity followed by angular trough of metanotum and feebly convex dorsal surface of propodeum; entire body covered with dense flat-lying setae, erect setae absent from antennae.

***Camponotus gouldianus*** Forel

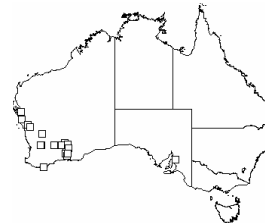
Worker. HW 1.6 - 4.7; HL 1.8 - 4.3; PW 1.1 - 2.7. Brown, legs lighter; propodeum with more than 40 erect short and long setae; abundant, overlapping, short, flat-lying setae on head and gaster; mesosoma flat and long; propodeal angle rounded. Major worker. Anterior clypeal margin nearly straight with angular corners; node summit blunt. Minor worker. Anterior clypeal margin feebly convex, strongly projecting, crenulate, anterior corners with wide angles; PD/D 3; node summit bluntly rounded.

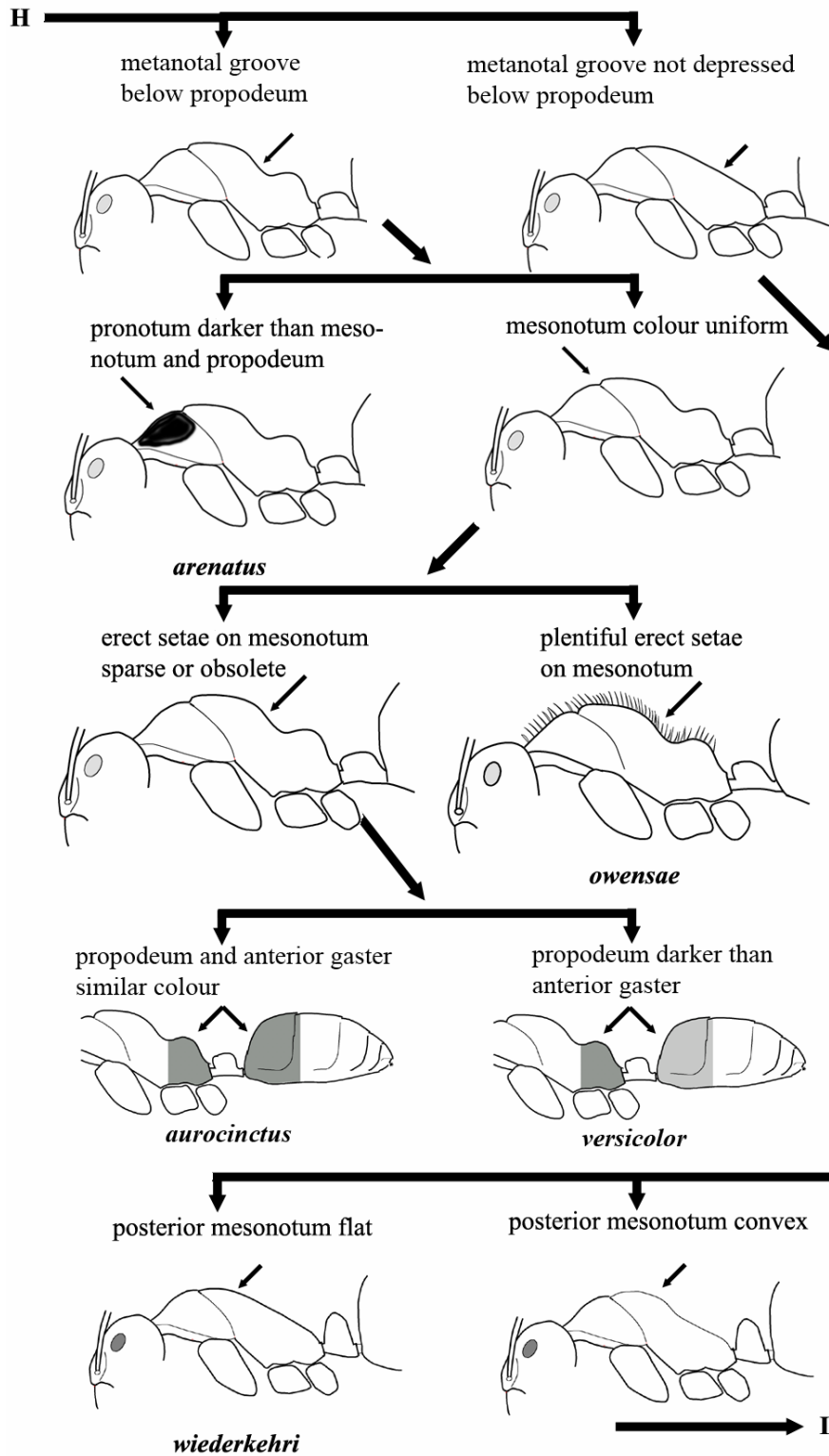
***Camponotus terebrans*** Lowne

Worker. HW 1.1 - 3.6; HL 1.3 - 3.28; PW 0.9 - 2.0. Head red-brown to black, mesosoma and node yellow to brown, gaster darker than mesosoma, legs lighter; propodeum with 10 to 25 erect setae; sparse short flat-lying setae on head and gaster; node summit angular. Major worker. Medial section of anterior clypeal margin straight, with rectangular corners; propodeum straight, angle well rounded; node summit sharp. Minor worker. Anterior clypeal margin medial section convex, strongly projecting; dorsal propodeum surface straight; node summit blunt.

***Camponotus postcornutus*** Clark

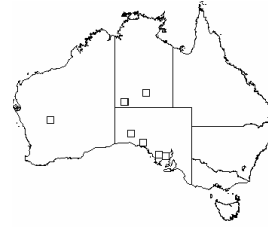
Worker. HW 2.0 - 4.9; HL 1.9 - 4.2; PW 1.7 - 3.2. Red brown, gaster darker; glossy; posterior corners of head in larger workers taper rearward into blunt protuberances; mesosoma dorsum evenly convex; angle rounded; front and under head, mesosoma, petiole, gaster and coxae with sparse reddish, long erect setae; polymorphic. Major worker. Medial section of anterior clypeal margin mostly straight, feebly projecting anteriorly with broad lateral angles, carina distinct; node summit moderately sharp. Minor worker. Anterior clypeal margin projecting feebly, clypeal carina sharp; PD/D about 2; node summit bluntly rounded.



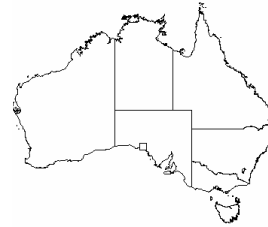


Camponotus arenatus Shattuck & McArthur

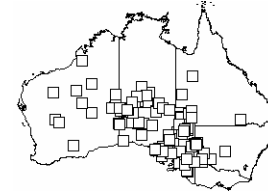
Worker. HW 1.5 - 1.8; HL 1.9 - 2.2. Major worker not yet described. Minor worker. Pronotum anterior regions dark red to black, distinctly darker than mesonotum and propodeum; metanotal groove depressed below level of anterior region of propodeum; node anterior face much shorter than posterior face; tibiae and scapes lacking erect setae; anterior clypeal margin broadly convex; propodeum lacking a distinct angle, PD/D about 1.5; node summit broadly convex; erect setae on all surfaces of head and mesosoma, node and gaster, absent from scapes and tibiae.

***Camponotus owensae*** Shattuck & McArthur

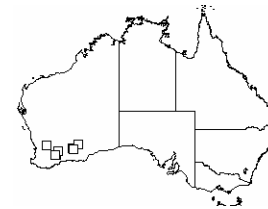
Worker. HW 1.6 - 2.0; HL 2.0 - 2.4; PW 1.4 - 1.60. Major worker not yet described. Minor worker. Entirely black; propodeum with a wide concavity and a posterior hump; metanotal groove depressed below level of anterior region of propodeum; node summit long and flat, its anterior face much shorter than posterior; setae on tibiae raised to 20°, none visible on scapes, otherwise overall plentiful white flat-lying, with a few erect; anterior clypeal margin projecting bounded by rounded angles.

***Camponotus aurocinctus*** Smith

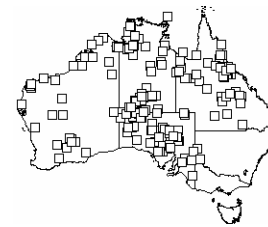
Worker. HW 1.6 - 4.9; HL 2.0 - 4.1; PW 1.5 - 2.6. Mesosoma uniform in color, red to black, first gastral tergite anterior similar in color to propodeum; metanotal groove depressed below level of anterior region of propodeum; propodeum with a gentle angle; erect setae absent from scapes, tibiae, node, sparse on head, mesosoma and gaster, 0 to 30 under head; finely and closely punctate; polymorphic. Major worker. Anterior clypeal margin feebly convex; node summit varying from a broad, blunt angle to uniformly convex. Minor worker. Anterior clypeal margin convex; node summit elongate.

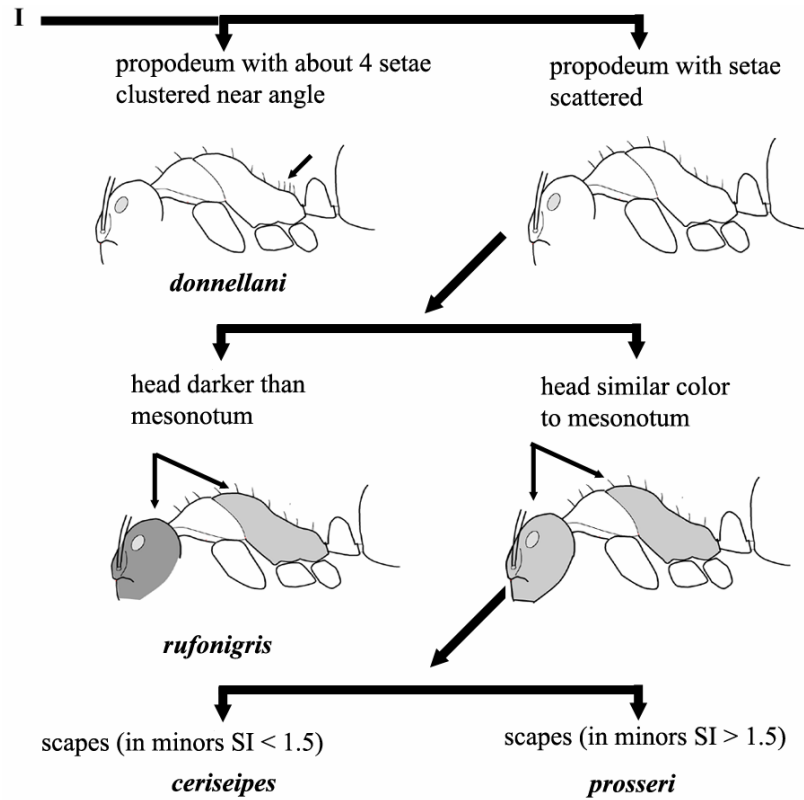
***Camponotus versicolor*** Clark

Worker. HW 1.8 - 3.4; HL 2.2 - 3.2; PW 1.4 - 2.5. First two gastral tergites distinctly lighter in color than propodeum, gastral tergites never with golden bands, otherwise similar to *aurocinctus*.

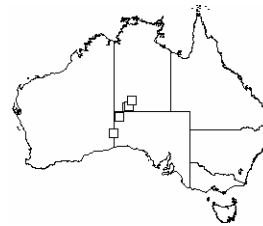
***Camponotus wiederkehri*** Forel

Worker HW 1.2 - 3.6; HL 1.5 - 3.3; PW 0.9 - 2.2. Yellow-red to dark brown, gaster darker; posterior section of mesonotum flat (or nearly so) immediately anterior of metanotal groove; erect setae plentiful, scattered, less on propodeal angle and declivity, absent from scapes, flat-lying on tibiae. Major worker. Anterior clypeal margin strongly projecting, straight, corners broadly angular; pronotum and mesonotum slightly raised, evenly convex; anterior section of propodeal dorsum feebly concave anteriorly and feebly convex posteriorly, angle widely rounded. Minor worker. Clypeus convex; anterior section of mesonotum feebly convex, remainder joins with propodeal dorsum to form a long flat surface ending in a widely rounded angle; PD/D about 3; entire body clothed with fine flat-lying short setae.

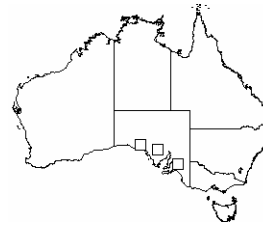


***Camponotus donnellani*** Shattuck & McArthur

Worker. HW 1.40; HL 1.58. Major worker not yet described. Minor worker. Head, mesosoma and node red with upper surfaces of head, pronotum and sometimes mesonotum with blotches of darker color; propodeum with at most 4 elongate erect setae near angle; anterior propodeal dorsum feebly concave, posterior straight; node summit broadly rounded; head sides nearly parallel; vertex rounded; anterior clypeal margin feebly projecting, broadly convex; long setae scattered on all surfaces, absent from scapes and tibiae; glossy.

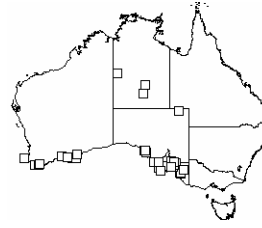
***Camponotus rufonigrus*** Shattuck & McArthur

Worker. HW 1.1 - 1.4; HL 1.3 - 1.6; PW 0.9 - 1.2. Major worker not yet described. Minor worker. Black head contrasting with red mesonotum; propodeum with more than 10 erect setae scattered; pronotum and mesonotum evenly convex; metanotum indistinct; propodeum concave anteriorly, flat posteriorly, angle rounded, PD/D about 1.5; anterior clypeal margin evenly convex, carina conspicuous; dorsal and under surfaces of head, mesosoma, petiole, gaster and coxa with sparse long erect setae; entire body with short indistinct flat-lying short setae; tibiae and scapes lacking erect setae.

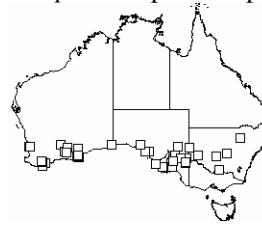


***Camponotus ceriseipes* Clark**

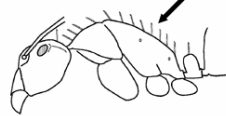
Worker. HW 1.2 - 4.1; HL 1.4 - 3.4; PW 1.0 - 2.5. Head same color as mesonotum (red to black); posterior mesonotum feebly convex immediately anterior of metanotal groove (more so in minors), node broadly rounded above; tibiae and scapes lacking erect setae, propodeum with > 10 erect setae, scattered on dorsum; (generally node is higher and narrower, integument shiny in *ceriseipes* compared with *prosseri*.) Scapes relatively short in minors, SI < 1.5. Major worker. Metanotum distinct, propodeal dorsum feebly convex, sometimes slightly stronger near metanotum; angle well rounded; node summit rounded, posterior surface feebly concave near summit; anterior clypeal margin broadly convex across entire width, scarcely projecting, with a weak carina; head, mesosoma, node and gaster with scattered long setae. Minor worker. Anterior propodeal region feebly concave, posterior region straight, angle distinct and widely rounded, PD/D nearly 2; node summit rounded; head, mesosoma, petiole and gaster with scattered long setae; anterior clypeal margin convex, carina distinct. (This species can be confused with *prosseri*; in larger minor workers of *ceriseipes* scape is relatively short, but this difference is minimal in smaller workers.)

***Camponotus prosseri* Shattuck & McArthur**

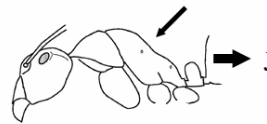
Worker. HW 1.0 - 3.9; HL 1.5 - 3.2; PW 1.0 - 2.4. Similar to *ceriseipes* except in scape length of larger minor workers. In *ceriseipes*, SI < 1.5; whereas in *prosseri*, SI > 1.4.

**5, *ephippium* group**

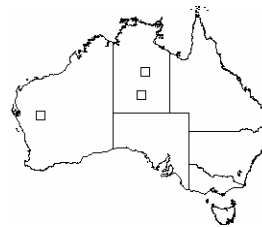
propodeal dorsum straight or convex

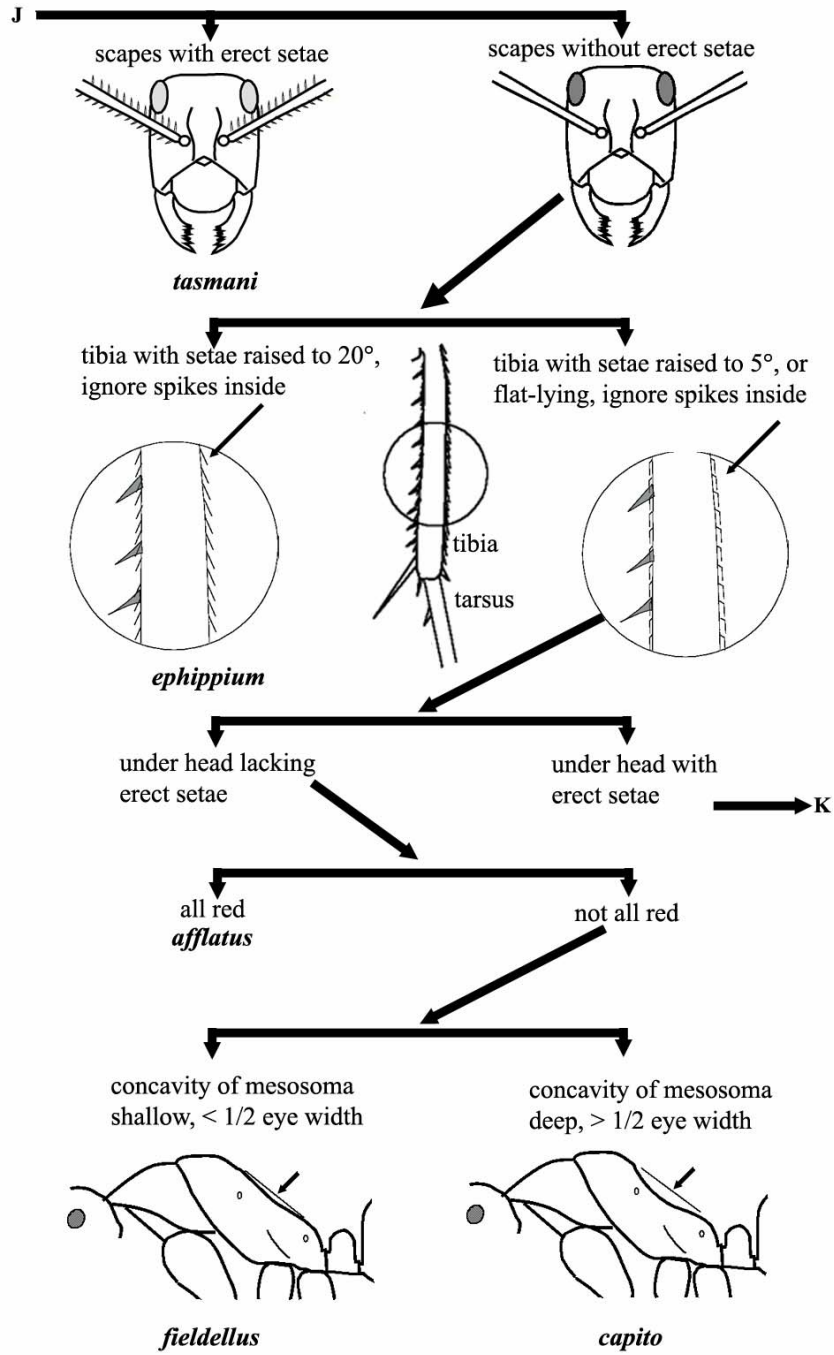
***ephippium narses***

propodeal dorsum concave

***Camponotus ephippium narses* Forel**

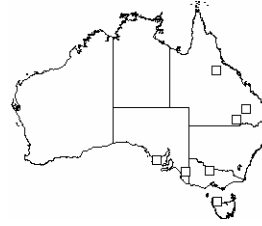
Worker. HW 1.1 - 2.8; HL 1.5 - 2.8; PW 1.2 - 1.8. Black, legs brown; setae on tibiae flat-lying, none visible on scapes, no erect setae under head, plentiful elsewhere. Major worker. Head front feebly truncate, coarsely punctate; clypeus scarcely projecting. Minor worker. Dorsum of mesosoma evenly convex; PD/D > 3; golden, short flat-lying setae on gaster; median section of clypeal anterior margin wide, strongly projecting, mostly straight; about 8 teeth.



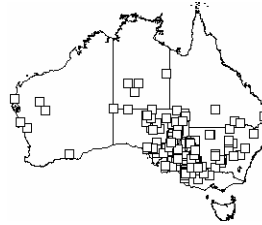


Camponotus tasmani Forel

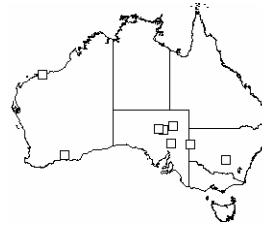
Worker. HW 1.5 - 3.5; HL 1.8 - 3.5; PW 1.3 - 2.4. Entirely clothed in erect whitish setae about EL; red and black; propodeum feebly concave. Major worker. Head sides feebly convex not tapering; vertex straight swollen; frontal carinae wide (about 1/3 HW); anterior clypeal margin with two blunt teeth separated by a shallow concavity; node summit blunt. Minor worker. Front of head clothed in short white setae hiding integument; anterior clypeal margin strongly projecting convex; node summit convex; PD/D about 3.5.

***Camponotus ephippium*** Smith

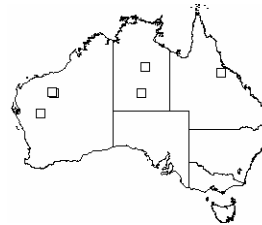
Worker. HW 1.6 - 3.8; HL 1.9 - 3.6; PW 1.55 - 2.8. Variations of red and black; mostly glossy; setae on tibiae distinct, short, overlapping raised to 20°, none on scapes, long erect setae scattered everywhere including under head. Major worker. Head sides mostly straight, parallel; cheeks and vertex swollen, corners projecting rearward; eyes small, flat, placed > 2 EL distant from corners; metanotum a distinct trough; propodeal dorsum straight, angle 135° rounded; anterior clypeal margin feebly projecting, median section concave, bounded by two blunt teeth. Minor worker. Head sides nearly straight, parallel, corners abrupt; eyes bulbous, large, < 0.5 EL from corners; propodeal dorsum concave; PD/D about 3; node summit convex; most of ant covered with fine short white overlapping setae; about 8 teeth.

***Camponotus afflatus*** Viehmeyer

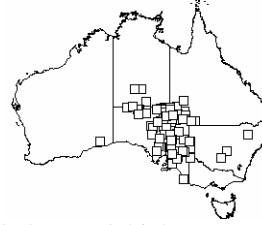
Worker. HW 1.3 - 1.6; HL 1.5 - 1.9; PW 1.35 - 1.4. Major worker not described. Minor worker. Red, gaster darker; glossy; head sides straight, feebly tapering to front; no erect setae under head, sparse elsewhere, fine short flat-lying setae scarcely visible on tibiae and scapes; propodeal dorsum long, concave, PD/D about 3; angle about 150°; clypeal anterior margin convex projecting; 6 teeth.

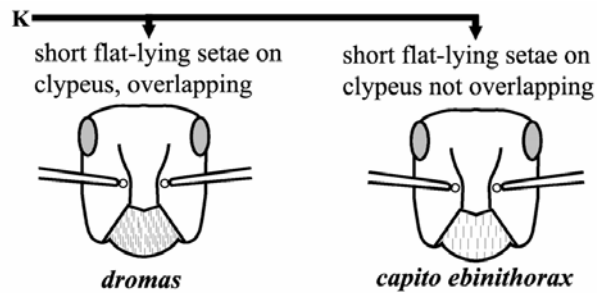
***Camponotus fieldellus*** Forel

Worker. HW 1.6 - 3.2; HL 1.7 - 3.2; PW 1.3 - 2.2. Dark brown; setae on tibiae flat-lying or at most raised to 5°, none on scapes, no erect setae under head. Major worker. Head corners rounded, clypeus scarcely projecting. Minor worker. Head sides straight, distinctly tapering forward; head and mesosoma covered with white short flat-lying setae, more golden on gaster; node summit convex.

***Camponotus capito*** Mayr

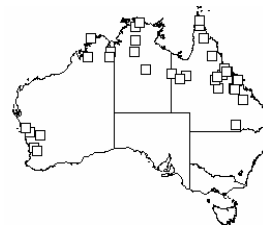
Worker. HW 1.65 - 3.35; HL 1.85 - 3.20; PW 1.45 - 2.4. Red-brown, gaster darker; sparse erect setae to 0.5 mm long, scattered on mesosoma, mostly near angle, none under head, on scapes nor tibiae. Major worker. Head sides straight, tapering to front; anterior clypeal margin middle third strongly projecting, narrow, bounded by wide angles, crenulate between; forehead swollen; metanotum distinct. Minor worker. Anterior clypeal margin middle half strongly projecting, bounded by right angles; pronotum and mesonotum uniformly humped, high.





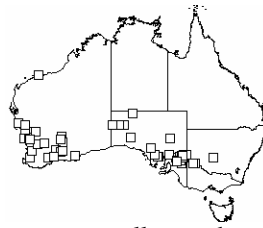
***Camponotus dromas* Santschi**

Worker. HW 1.4 - 3.3; HL 1.7 - 3.25; PW 1.35 - 2.4. Mesosoma contrasting red and black, red legs; tibiae with flat-lying short overlapping setae, a few long erect setae under head. Major worker. Front of head feebly truncate; median section of anterior clypeal margin projecting, narrow, concave, bounded by two blunt teeth. Minor worker. Anterior mesosoma black contrasting with red posterior; node summit convex, sometimes flattish; median section of anterior clypeal margin wide, convex; about 8 teeth.

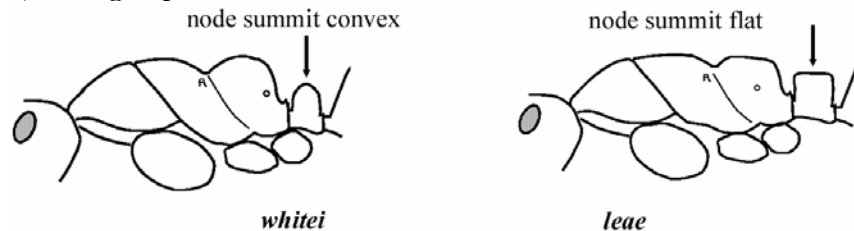


***Camponotus capito ebinithorax* Forel**

Worker. HW 1.5 - 3.00; HL 1.6 - 2.95; PW 1.5 - 2.3. Red to brown; sparse long setae scattered along mesosoma, plentiful under head, flat-lying short and indistinct on scapes and tibiae. Major worker. Median third is bounded by two projecting teeth with a feebly crenulated concavity between; head sides posterior half straight parallel, otherwise convex; vertex straight, node summit sharp; eyes small, elongate. Minor worker. Head rectangular; anterior clypeal margin projecting, convex; pro and mesonotum strongly humped; propodeum deeply concave; plentiful white short flat-lying setae; eyes small, round.

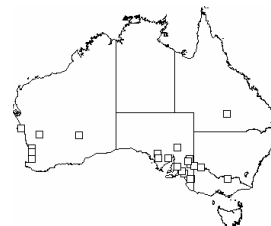


6, *whitei* group



***Camponotus whitei* Wheeler**

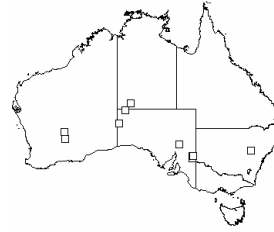
Worker. HW 1.40 - 2.70; HL 1.50 - 2.70; FCW 0.50 - 1.10; PW 1.15 - 1.75. Predominantly brown; entirely covered with plentiful erect setae including scapes, tibiae and under head; frontal carinae wide. Major worker. Head sides posterior straight, anterior tapering forward; vertex straight; pronotum convex; mesonotum slightly convex; metanotum distinct; propodeal dorsum humped; PD/D about



1; anterior clypeal margin median portion projecting, bounded by two blunt teeth with a deep concavity between; node summit sharp. Minor worker. Head sides straight, tapering to front; vertex straight; pronotum convex; mesonotum straight; metanotum a wide V; propodeal dorsum domed; PD/D about 1; anterior clypeal margin median portion projecting, wide, slightly convex, crenulate; node summit convex, higher than long; integument coarsely punctate.

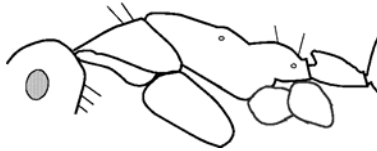
***Camponotus leae* Wheeler**

Worker. HW 1.05 - 2.90; HL 1.30 - 2.90; FCW 0.34 - 1.00; PW 0.95 - 2.00. Red brown and brown combination; entirely covered with plentiful erect setae (more on major than minor) including scapes, tibiae and under head. Major worker (not previously described). Head sides mostly straight, tapering forward; vertex straight; forehead swollen; anterior clypeal margin median portion not projecting, narrow (about 1/3 anterior head width), bounded by two blunt teeth with a deep concavity between; frontal carinae scarcely diverging, wide; integument of head finely reticulate; pronotum convex; mesonotum straight; metanotum distinct; propodeal dorsum straight; PD/D about 1; node summit sharp. Minor worker. Head sides straight, parallel; vertex convex; pronotum convex; mesonotum straight; metanotum a wide V; propodeal dorsum straight; PD/D about 2; anterior clypeal margin median portion projecting, wide, slightly convex, crenulate; node summit flat, longer than high; integument of head finely and coarsely punctate.

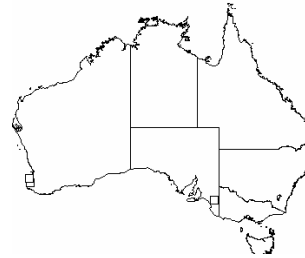


7, *johnclarki* group

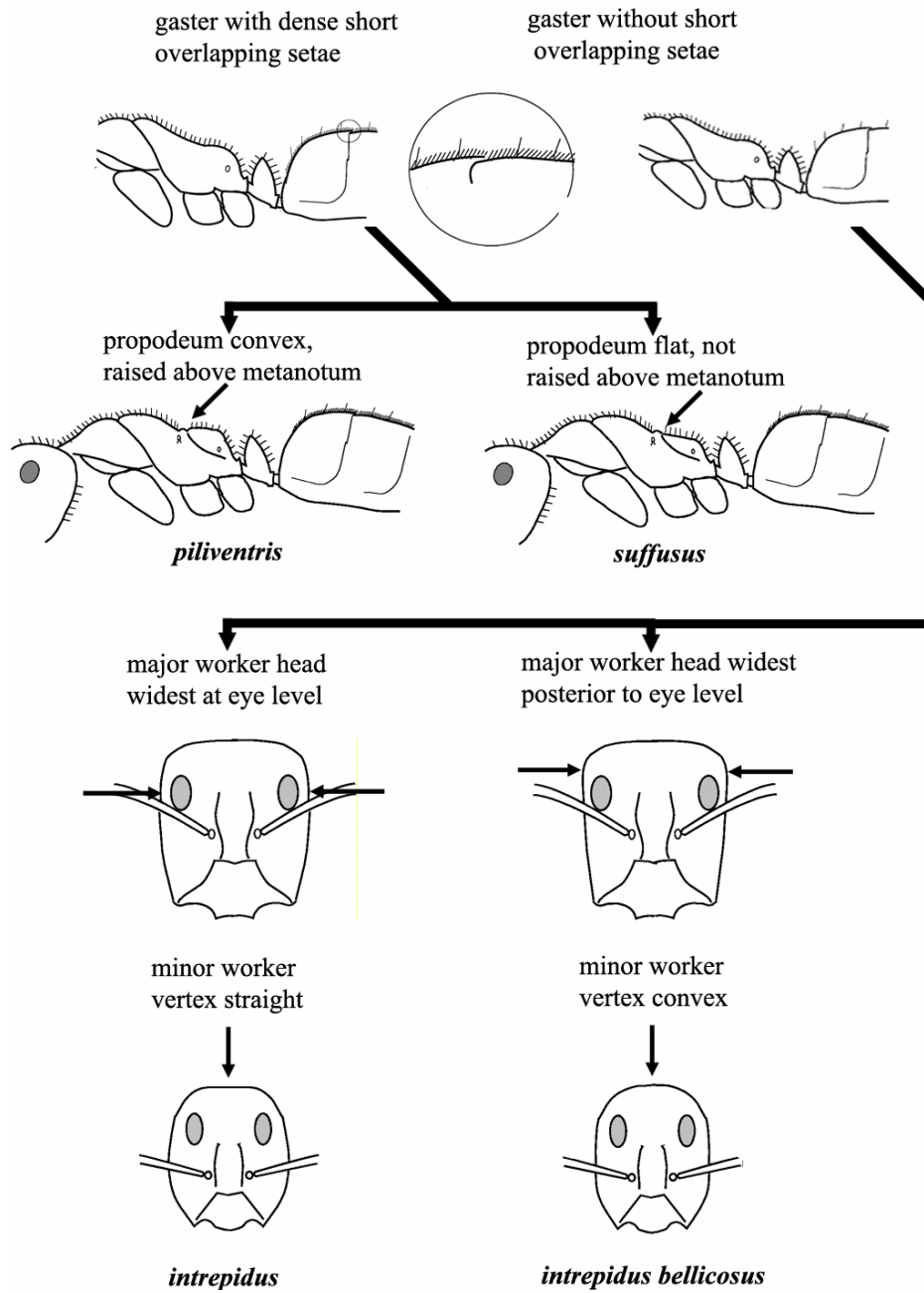
***Camponotus johnclarki* Taylor**



Sole species in group. Worker. HW 1.8; HL 2.2; PW 1.3. Reddish. Major worker. Head sides convex; vertex straight to concave; frontal carinae narrow; anterior clypeal margin median section feebly projecting, straight, crenulate, bounded by two rounded angles; node leaning forward, summit convex. Minor worker. Head sides straight, parallel; vertex convex; anterior clypeal margin median section projecting, wide, convex; pronotum, mesonotum, propodeum and under head each have more than 20 short erect setae; scapes and tibiae with plentiful setae raised to 30°; pronotum and mesonotum evenly convex; metanotum a wide groove; propodeal dorsum nearly straight; angle well rounded; PD/D about 3; node summit long, flat, inclined forward, highest in front; 8 or 9 teeth.

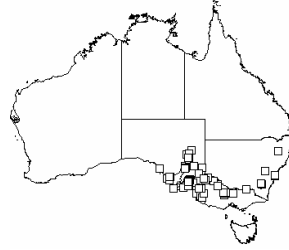


8, *intrepidus* group

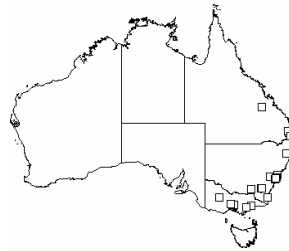


***Camponotus piliventris* Smith**

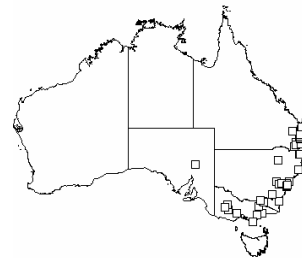
Worker. HW 1.6 - 3.5; HL 2.2 - 3.3; FCW 0.5 - 1.0; PW 1.3 - 2.0. Black to dark brown, legs much lighter red-brown; gaster with golden short flat-lying overlapping setae; anterior propodeum raised above metanotum; pronotum and mesonotum evenly convex; scapes and tibiae with plentiful erect setae; anterior clypeal margin median section convex; head finely distinctly punctate, mesonotum more distinctly reticulate; metanotum spiracle directed upward; node anterior and posterior faces feebly convex, summit blunt. Major worker. Head sides posterior half straight, parallel, anterior tapering to front; vertex straight; propodeal dorsum slightly convex, angle well rounded; PD/D about 1; front of head coarsely punctate. Minor worker. Head sides feebly convex, tapering forward; vertex strongly convex; pronotum and mesonotum evenly convex; propodeal dorsum slightly convex; angle well rounded; PD/D about 2; node summit sharp.

***Camponotus suffusus* Smith**

Worker. HW 2.2 - 3.8; HL 2.4 - 3.4; FCW 0.6 - 1.0; PW 1.6 - 2.3. Red-brown, legs nearly similar color; gaster with golden short flat-lying, overlapping setae; scapes and tibiae with plentiful erect setae; anterior clypeal margin median section projecting, straight, bounded by angles; head finely punctate; node, anterior and posterior faces straight, summit sharp. Major worker. Head sides tapering forward; vertex straight; metanotum spiracle directed upward; propodeal dorsum flat not raised above level of metanotum; angle distinct about 135°; PD/D about 1.5. Minor worker. Head sides feebly convex tapering forward, anterior clypeal margin median section straight; vertex mostly straight; pronotum and mesonotum evenly convex; propodeal dorsum flat, angle distinct, about 135°; PD/D about 1.8; node summit sharp.

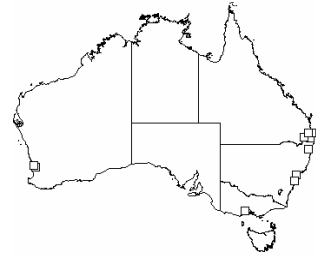
***Camponotus intrepidus* Kirby**

Worker. HW 2.3 - 4.6; HL 2.9 - 4.5; PW 1.8 - 2.6. Head and gaster dark brown, mesosoma lighter reddish brown; anterior mesosoma uniformly convex; scapes and tibiae with plentiful erect setae; head finely punctate; gaster glossy with fine striations, metanotum flat. Major worker. Head sides convex tapering forward, head widest at eye level; vertex straight; anterior clypeal margin median section convex; mandibles striate; head finely punctate; propodeum predominantly flat; angle well rounded; PD/D about 1.5, node thick, anterior face convex, summit blunt, posterior face straight. Minor worker. Head sides convex tapering forward; vertex flattish; anterior clypeal margin projecting, median section convex; propodeum mostly convex; PD/D about 1.5.

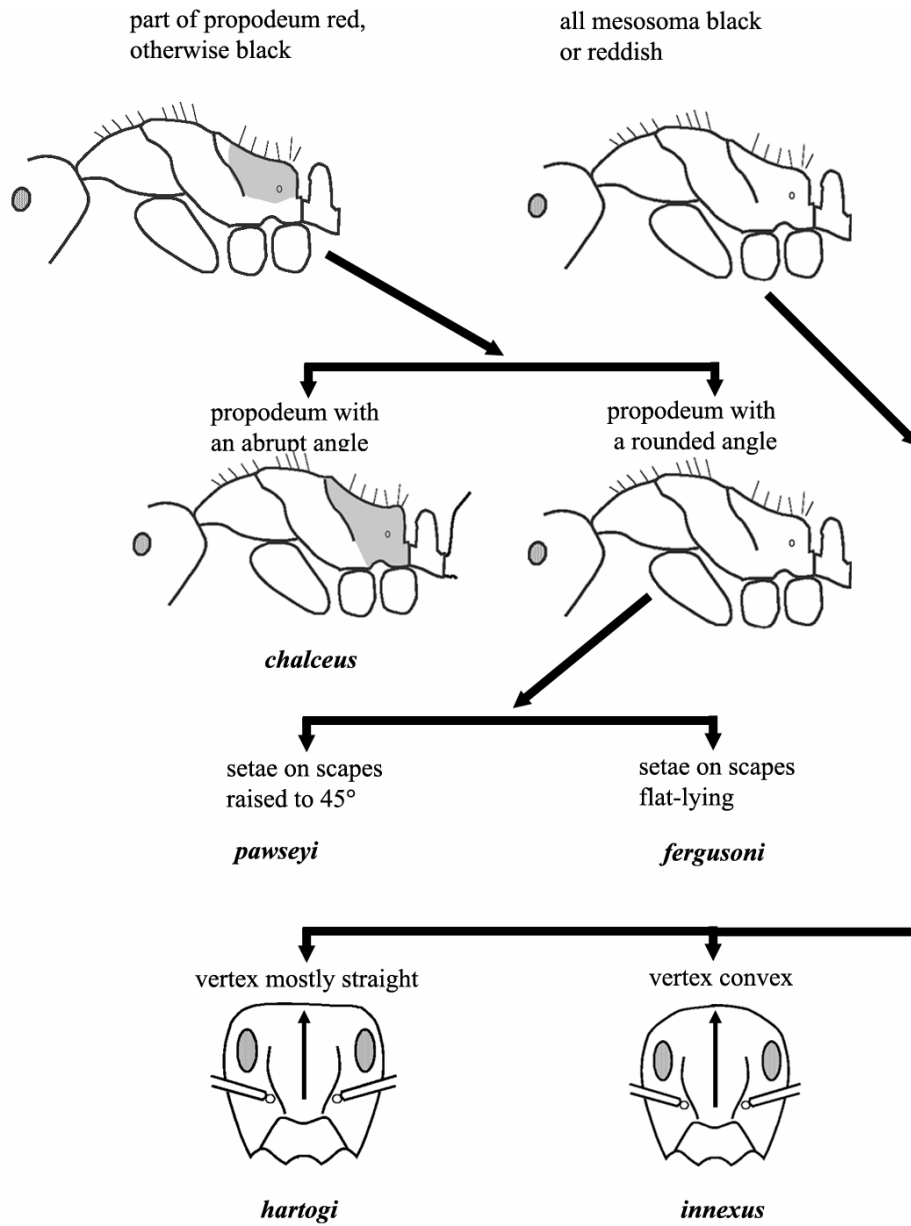


***Camponotus intrepidus bellicosus* Forel**

Very similar to *intrepidus* except head of major worker is widest behind eyes, head of minor worker tapers rearward; vertex convex.

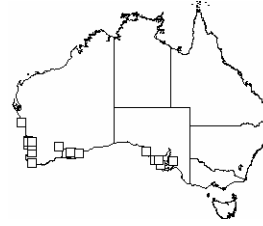


9, *chalceus* group

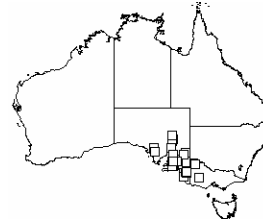


Camponotus chalceus Crawley

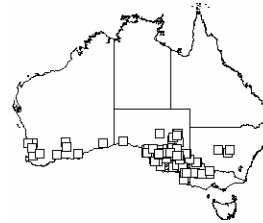
Worker. HW 1.5 - 2.4; HL 1.7 - 2.35; PW 1.2 - 1.6. Black and red; finely punctate; pronotum and mesonotum evenly convex; declivity feebly concave; erect setae about EL scattered over mesosoma, more under and on front of head, absent on scapes, tibiae; node summit convex. Major worker. Head sides strongly convex; anterior clypeal margin middle half narrow, concave between two teeth. Minor worker. Head sides tapering forward; middle half of anterior clypeal margin nearly straight, projecting forward, bounded by wide angles.

***Camponotus fergusonii*** McArthur

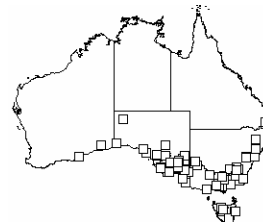
Worker. HW 1.2 - 2.8; HL 1.4 - 2.8; PW 1.15 - 2.0. Mostly black, propodeum with some red; finely punctate; propodeal dorsum concave; mesosoma and node covered with white fine short flat-lying short flat-lying setae. Major worker. Head sides straight, feebly tapering forward; vertex straight; clypeus with a few fine long setae, feebly projecting forward, anterior margin evenly concave; node summit blunt. Minor worker. Head sides straight, tapering forward; vertex convex; anterior clypeal margin median section wide, nearly straight, projecting forward; dense, short flat-lying setae nearly hiding integument; pronotum, mesonotum and half propodeum evenly convex; node with a long, feebly convex summit.

***Camponotus pawseyi*** McArthur

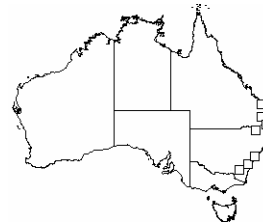
Worker. HW 1.5 - 3.0; HL 1.6 - 3.0; PW 1.3 - 2.1. Color varies between black and red; entirely covered with dense erect setae. Major worker. Forehead swollen; anterior head (lateral view) feebly truncated; clypeus coarsely punctate with a distinct carina, anterior margin median section projects with a central concavity; mandibles striate; propodeal dorsal surface flat; node summit bluntly pointed. Minor worker. Head sides straight, eyes near corners of head (very similar to *tasmani*) except vertex convex, anterior clypeal margin projecting convex; crenulate; 7 or 8 teeth; entirely covered with plentiful erect setae, flat-lying setae hiding integument of clypeus; propodeal dorsum deeply concave; node summit convex.

***Camponotus hartogi*** Forel

Worker. HW 1.3 - 2.1; HL 1.55 - 2.2; PW 1.1 - 1.5. Combinations of red, brown and black; anterior pronotum margined; erect setae about EL sparsely scattered on scapes, indistinct flat-lying on tibiae. Major worker. Head sides convex strongly tapering forward; vertex straight; pronotum and mesonotum slightly convex; propodeal dorsum straight; angle rounded; anterior clypeal margin median section feebly projecting, narrow, bounded by 2 teeth with a deep concavity between. Minor worker. Head sides convex; vertex mostly straight; propodeal dorsum feebly concave.

***Camponotus innexus*** Forel

Worker. HW 2 - 2.4; HL 2 - 2.3; PW 1.8 - 1.9. Very similar to *hartogi* except in *innexus*, where vertex of minor worker is convex, in *hartogi* it is mostly flat.



10, *sponsorum* group

angle of propodeum
abrupt, about 90°



vertex near straight

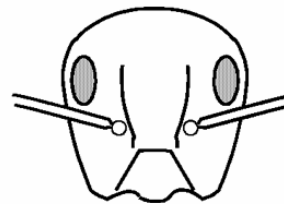


froggatti

angle of propodeum
rounded, > 90°



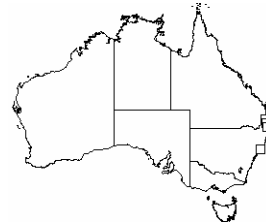
vertex convex



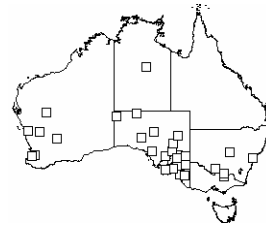
sponsorum

Camponotus froggatti Forel

Worker. HW 0.9 - 1.8; HL 1.1 - 1.8; PW 0.8 - 1.2. Head, mesosoma, node and gaster black, legs lighter; glossy; propodeal dorsum mostly concave, angle 90°; long erect setae sparse everywhere, none on scapes, tibiae; anterior clypeal margin projecting; node summit convex. Major worker. Head sides mostly straight, tapering to front, widest behind eyes; anterior clypeal margin narrow, feebly concave, bounded by two small teeth; central clypeus widest posteriorly, raised above lateral margins. Minor worker. Head sides long, straight, tapering to front; anterior clypeal margin wide, convex; most of ant with white non-overlapping flat-lying setae; a few erect setae under head.

*Camponotus sponsorum* Forel

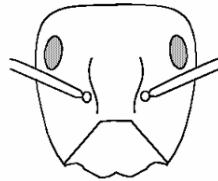
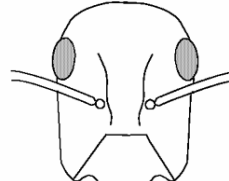
Worker. HW 0.85 - 2.0; HL 1.05 - 2.05; PW 0.8 - 1.4. Yellow brown, sometimes mottled, gaster darker; sparse long erect setae everywhere except scapes and tibiae; anterior clypeal margin projecting; node summit sharp. Major worker. Head sides straight, parallel, forehead swollen, anterior clypeal margin concave bounded by two teeth; propodeal dorsum straight or feebly concave. Minor worker. Head sides, straight, tapering to front; anterior clypeal margin wide, strongly convex; most of ant with white non-overlapping flat-lying setae.



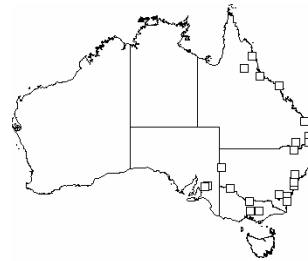
11, *aeneopilosus* group

short setae on gaster
dense, yellowish,
head sides convex

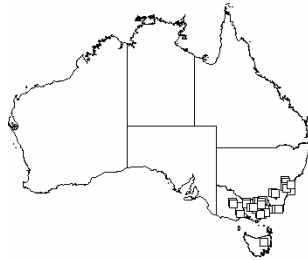
short setae on gaster
sparse, whitish
head sides straight

*aeneopilosus**nigroaeneus****Camponotus aeneopilosus* Mayr**

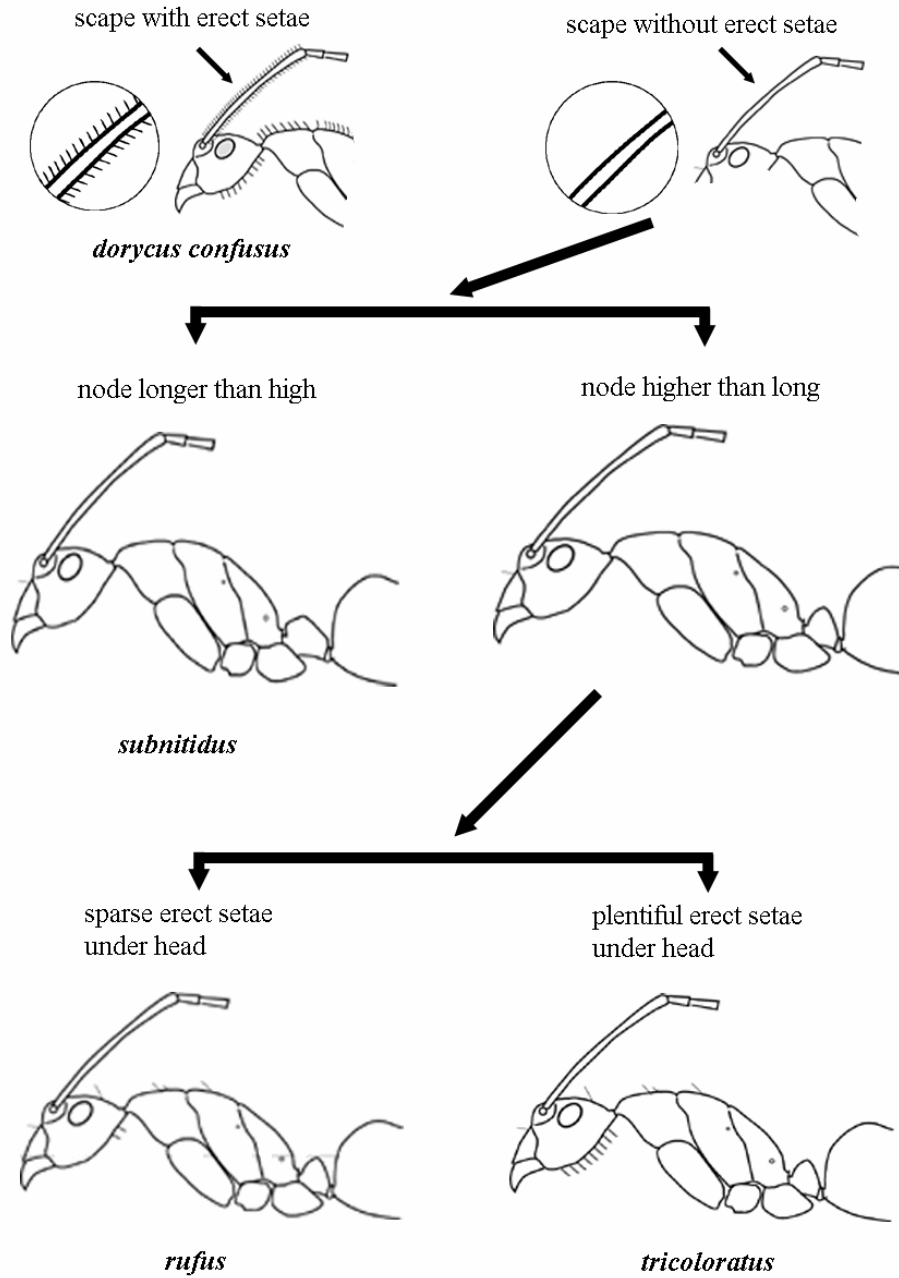
Worker. HW 1.3 - 2.8; HL 1.5 - 2.5; PW 1.2 - 1.75. Black, legs brown; pronotum feebly margined in front, more distinct in minors; sparse yellow, erect setae scattered on mesosoma, none under head; sparse short, white, flat-lying setae on mesosoma scapes and tibiae; frontal carinae wide; node summit blunt; finely punctate. Major worker. Anterior clypeal margin median section concave bounded by two blunt teeth; head sides convex, tapering to front; propodeal angle rounded; node summit blunt. Minor worker. In smallest minors anterior clypeal margin median section convex, in larger minors concave; head sides tapering forward; vertex slightly convex; PD/D about 3.

***Camponotus nigroaeneus* Smith**

Worker. HW 1.1 - 2.4; HL 1.4 - 2.5; PW 0.95 - 1.6. Black, legs brown; pronotum feebly margined in front, more distinct in minors; mesosoma with sparse scattered erect setae and short sparse flat-lying setae; under head with a few erect setae, scape and tibia short setae raised to about 15°; plentiful short erect setae on sides of head; finely punctate. Major worker. Anterior clypeal margin median section concave, bounded by two blunt teeth; head sides mostly straight; propodeal angle rounded; node summit blunt. Minor worker. Anterior clypeal margin median section concave; head sides parallel, straight; vertex convex; PD/D about 3.

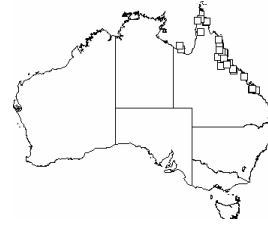


12, *subnitidus* group

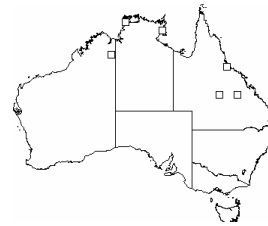


Camponotus dorycus confusus Emery

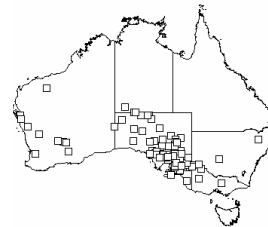
Worker. HW 1.7 - 4.4; HL 2.5 - 4.9; PW 1.5 - 2.4. Brown; with dense erect setae; node summit sharp, front and back convex; 6 teeth. Major worker. Head sides mostly straight, tapering to front; vertex concave; anterior clypeal margin projecting, wide, straight, bounded by two blunt angles; propodeal dorsum convex; PD/D about 1.5; angle wide; eyes flattish. Minor worker. Head sides mostly straight, tapering into a collar at rear; eyes bulbous; head finely reticulate, darker than mesosoma; anterior clypeus margin wide, convex, projecting; propodeal dorsum straight, PD/D about 2.5, angle wide; frontal carinae narrow; node summit sharp, sides convex.

***Camponotus subnitidus*** Mayr

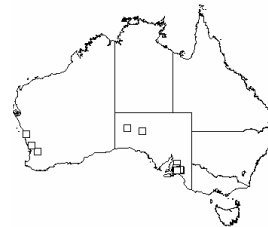
Worker. HW 2.0 - 4.8; HL 3.2 - 5.5; PW 1.5 - 2.7. Brown; erect setae sparse, more plentiful under head, tibiae and scapes lacking erect setae. Major worker. Head sides straight, nearly parallel; vertex straight; anterior head feebly truncate; eyes flattish; anterior clypeal margin straight, narrow, bounded by 135° angles, projecting, in lateral view concave near margin; propodeum uniformly convex, an angle. Minor worker. Head sides mostly straight, tapering into a collar at rear; head finely reticulate; anterior clypeal margin wide, convex, projecting, with a strong carina; propodeal dorsum straight, PD/D about 4, angle indistinct; eyes bulbous; frontal carinae narrow; node long, anterior face short, summit rising upward to a transverse ridge, posterior face concave above, straight below.

***Camponotus tricoloratus*** Clark

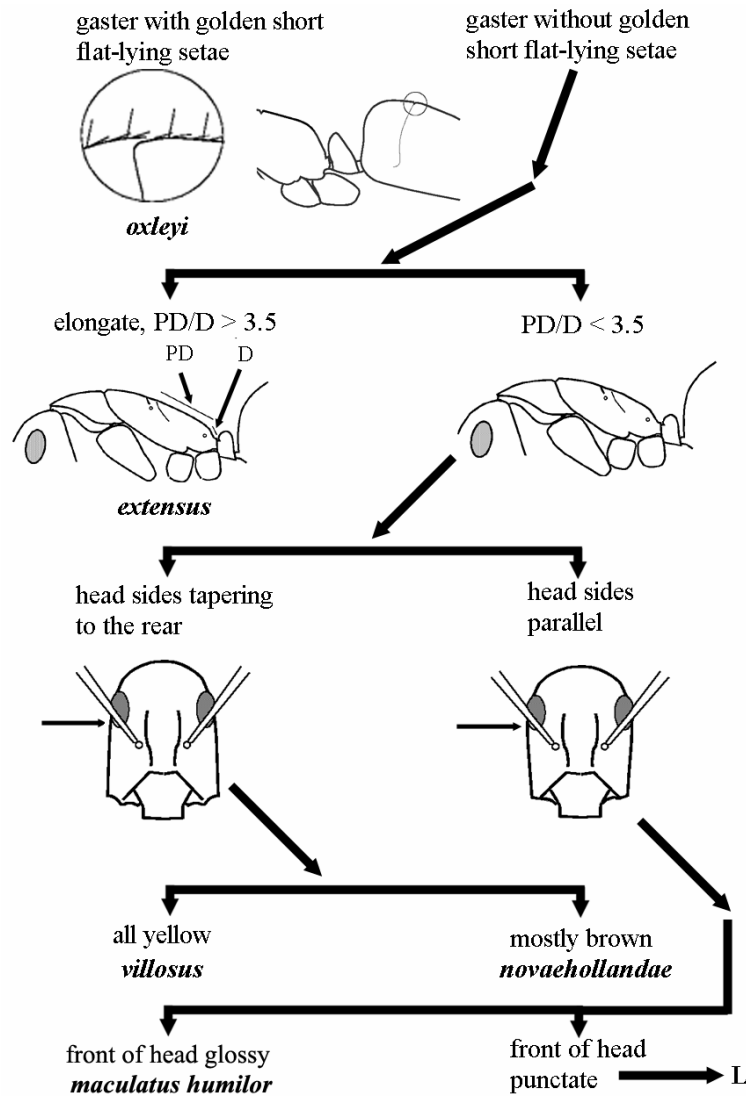
Worker. HW 1.9 - 5.1; HL 3.2 - 5.0; PW 1.5 - 2.8. Yellow to brown; glossy; plentiful erect setae under head, none on tibia and scape, sparse otherwise. Major worker. Head sides mostly straight; vertex straight; in profile feebly truncate; clypeus in profile concave near anterior margin, in front view straight, crenulate, projecting with 135° corners; propodeal dorsum and declivity straight, angle well rounded; node summit sharp, front and back convex. Minor worker. Head sides straight tapering to a collar behind; frontal carinae narrow in front, slightly wider behind; clypeus wide, anterior margin convex, projecting; node long, summit blunt, front and back convex.

***Camponotus rufus*** Crawley

Worker. HW 2.0 - 5.6; HL 3.1 - 5.1; PW 1.7 - 2.9. Red, gaster black; glossy; erect setae sparse, none on tibia, on scape, on propodeum nor under head, flat-lying on tibia. Major worker. Head sides convex; vertex straight; in profile feebly truncate; clypeus finely punctate, in profile concave, in front view anterior margin nearly straight, crenulate, projecting with 135° corners; propodeal dorsum straight, angle well rounded; node summit sharp, front and back convex. Minor worker. Head sides straight tapering to a collar behind; frontal carinae nearly parallel and narrow; anterior clypeal margin convex, crenulate, projecting; propodeal dorsum evenly convex; node summit blunt, front and back convex.

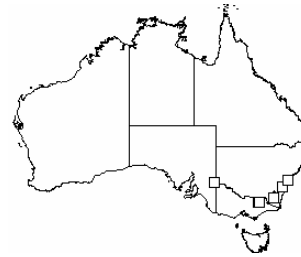


13, *maculatus* group



Camponotus oxleyi Forel

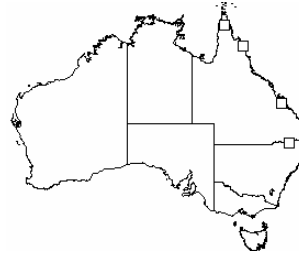
Worker. HW 1.93 - 2.97; HL 1.97 - 2.74; PW 1.4 - 2.0. Brown; finely punctate when viewed from front; scapes and tibiae with sparse, flat-lying, short setae, a few raised to about 30°; pronotum, mesonotum and propodeum each with 2 or 3 erect setae about EL; shorter and more plentiful under head. Major worker. Head is longer than wide; anterior clypeal margin median section bounded by square corners with a wide concavity between. Minor worker. Head sides convex, tapering forward, much wider behind than in front; vertex convex; anterior clypeal



margin median section widely convex; node summit convex; propodeal dorsum feebly convex, angle distinct, well rounded; PD/D about 2.5.

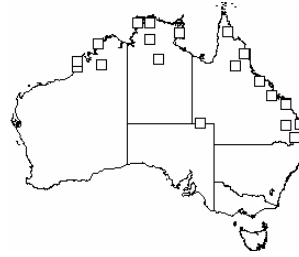
Camponotus extensus Mayr

Worker. HW 1.1 - 2.2; HL 1.6 - 2.7; PW 0.95 - 1.25. Brown; finely punctate, more so in front view, glossy; scapes and tibiae with plentiful short setae raised to about 45°; mesosoma long (particularly propodeum) with about 20 erect setae varying in length from half EL to EL, plentiful short erect setae under head; legs slightly lighter. Major worker. Head is much longer than wide, sides convex and tapering strongly to front; vertex straight in front view; anterior clypeal margin median section bounded by square corners widely concave between; node summit blunt; PD/D about 3.5. Minor worker. Head sides convex, parallel, tapering feebly to rear (more so in smallest workers); vertex convex; anterior clypeal margin median section bounded by rounded corners, straight between; node summit convex; PD/D about 4.



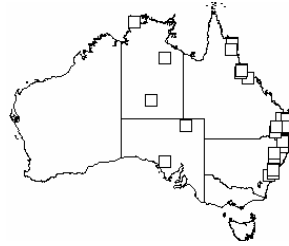
Camponotus villosus Crawley

Worker. HW 1.4 - 3.0; HL 2.1 - 3.2; PW 1.2 - 1.70. Yellow; glossy; scapes and tibiae with plentiful short setae raised to about 45°; mesosoma with about 20 erect setae about EL mostly on pronotum and near angle, plentiful under head; propodeal dorsum slightly convex, angle well rounded. Major worker. Head much wider behind than in front; node summit blunt; anterior clypeal margin median section projecting, bounded by square corners with a wide concavity between. Minor worker. Head sides convex, parallel, tapering feebly to rear (more so in smallest workers); vertex convex; anterior clypeal margin median section bounded by rounded corners, straight between; node summit convex; PD/D about 4.



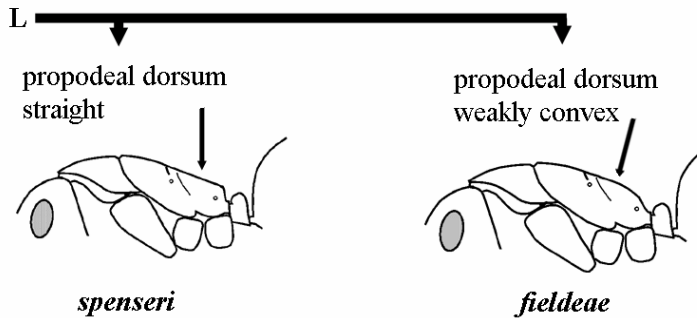
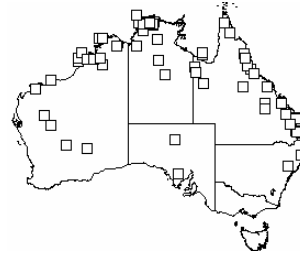
Camponotus maculatus humilior Forel

Worker. HW 1.0 - 2.1; HL 1.45 - 2.3; PW .85 - 1.2. Yellowish, head slightly darker than mesosoma; tibiae and scapes with distinct setae raised up to 30°, a few scattered long setae overall including under head. Major worker. Head sides posterior half parallel, anterior tapering to front; anterior margin of clypeus, strongly projecting with 90° corners, feebly concave between; node summit blunt; eye centers at or just anterior to line joining posterior tips of frontal carinae. Minor worker. Head sides mostly parallel, posterior rounded; anterior margin of clypeus, strongly projecting with square corners, wide, straight; PD/D about 3.

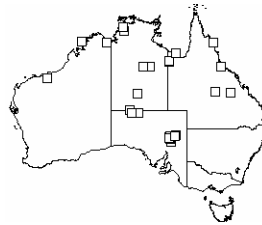


Camponotus novaehollandiae Mayr

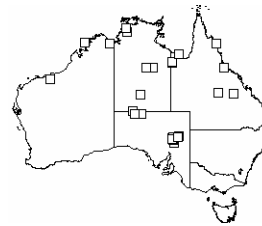
Color, a combination of browns and yellows, otherwise similar to *villosus*.

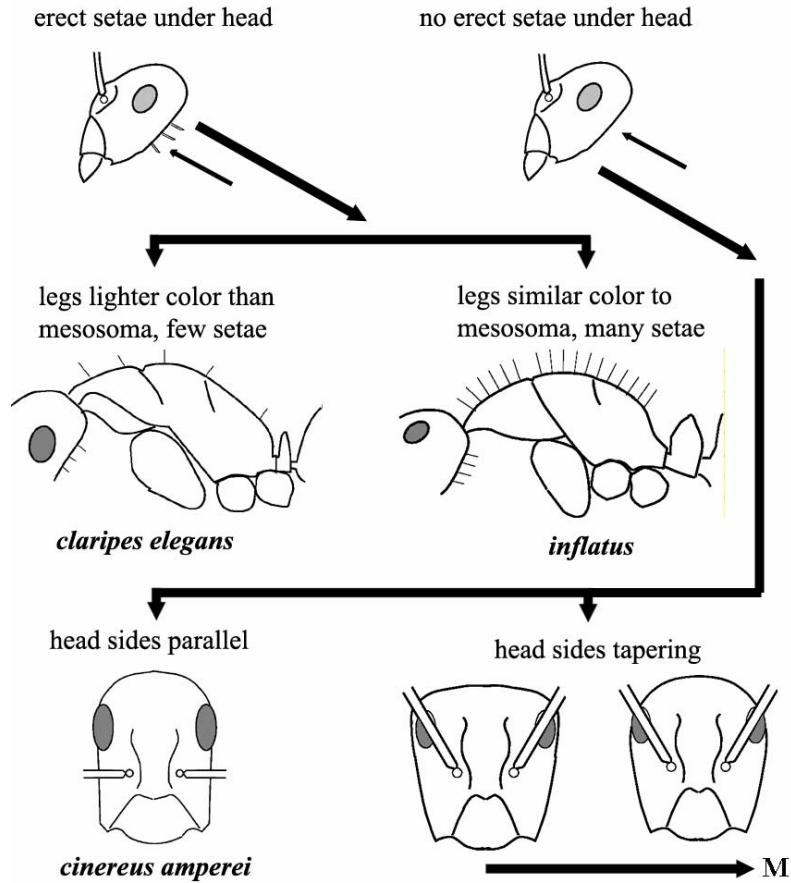
***Camponotus spenseri*** Clark

Worker. HW 1.4 - 2.5; HL 1.8 - 2.7; PW 1.1 - 1.50. Brown; finely punctate; scapes and tibiae with plentiful short setae raised to about 45°; mesosoma with about 20 erect setae longer than EL, plentiful short erect setae under head. Major worker. Head sides convex, tapering strongly to front, anterior clypeal margin median section bounded by square corners with a wide shallow concavity between; node summit blunt; PD/D about 2.5. Minor worker. Head sides evenly convex; vertex convex; anterior clypeal margin median section bounded by rounded corners, straight between; node summit blunt; propodeum dorsum straight, angle distinct, about 150°; PD/D about 3.

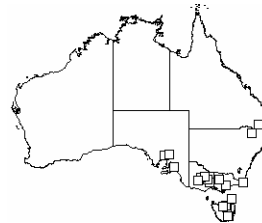
***Camponotus fieldeae*** Forel

Worker. HW 1.0 - 2.25; HL 1.4 - 2.4; PW 0.8 - 1.30. Propodeum dorsum is mostly feebly convex (in *spenseri* straight), angle well rounded; otherwise similar to *spenseri*.



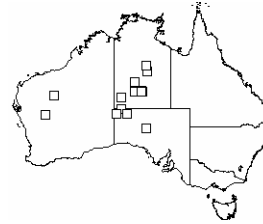
14, *darlingtoni* group*Camponotus claripes elegans* Forel

Worker. HW 1.10 - 2.50; HL 1.65 - 2.70; PW 1.1 - 1.6. Black, legs yellow; metanotum distinct, propodeum dorsum straight, higher than mesonotum (more so in minors); scattered setae on all surfaces, raised to 10° on tibiae and scapes otherwise erect; frontal carinae wide. Major worker. Anterior clypeal margin median section narrow, deeply concave; node summit sharp. Minor worker. Anterior clypeal margin median section widely concave; head sides straight, tapering rearward in smallest minors, otherwise parallel; head thin in lateral view.

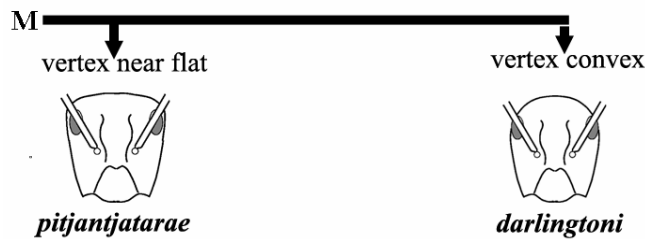
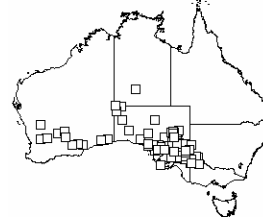


Camponotus inflatus Lubbock

Worker. HW 1.3 - 2.4; HL 1.5 - 2.3 ; PW 1.25 - 1.6. Black; matte; plentiful erect setae on all surfaces; anterior clypeal margin median section mostly straight. Major worker. Head sides convex; vertex concave. Minor worker. Head sides straight tapering forward; vertex mostly straight; propodeum dorsum slightly convex.

***Camponotus cinereus amperei*** Forel

Worker. HW 1.3 - 2.2; HL 1.4 - 2.25; PW 1.3 - 1.6. Black, legs slightly lighter, mandibles partly red; pronotum margined in front; a few erect setae on mesosoma, none under head, flat-lying on scape and tibia. Major worker. Head sides convex; anterior clypeal margin median section feebly concave. Minor worker. Head sides straight, nearly parallel, slightly tapering to front; vertex nearly flat; anterior clypeal margin median section feebly convex crenulated; node summit convex.

***Camponotus pitjantjatarae*** McArthur

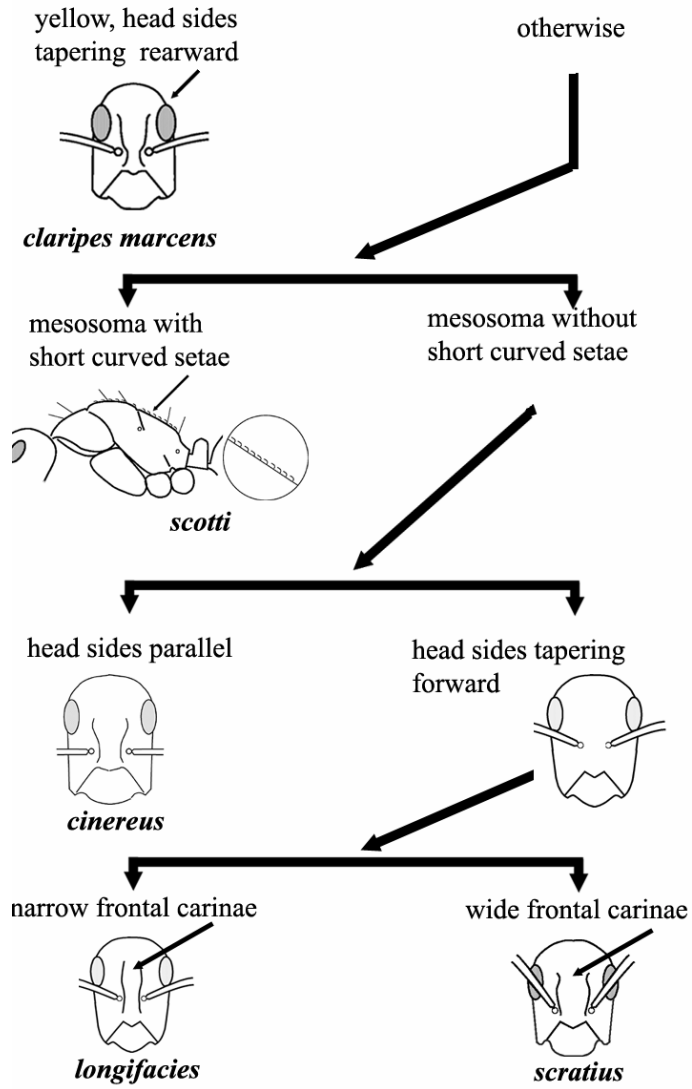
Worker. HW 1.9 - 2.6; HL 1.8 - 2.3; PW 1.6 - 2.0. Black; similar to *inflatus* but with less pilosity, erect setae scattered on front of head, mesosoma, node, gaster, none under head, on scapes nor tibiae. Major worker. Head sides mostly convex, anterior clypeal margin projecting; node summit blunt. Minor worker. Head triangular, sides straight.

***Camponotus darlingtoni*** Wheeler

Worker. HW 0.95 - 2.65; HL 1.3 - 2.6; PW 0.9 - 1.65. Black to dark brown, legs lighter; a few erect setae scattered over mesosoma, none under head, on scapes nor tibiae. Major worker. Anterior clypeal margin projecting, median section straight, bounded by rounded corners. Minor worker. Anterior clypeal margin evenly convex with rounded corners.



15, *scotti* group



Camponotus claripes marcens Forel

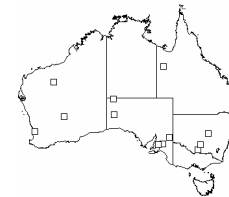
Worker. HW 1.1 - 2.85; HL 1.6 - 3.0; PW 1.0 - 1.9. Brown to yellow; plentiful erect setae on mesosoma, under head, mostly flat-lying on scapes with a few raised to 30°, tibiae to 5°. Major worker. Anterior clypeal margin shallowly concave. Minor worker. Head sides tapering to rear; anterior clypeal margin feebly concave, bounded by angles.

***Camponotus scotti*** McArthur

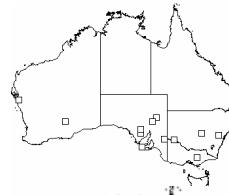
Worker. HW 1.2 - 2.4; HL 1.4 - 2.3; PW 1.0 - 1.5. Red to black combinations; short white curved setae distinct on mesosoma in lateral view; erect setae, sparse on head, mesosoma, node and gaster, none under head on scapes nor tibiae; front of head finely and feebly punctate otherwise finely reticulate, frontal carinae wide. Major worker. Head wider at back; vertex straight, anterior clypeal margin feebly projecting with two teeth on either side of a shallow concavity; clypeus coarsely punctate. Minor worker. Head sides nearly parallel; vertex convex, anterior clypeus margin projecting, evenly convex.

***Camponotus longifacies*** McArthur

Worker. HW 1.2 - 1.7; HL 1.0 - 1.6; PW 0.7 - 1.4. Combination of yellow and brown; small. Major worker. Square head; mesosoma evenly convex; node summit pointed; clypeus mid section raised into a flattish plane above cheeks, anterior margin concave, bounded by two small teeth. Minor worker. Head sides straight, tapering forward; node summit elongate.

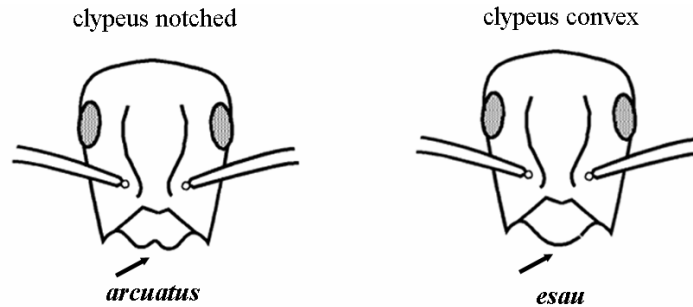
***Camponotus cinereus*** Mayr

Worker. HW 1.25 - 2.1; HL 1.65 - 2.15; PW 0.7 - 1.55. Mostly red to red brown, otherwise similar to *cinereus amperei*.

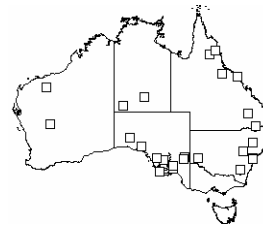
***Camponotus scrutius*** Forel

Worker. HW 0.80 - 1.5; HL 1.0 - 1.6; PW 0.75 - 1.1. Yellowish brown, legs lighter; glossy; long erect setae sparse, scattered, flat-lying on scapes, raised to 10° on tibiae; node summit sharp. Major worker. Head sides convex, widest at eye level; anterior clypeal margin median section projecting, slightly convex, bounded by angles. Minor worker. Eyes large; head sides feebly tapering forward; vertex convex; anterior clypeal margin median section projecting, straight, bounded by angles.

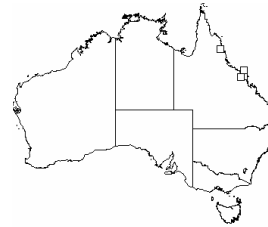


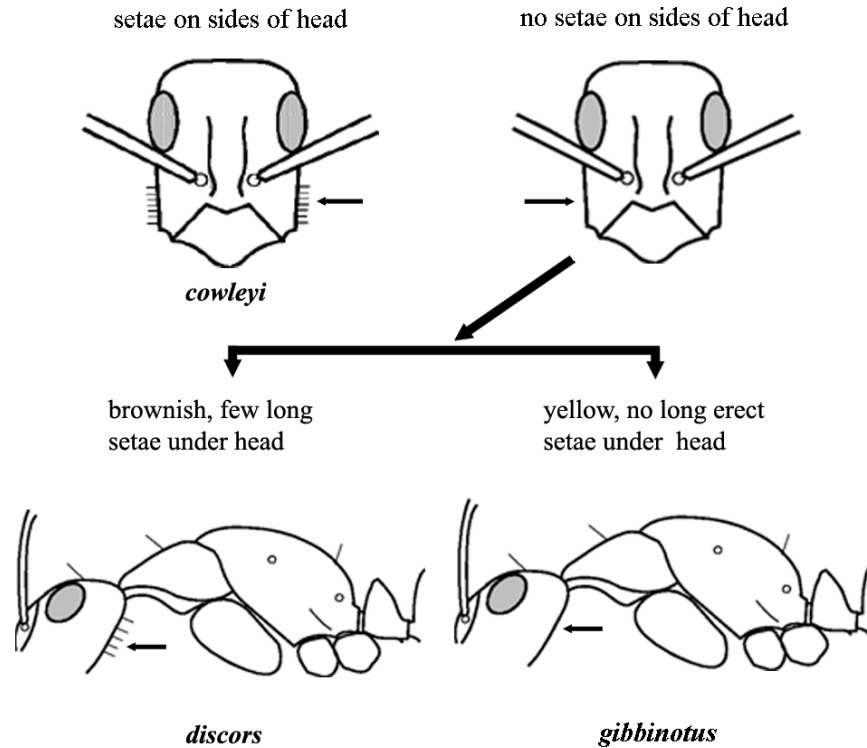
16, *esau* group*Camponotus arcuatus* Mayr

Worker. HW 0.9 - 1.8; HL 1.1 - 1.7; PW 0.9 - 1.3. Black to very dark brown; glossy; finely reticulate; long erect setae on all surfaces sparse, < 10 on mesosoma, white flat-lying short overall, distinct on scapes and on tibiae; frontal carinae wide. Major worker. Head sides widest behind eyes, nearly straight, tapering to front; vertex straight; anterior clypeal margin concave between 2 teeth. Minor worker. Head sides nearly straight, tapering to front; vertex convex; HW near PW; anterior clypeal margin broadly convex with a weak central concavity; pronotum margined in front; node columnar, summit convex.

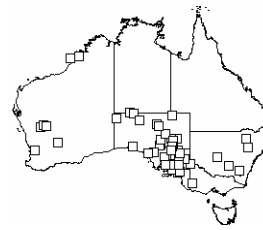
*Camponotus esau* Forel

Worker. HW 1.05; HL 1.2; PW 1.04. Major worker not yet described. Black. Minor worker. Matte, finely reticulate; widespread white flat-lying short setae, overlapping on gaster, anterior clypeal margin broadly convex, nearly straight; otherwise similar to *arcuatus*.

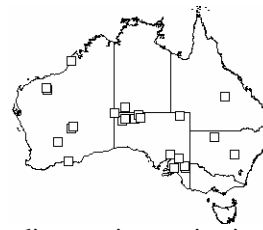


17, *gibbinotus* group*Camponotus cowleyi* Froggatt

Worker. HW 1.30 - 3.5; HL 1.77 - 3.4; PW 1.19 - 2.1; CW 0.38 - 1.0. Yellowish brown; glossy; erect setae sparse on mesosoma, plentiful on head, slightly raised on scapes and tibiae; node sharp; frontal carinae narrow. Major worker. Head sides convex, widest just behind eye level; vertex concave; anterior clypeal margin median section projecting, nearly straight, bounded by angles. Minor worker. Head sides straight tapering feebly to front; vertex convex; anterior clypeal margin median section projecting, convex.

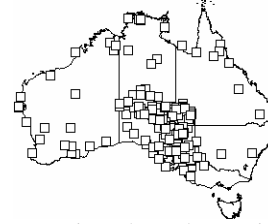
*Camponotus discors* Forel

Worker. HW 1.34 - 3.02; HL 1.74 - 2.97; PW 1.19 - 1.83; CW 0.42 - 0.80. Yellow to brownish-yellow; glossy; sparse pilosity; erect setae sparse, a few scattered under head (more so with major workers), flat-lying, sparse but distinct; node summit sharp, thicker in minor worker; frontal carinae narrow. Major worker. Head sides mostly straight; vertex straight; anterior clypeal margin median section projecting, nearly straight, crenulate, bounded by angles; eyes small. Minor worker. Head sides nearly straight, feebly tapering forward; eyes situated $< EL/2$ from corners; anterior clypeal margin median section projecting, convex.



***Camponotus gibbinotus* Forel**

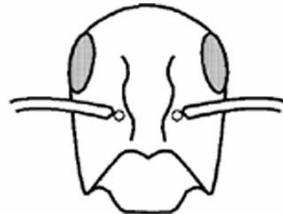
Worker. HW 1.1 - 3.1; HL 1.5 - 3.05; PW 1.0 - 1.85. Yellow, legs lighter in color; glossy; erect setae sparse, a few inconspicuous short in depression of head where pronotum attaches, flat-lying sparse and indistinct, none raised on scapes nor tibiae; node summit sharp; frontal carinae narrow. Major worker. Head sides convex, tapering forward, widest at eye level; vertex straight to concave; anterior clypeal margin median section projecting nearly straight, bounded by angles; eyes small. Minor worker. Head sides slightly convex; eyes large (EL/HW about 0.25) situated $< EL/2$ from corner; anterior clypeal margin median section projecting, convex; propodeum narrow (rear view).

**18, *walkeri* group**

major worker, in side view,
without propodeal angle



minor worker, frontal
carinae sinuous

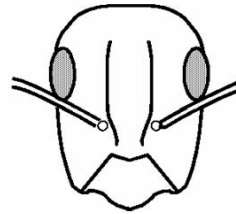


adami

major worker, in side view,
with propodeal angle



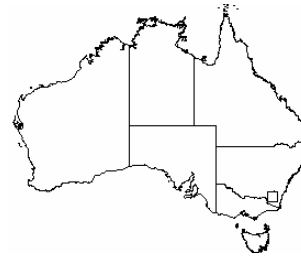
minor worker, frontal
carinae near parallel



walkeri

***Camponotus adami* Forel**

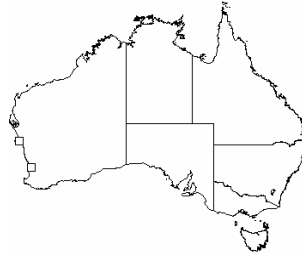
Worker. HW 1.00 - 2.10; HL 1.30 - 2.20; PW 0.80 - 1.30. Mostly black, legs, antennae yellowish; glossy; sparse long erect setae scattered on mesosoma, two or three under head, flat-lying on scapes and tibiae; anterior clypeal margin median section projecting, straight, bounded by angles. Major worker. Propodeal angle about 150°; node summit sharp; head sides convex, widest at eye level; vertex mostly straight. Minor worker. Propodeal dorsum and declivity uniformly convex lacking a distinct angle; head sides straight, nearly parallel, feebly tapering forward;



vertex, median third nearly flat, corners widely rounded; eyes large and bulbous; node summit blunt; finely punctate, each punctation reflecting light.

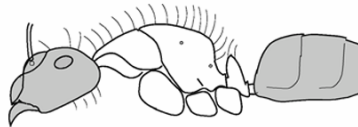
Camponotus walkeri Forel

Worker. HW 1.45 - 2.9; HL 1.84 - 2.7; PW 1.2 - 1.75. Mesosoma red-brown, head, gaster darker, legs lighter; glossy; propodeal dorsum and declivity uniformly convex lacking a distinct angle; a few long erect setae scattered on mesosoma, four or five confined to angle, four or five under head, raised to 5° on scapes and tibiae; vertex straight; node summit sharp. Major worker. Head sides mostly straight; anterior clypeal margin median section projecting, concave, bounded by teeth. Minor worker. Head sides slightly convex; anterior clypeal margin median section projecting, straight, bounded by angles; propodeal dorsum mostly straight.



19, *armstrongi* group

head and gaster black
otherwise red, glossy



armstrongi

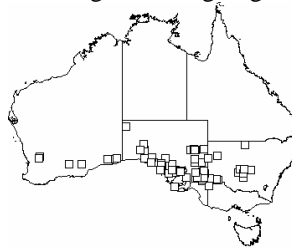
all red, matte



macareaveyi

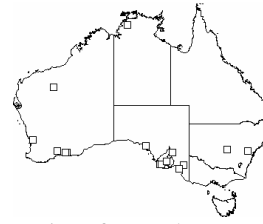
Camponotus armstrongi McAreavey

Worker. HW 1.2 - 2.0; HL 1.30 - 2.0; PW 1.05 - 1.40. Mesosoma bright red, legs lighter, head and gaster black or dark brown; glossy; dorsum of mesosoma evenly convex; declivity mostly concave; plentiful erect long setae, > 20 on mesosoma (more for minor workers), flat-lying on scapes and tibiae; pronotum margined in front; node summit sharp. Major worker. Head sides mostly straight, parallel; vertex straight; forehead swollen; anterior clypeal margin projecting, median section concave, bounded by two teeth. Minor worker. Head sides feebly convex, tapering forward, widest at eye level; vertex, straight to concave; anterior clypeal margin wide, projecting, convex.



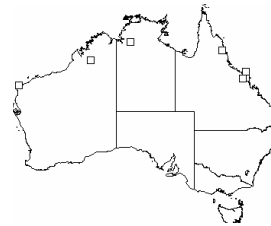
***Camponotus rudis* McArthur**

Worker. HW 1.2 - 2.25; HL 1.45 - 2.35; PW 1.0 - 1.5. Black, legs, antennae and mandibles lighter; matte, finely punctate; < 10 erect setae on mesosoma, a few under head, flat-lying on scapes and tibiae; pronotum margined front and sides; mesosoma dorsum evenly slightly convex; declivity feebly concave; node summit sharp. Major worker. Head sides convex, tapering forward, widest at eye level; vertex straight; anterior clypeal margin projecting, convex with a shallow concavity in middle. Minor worker. Head sides straight, tapering forward; vertex convex; eyes small; anterior clypeal margin projecting, convex, crenulate in middle.

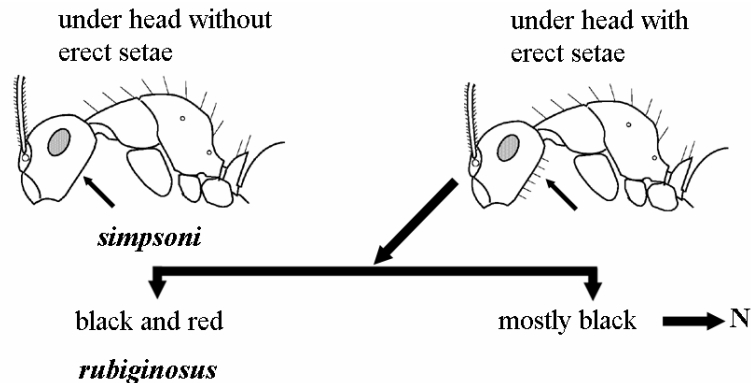


***Camponotus evae* Forel**

Worker. HW 1.25 - 2.25; HL 1.3 - 2.5; PW 1.15 - 1.5. Black, legs lighter; matte, finely punctate; > 30 erect setae on mesosoma, few under head, raised to 40° on scapes and tibiae, distinct; pronotum margined front and sides; node summit sharp. Major worker. Head sides mostly straight, parallel; vertex straight; anterior clypeal margin projecting, widely indented in middle. Minor worker. Head sides convex tapering forward; vertex, slightly convex; anterior clypeal margin projecting, convex in middle.

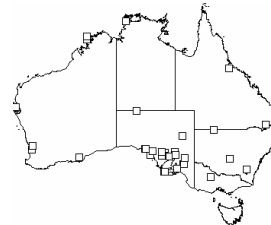


21, *rubiginosus* group



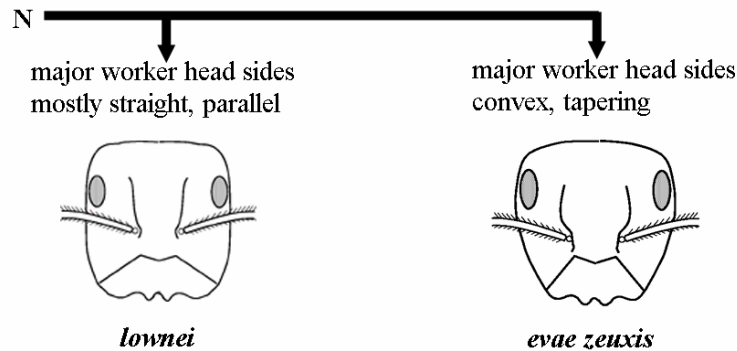
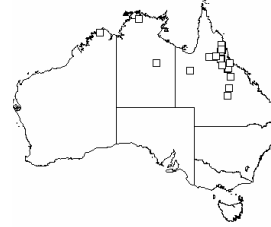
***Camponotus simpsoni* McArthur**

Worker. HW 1.2 - 1.8; HL 1.2 - 1.8; PW 1.0 - 1.25. Black, legs lighter; glossy; erect setae absent under head, mesosoma with < 40; otherwise similar to *evae zeuxis* especially in major worker head sides.

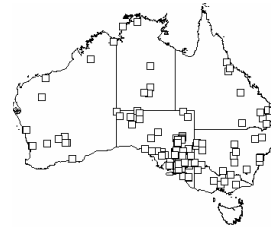


***Camponotus rubiginosus* Mayr**

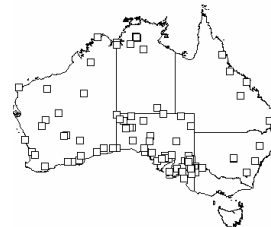
Worker. HW 1.4 - 2.5; HL 1.35 - 2.7; PW 1.2 - 1.8. Red and black, bi-coloration more distinct on gaster; long erect setae > 50 on mesosoma some to 0.4 mm long, short setae raised to 10° on scapes and to 30° on tibiae, otherwise sparse, flat, fine; pronotum margined in front and on side. Major worker. Head swollen, sides mostly straight feebly tapering to front, widest behind eyes; vertex straight; anterior clypeal margin median third marked by sharp teeth, strongly concave between; propodeal declivity (rear view) wide, flat, bare, fringed with long setae. Minor worker. Head sides slightly convex, strongly tapering; vertex straight; anterior clypeal margin wide, convex.

***Camponotus lownei* Forel**

Worker. HW 1.4 - 1.8; HL 1.2 - 2.1; PW 0.9 - 1.3. Dark brown to black, legs lighter; glossy; mesosoma with > 30 erect setae, plentiful under head, scape and tibia with short setae raised to 45°. Major worker. Head sides straight and parallel for 4/5 of their length, then slightly tapering forward; vertex tending concave; frontal carinae wide, anterior clypeal margin median third bounded by two pointed teeth, with a deep semicircular notch between; node summit sharp. Minor worker. Head sides evenly slightly convex, tapering slightly to front; vertex feebly convex, angles rounded; frontal carinae wide, anterior clypeal margin median third nearly straight, bounded by obtuse angles; node summit blunt.

***Camponotus evae zeuxis* Forel**

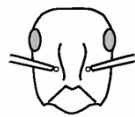
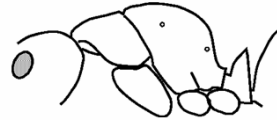
Worker. HW 1.2 - 2.5; HL 1.4 - 2.6; PW 1.2 - 1.7. Black to dark brown; glossy; scape and tibia with plentiful setae up to 0.2 mm long, raised to 45°, just overlapping; > 50 erect setae up to 0.4 mm long spread along mesosoma extending down declivity to near pedicel, a few on front of and under head; pronotum feebly margined; frontal carinae wide; node summit sharp. Major worker. Head sides convex tapering forward; anterior clypeal margin median third projecting,



deeply concave in middle, bounded by two teeth; vertex flat. Minor worker. Head sides mostly uniformly slightly convex tapering to front; vertex slightly convex; anterior clypeal margin median two thirds projecting, evenly convex.

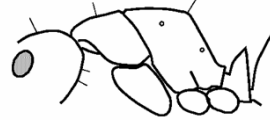
22, *oetkeri* group

no erect setae under head or on mesosoma



oetkeri

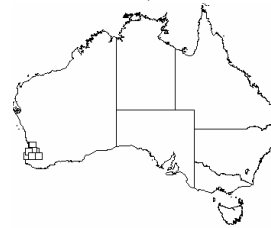
a few erect setae under head and on mesosoma



michaelsoni

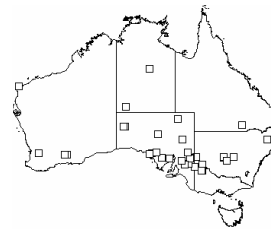
Camponotus michaelsoni Forel

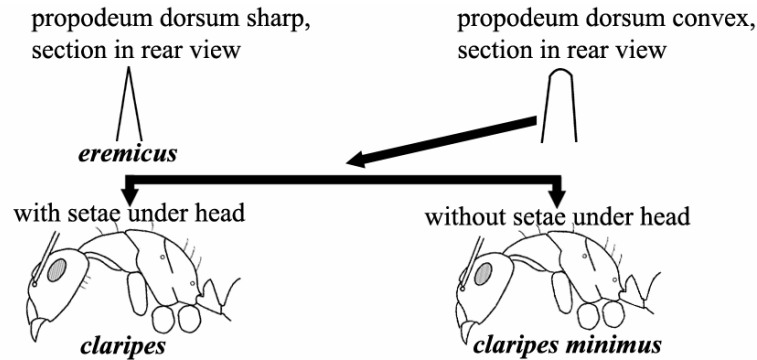
Worker. HW 1.5 - 3.7; HL 1.7 - 3.45; PW 1.3 - 2.1. Brown; reticulate striate; erect setae sparse, < 6 on mesosoma, a few under head and propodeum, indistinct flat-lying on scapes and tibiae; propodeal declivity mostly straight, longer than dorsum; node summit sharp; pronotum margined at front and side. Major worker. Head sides convex, widest at eye level; vertex straight; anterior clypeal margin projecting, median third bounded by teeth on each side with one in middle, shallowly concave between outer and middle teeth. Minor worker. Propodeal angle 120° abrupt; head sides straight, tapering forward; vertex slightly convex; anterior clypeal margin projecting, median half bounded by angles each side, crenulate between.



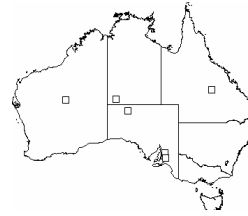
Camponotus oetkeri Forel

Worker. HW 1.80 - 2.20; HL 1.90 - 2.10; PW 1.30 - 1.50. Black, front of head lighter; glossy, finely reticulate; no erect setae on mesosoma nor under head, indistinct flat-lying on scapes and tibiae; propodeal angle wide; node summit sharp; pronotum margined at front and side. Major worker. Head sides convex, tapering forward; vertex straight with well rounded corners; anterior clypeal margin projecting, median third shallowly concave. Minor worker. Propodeal angle 150° widely rounded; head sides convex, tapering forward; vertex slightly convex; anterior clypeal margin feebly projecting, median two thirds widely concave.

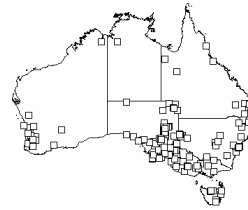


23, *claripes* group*Camponotus eremicus* Wheeler

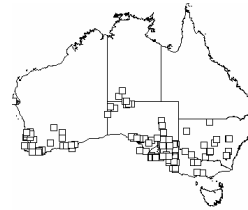
Worker. HW 1.95; HL 1.92; PW 1.28; FCW 0.47. Brown, antennae lighter, legs yellow. Major worker. No erect setae on mesosoma or under head; head sides convex, tapering forward; mesosoma dorsum in profile evenly convex, sharp at angle (blade-like in rear view); pronotum margined at front and sides; anterior clypeal margin median two thirds feebly projecting, straight, bounded by wide angles; frontal carinae narrow. Minor worker. Sparse erect setae on mesosoma and under head, none on scapes and tibiae; head sides straight, feebly tapering forward; vertex convex; frontal carinae narrow; mesosoma dorsum evenly convex; pronotum not margined; pronotum convex on top (rear view).

*Camponotus claripes* Mayr

Worker. HW 0.9 - 2.7; HL 1.5 - 2.85; PW 0.85 - 1.65. Yellow brown, legs lighter; glossy; dense long erect setae on all surfaces of head, less on mesosoma, short raised to 20° on scapes and tibiae, flat-lying, short, widespread not overlapping on mesosoma. Major worker. Head sides mostly slightly convex; vertex straight; anterior clypeal margin bounded by angles with a concavity between; mesosoma dorsum slightly convex; propodeal angle well rounded. Minor worker. Head sides straight, parallel, much longer than wide; head thin (lateral view); vertex convex; anterior clypeal margin median third projecting, convex, sometimes with a wide central concavity; mesosoma dorsum slightly convex; propodeal angle well rounded; large eyes.

*Camponotus claripes minimus* Crawley

Worker. HW 0.95 - 2.44; HL 1.22 - 2.40; PW 0.80 - 1.45. Brown, legs lighter; glossy; sparse erect setae on head, < 10 on mesosoma, indistinct flat-lying on scapes and tibiae; node summit sharp. Major worker. Head sides posterior half straight, parallel then tapering forward; vertex straight; anterior clypeal margin median third projecting, bounded by wide angles, crenulate between; mesosoma dorsum slightly convex; metanotum distinct, depressed front and back, elevated between; propodeal angle well rounded; frontal carinae wide. Minor worker. No erect setae under head; head sides straight, parallel; vertex straight; anterior clypeal margin projecting,



wide, convex; mesosoma dorsum slightly convex; propodeal angle 160° well rounded; large eyes.

ACKNOWLEDGEMENTS

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APPENDIX

TABLE 1. *Camponotus* taxa not included in the key

Species	Author	Type Location
<i>aeneopilosus flavidopubescens</i>	Forel, 1902	MHNG
<i>arcuatus aesopus</i>	Forel, 1907b	not found
<i>bigenus</i>	Santschi, 1919	NHMB
<i>cameratus</i>	Viehmeyer, 1925	ZMB
<i>chalceoides</i>	Clark, 1938	NMV
<i>cinereus notterae</i>	Forel, 1907b	not found
<i>claripes inverallensis</i>	Forel, 1910	MHNG
<i>claripes nudimalis</i>	Forel, 1913	MHNG
<i>claripes orbiculatopunctatus</i>	Viehmeyer, 1925	ZMB
<i>claripes piperatus</i>	Wheeler, 1933	MCZ
<i>consectator</i>	Smith, 1858	BMNH
<i>crenatus</i>	Mayr, 1876	NHMW
<i>cruentatus aspera</i>	Menozzi, 1925	not found
<i>discors yarrabahensis</i>	Forel, 1915	MHNG
<i>erythropus</i>	Viehmeyer, 1925	ZMB
<i>horni</i>	Kirby, 1896	not found
<i>insipidus</i>	Forel, 1893	MHNG
<i>lividicoxis</i>	Viehmeyer, 1925	not found
<i>longinodis</i>	Forel, 1915	NMV
<i>molossus</i>	Forel, 1907b	MHNG
<i>nigriceps lividipes</i>	Emery, 1887	MCG
<i>nigroaeneus divus</i>	Forel, 1907a	MHNG
<i>nigroaeneus xuthus</i>	Forel, 1915	MHNG
<i>nitidiceps</i>	Viehmeyer, 1925	ZMB
<i>oetkeri voltai</i>	Forel, 1913	MHNG
<i>pellax</i>	Santschi, 1919	NHMB
<i>punctiventris</i>	Emery, 1920	MCG
<i>scratius nunctius</i>	Forel, 1907b	not found
<i>simulator</i>	Forel, 1915	MHNG
<i>spinitarsus</i>	Emery, 1920	MCG
<i>subnitidus famelicus</i>	Emery, 1887	MCG
<i>suffusus bendigensis</i>	Forel, 1902	MHNG
<i>tumidus</i>	Crawley, 1922	OUM
<i>walkeri bardus</i>	Forel, 1910	MHNG

TABLE 2. Character states and legend for species in the key.






































A head: integument	1 glossy, 1 reticulate, 2 finely punctate, 3 coarsely punctate, 4 hidden by setae,
B head : sides curvature	1 (), 2 ,
C head : sides taper	1 , 2 \ /, 3 / \,
D head : vertex	1  , 1  , 2  , 3 with collar  ,
E head : clypeus	1  , 2  , 3  , 4  , 5  , 6  ,
F head: frontal carinae	Ratio HW/FCW  
G mesosoma: dorsum	1  , 1  , 2  , 3  , 3  , 4  ,
H node: summit	1  , 2  , 2  , 3  , 4  , 5  ,
I setae: under head	1  , 2  , 3  ,
J setae: tibiae	 ,  ,  ,
K setae: mesosoma, no.	1 indistinct or flat, 2 raised to 10 °, 3 raised > 10 °, 1 < 6, 2 6 - 20, 3 > 20,
L setae: mesosoma length	 ,  , 1 < EL, 2 > EL, 3 both short and long,
M setae: mesosoma, distribution	 ,  ,  , 1 near uniform, 2 more at posterior, 3 anterior,
N setae: short, on gaster	 ,  , 1 hiding integument. 2 not hiding integument.

TABLE 3. Character states and legend for species in the key

Worker	Major													Minor														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	A	B	C	D	E	F	G	H	I	J	K	L	M	N
<i>adami</i>	not available													1	2	2	2	3	3	1	4	2	3	1	1	2	1	2
<i>aeneopilosus</i>	2	1	2	1	5	3.3	3	2	1	1	2	2	2	1	2	2	2	1	3	2.9	3	2	1	1	2	2	1	1
<i>afflatus</i>	2	2	2	2	5	2.4	1	2	3	1	1	2	1	2	1	2	2	2	4	3.3	1	2	1	1	1	2	2	2
<i>anderseni</i>	1	1	1	2	4	1.3	3	2	1	1	1			2	1	1	2	2	4	2.0	1	2	1	1	1	1	1	2
<i>annetteae</i>	not described													1	2	1	1	3	1.5	1	2	3	1	3	3	3	2	
<i>arcuatus</i>	2	2	2	1	5	2.6	4	2	3	1	2	2	2	2	1	2	2	1	4	2.3	4	2	3	1	2	2	2	2
<i>arenatus</i>	not described													2	2	1	2	4	3.2	1	2	2	1	3	2	1	2	
<i>armstrongi</i>	1	2	1	1	5	2.6	3	1	3	2	3	2	1	2	1	2	2	1	4	2.8	5	1	3	2	3	2	1	2
<i>aurocinctus</i>	1	1	2	1	3	4.0	1	4	2	1	1	2	1	2	2	1	1	2	3	3.5	1	4	3	1	1	2	1	2
<i>capito</i>	1	1	2	1	5	2.9	1	2	1	1	2	2	2	2	1	1	2	2	4	3.0	1	2	1	1	2	2	1	2
<i>c. ebinithorax</i>	1	2	1	1	5	3.3	3	2	3	2	2	2	1	2	1	2	2	1	4	2.8	1	2	3	1	1	2	1	2
<i>ceriseipes</i>	1	1	2	1	3	3.9	1	2	2	1	1	2	1	2	1	1	2	2	4	4.1	1	4	2	1	2	2	1	2
<i>chalceus</i>	2	1	2	1	5	3.1	2	2	3	1	2	2	2	2	2	1	2	2	4	2.6	2	2	3	1	2	2	1	2
<i>cinereus</i>	1	1	2	1	5	3.3	3	2	1	1	1	2	1	2	2	2	2	1	4	2.9	3	2	1	1	2	2	1	2
<i>c. amperi</i>	1	1	2	1	5	3.3	3	2	1	1	1	2	1	2	2	2	2	1	4	2.9	3	2	1	1	2	2	1	2
<i>clarior</i>	1	1	2	1	1	4.0	3	2	3	2	3	2	1	2	1	1	1	1	1	3.7	3	2	3	2	3	2	1	2
<i>claripes</i>	1	2	2	1	5	3.0	4	2	3	2	3	2	1	2	1	2	1	1	4	3.1	3	2	3	2	2	2	1	2
<i>c. elegans</i>	1	1	2	1	5	2.8	3	2	3	2	2	2	1	2	1	2	1	1	4	2.6	3	2	3	2	2	2	1	2
<i>c. -marcens</i>	2	2	1	2	5	2.8	3	1	3	1	3	2	1	2	1	2	3	2	2	2.9	3	2	3	1	2	2	1	2
<i>c. minimus</i>	1	1	2	1	5	3.3	3	2	3	1	2	2	2	2	1	2	2	1	4	2.3	3	2	1	1	1	2	1	2
<i>conithorax</i>	1	2	1	2	3	1.8	1	2	1	1	1	1	1	2	1	2	2	2	4	2.0	2	2	1	1	1	1	1	2
<i>consobrinus</i>	1	1	2	1	1	3.5	3	2	1	2	2	2	1	2	1	2	1	2	2	3.0	3	2	1	2	2	2	1	2
<i>cowlei</i>	1	1	2	1	3	3.5	3	2	3	2	2	2	1	2	1	2	1	1	3	3.3	4	2	3	2	1	2	1	2
<i>darlingtoni</i>	1	1	2	1	3	3.0	3	2	1	1	2	2	1	2	1	2	2	1	4	2.5	3	2	1	1	2	2	1	2
<i>discors</i>	1	1	2	1	3	3.7	3	2	3	1	1	2	1	2	1	2	1	1	4	3.3	3	2	1	1	1	2	1	2
<i>donnellani</i>	not described													1	2	2	2	4	3.7	1	2	2	1	2	2	1	2	
<i>d. confusus</i>	2	2	1	1	3	3.8	3	2	3	3	3	3	1	2	1	2	3	3	4	2.9	3	2	3	3	3	3	1	2
<i>dromas</i>	1	2	1	1	5	2.4	1	2	3	1	3	2	1	2	1	2	2	1	4	2.8	1	2	3	1	3	2	1	2
<i>dryandrae</i>	1	1	2	1	1	3.3	3	2	3	2	3	3	1	2	1	2	1	1	2	3.3	3	2	3	2	3	3	1	2
<i>eastwoodi</i>	1	1	2	1	1	3.9	3	2	3	1	3	3	1	2	1	2	3	1	2	3.1	3	2	3	1	3	3	1	2
<i>ephippium</i>	1	2	1	1	5	3.0	1	2	3	2	3	2	1	2	1	2	1	1	4	2.8	1	2	3	2	3	2	1	1
<i>e. narses</i>	1	2	2	2	5	2.7	3	2	1	1	3	2	1	2	4	2	1	1	3	2.9	3	2	1	1	3	2	1	1
<i>eremicus</i>	not available													1	1	2	1	4	3.9	4	1	3	1	1	2	1	2	
<i>esau</i>	2	1	2	1	5	2.9	3	2	3	2	2	2	1	1	2	2	2	1	4	2.6	3	2	3	2	2	2	1	1
<i>evae</i>	not available													2	1	2	1	4	2.9	3	2	3	2	3	2	1	2	
<i>e. zeuxis</i>	1	1	2	1	5	3.0	3	1	3	3	3	2	1	2	1	2	2	1	4	2.8	3	2	2	3	3	2	1	2
<i>extensus</i>	2	1	2	1	3	3.3	3	2	3	2	2	3	3	2	2	2	3	3	3	3.1	3	2	3	2	2	3	3	2

TABLE 3. continued

Worker	Major											Minor																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	A	B	C	D	E	F	G	H	I	J	K	L	M	N
<i>fergusoni</i>	1	1	2	1	5	3.2	3	2	3	1	2	2	3	2	4	2	1	1	4	3.4	1	2	3	1	2	2	1	1
<i>fieldeae</i>	2	1	2	1	3	3.4	3	2	3	3	2	2	1	2	2	2	1	1	3	3.1	3	2	3	3	2	2	1	2
<i>fielidellus</i>	1	2	1	1	5	2.6	3	2	1	1	2	2	1	2	4	2	2	4	3.0	3	2	1	1	2	2	1	1	
<i>froggatti</i>	1	2	2	1	5	2.7	2	2	1	1	2	2	1	2	1	2	2	1	4	2.5	2	2	3	1	1	2	1	2
<i>gasseri</i>	1	2	1	1	4	1.5	1	2	1	1	1			2	1	2	2	4	1.8	1	2	1	1				2	
<i>gibbinotus</i>	1	1	2	1	3	3.7	3	2	1	1	1	2	1	2	1	2	1	1	4	3.3	3	2	1	1	1	2	1	2
<i>gouldianus</i>	1	1	2	1	3	4.0	3	2	2	3	3	3	1	2	4	1	1	2	4	3.2	3	2	2	3	3	3	1	1
<i>hartogi</i>	2	1	2	1	5	2.8	3	2	3	1	3	2	2	2	2	1	2	1	5	2.6	3	2	3	1	3	2	1	2
<i>howensis</i>	1	2	1	1	3	1.8	3	2	1	1	1			2	1	1	1	2	4	2.2	3	2	1	1			2	
<i>inflatus</i>	2	2	2	2		3.0	3	2	3	2	3	2	1	2	2	1	2	1	4	2.9	3	2	3	2	3	2	1	2
<i>innexus</i>	2	1	2	1	5	2.9	3	2	3	1	2	2	1	2	2	2	2	5	2.6	3	2	3	1	3	2	1	2	
<i>intrepidus</i>	2	1	2	1	6	3.9	1	2	3	3	3	1	1	2	2	2	1	2	4	3.4	1	2	3	3	3	1	1	2
<i>i. bellicosus</i>	2	1	2	1	6	4.1	1	2	3	3	3	3	3	2	2	2	1	2	4	3.7	1	2	3	3	3	1	1	2
<i>janeti</i>	1	2	1	1	4	1.8	3	2	3	3	3	2	1	2	1	2	1	1	4	1.6	3	2	3	3	3	2	1	2
<i>janforrestae</i>	not described											1	2	2	2	5	2.1	1	2	3	3	3	2	1	2			
<i>johnclarki</i>	not available											1	2	1	3	4	4.2	1	5	3	3	3	2	1	2			
<i>leae</i>	3	2	2	1	5	2.8	1	1	3	3	3	2	1	2	3	1	1	2	6	2.9	1	4	1	3	2	2	1	1
<i>longideclevis</i>	1	1	2	1	1	3.5	3	2	1	2	2	3	3	2	1	2	1	1	2	3.3	3	2	1	2	2	2	3	2
<i>longifacies</i>	1	1	2	1	3	3.3	3	2	3	1	2	3	1	2	1	2	2	2	4	3.4	1	2	3	1	2	2	1	1
<i>loweryi</i>	1	1	2	1	1	3.7	3	2	1	1	3	2	3	2	1	2	1	1	2	3.1	3	2	1	1	3	2	3	2
<i>lownei</i>	1	2	1	1	5	2.8	3	2	3	3	3	2	1	2	1	1	2	1	4	2.9	3	2	3	3	3	2	1	2
<i>macareaveyi</i>	1	2	1	1	5	3.0	3	2	3	3	3	2	1	2	1	2	2	1	4	2.9	3	2	3	3	3	2	1	2
<i>mackayensis</i>	2	2	2	1	4	1.9	3	2	3	1	2	3	1	2	1	1	2	2	4	2.4	2	2	1	1	2	2	1	2
<i>macroceph.</i>	1	2	1	1	4	1.7	3	2	1	1	1			2	1	1	1	2	4	2.0	3	2	1	1			2	
<i>m. humilor</i>	1	1	2	1	3	2.9	3	2	3	2	2	2	3	2	1	2	1	2	1	3	2.5	3	2	3	2	2	3	2
<i>michaelseni</i>	1	1	2	1	6	3.5	3	1	1	1	1	2	1	2	1	1	2	1	4	3.0	3	2	3	1	1	2	1	2
<i>nigriceps</i>	1	1	2	1	1	3.6	3	2	3	2	3	2	1	2	1	2	1	2	2	2.9	3	2	3	2	3	2	1	2
<i>nigroaeneus</i>	2	2	1	1	5	3.0	3	2	3	2	2	2	1	2	1	2	1	2	5	2.6	3	2	3	2	2	2	1	
<i>novaeaholland.</i>	2	2	2	1	4	3.3	3	2	3	2	3	2	3	2	1	2	1	2	3	3	2.7	3	2	3	2	3	2	2
<i>oetkeri</i>	1	1	2	1	5	4.1	3	1	1	1	1			2	1	1	2	1	4	4.4	3	1	1	1	1	2	1	2
<i>owensae</i>	not described											1	2	1	1	4	3.1	1	4	2	2	2	3	1	2			
<i>oxleyi</i>	2	1	2	1	5	2.9	3	2	3	1	3	2	1	2	2	2	1	2	5	2.8	3	2	3	1	3	2	1	1
<i>pallidiceps</i>	1	1	2	1	1	3.7	3	2	3	2	2	3	1	2	1	2	1	2	2	3.0	3	2	3	2	2	2	1	1
<i>pawseyi</i>	1	2	1	1	5	2.9	1	2	3	3	3	3	1	2	4	2	2	4	2.9	1	2	3	2	3	2	1	1	
<i>perjurus</i>	not described											1	2	2	2	4	3.1	1	2	1	1	2	2	1	2			
<i>piliventris</i>	not available											2	1	2	2	4	3.7	1	2	3	3	3	1	1	1			
<i>pitjantjat.</i>	1	1	2	1	5	3.4	3	2	1	1	2	2	1	2	2	1	2	1	5	3.2	3	2	1	1	2	2	1	2
<i>postcornutus</i>	1	1	2	1	3	4.1	3	2	2	2	2	3	1	2	1	1	2	2	4	2.9	3	2	2	1	2	2	1	2

TABLE 3. continued

Worker	Major													Minor																
Character	A	B	C	D	E	F	G	H	I	J	K	L	M	N	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
<i>prosseri</i>	1	1	2	1	3	3.8	3	2	2	1	2	2	1	2	1	1	1	2	4	3.3	1	2	2	1	2	2	1	2		
<i>prostans</i>	1	1	2	2	1	3.6	3	2	3	2	2	2	3	2	1	2	1	1	2	3.1	3	2	3	2	2	2	3	2		
<i>rubiginosus</i>	1	2	2	1	5	3.2	3	2	3	3	3	2	1	2	1	2	1	2	1	4	3.0	3	2	3	3	2	1	2		
<i>rudis</i>	2	1	2	1	5	3.6	3	2	3	2	2	2	1	2	1	2	1	2	2	4	3.3	3	2	3	1	2	2	1	2	
<i>rufonigris</i>	1	1	2	1	4	3.8	1	2	2	1	2	2	1	2	1	2	1	2	2	4	3.3	1	2	2	1	2	2	3	1	
<i>rufus</i>	1	1	2	1	4	3.6	3	2	1	1	1	2	1	2	1	2	1	2	1	3	3	3.5	3	3	1	1	1	1	2	
<i>sanguinifrons</i>	1	2	1	1	3	1.8	1	2	3	1	2	3	1	2	1	2	1	2	2	4	2.4	1	2	3	1	1	2	1	2	
<i>scotti</i>	1	1	2	1	5	3.1	3	2	1	1	2	2	1	2	1	2	1	2	1	4	2.7	3	2	1	1	2	2	1	2	
<i>scratius</i>	1	1	2	1	5	3.0	3	1	3	2	2	2	1	2	1	2	1	2	1	4	2.7	3	2	3	2	1	2	1	2	
<i>setosus</i>	not described													4	1	1	2	4	3.4	1	2	2	3	3	2	1	1	1	1	
<i>simpsoni</i>	1	2	1	1	5	3.0	3	1	1	1	2	2	1	2	1	2	1	2	1	5	2.7	3	1	1	1	3	2	1	2	
<i>spenseri</i>	2	1	2	1	3	3.3	3	2	3	3	2	2	3	2	1	2	1	2	1	1	3	3.0	3	2	3	3	2	2	3	2
<i>sponsorum</i>	1	2	1	2	5	2.8	1	2	3	1	2	2	1	2	1	2	1	2	2	4	2.9	1	2	3	1	2	2	1	2	
<i>subnitidus</i>	2	2	2	1	3	3.8	3	2	3	1	2	3	1	2	1	2	1	2	2	3	4	3.8	3	3	3	1	1	3	1	2
<i>suffusus</i>	2	1	2	1	3	3.7	1	2	3	3	3	1	1	1	1	1	1	1	2	1	4	3.5	1	2	3	3	1	1	1	1
<i>tasmani</i>	1	2	1	1	5	2.6	1	2	3	3	3	2	1	2	1	2	1	2	1	4	3.4	1	2	3	3	3	2	1	2	
<i>terebrans</i>	1	1	2	1	3	4.2	3	2	2	3	2	2	1	2	1	2	1	2	1	1	2	4	3.2	3	2	2	3	2	1	2
<i>thadeus</i>	2	2	2	1	5	3.4	3	2	1	1	3	2	1	1	1	1	1	1	2	1	4	2.8	3	2	1	1	3	2	1	1
<i>tricoloratus</i>	1	2	2	1	3	3.6	3	2	3	1	2	3	1	2	1	2	1	2	1	3	4	3.5	3	3	3	1	2	3	1	2
<i>tristis</i>	2	1	2	1	5	3.7	3	1	1	1	1	2	1	2	1	2	1	2	1	2	3	5	3.6	3	1	1	1	1	1	2
<i>versicolor</i>	1	1	2	1	3	4.0	1	4	2	1	1	2	1	2	1	2	1	2	1	2	3	4.0	1	4	3	1	1	2	1	2
<i>villosus</i>	2	2	2	1	4	3.3	3	2	3	2	3	2	3	2	1	2	1	2	1	2	3	3	2.3	3	2	3	2	3	2	2
<i>vitreus</i>	1	2	1	1	4	1.8	1	2	1	3	3	2	1	2	1	2	1	2	1	4	1.8	1	2	1	3	3	2	1	2	
<i>walkeri</i>	1	1	2	1	3	3.4	3	1	3	1	2	2	1	2	1	2	1	2	1	4	2.9	3	2	3	1	2	2	1	2	
<i>whitei</i>	1	1	2	1	5	2.3	1	2	3	3	3	2	1	2	1	2	1	2	1	4	2.7	1	2	3	3	2	2	1	2	
<i>wiederkehri</i>	1	1	2	1	3	3.4	1	1	2	1	2	2	1	2	1	2	1	2	1	4	2.9	3	2	2	1	2	2	1	1	