



invertebrate facts

FS06040

Key to subfamilies of Australian ants

http://www.ento.csiro.au/science/ants/key/Australian_Ants_Subfamily_Key.pdf

Used with permission of Natalie Barnett, CSIRO Entomology (2003)

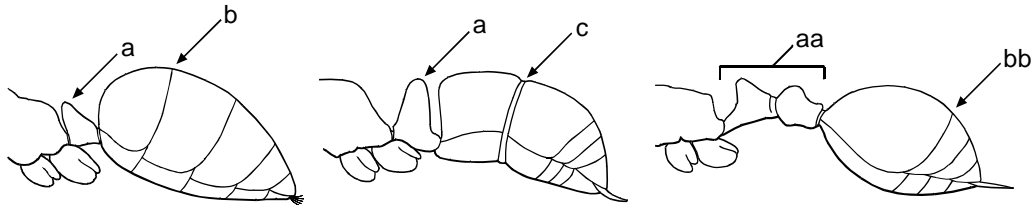


Key to the Subfamilies of Australian Ants

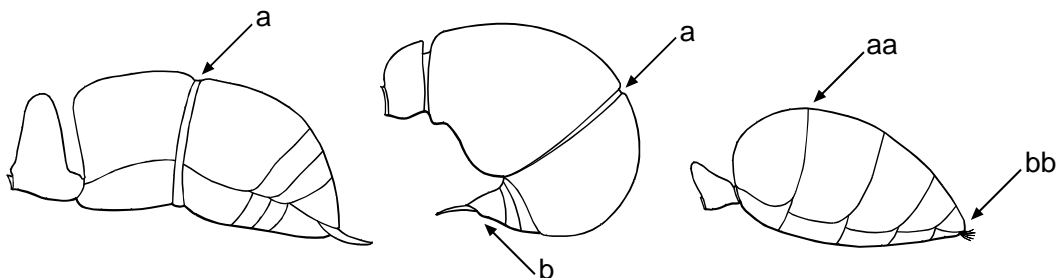
Steve Shattuck and Natalie Barnett
CSIRO Entomology
April, 2001

www.ozants.com

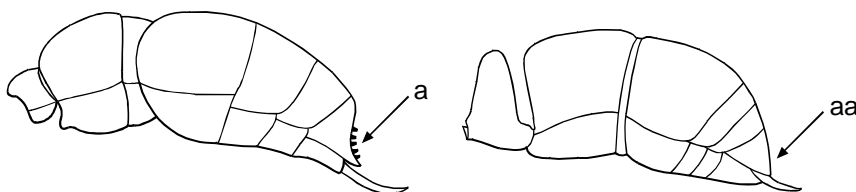
1. Mesosoma attached to the gaster by a single, distinct segment (the petiole) (Fig. a). Junction between the first and second segments of the gaster either smooth and uniform (Fig. b) or slightly impressed (Fig. c)2
- Mesosoma attached to the gaster by 2 segments (the petiole and postpetiole), each segment being set off by distinct constrictions (Fig. aa). Gaster always smooth and uniform in shape and without an impression between the first and second segments (Fig. bb)7



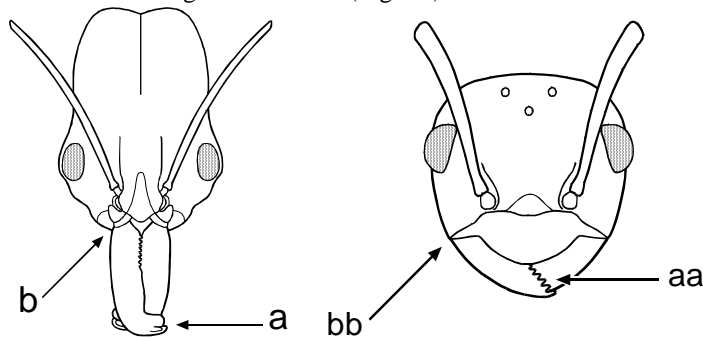
2. Gaster with a slight but distinct impression between the first and second segments (Fig. a) or, in some cases (species of *Discothyrea*) the gaster is highly modified and the impression is weak or essentially absent, but these have the tip of the gaster directed downwards and located along the lower surface of the body (Fig. b).....3
- Gaster uniform in outline, without an impression between the first and second segments (Fig. aa) and with the tip of the gaster always directed rearwards (Fig. bb)4



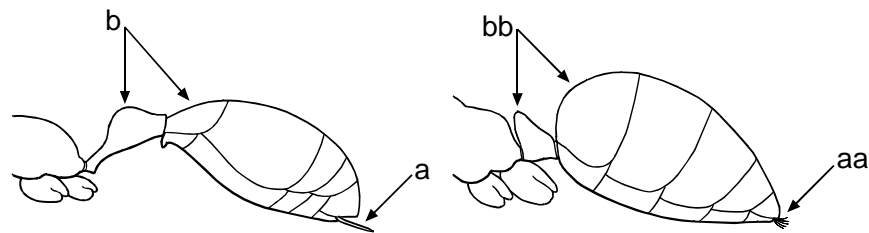
3. Upper surface of the tip of the gaster (the pygidium) flattened and with a row of small spines or peg-like teeth along its outer and trailing edge (Fig. a) **Cerapachyinae**
- Upper surface of the tip of the gaster (the pygidium) rounded and without a row of spines or teeth on its outer and trailing edge (Fig. aa) **Ponerinae** (in part)



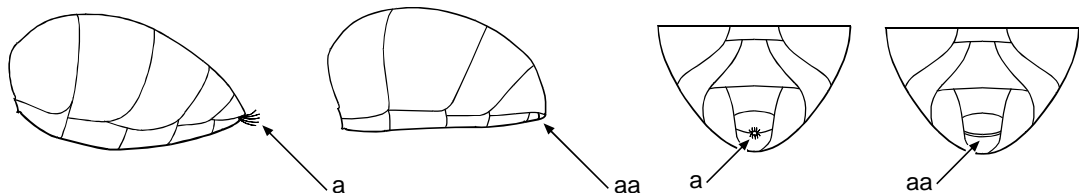
4. Mandibles elongate and straight, with teeth only at the extreme tip (Fig. a), and attached close together along the front margin of the head (Fig. b) **Ponerinae** (in part)
 Mandibles triangular, with teeth along the entire inner margin (Fig. aa), and with their attachments at the outer corners of the front margin of the head (Fig. bb).....5



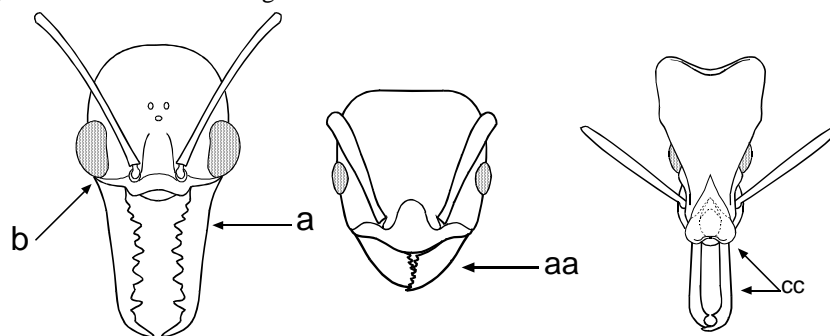
5. Sting present and usually visible at the tip of the gaster (Fig. a). Length of the petiole about the same as the length of the first segment of the gaster, or slightly longer (Fig. b).....
 **Nothomyrmecinae (with the single genus *Nothomyrmecia*)**
 Sting absent (Fig. aa). Length of the petiole much shorter than the length of the first segment of the gaster (Fig. bb).....6



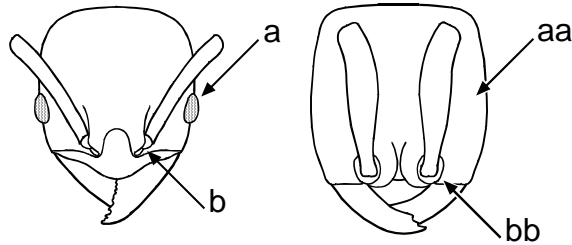
6. Tip of the gaster with a circular or semicircular opening (acidopore) which is often fringed with short hairs (Fig.a) **Formicinae**
 Tip of the gaster slit-like and never with a fringe of short hairs (Fig. aa)..... **Dolichoderinae**



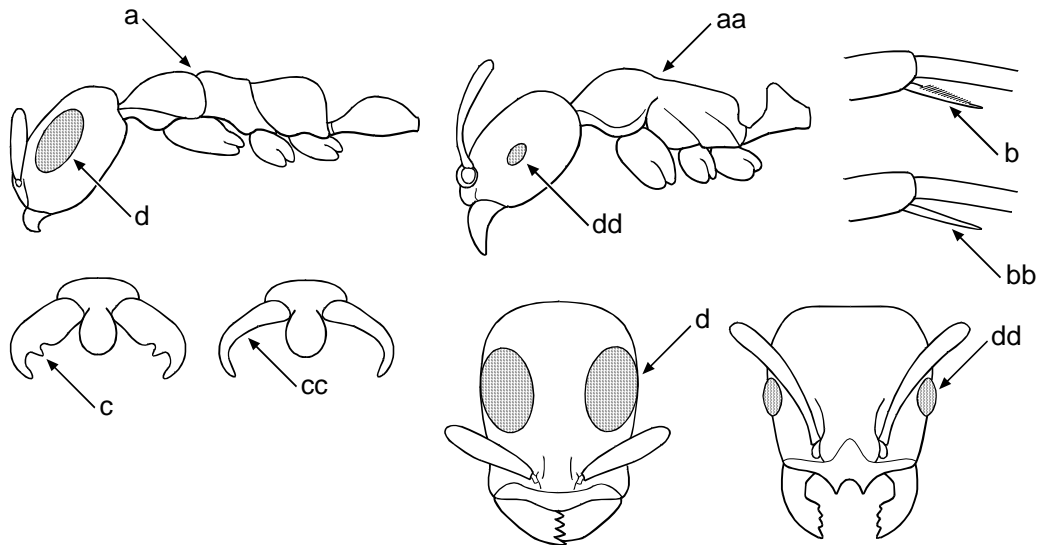
7. Mandibles very long, more or less straight, with teeth along their entire inner margin (Fig. a), and attached near the outer corners of the front margin of the head (Fig. b). Larger species, usually over 8 mm in total length **Myrmecinae (with the single genus *Myrmecia*)**
 Mandibles generally triangular (Fig. aa), but if elongate then there are no teeth along the inner margin and they are attached near the middle of the front margin of the head (Fig. cc). Smaller species, generally under 8 mm in total length8



8. Eyes almost always present, conspicuous and with many facets (ommatidia) (Fig. a) but absent in a few species. Frontal lobes present and expanded towards the sides so they cover the inner part of the antennal bases where they are inserted into the head when viewed from the front (Fig. b)9
 Eyes absent (Fig. aa) or at most with only 1 facet (ommatidium). Frontal lobes absent so that the bases of the antennae are completely visible where they are inserted into the head when viewed from the front (Fig. bb)10



9. First segment of the mesosoma (pronotum) connected to the second segment (mesonotum) by a flexible joint (Fig. a). Tibiae of the hind legs with large comb-like (pectinate) spurs (Fig. b). Tarsal claws toothed (Fig. c). Eyes very large and elongate (Fig. d). Body elongate and slender.....
**Pseudomyrmecinae (with the single genus *Tetraponera*)**
 First segment of the mesosoma (pronotum) fused to the second segment (mesonotum) (Fig. aa). Tibiae of the hind legs with either simple spurs (without comb-like teeth) (Fig. bb) or lacking spurs. Tarsal claws simple (Fig. cc). Eyes generally small and round (Fig. dd). Body often short and compact.....**Myrmicinae**



10. Antennae with 10 segments (including the scape). Overall body length over 3 mm
**Aenictinae (with the single genus *Aenictus*)**
 Antennae with 12 segments (including the scape). Overall body length less than 2.5 mm.....
**Leptanillinae (with the single genus *Leptanilla*)**