Ants of Northern Australia

Approximately 1500 species of ants occur in the monsoonal zone of northern Australia. Here are some of the common species.



Giant foaming ant Bothroponera hera



Common furnace ant Melophorus fieldi



Paratrechina vaga



Black beauty ant Calomyrmex impavidus



Chocolate shield ant Meranoplus mjobergi



Pheidole sp (minor)



Northern common sugar ant Camponotus novaehollandiae



Little black mono ant Monomorium nigrium



Native big-headed ant Pheidole sp (major)



Angle-headed cannibal ant Cerapachys singularis



Giant snappy ant Odontomachus turneri



Polyrhachis senilis



Common valentine ant Crematogaster australis



Green tree ant Oecophylla smaragdina







Savanna strobe ant Opisthopsis haddoni



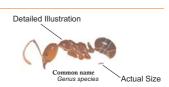


Tetraponera punctulata



Northern meat ant Iridomyrmex sanguineus





Illustrations by Peter Jacklyn

Ants of Northern Australia

Australia is the Kingdom of the Ant! The abundance and diversity of ants is exceptionally high in Australia compared with the rest of the world. An estimated 6,000 species occur in Australia, most of which have not been named, and hundreds not yet even collected. Throughout the savanna landscapes of northern Australia, more than 100 species are commonly found within less than a hectare. Here, ants are so abundant that they represent up to a third of the total biomass of all faunal groups (including birds and mammals) combined.



Giant foaming ant

Foaming ants (species of Bothroponera) are named after the foam-like venom that is injected from their powerful stings. They occur in very small colonies (sometimes just a dozen or so individuals), and seem to be specialist predators of termites. More than 50 species occur in Australia, mostly in the tropical north. The Giant foaming ant is restricted to rainforest patches of the Top End of the Northern Territory.



Black beauty ant

Beauty ants (species of Calomyrmex) are endemic to the Australian region, where most of the estimated 25 species occur in desert and tropical savanna environments. Many species have spectacular blue, green or pink iridescence. The Black beauty ant lacks such iridescence, and occurs in moist, shady habitats (such as the fringes of wetlands) in North Queensland and the Top End.



Northern common sugar ant

Sugar ants (species of Camponotus) occur throughout the world, with several hundred species found in Australia. Most sugar ants are relatively large, and many are nocturnal. A single site can support up to 20 species of sugar ants. Several species of Northern common sugar ants, including uniformly dark-brown, uniformly yellowish, and bicoloured forms, occur throughout northern Australia.



Cannibal ants (species of Cerapachys) are specialist predators of other ants, raiding brood (eggs and larvae) from their nests. Cannibal ants occur throughout the tropical world; Australia is unusual in that most of its estimated 150 species are found in the arid zone



Common valentine ant

Valentine ants (species of Crematogaster) are named after their heart-shaped gaster ('abdomen'), and occur throughout the world. Most of Australia's 50 or more species have reddish foreparts with contrasting black gaster, and nest and forage in trees. Other species are uniformly yellowish or reddish, and nest in the ground.



Meat ants (purpureus group of Iridomyrmex) are among the most conspicuous insects throughout inland Australia. They are fast-moving and aggressive ants occurring in very large colonies. A colony of the Northern meat ant consists of numerous nests interconnected by ant 'freeways'. Like all Tyrant ants (species of Iridomyrmex), meat ants give off a characteristic 'crushed ants' odour when disturbed.



Genial killer ants (species of *Leptogenys*) occur throughout the tropical world, where they are specialist predators of other arthropods. Australia has about 50 species, found almost exclusively in the tropical north. Some groups occur only in wet forests along the northeastern seaboard, whereas others are found in open savanna environments. They have painful stings.



Common furnace ant

The remarkably thermophilic (heat-loving) Furnace ants (species of Melophorus) are endemic to Australia, occurring primarily in the arid zone. They forage only during high temperatures, when it is too hot for most other ants. Furnace ants are exceptionally diverse, perhaps with 1000 or more species. Most species are generalist scavengers, but some are specialist predators, and others are seed-harvesters.



Shield ants (species of Meranoplus) occur throughout the African and Asian tropics, but are particularly diverse in Australia, with an estimated 400 species. Most occur in the arid zone, but many are found in the savanna landscapes of northern Australia. When disturbed many species tuck their legs under their dorsal shield, retract their antennae into deep grooves on the sides of their head, and lie motionless until danger passes.



Mono ants (species of Monomorium) occur throughout the world, but are particularly diverse in Australia, with perhaps 500 species. They produce ant repellent compounds in their venom, to help ward off competitors such as the highly aggressive Tyrant ants (species of Iridomyrmex). Some species are specialist seedharvesters



Giant snappy ants (species of Odontomachus) occur throughout the world's tropics, particularly in rainforest. They forage with open mandibles that are triggered to snap shut when specialised hairs are touched by their prey. Australia has about 30 species, occurring mostly in tropical savanna (rather than rainforest) habitats. They are sometimes referred to as 'Bull ants' because of their large size and painful sting, but are not related to the true Bull ants (species of Myrmecia) of southern Australia.



Green tree ant

The Green tree ant is one of two species of arboreal weaver ants of the genus Oecophylla, which use larval silk to glue their leafy nests together. The Green tree ant is a very aggressive species occurring from northern Australia to southern China. It is used as a biological control agent in tropical orchards, protecting fruit trees from insect pests.



Strobe ants (species of *Opisthopsis*) are restricted to the Australian region, with most of the estimated 25 species occurring in open habitats of northern Australia. They move using small jumps, giving them a characteristically jerky appearance. The Savanna strobe ant is found throughout savanna habitats of northern Australia.



Red cocktail ant

Red cocktail ants (species of Papyrius) have a pungent aroma that is reminiscent of a coconut-flavoured cocktail. They occur in very large colonies, often nesting at the bases of trees. Red cocktail ants are endemic to Australia, where they are widely distributed outside the central arid



Forest parrot ant

Parrot ants (species of Paratrechina) are found throughout the world, mostly in shady or swampy habitats. They are unspecialised species that seem to be particularly sensitive to competition from more aggressive ants, and are only ever very common at sites of low ant diversity. An estimated 80 species occur in Australia.



Big-headed ant

Big-headed ants (species of Pheidole) occur ubiquitously in warm environments throughout the world. Workers are dimorphic, comprising the more common smaller forms (minor workers) and the larger forms with disproportionately large heads (major workers, otherwise known as soldiers). An estimated 500 species occur in Australia. An introduced species, the African big-headed ant (Pheidole megacephala), is a common pest ant around human settlements throughout northern Australia.



Spiny ants (species of *Polyrhachis*) occur throughout the African and Asian tropics, and are particularly rich in Australia, with an estimated 350 species. The Australian fauna includes arboreal groups occurring in rainforest, as well as ground-nesting groups occurring in open habitats. Savanna spiny ants (sub-genus Chariomyrma) occur throughout northern Australia.



Pony ants (species of Rhytidoponera) are found only in the Australian region, with the estimated 350 Australian species represented in all habitats. The Lesser-horned pony ants are large species in which the top corners of the head are sharply angular. In related species (the Greaterhorned pony ants) the corners of the head extend as conspicuous horn-like projections



Pennant ants (species of Tetramorium) are so named because of the flag-shaped appendages on their stings (which can only be seen under a microscope!). They are very diverse in both Africa and Australia, with the estimated 350 Australian species occurring primarily in the arid zone.



Black tree ants (species of Tetraponera) occur throughout tropical Africa and Asia, with several species occurring in northern Australia. They all nest in hollow twigs and branches. Tetraponera punctulata occurs in savanna habitats throughout northern Australia.



Illustrations and information taken from 'Ants of Northern Australia: A Guide to the Monsoonal Fauna', by Alan N. Andersen.

CONTACT: Dr Alan Andersen, CSIRO Ecosystem Sciences, Darwin NT Phone: 08 8944 8400 Email: Alan. Andersen@csiro.au @ 2005 CSIRO Design: Adam Liedloff