

= Black @-@ headed sugar ant =

The black @-@ headed sugar ant ( *Camponotus nigriceps* ) , also known as the brown sugar ant , is a species of Formicinae ant endemic to Australia . Found throughout most states , the species is a member of the genus *Camponotus* , a cosmopolitan genus of ants commonly known as carpenter ants . It was formally described and named by British entomologist Frederick Smith in 1858 . These ants are characterised by their black head , reddish @-@ brown mesosoma and black gaster , which can change in colour .

The species is polymorphic : workers and soldiers measure 6 to 12 millimetres ( 0 @.@ 24 to 0 @.@ 47 in ) and males are 12 millimetres ( 0 @.@ 47 in ) . The queens are the largest members of the colony , measuring 16 millimetres ( 0 @.@ 63 in ) . Colonies dwell in dry regions , including open areas or in dry sclerophyll woodland , where they nest in soil , large mounds or under stones . Nuptial flight occurs in summer and nests can hold several thousand individuals . Considered a household pest , black @-@ headed sugar ants feed on sweet foods and insects and tend to butterfly larvae . Numerous birds and fish prey on these ants .

= = Taxonomy = =

The black @-@ headed sugar ant was described from a holotype worker by British entomologist Frederick Smith in his 1858 publication *Catalogue of the hymenopterous insects in the collection of the British Museum . Part VI . Formicidae* , and was originally placed in the genus *Formica* . Some years later , the species was assigned to the genus *Camponotus* by German entomologist Julius Roger . The specific name , *nigriceps* , is a combination of *nigri* , which derives from the Latin word *nigra* , meaning " black " , and *ceps* , which is derived from the Greek word *cephal?* , meaning " head " . This references the distinctive black head of the ant .

In 1887 , Italian entomologist Carlo Emery described a subspecies , *Camponotus nigriceps lividipes* , based on collections of smaller ants . In 1933 , William Morton Wheeler classified the black @-@ headed sugar ant as a subspecies of the banded sugar ant ( *Camponotus consobrinus* ) , but it was later revived as a full species in 1934 .

The ant is a member of the *Camponotus nigriceps* species group , which also includes *C. clarior* , *C. consobrinus* , *C. dryandrae* , *C. eastwoodi* , *C. loweryi* , *C. longideclivis* , *C. pallidiceps* and *C. prostans* .

= = Description = =

Ants of this species are relatively large ; it is a polymorphic species with two castes of workers , known as minor workers and major workers ( soldiers ) . Workers and soldiers range in sizes from 10 to 12 millimetres ( 0 @.@ 39 to 0 @.@ 47 in ) . Males measure 12 millimetres ( 0 @.@ 47 in ) and queens are the largest , measuring 16 millimetres ( 0 @.@ 63 in ) . Workers and soldiers of the subspecies *Camponotus nigriceps lividipes* only grow to 6 to 10 millimetres ( 0 @.@ 24 to 0 @.@ 39 in ) . Workers ' gasters and mesosomi can vary in colour ; the gaster can be black , brown or yellowish @-@ brown while the mesosoma is either reddish @-@ brown or yellow . Workers are mostly brown with light patches noticeable on the head and mesosoma , and their clypei and mandibles are even darker ; the legs are either black or brown .

A large number of hairs grow from the gaster , mesonotum , pronotum and propodeum . On average , individual hairs are 0 @.@ 35 millimetres ( 0 @.@ 01 in ) long . Golden , erect setae are present under the head and on the mesosoma . The setae on the tibia are short in comparison to setae on the mesosoma . The workers ' eyes bulge while soldiers ' eyes are flat . Within the *Camponotus nigriceps* species group , the black @-@ headed sugar ant can be easily mistaken for a banded sugar ant due to its similar appearance , but the latter are darker and have a band wrapping around their gaster , a feature absent on the black @-@ headed sugar ant . Minor worker specimens are usually examined when trying to identify similar @-@ looking species .

## = = Distribution and habitat = =

The black @-@ headed sugar ant can be found in most Australian states . The species is restricted to the north and south @-@ east of Queensland , and is widespread throughout the Australian Capital Territory . The ant is also widespread throughout New South Wales and Victoria , but it is not found in the north @-@ west of New South Wales and south @-@ east of Victoria . In South Australia , it is commonly seen in the south @-@ eastern regions and less encountered in the north @-@ west . Populations are present in Western Australia , but they are not found in either the north regions of the state or in the Northern Territory .

Black @-@ headed sugar ants mostly live in dry regions including dry sclerophyll woodland or open areas , particularly in pastures . Other preferred habitats include mallee , eucalyptus woodland and *Casuarina cristata* woodland , at elevations ranging 241 ? 319 metres ( 791 ? 1 @,@ 047 ft ) . Nests are found in laterite soil in upland areas , surrounded by tall eucalyptus trees or under groves . Nests can also be found in large mounds or under stones . Sometimes , cedar wood and large mounds occupied by the meat ant ( *Iridomyrmex purpureus* ) are inhabited by black @-@ headed sugar ants .

## = = Behaviour and ecology = =

Black @-@ headed sugar ants are nocturnal foragers of food . The species is sometimes considered a household pest since ants can enter human homes at night in search of food . During the day , these ants are not active and have exhibited sleep @-@ like behaviours until it is night . The black @-@ headed sugar ant predominantly feeds on sweet secretions and sugar water ; insects and a variety of foodstuffs in human homes are also consumed .

Workers use several social techniques during colony movements to other nest sites or to lead others to food sources , which includes a worker carrying another worker , tandem running or laying down an pheromone trail for orientation . They are also attendants to the butterflies *Ogyris idmo* and *Ogyris genoveva* . The larvae will reside in underground areas constructed by attending ants , and during the night they will emerge with them and feed on mistletoe leaves . The species is tolerant to myrmecophiles ; the beetles *Ctenisophus morosus* and *Cryptodus paradoxus* have been found in nests , and the wingless cricket *Myrmecophilus australis* also dwells inside colonies . Other insects which dwell inside nests include froghoppers in the family *Cercopidae* .

Several birds and other predatory organisms prey on the black @-@ headed sugar ant . Birds such as the black @-@ faced woodswallow , rufous tree creeper , noisy miner , jacky winter and southern scrub robin prey on this species , as indicated by the fact that workers body parts have been found in the birds ' stomach contents . Other predators of the black @-@ headed sugar ant include the rainbow trout .

Nuptial flight most likely begins during summer , as a young mated queen with no brood was found in a freshly built chamber in January . During the early years of colony foundation , there are more soldiers , and older colonies may have a workforce consisting only of minor workers . A typical colony may contain five to seven thousand individuals . Queens of the species can live for an exceptionally long time ; wild queens can live for up to 21 years with one known captive living to 23 years of age , making it the second oldest recorded ant queen . Larvae of this species can grow to be quite large ; collected larvae reach lengths of 16 @.@ 4 millimetres ( 0 @.@ 65 in ) .