CSIRO Sustainable Ecosystems

Centre for Arid Zone Research, Alice Springs

The Big Headed Ant

CSIRO SUSTAINABLE ECOSYSTEMS

(Pheidole megacephala)

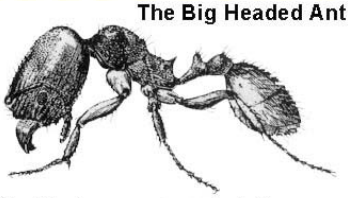
What is a big headed ant?

Most big headed ants don't have big heads!!

Big-headed ants are light brown to dark reddish brown, have two sizes of workers. One size is 3mm long, has an enormous head and is sometimes called a seed cracker worker. The minor workers 2mm do not have enlarged heads but can be recognized by the shape of their heads, which narrow abruptly behind the eyes. Big headed ants have two nodes on the second segment of their 12-segmented antennae, with a 3-segmented club and one pair of spines between the head and the abdomen.

Big-headed ants have very similar habits to fire ants. Nests are found in exposed soil or under cover and in rotting wood. They form nests in soil with a low mound of loose dirt around the centre. The colonies are very active and this makes the nests highly visible. They rarely nest indoors, but may invade homes to forage for food. Big-headed ants prefer meats and breads. They superficially resemble fire ants but can be distinguished from them by the presence of 12 segments in the antenna, with a 3-segmented antennal club.

The Big Headed Ant



(Pheidole megacephala)

These ants can be found nesting in the soil around homes in many areas of Alice Springs. The ants are often found around drippers or in the bottom of pot plants as they are a water loving species .

Why are they a problem?

The big headed ant is an introduced species in Alice Springs which poses a serious threat to local invertebrate communities as it reduces native insects severely, especially our ants, with which it comes in contact.

By reducing biodiversity the ecology of an area is changed and usually the environment becomes degraded.

Australia has two types of rare species- those that are naturally rare and those that have become rare because of introduced species impact on the environment.

Invasive species (weeds pests and diseases)- represent the biggest threat to our biodiversity after habitat loss.

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What can we do about it to help our enviroment?

Unlike many other resources, biodiversity is renewable-but only if we use it and nuture it wisely. We need to conserve species and communities if we are to halt the loss of diversity that is vital for the health of Australia's eco-systems.

Conservation of our native species should be accompanied by eliminating or localising the spread of introduced species. The big headed ants nests should be identified and eliminated to allow native species to prosper.

Inspecting for Big-headed ants

Items in contact with the soil (logs, stones, firewood, debris) should be lifted to check for ant colonies. Piles of displaced soil should always be noted as these indicate the presence of an ant colony. Along foundations, big-headed ants have a habit of using the crack between the soil and the foundation to nest; flooding the crack with water will quickly reveal a nest location. Nests in potted plants are common and can result in colonies being carried inside. Most indoor infestations of big-headed ants tend to originate from outdoors. When inspecting for big-headed ants outdoors, grass and other vegetation should be pulled or raked away from the foundation of the house, along driveways, landscaping, sidewalks and fences. Ant colonies are often found in the soil beneath the grass.

Big headed ants are a nuisance, it is unlikely we will eradicate these pests any time soon, but we can remove the problem associated with them by good integrated pest management practices. This involves reducing their populations to tolerable levels by using safe and effective methods of control.

When treating mounds with any contact insecticide or professional bait, **do not disturb mounds before treating.** If you do, the colony will immediately take the queen or queens to safety, either deep down in the mound or move them laterally to establish satellite mounds. This stressing of the colony causes more problems than anyone can imagine.

The most successful baiting practice for big headed ant control is to use granular baits such as Amdro. Broadcast granular bait applications are most effective; however, it may take 4 to 6 weeks to give control. Early spring application is ideal because it controls recently developed queens before they leave on their nuptial flights and establish new colonies. Killing the queens is the only way to eliminate big headed ant colonies. Follow-up granular bait applications usually are necessary in mid-summer and another one in autumn. Don't apply to wet ground, or if rain is expected, as the granuels break down in moist conditions.

This bait formulation is only taken by the target ant species. It will not harm other insects or the environment. When spread over treated areas at recommend rates, it is not hazardous to pets, livestock or children. However you should not apply this near waterways or in areas where it may be washed into ponds, gutters or down drains. When not being used it should be stored out of the reach of children and animals.

For further information, please contact the Communication Officer at CSIRO Centre for Arid Zone Research.

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