

A Guide to Their Identification, Biology and Control

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Note to Readers

This publication will serve as a useful reference for pest management professionals, extension personnel and homeowners, because the species most commonly considered to be pests are also those most likely to be encountered. The use of technical and scientific terminology has been kept to a minimum, and those terms used can be found in the glossary or on the diagrams. References on inside cover are suggestions for further reading.

What is a pest? A general definition of a pest is a bothersome thing or a nuisance. A more applied description is an injurious plant or animal. The term pest is one of relative value. That is, the designation lacks any ecological foundation and is not necessarily based on biology.

This publication is devoted to pest ants. Ants are insects that belong to the same group as wasps, bees and sawflies. Wasps sometimes look like ants, occasionally causing identification problems, because some wasps are wingless. Examples of such species are the velvet ants and bethylid (parasitic) wasps (see page 24). The ants, however, all belong to a single group called the Formicidae; it contains roughly 11,000 species. These species can be easily separated from wingless wasps, because ants have one or two petioles; a petiole is a node-like structure found on the “waist” of ants. Most wasps lack any such node on the waist, making the waist appear as only a small or thin connection. Knowing to look for the petiole allows one to determine if an insect is an ant or not. One other point is the antennae are always elbowed in ants (not always so in wasps).

Ants are truly social insects. They have cooperative care of young, reproductive division of labor, meaning work is done by non-fertile females and overlapping of generations. The success of ants is attributed to this sociality. Ants strongly influence the functionality of ecosystems. Ants dominate by their massive biomass, manipulate species composition, influence food webs, possess numerous mutualistic and symbiotic relationships, and shape both the non-living (by moving soil) and living (plant-ant mosaics) matrix of community interactions.

Considered by many to be one of the most successful living things on the planet, ants often come into conflict with humans. Ants invade our homes, steal our lunches, infest houses and at times inflict pain. Ants range from mildly annoying to highly problematic. Knowing what species of ant one is observing in conjunction with its biology and control can help to manage them successfully. When controlling ants, it is important to locate the colony; inspection and persistence are the keys for effective and successful management.