



# BUG BIZ

Pest Management and Insect Identification Series



## Subterranean Termites

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Termites belong to the order *Blattodea*. They were previously placed in their own order, *Isoptera*, but are now included in the same order as cockroaches based on molecular analyses and other biological attributes. Termites are among the most abundant organisms on the planet and are best known for consuming and destroying wood. Termites have a complex social dynamic and have evolved a eusocial cast system dividing labor into workers, soldiers and a reproductive group. Workers and soldiers are pale tan in color and lack wings. Reproductives possess wings during the reproductive (nuptial) flights but quickly shed them following mating. Termites common in Louisiana are composed of two major types — drywood and subterranean — based on where they make their nests and other environmental requirements. If left unchecked, termites can cause major damage to wood structures.

### Subterranean Termites in Louisiana

These species build nests in soil and infest wood that is in contact with the ground. They require a moist environment to survive.

#### Formosan termites (*Coptotermes formosanus*):

This is the most destructive species of termite in the southeastern U.S. Their vast numbers, constant expansion of colonies and naturally high rate of increase makes them difficult to control. Alates (winged reproductives) of *C. formosanus* reproductives are yellowish-brown and 0.5 to 0.6 of an inch (12 to 15 mm) in body length. There are numerous small hairs on the wings. The nuptial flights of *C. formosanus* are typically from April to July, but earlier swarms are common during favorable weather conditions. They swarm during periods of high humidity in the evening hours from dusk to midnight. Alates are attracted to lights.



**Native subterranean termites (*Reticulitermes spp.*):** Members of this genus are the most common termites throughout Louisiana and North America. Members of these species can also cause structural damage if left unchecked and are the second-most destructive wood-destroying insects in the southeastern U.S. Alates are dark brown and 0.3 to 0.4 of an inch (10 mm) in body length. These termites swarm between January and March.

### Biology and Life History

Alate termites emerge from mature nests in nuptial flights during the spring and summer months. After fertilization, winged termites land, shed their wings and form new colonies. These insects then become the king or queen termites of their newly established colonies. After the fertilized queen lays her eggs, they hatch into pale white nymphs. Throughout several molts, these larvae grow to assume a role in one of the three termite colony castes: workers, soldiers and, eventually, alates. After the colony reaches a certain size, reproductive termites, alates, start to develop. Alate production only occurs in mature colonies, which can take several years. When alates mature, they emerge en masse from the nest as swarms, beginning the life cycle over again. Workers and soldiers live one to two years, while queens can survive over a decade under optimal climate conditions.

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## Detection and Control

Termites typically remain hidden except when they swarm to mate. A colony that produces alates is several years old and capable of severely damaging structures. Finding a small number of alates in or around your home does not indicate an infestation. Having a full swarm of alates within a structure or around a house suggests that a mature colony is nearby. Several preventative measures can be taken to help prevent infestations. Barriers of smooth concrete, coarse sand or other inorganic materials more than 12 inches between the soil surface and wood will aid in preventing infestation. Termite-

resistant wood, such as heartwood, cedar, redwood and cypress, help prevent infestations. Properly treating exterior wood with sealant or paint will help prevent infestations. Do-it-yourself pesticides for use against termites are generally not effective. Professional pest management services should be contacted in cases of structural infestations. Regular inspections every three to five years help detect infestations before they become damaging. If you suspect a termite infestation, contact the LSU AgCenter for any further questions or identifications or contact the nearest pest control agency to obtain professional treatment.

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