

Interesting Facts About Termites



FACT: Subterranean termites feed on other items besides wood.

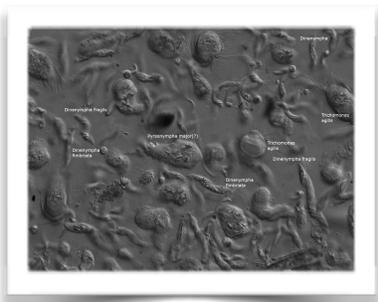
Subterranean termites will eat any material containing *cellulose*. Items containing cellulose include wood, cardboard, and paper.



Termite damage to paper backing on insulation panel (Mike Waldvogel, NCSU)

FACT: Although termites can consume almost any cellulosic material, they cannot actually receive any nutrition without the help of symbiotic microorganisms living in their digestive tract.

Large numbers of microorganisms living in the digestive tract of termites break down the cellulose and release nutrients that can then be absorbed. As protozoa in the termite's gut break down decaying wood, they generate carbon dioxide and hydrogen, which leads to the production of acetate (a source of nutrition for termites).



Protozoa in termite gut (Dan Gage)

FACT: Termites do not have to remain in constant contact with soil.

Subterranean termites need a constant source of *moisture* to survive. Although subterranean termites normally remain in contact with the soil, if conditions are sustainable (i.e., there is enough moisture and wood, or other item containing cellulose), then termites can remain aboveground.

FACT: Termites readily tunnel through foam.

Although foam contains nothing of nutritional value for termites, termites will readily tunnel through it.



Termite damage to foam panel (Mike Waldvogel, NCSU)

FACT: Termite workers are both male and female.

Termite workers are both male and female, but they are functionally sterile. Workers are the caste responsible for damaging wood.

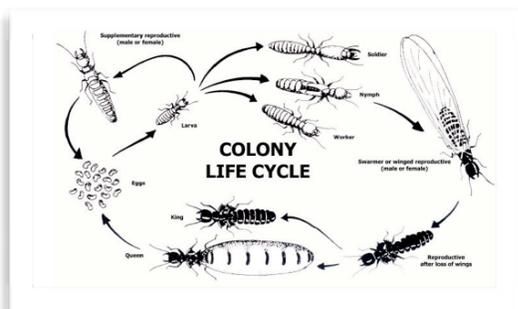
FACT: Unlike ants, the termite reproductive caste contains a queen and a king.

With termites, the reproductive caste includes a queen (reproductive female) and a king (reproductive male). The king and queen mate for life. This is very different from ant colonies where the queen mates with the male and stores the sperm for life. Male ants die relatively quickly after mating.

Facts About Termites, cont.

FACT: A termite larva (the stage that hatches from the egg) may develop into a number of castes.

After hatching from the egg, a termite larva may develop into workers, soldiers, or reproductives, depending on the needs of the colony.



Termite life cycle (Clemson University)

FACT: The termite's caste system is regulated by hormones.

The king and queen each produce special pheromones that circulate throughout the colony and inhibit workers of the same sex from molting into reproductive adults. A death of a king or queen, or an increase in the size of the colony, results in a lower concentration of the corresponding pheromone and, subsequently, one or more workers will molt into replacement reproductives.

FACT: Drywood termites are found in NC.

Drywood termites infest structures found along the NC coast. They may also be found in infested furniture brought to NC from other states, such as Florida, California, and New Mexico.

FACT: Formosan subterranean termites are found in NC.

Formosan subterranean termites are found in the western part of NC, specifically in Rutherford County.

FACT: Formosan subterranean termites can infest live trees.

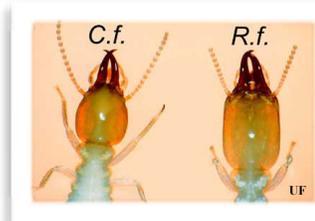
Survey data from around the US reports Formosan termites in live trees. In Charleston, SC researchers reported Formosans in 17 different tree species. In most cases, however, the presence of Formosan termites in trees is a secondary indication of a primary problem with the tree due to disease, injury or other pests.



Formosan termites in live tree
(Photo: Mike Waldvogel, NCSU)

FACT: Formosan subterranean termite soldiers have oval-shaped heads, while Eastern subterranean termites have rectangular-shaped heads.

One easy way to distinguish Formosan subterraneans from Eastern subterraneans is by the shape of the head. The soldiers of Formosan termites have enlarged heads that are oval in shape. Soldiers of the Eastern subterranean termites have enlarged heads that are rectangle in shape.



Formosan termite (left); Eastern sub (right); (University of FL)

Featured Insect: Field Ants (*Formica* spp.)

Formica ants, often referred to as field ants, are among the United States' largest and most common ants. Distributed throughout NC, three species make the most common list: *Formica pallidefulva* and *Formica incerta*, both rust to red in color, and *Formica subsericea*, black in color with stripes of sparse golden hairs across their abdomens. Field ants have polymorphic (multiple-sized) workers ranging in size from 1/8 - 3/8 inches.

Field ants are commonly mistaken for carpenter (*Camponotus*) ants. Both are common, medium-large in size, with one node in between the thorax and abdomen. However, the two are quite easy to distinguish with a little practice.

If you look at a carpenter worker ant in side profile, you will notice that its thorax is evenly rounded and forms a single curve (see photo on left below). If you look at a field ant in side profile, you'll notice that its thorax is *not* evenly rounded, but that it is broken into two distinct curves (see photo on right below).

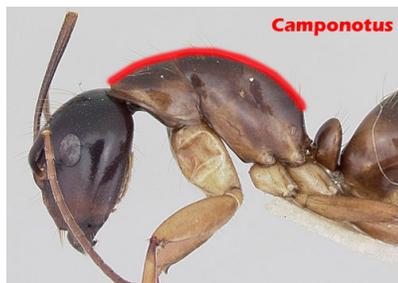


Image by antweb.org



Image by antweb.org

Field ants do not have a stinger, but instead they possess a circlet of hairs around an opening at the tip of their abdomen where formic acid is expelled as a defense mechanism. They may pinch skin with their mouthparts, and then squirt formic acid into the wound, which may feel like being stung.

They are found around structures, but do not often invade homes. They often nest in soil, but nests also may be found under lawn and wood debris such as stacks of firewood, bricks, stepping stones, potted plants, and other protected places. They may also be found nesting in foundation voids.

If control is necessary, try following workers back to their nest site. Once the nest is located, a mound drench with an appropriately labeled insecticide is an option. Or granular bait can be applied around the mound.

Featured Insect: Field Ants (cont.)

If ants are entering structures, a thorough perimeter treatment up and along the foundation wall an appropriate insecticide may be necessary. Treat around doorways and windows, and underneath siding.

In addition, make sure all potential entry points are sealed, especially where electrical and utility lines enter buildings. Any vegetation in contact with the foundation should be trimmed back, if possible (see image at right). Reduce or eliminate sources of moisture around the structure, and store firewood, piles of lumber, and other such items away from the foundation.



Vegetation touching structures should be trimmed back (Patty Alder, NCSU)