



The Secret Lives of Termites

When we think of termites, we usually concentrate on their destructive nature. We think of homes, barns and other wooden buildings that are attacked by these ravenous little insects. They carry on their work hidden deep in the structures that they are feeding on. Actually, what we don't see is the vastly complex society that takes place in a termite mound.

Termites look like white ants, but their nearest relatives are actually the cockroaches. Ants are all females, except for the time when males are needed to procreate. Termite workers are male or female, and the royal family consists of both a male parent and a female egg layer. A king and queen if you like. Also, the eggs hatch into nymphs, small replicas of the adult insects that can carry on the functions of the colony. Ants have grub-like larvae that need to be constantly cared for.



To start new colonies, fully formed reproductive, winged males and females swarm out of the nest by the hundreds. After pairing off, they fall to the ground and pull off their wings. The wings are equipped with a special suture which allow this to happen easily. The pair then searches for a suitable location to start a new colony. Eggs are laid and the colony grows. Chambers of the nest are enlarged and expanded. Termites are great builders, and despite the workers being blind, are able to measure precisely with their antennae and build complex structures using wood scraps, earth and saliva. Some tropical species build skyscraper mounds that can reach as high as ten feet. Inside these mounds are a myriad of "apartment" chambers.

Even ventilation is provided by numerous ducts that lead to the outside of the mound. One Australian species is called the "compass termite", as it builds long narrow mounds in an exact north-south orientation. Since the sun travels from east to west, one side of the mound is constantly in the shade and is therefore cooler. The termites can move from one side to the other to regulate their environmental temperature.

Termites are divided into castes within the colony. There is the royal pair, the workers, and two types of soldier termites that protect the other individuals. One type of soldier has an enormous head and massive jaws that can be used to defend the others. I sort of refer to these as the "big guns". The other class of soldiers are the nasute warriors. These have a bulbous head with a pointed structure that can exude a sticky toxic substance that tangles the antennae and legs of an invader such as an ant. You might compare this to chemical warfare.

A termite colony is like a very large bustling city, its inhabitants constantly on the go, doing the work that sustains the individual as well as the group. Termites are destructive, yes! They are also very fascinating creatures that help to break down fallen trees and other wood so that new plants are able to utilize the materials that are produced from their labor.