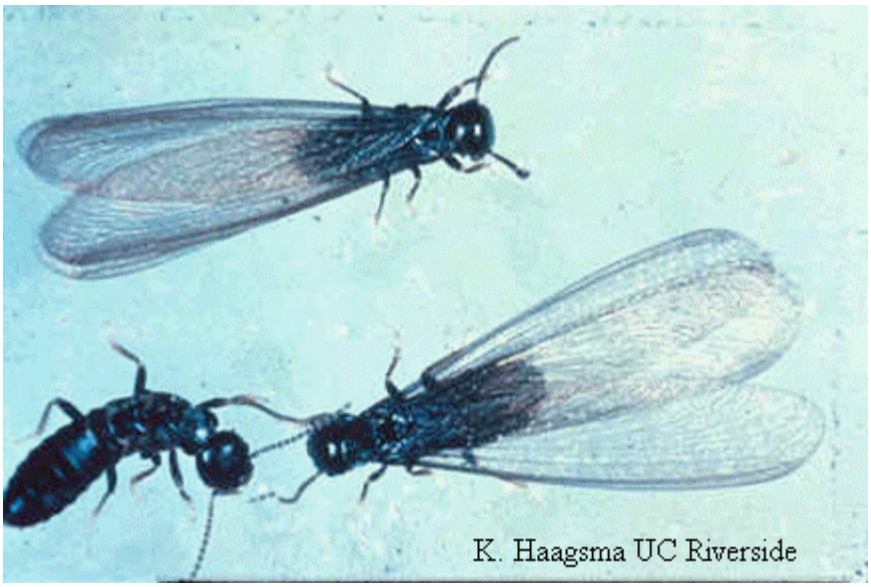
How to tell the difference between ant and termite alates

Entomologists refer to winged ants and termites as alates. The alate is simply the adult, sexually mature stage in the ant or termite life cycle. Alates develop in the colony from immature stages prior to the flight season. When the alates receive the proper cues (warm temperatures, bright sunlight, low winds, for example) they will leave the colony and fly away to start their own colonies. The exodus of alates from a colony, known as a dispersal or nuptial flight, is commonly referred to as swarming; so alates are often referred to as swarmers. Male and female termites shed their wings and will pair up when a suitable mate is found. Then they will search for a suitably damp piece of wood or soil where they will start their new colony. Swarming in ants is different. Male and female alates leave the nest and after the female is inseminated, the male dies. The newly fertilized female then searches for a suitable nesting site - the choice of where to nest depends on the species.

When termites swarm they are often misidentified as "flying ants". This is a common mistake because termite alates look very much like ants. The pictures below illustrate this point:

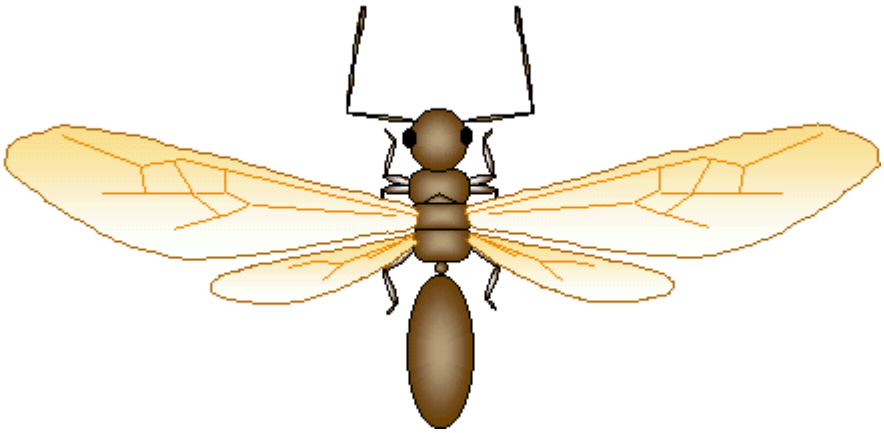


Western subterranean termite, *Reticulitermes hesperus*, alates. One alate has shed it's wings; such an individual is called a dealate.

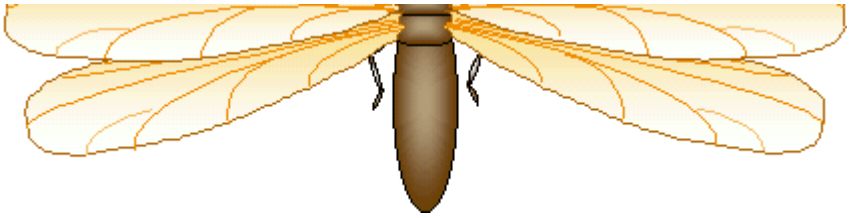
R. hesperus swarming from underneath concrete step.

However, there are three simple characteristics to look for that can be used to tell the difference between a winged ant and a winged termite:

Ant alate



- **Elbowed antennae**
- **Fore wings larger than hind wings**
- **Constricted waist**



alate

- **Beaded antennae**
- **Fore and hind wings of equal size**
- **Broad waist**

Ant versus Termite antennae

Ant antennae are bent at an angle.

Termite antennae look like a string of beads.

Based on their identifying characteristics, which one is a termite and which one is an ant?