

Life cycle and social communication of ants

[Environment](#), [Animals](#)



An ant alone could be considered tiny and inconsequential, but all that smallness en masse adds up, it is estimated that the combined weight of all the ants on Earth quite possibly could equal the combined weight of all the people on Earth that is a lot of ants. Scientists have identified about 12, 000 ant species with many more still to be discovered.

The life cycle of an ant is made up of stages – egg, larval, pupa and adult. Ants are social creatures and live in colonies, their survival is dependent on the cooperation of the colony, all aspect of and ant’s life is communal from the egg stage where after the queen lays her clutch of eggs, caretaker ants will carry the eggs to another chamber, place them in groups, clean, rotate them to prevent the eggs from molding, monitor and maintain temperatures. Two to six weeks later the eggs hatch and become larvae. Caretakers continue to nurse the larvae and feed them using trophallaxis (the regurgitation of food) or will lay eggs for the larvae to eat. The larvae then molts and moves to the pupa stage where adult structures are formed. “Pupae are incased in a hard protective coating and, as seen from the outside, appear immobile for the duration of time they spend in this state. Although they appear static, an explosion of internal metabolic activities takes place. The term “resting phase” for the pupal stage is a great misnomer”. Caretaker ants are still an integral part of the process, they continue make sure that the temperature in the chamber is optimal, they will move the pupae as necessary to chamber with better conditions. Of interest pupae do not eat. After a few weeks, it sheds its hard encasement and a young adult ant emerges fully formed ready to live its colony life cycle, which is on average about 90-days.

The colony is social which is a contributing factor to the ants' success.

Worker ants perform all sorts of jobs for their colony. In most species, all workers are roughly the same size. However, some ants have different sizes which allow them to that serve different roles. “ Minor workers are smaller and perform general labor such as taking care of the young, building and cleaning the nest, and gathering food. Major workers are larger and specialized to perform certain tasks. For example, major workers called soldiers have large heads and powerful mandibles used to guard and defend the colony.”

Ants communicate mainly using chemicals, which they sense with their antennae, they can use their for biting, crushing, cutting, digging, fighting, and hunting, very useful for gathering food, they can run really fast, sting-gaster spray acid to stun prey or defend themselves, communicate mainly using chemicals, which they sense with their antennae, they also use touch and vibration to communicate.