

# Parasitoids

## Parasites and Parasitoids



A parasitoid is a special type of parasite that is used in biological control. Unlike parasites, ALL parasitoids kill their host at some point during their development. This makes them very efficient at controlling various insect pests. Feeding by the larval parasitoid ultimately results in death of its host, and the resulting adult parasitoid is a free-living insect. Parasites, such as parasitic roundworms in humans, generally occur in very large numbers and do not kill their host. In many cases, tiny parasitoids are more effective at controlling pests than other larger predators. It is important to recognize their presence and needs to encourage good pest control

## Habitat and Conservation



Most parasitoids are difficult to see because of their small size. Many times the only evidence you will see of their presence is a sick or dead pest that has already been parasitized. Adult parasitoids usually feed on pollen and require a source of food in order to lay eggs and kill their hosts. Broad spectrum pesticides applied to pest insects often kill these beneficial parasitoids. This is why it is important to reduce or eliminate harsh pesticides and encourage parasitoids by planting wild flowers near your crops.

## Host specificity



Unlike generalist predators such as lady beetles and lacewings, parasitoids tend to be very host specific. This makes them good candidates for classical biological control of invasive species. In such examples, parasitoids can be imported without concern of non-target effects. To the left is a picture of a *Larra* parasitoid wasp which attacks only mole crickets.

## Diversity



A majority of parasitoids are either non-stinging wasps or very small flies. You can check for their presence by scouting for "mummies" and dead or dying pests. The brown aphids in the picture to the left have been parasitized. To the right is a picture of *Cotesia*, a parasitoid wasp.

