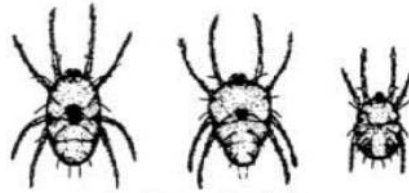


Class Arachnida, Order Acari

Life History



Two-spotted spider mites (*Tetranychus urticae*). Photo: Frank Peairs, insectimages.org



Female abdomen rounded; male abdomen pointed; larva 3 legs

Order Acari, Mites and ticks

The class Arachnida includes spiders, mites, scorpions, and related 8-legged arthropods that are not insects.

The two largest orders of arachnids are spiders and mites. Arachnids have chelicerae that are fang-like or pincher-like mouthparts. Like all adult arachnids, most adult spider mites and ticks have eight legs, while larva have only six. However, eriophyid mites, as discussed in the pest section, have only four legs. Most mite families are predaceous. Only a few families are phytophagous and consume plant juices by sucking out cell contents.

Mites can disperse by ballooning or by phoresy, which is hitching a ride on another animal. A mite egg, hatches into a prelarva (which has no mouth or legs and does not feed or move from inside the eggshell), a larva (six legs), three nymphal stages (protonymph, deuteronymph and tritonymph) and adult (eight legs).

Morphology

Adults

1. mouthparts: chelicerae
2. antennae: none
3. legs: walking
4. body segments: one

Immatures: larva, nymph

1. Look similar to adults
2. Feed in same habitat
3. Feed on same food as adults

Development

Egg, prelarva, larva, protonymph, deuteronymph, tritonymph, adult

Life history

Habitats: Terrestrial

Feeding: Some species are phytophagous and consume plant juices by sucking out cell contents. Others are predators

Importance in landscapes: Many mites species attack landscape and greenhouse plants

Families

Leaf vagrant mites, rust mites, eriophyid mites (Family Eriophyidae) Cyclamen, broad mite, and tarsonemid mites (Family Tarsonemidae) Free-ranging, spider mites, tetranychid mites (Family Tetranychidae) Predatory mites (Family Phytoseiidae)

In the textbook, *IPM of Midwest Landscapes Pests of trees and shrubs*



Class Arachnida: Spiders and mites

Order Acari: Mites and ticks

Family Eriophyidae: Leaf vagrant mites, rust mites, gall mites, erineum mites, eriophyid mites

ash flower gall mite, *Aceria fraxiniflora*

elm eriophyid mite, *Aceria parulmi*

eriophyid mites, several species

hemlock rust mite, *Nalepella tsugifoliae*

maple spindlegall mite, *Vasates aceriscrumena*

maple velvet erineum gall, several species

Family Tarsonemidae: Cyclamen and tarsonemid mites

cyclamen mite, *Phytonemus pallidus*

Family Tetranychidae: freeranging, spider mites, tetranychid mites

boxwood spider mite, *Eurytetranychus buxi*

clover mite, *Bryobia praetiosa*

European red mite, *Panonychus ulmi*

honeylocust spider mite, *Eotetranychus multidigituli*

spruce spider mite, *Oligonychus ununguis*

twospotted spider mite, *Tetranychus urticae*

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