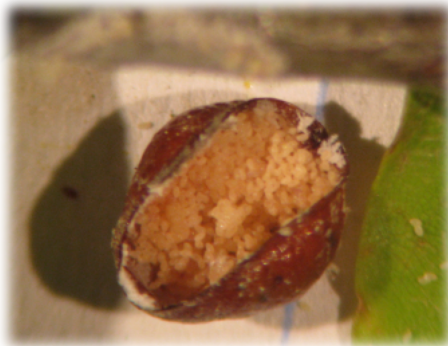
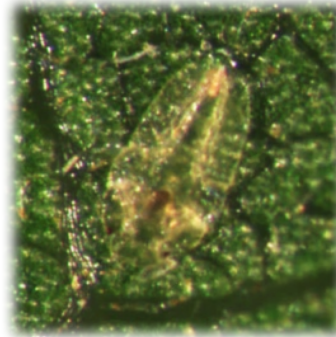


## Soft Scale Insects (Hemiptera: Coccidae)

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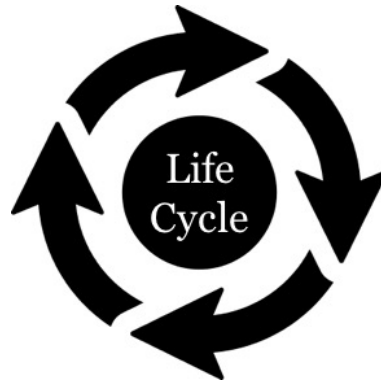
Eggs within gravid female



First instar nymph (crawler)



Gravid adult female



Second instar nymph



Adult female



Adult male

### Soft scale insects

Soft scales are sap-feeding insect pests of many trees and shrubs. There are over 40 soft scale insect species in Florida. These insects differ from armored scales in a few important ways. The waxy cover of soft scales is not separate from the insect's body and cannot be removed. Although both insects are sedentary, unlike armored scales, female soft scales are mobile in every life stage until they begin to produce eggs. In addition, soft scales feed on the phloem vascular tissue of plants and excrete honeydew as waste. This honeydew coats plant material and other surfaces beneath feeding sites, which leads to black sooty mold growth on these surfaces.

## Biology

Female soft scale insects are mobile during all life stages until they begin to produce eggs. Many species transition from the bark to foliar feeding sites throughout the season. In their final location, adult females will appear more dome-shaped or produce a cottony elongation on their body, which contains eggs. These structures can contain thousands of eggs at a time and facilitate rapid increases in scale insect abundance.

## Signs & symptoms of a soft scale infestation

1. Sticky, honeydew-covered surfaces
2. Black sooty mold
3. Leaf chlorosis
4. Premature leaf drop
5. Branch dieback
6. Plant death

## Host plants

Many soft scale species specialize on one or a few host plants, while others can be found on several different host plants. Soft scales are more of a generalist pest than armored scales, therefore, it can be more difficult to identify soft scales by their host plant. However, it is helpful to learn to recognize some soft scale insect species by their common host plant associations.

### Common soft scale – host plant associations in Florida

- Tuliptree scale (*Toumeyella liriodendri*) – Magnolia species
- Croton scale (*Phalacroccoccus howertoni*) – Croton
- Hemispherical scale (*Saissetia coffeae*) – Coontie
- Florida wax scale (*Ceroplastes floridensis*) – Hollies, Indian hawthorn

## Natural enemies

Many predators and parasitoids attack scale insects in the landscape and keep them below damaging levels. The most common natural enemy of soft scale insects are parasitoid wasps. When scale insects have been located, look closely for evidence of predation (large openings in scale covers) or parasitism (circular holes in scale covers). Many scale insect covers may remain on the plant after being killed by natural enemies, which may be aesthetically unappealing, but does not cause plant damage.

Visit the UF/IFAS EDIS website (<http://edis.ifas.ufl.edu>) and search for ENY-323, Managing scale insects on ornamental plants for more detailed information on the biology and management of soft scale insects in Florida.

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