

Two Scale Species on South Florida Slash Pine

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The Host

Slash pine, *Pinus elliottii*, is a commonly occurring native south Florida Pine species that is often used in landscape plantings.



The Feeders

- *Toumeyella parvicornis* is the pine tortoise scale. Pine tortoise scale females occur on both branches and needles.
- *T. pini* is the striped pine scale. Striped pine scale females are only found on the branches.

About Scales

- Scales are insects that feed by piercing into the plant and sucking the sap out.
- Plant sap is their source of food.
- Copious amount of honeydew is produced by the pine tortoise scale and the pine striped scale.
- Sooty mold is a product of the honeydew.

Slash Pines



These affected trees exhibit poor growth, and are heavily covered with sooty mold.

These trees were planted approximately three years ago and are not irrigated making them more susceptible to insect damage.

Pine Tortoise Scales



Needle-form females. The females on the pine needle conform to the shape of the needle.

Pine Tortoise Scales



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Stem-form females. The females on the pine branches are more spherical in shape.

Pine Tortoise Scales



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Adult male scales have wings. This is an empty cover from which the adult male pine tortoise scale has already emerged.

Pine Tortoise Scales



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Needle-Form Males
(partially hidden)

Needle-Form Females

Pine Tortoise Scales



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Parasitized male pine tortoise scales. The holes are probably the exit holes of parasitic wasps.

Striped Pine Scales



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Female striped pine scales, *Toumeyella pini*, on the stem of slash pine. Females are larger and more globular or spherical in shape than their male counterparts.

Striped Pine Scales



Female striped pine scales, *T. pini*, form colonies on the stem ends of slash pines. Their feeding can cause stem die-back.

Striped Pine Scales



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T. pini males

**Ladybug Larva (*Hyperaspis ornatella*)
on Striped Pine Scales**



Adult

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