Bondar's Nesting Whitefly - *Paraleyrodes bondari*

UF IFAS Extension UNIVERSITY of FLORIDA

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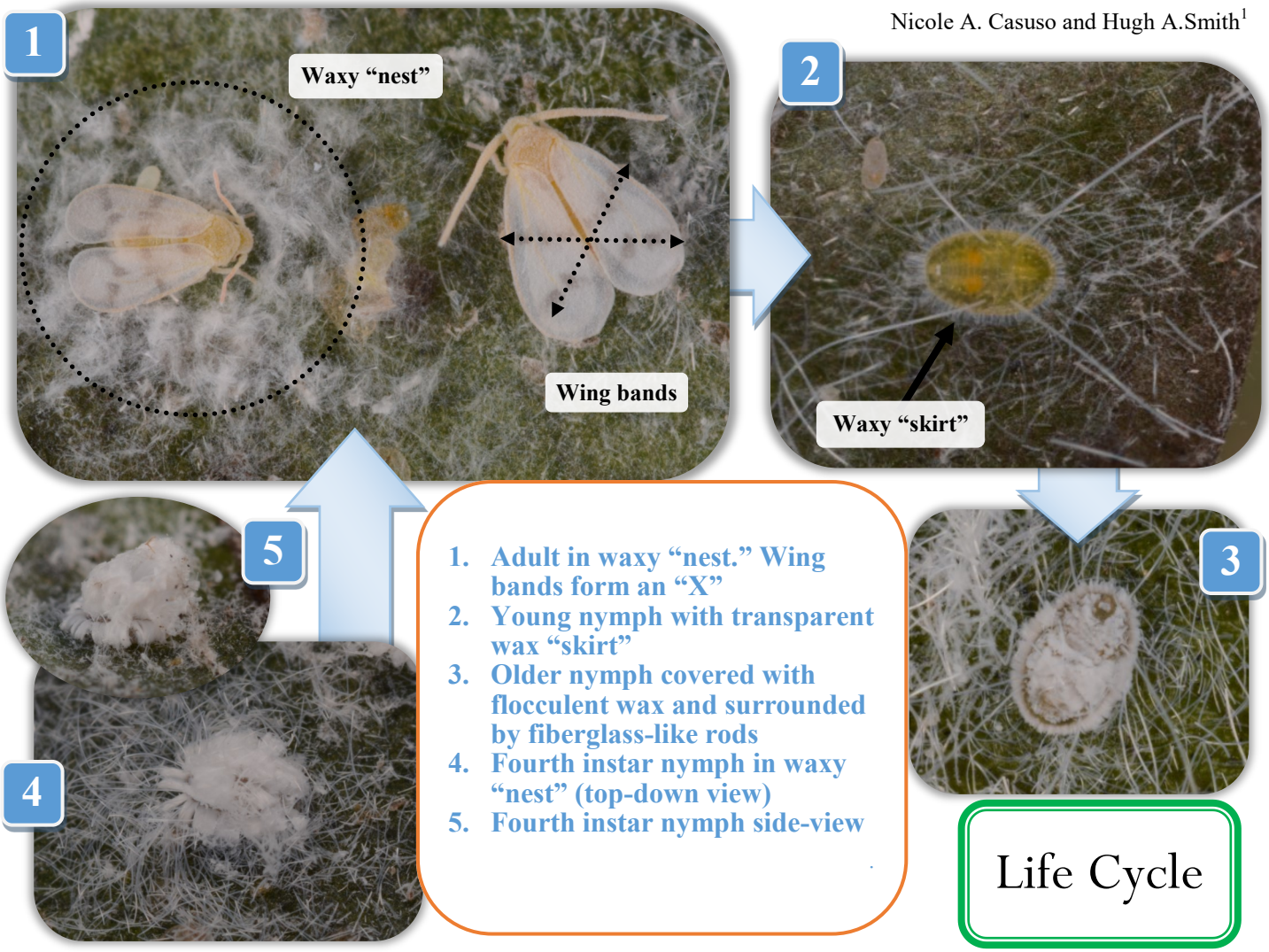

1. Adult in waxy "nest." Wing bands form an "X"
2. Young nymph with transparent wax "skirt"
3. Older nymph covered with flocculent wax and surrounded by fiberglass-like rods
4. Fourth instar nymph in waxy "nest" (top-down view)
5. Fourth instar nymph side-view

Life Cycle

Damage: Heavy Bondar's nesting whitefly infestations produce circular, white "nests" that create a polka-dot pattern by contrasting with black sooty mold.

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Bondar's Nesting Whitefly, *Paraleyrodes bondari*

General Morphology: *What does it look like?*

Paraleyrodes species are difficult to distinguish in the field, and proper identification requires slide-mounting. Adults are smaller than other whitefly species, measuring approximately 1 mm long. A pair of greyish brown bands forms an "X" pattern on the forewings. Nymphs produce flocculent wax and long, thin, rod-like filaments. A clear wax band containing a row of short wax filaments resembles a "skirt" around nymphs. Fourth instar nymphs are translucent yellow and surrounded by a "nest" of white wax.

General Biology: *What is its life cycle?*

There is limited information available on the biology of Bondar's nesting whitefly or other *Paraleyrodes* species. General whitefly biology is as follows:

1. Adult females deposit eggs onto a host.
2. Eggs hatch into first instar crawlers, which find a feeding site and settle.
3. There are four nymphal stages or instars.
4. Winged adults emerge from exuviae (cast skin) of the fourth nymphal stage.

Plant Hosts and Geographical Range

Hosts include *Ficus* spp., hibiscus, sugar apple, coconut, guava, citrus and Surinam cherry. Bondar's nesting whitefly is found in Belize, Brazil, Comoros, Hawaii, Honduras, Madeira Islands, Mauritius, Puerto Rico, Reunion, Taiwan, and Venezuela. In 2011 it was detected in Florida, where it is considered an emerging pest.

Natural Enemies: *Predators & Parasitoids*

No predators or parasitoids have been documented yet for this species. However, other *Paraleyrodes* species are prey for various coccinellid beetles, lacewings, and several parasitic aphelinid wasps.

Signs & Symptoms: *What type of damage does it cause?*

These whiteflies produce extensive honeydew, a sugar-rich excretion that promotes sooty mold growth on both the upper and lower surfaces of leaves.

Sooty mold can greatly reduce photosynthesis and overall aesthetic value of hedges and other ornamentals in the landscape.

Direct feeding by dense whitefly infestations may cause premature leaf drop and decreased plant vigor. Untreated infestations may eventually kill the plant.

For additional information on managing whiteflies, see Managing Whiteflies on Landscape Ornamentals. 2017. E. A. Buss, C. Mannion, L. Osborne and A. Dale. Publication ENY-317. http://edis.ifas.ufl.edu/mg254.

For assistance identifying and managing whiteflies, contact your local extension office.