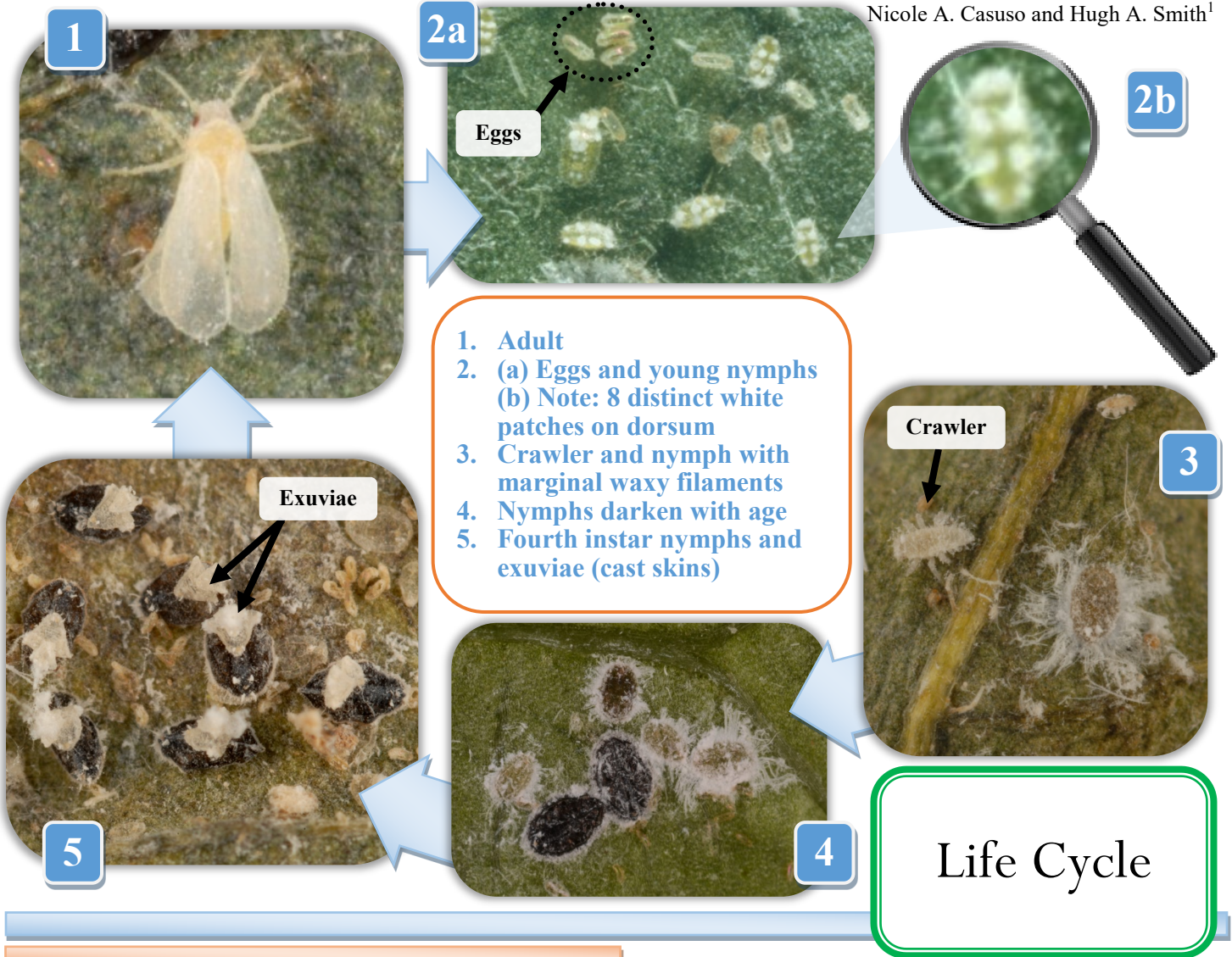


Solanum (Pepper) Whitefly, *Aleurotrachelus trachoides*



- 1. Adult
- 2. (a) Eggs and young nymphs (b) Note: 8 distinct white patches on dorsum
- 3. Crawler and nymph with marginal waxy filaments
- 4. Nymphs darken with age
- 5. Fourth instar nymphs and exuviae (cast skins)

Life Cycle



¹Nicole Casuso, Doctor of Plant Medicine, University of Florida and Hugh A. Smith, assistant professor, Entomology and Nematology Department; UF/IFAS Gulf Coast Research and Education Center, Wimauma, FL 33598. Photo Credits: All life cycle images and infestation on pepper - Lyle Buss, UF/IFAS; Stunted growth and sooty mold on Pigeon Berry - Dr. Muhammad Z. Ahmed (FDACS) & Dr. Catharine Mannion, UF/IFAS.

Solanum (Pepper) Whitefly, *Aleurotrachelus trachoides*

General Morphology:

What does it look like?

Adult solanum whiteflies are pale yellow with white powdery wax covering the body and wings. They measure 1-2 mm long. Adult females lay translucent, oblong eggs on the undersides of leaves. Eggs mature to a yellow or grayish brown. Early nymphal instars are light to golden yellow flat ovals bearing eight distinctly spherical patches on the dorsum. As the nymphs mature, they darken and become more convex, producing long, thin waxy filaments and dense cottony wax. The fourth (final) nymphal instar appears dark brown to black.

General Biology:

What is its life cycle?

Biological studies revealed the life cycle of solanum whitefly lasts approximately 29 days at 78°F. The individual life stages occur as follows:

1. Adult females deposit eggs onto a host.
2. Eggs hatch after about 8 days.
3. The nymph passes through four instars over about a three-week period and emerges as an adult.

Plant Hosts and Geographical Range

Common hosts are solanaceous crops (i.e., pepper, eggplant, and tomato). This polyphagous pest also feeds on other crops, ornamentals, and weeds. The solanum whitefly is widely distributed in Central and South America, and parts of Africa, Oceania, India, Mexico, and the United States. It is considered an emerging pest in Florida, where it has been detected since the 1960s.

Natural Enemies: *Predators & Parasitoids*

Researchers are evaluating the efficacy of parasitic wasps (*Encarsia* spp.) and predatory beetles (*Delphastus pallidus*, *Delphastus catalinae*, and *Axinoscymnus puttardriahi*) as biological control agents for solanum whitefly.

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

As do other whitefly species, solanum whiteflies produce abundant wax and honeydew (a sugar-rich excretion) that promote sooty mold growth. The sooty mold reduces photosynthesis and diminishes both the aesthetic and the economic value of host plants.

Feeding by dense whitefly infestations also causes plant stress by directly removing water and nutrients. This may lead to stunted growth, malformed leaves, and decreased fruit production.

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.