Horticulture Diagnostic Laboratory

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White Prunicola Scale

What was formerly considered to be a single species of scale known as the white peach scale, has been determined to actually involve two species, one commonly known as the white peach scale, *Pseudaulacaspis pentagona*, and the other, *Pseudaulacaspis prunicola*, with the suggested common name of white prunicola scale (WPS). The WPS is the species found on Long Island, whereas white peach scale is more southern in its geographic distribution.

On Long Island, there are usually two generations of WPS each year and possibly a third generation as is the case in Maryland.[1] Generations will overlap in the field. Proper timing of effective control strategies is essential to achieve adequate control.

Fig. 1. Female scale cover removed exposing the yellow-orange soft-bodied female along with her light salmon-colored eggs (Dan Gilrein, Cornell Cooperative Extension – Suffolk County)

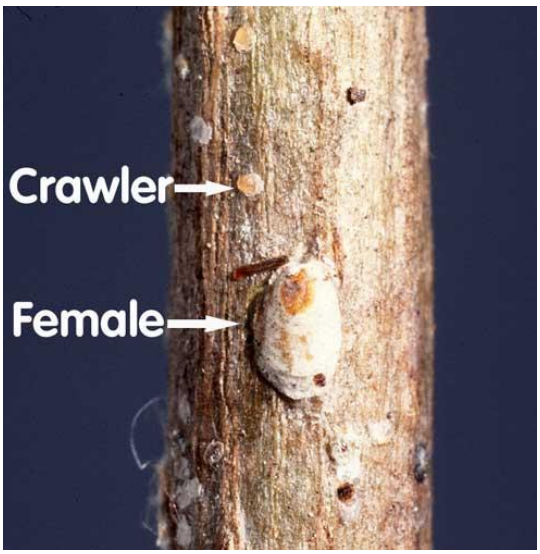

Fig. 2. A comparison of the small, light colored crawler stage with the white, circular shaped female cover (Dan Gilrein, Cornell Cooperative Extension – Suffolk County)

Life Cycle: The general chronology of the appearance of the stages of WPS is as follows. The insect overwinters as fertilized adult females (**Fig.** 1) on the bark of the host plant. The scales are firmly attached, sheltering the creamy white to yellow-orange, soft-bodied insect. Eggs are deposited under the scale of the insect as the season warms in early- to mid-May. Egg laying continues for about a month with each female depositing about 100 light salmon-colored eggs. Eggs of this spring generation will hatch in 2-3 weeks depending on prevailing temperatures. The young that emerge are called "crawlers" (**Fig.** 2) since they are the motile forms that disperse over the host until they select a suitable site for feeding. Crawlers of the spring brood are present during late May to mid-June. The sucking mouthpart, or stylet, is inserted into the vascular system, and the scale remains attached and immobile as plant sap is extracted. The armored covering is produced as feeding continues. The female scale cover is circular and white; that of the male is white also, but smaller and elongated (**Fig. 3**). The male scale insect develops wings that enable it to search out and contact the female for mating purposes. The spring brood matures in mid- to late-June. Oviposition occurs in July. Development of the second-generation eggs is more rapid and hatching generally will occur in 1-2 weeks. Crawlers of the brood are present in mid-July through early-August and reach maturity in late August or early September.

Damage: Injury to the host plant results from the removal of plant juices. Larger branches and trunks are preferred but in severe infestations, smaller branches, twigs and other plant parts may be attacked (**Fig. 4**). Heavy feeding can result in branch dieback and complete plant mortality.

Hosts: WPS is most commonly found on *Prunus* spp. (stone fruits), particularly *Prunus serrulata*, the Japanese flowering cherry, *Ligustrum* spp. (privet) and *Syringa* spp. (lilac) and more recently on *Euonymous* spp. (euonymous)[1].

Management: Predators and parasites are abundant, but not reliable for control. Scrub infested bark with a soft brush dipped in mild soap solution. Prune out severely infested branches if possible. Rather than applying pesticides, commercial applicators may powerwash the trunk to remove scales.

Fig. 3. A privet branch infested with circular female scales toward the left and elongate, bright white colored male scales toward the right on the photograph (Dan Gilrein, Cornell Cooperative Extension – Suffolk County)

Fig. 4. A severely infested privet branch showing the dusty white male scale exuviae (cast skins). (Dan Gilrein, Cornell Cooperative Extension – Suffolk County)

If necessary on *ornamental flowering* peach, cherry and plum horticultural oil may be used as a dormant spray in April (35–145 GDD). Treat for crawlers in mid-June to early July (707–1151 GDD), using acephate, cyfluthrin, insecticidal soap (potassium salts of fatty acids), lambda-cyhalothrin, or neem oil.

If necessary on lilac horticultural oil may be used as a dormant spray in April (35–145 GDD). Treat for crawlers once in mid-June to early July (707–1151 GDD) using cyfluthrin, horticultural oil, lambda-cyhalothrin, or neem oil.

If necessary on privet horticultural oil may be used as a dormant spray in April (35–145 GDD). Treat for crawlers one time in mid-June to early July (707–1151 GDD) using cyfluthrin, horticultural oil, lambda-cyhalothrin, or neem oil.

For information on utilizing GDD contact Cornell Cooperative Extension – Suffolk County or visit the CCE web site http://ccesuffolk.org/assets/Horticulture-Leaflets/Using-Growing-Degree-Days-for-Insect-Pest-Management.pdf

Pesticide and management recommendations obtained from*: Part I Guide to Pest Management Around the Home, Cultural Methods* and *Part II -- Pest Management Around the Home, 2009-2010 Pesticide Guidelines*, contact Cornell Cooperative Extension – Suffolk County to order copies.

The Pesticide Management Education Program (PMEP), in cooperation with the New York State Department of Environmental Conservation (NYSDEC), maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested above at http://pims.psur.cornell.edu/index.php (NYS PIMS).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department Of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office. Read the label before applying any pesticide.

References: *Insects That Feed on Trees and Shrubs*, by Johnson and Lyon, 2nd edition, 1988; *Identification, Hosts and Distribution of Pseudaulacaspis pentagona (Targioni-Tozzetti) and P. prunicola (Maskell) in Virginia*, M.H. Roades, M. Kosztarab, and E.G. Rajotte, Proc. Entomol. Soc. Wash. 87(3), 1985, pp. 545-553; *The White Peach Scale, Pseudaulacaspis pentagona (Targioni-Tozzetti) Evidence That Current Concepts Include Two Species*, John A. Davidson, Douglass R. Miller, and Sueo Nakahara, Proc, Entomol. Soc. Wash. 85(4), 1983, pp. 753-761.

[1] Dr. Michael Raupp. University of Maryland. **“**”White Prunicola Scale”, *Branching Out*, Vol. 12 No. 5

3/86 prepared by Dr. Maurie Semel, Long Island Horticultural Research Laboratory, Riverhead, NY, and Thomas Kowalsick, Cornell Cooperative Extension - Suffolk County, updated 1/2010.

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