



European elm scale

Gossyparia spuria

Order Hemiptera, Family Eriococcidae; felt scales
Introduced pest

Host plants: American elm and other native elms are preferred, but *Celtis* species and *Zelkova* are also susceptible.

Description: Mature females are up to 10 mm long, oval and grayish-brown with a white, waxy fringe ovisac. Crawlers are yellow.

Life history: Females mature in late May, mate, and begin depositing eggs. Crawlers begin appearing in late June. Egg hatch may extend through the end of July. Crawlers feed on leaves throughout the summer, then migrate to branches before leaves drop. Crawlers prefer the underside of leaves, while mature females prefer the forks of twigs. There is one generation a year.

Overwintering: Immatures in bark cracks.

Damage symptoms: Feeding damage includes stunted, chlorotic foliage, premature leaf drop and branch dieback. Associated black sooty mold growth on honeydew on tops of branches gives trees an overall black appearance.

Monitoring: Beginning in late May to June, look for honeydew produced by adults and look for mature females in twig forks. From late June to July, look for crawlers on the underside of leaves. Look also for stunted, yellowing foliage, and for branch dieback.

Chemical control: *General information.*

Conservation of beneficial insects: Use short duration, low residual insecticides, such as horticultural oil, insecticidal soap, and insect growth regulators (IGR).

Foliar applied broad spectrum insecticides, such as acephate, carbaryl, imidacloprid, and pyrethroids: Use only when scale populations are high to rescue trees; beneficial insects will also be killed.

Dormant season oil treatments: Use for soft scales that overwinter as immatures.

Summer oil treatments: Oil smothers exposed eggs, crawlers, and immature females.

Insect growth regulators (IGR), such as pyriproxifen: Use for crawlers as they disrupt molting.

Soil applied systemic insecticides or trunk injections, such as imidacloprid: Apply imidacloprid in fall for crawlers in spring. Less harmful to beneficial insects than foliar applied, broad spectrum insecticides.

Biological control: Beneficials usually control this scale. If beneficials are present, control crawlers with oil.

Plant mortality risk: Low.

Biorational pesticides: horticultural oil, insecticidal soap, pyriproxifen



European elm scale adult females with ovisacs on twigs. (106)

Photo: John Davidson



European elm scale with crawlers on twigs. (W82)

Photo: Whitney Cranshaw



European elm scale with nymphs on foliage in summer. (W83)

Photo: Whitney Cranshaw

Conventional pesticides: acephate, bifenthrin, carbaryl, chlorpyrifos (nursery only), deltamethrin, fluvalinate, imidacloprid, lambda-cyhalothrin, malathion, permethrin