COUNTY OF LOS ANGELES
AGRICULTURAL COMMISSIONER/WEIGHTS AND MEASURES DEPARTMENT

New Agricultural Pest for Southern California

Eucalyptus Snout Beetle (*Gonipterus scutellatus*)

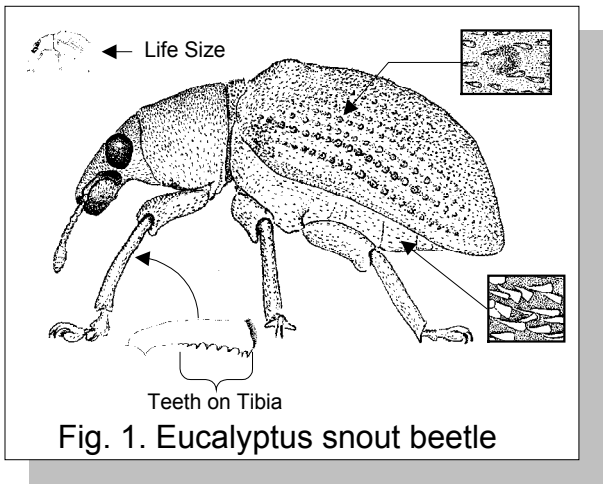

Fig. 1. Eucalyptus snout beetle

Economic Importance: Adults and larvae of Eucalyptus snout beetle (ESB) or Australian gum-tree weevil (AGW) can strip a eucalyptus tree of its leaves, buds, and shoots, causing malformations of the branches, and eventually killing branches and entire trees. Heavy infestations can completely defoliate entire sections of some eucalyptus windrows. Both slug-like larvae and adults feed on foliage. Newly hatched larvae emerge underneath egg cases deposited on leaves and begin to mine between the upper and lower parts of the leaf. The damage is remeniscent of various leafminer flies and micromoths. After molting to larger instars, they feed on the leaf surface as a skeletonizer. The adults feed by chewing along the leaf margins causing a characteristic notching pattern (Fig. 4).


Fig. 4. Feeding damage to leaves of Blue gum eucalyptus

Distribution:. The weevil is a severe pest of eucalyptus in its native Australia. It was recorded doing some damage to stalks of apples, but the citation is not referenced and may be incidental. Worldwide distribution is generally spotty and includes parts of Australia, New Zealand, Tasmania, Central and southern Africa, Madagascar, Franco-Italian border, Argentina, Brazil, and Uruguay. On 14 March, 1994, specimens of ESB were collected by a tree-trimmer on Loma Vista Drive in the city of Ventura who spotted both adults and larvae feeding in the tops of the eucalyptus trees he was working on. They were sent to Ventura County University of California Cooperative Extension Entomologist Jim Downer who, in turn, sent them to the California Department of Agriculture's Analysis & Identification Branch The specimens were tentatively identified as Australian gum-tree weevil, *Gonipterus scutellatus*. Additional larvae were collected on 9 May, 1994 on eucalyptus by La Vista Road in Somis. Finally, lepidopterist Walt Sakai was inventorying clusters of monarch butterflies in Malibu in

January, 1996. He contacted Los Angeles County Agricultural Entomologist Rosser Garrison after finding many adults near Pacific Coast Highway in the western part of the city. This find constituted the first record of this species for Los Angeles County.

Fig. 5. Adults of Eucalyptus Snout Beetle

Comments: Because adult ESB tend to drop from branches when disturbed and cling tenaciously to whatever they land on, they are easily transported by man. With heavily infested trees occurring in windrows in the citrus growing areas, of Ventura County, and along some heavily traveled roads (Highways 118 and 126), vehicular traffic may rapidly disseminate this insect throughout Southern California. ESB prefers *Eucalyptus globulus* (Blue Gum), and *E. viminalis* (Ribbon Gum), but will also feed on *Eucalyptus dalrympleana* (Mountain Gum), *E. robusta* (Swamp Mahogany), *E. sideroxylon* (Red Ironbark), and *E. tereticornis* (Forest Red Gum). Since these host plants are ubiquitous in this area, there is little to stand in the way of the spread of ESB.

An effective biological control agent exists for ESB. A small parasitic wasp *Anaphes nitens,* also native to Australia, has been introduced into and established in nearly every country where the weevil has appeared. This parasitoid attacks the weevil eggs, and brings populations under control rapidly and effectively, with damage reduced to insignificant levels within a few years. *A. nitens* is a highly specialized parasitoid of the eggs of *Gonipterus* species and poses no threat to any nontarget organisms or species native to North America.

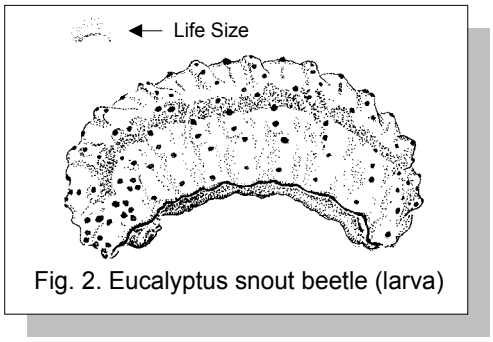

Fig. 2. Eucalyptus snout beetle (larva)

Identification:. The robust adult weevils (Fig. 1, 5) are about 7 to 8 mm. long. When viewed from above, two lateral, rounded, thorn-like projections are visible just below the base of the elytra (wing covers). In side view, the weevil has a dome-like upper surface and a flat ventral surface from just behind the eyes to the tip of the abdomen. They range from dark to orange brown. Sparse, unevenly distributed, light brown setae on the upper surface give the adult a mottled appearance, especially on the front of the head between the eyes, on the rostrum, and at the bases of the elytra and thorax. The legs and under surface of the body are covered with white, scalelike setae which gives them an almost white under surface (Fig. 1, insets). The tibiae of all legs are armed with a series of spines which allow ESB to tightly grip eucalyptus stems (Fig. 1, inset, 5).

The slug-like larvae (Fig. 2) are sawfly-like in appearance and are unusual for larvae of members of this large family. In the early larval stages, they are yellowish with small black dots and have a pair dark dorsolateral stripes that run nearly the length of the body. Full grown larve are yellowish green with numerous small black dots and are coated in sticky green slime. Frass (fecal material) is noticeably produced in long strings and frequently clings to the larvae.

Life History: Adults over winter under the bark and emerge in the spring to begin egg laying. The dark egg cases are attached to leaves and may contain as many as a dozen eggs. Larvae hatch through the bottom of the case and enter the leaf as miners. Later instars exit to the leaf surface to feed externally until full grown, drop to the ground and pupate. Four to five weeks are spent in the larval stage and three to four weeks as a pupa. The time to complete the life cycle from egg to adult is eight to twelve weeks.

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