

The Eucalyptus snout beetle, *Goniopteris scutellatus* (Coleoptera: Curculionidae) recently established in the Hawaiian Islands¹

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The Eucalyptus snout beetle, *Goniopteris scutellatus* Gyllenhal, is here reported for Maui. This record appears to be the first report of *Goniopteris* in the state.

Coleoptera: Curculionidae

Goniopteris scutellatus Gyllenhal

New state record

Adults and larvae were collected on the leaf-surface of *Eucalyptus robusta* Sm. in May 2004. Larvae had been noticed in this area in March 2004 but were not collected at that time. Larvae were present primarily on growing shoots and newly expanded or unexpanded leaves. In most cases, when larvae were found, several occurred on the same shoot or leaf. Larvae are very distinctive, being legless, slug-like and producing long, skinny filaments of frass. Adults were usually found on the edges of fully expanded leaves or petioles, gripping the stems or leaf margins very tightly.

Nearby stands of *Eucalyptus* in the Kokomo, Makawao, and Olinda area were searched for larvae and adults, but at this time no other populations have been confirmed. However, we consider it likely that the weevil is present at other locations on Maui, since it was abundant at the site of collection, and since adults of this species are strong fliers living 2–3 months (Hanks *et al.* 2000).

Schenkling & Marshall (1931) listed 24 species in *Goniopteris*, essentially an Australian genus, except for a single New Caledonian species. The range of *G. scutellatus* in Australia extends North into Queensland, South into Tasmania, and West into Victoria (CSIRO 2004). It has been spread by human activity to various other parts of the world where *Eucalyptus* is cultivated, including New Zealand, Africa, the Mediterranean, and South America. It was first recorded in the United States in 1994 in southern California (Seeno & Davidson 1994), a possible source of the Hawaiian introduction. This weevil is an important defoliator of various species of *Eucalyptus*, and therefore considered a major pest and the target of biological control programs. In Hawai'i, it may impact trees that were purposely planted, including rangeland shelterbelts, as well as naturalized populations of *Eucalyptus*. It remains to be seen whether *G. scutellatus* might limit reproduction of *Eucalyptus* in natural areas of Hawai'i where many species are considered weeds.

Goniopteris scutellatus is considered to be a specialist on the genus *Eucalyptus*, but prefers some species of *Eucalyptus* over others (Cordero Rivera & Santolamazza Carbone 2000). In other areas where it has been introduced, *G. scutellatus* has attacked several species that are widespread in Hawai'i, including *E. camaldulensis* Dehnh., *E. globulus* Labill., *E. robusta* Sm., and *E. tereticornis* Sm. (Cordero Rivera & Santolamazza Carbone 2000).

An internet search shows that *G. scutellatus* is treated in many recent articles dealing with its biology, parasites, and serious impact as a pest. One such reference (Forestry Tasmania 2004), shows images of feeding patterns, general damage to host, and *in situ* views of egg, larva, and adult.

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Material examined: MAUI: Haiku Distr, Kokomo, Kaili'ili Rd, 1575 ft [487 m], 21 May 2004, on *Eucalyptus*, W.P. Haines (5 adults, 3 larvae; BPBM, HDOA).

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New records of invasive aphids in Hawai'i

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The last published review of the Hawaiian aphid fauna was conducted 27 years ago (Beardsley 1979), at which time 68 species of aphids were recorded in the islands, every one of which was an exotic invasive. Since then there have been several reports of additional aphid species invading the islands and establishing (i.e., Kumashiro *et al.* 2001), and the Bishop Museum Hawaiian Biological Survey, online Hawaiian Terrestrial Arthropod Checklist (Nishida 2002) currently lists 81 species. With increasing tourism and air transport of agricultural and ornamental plants, aphids continue to invade and become established throughout the islands, where they often become economically and environmentally damaging pests. In a recent survey of plants on Kaua'i, O'ahu, Maui, Moloka'i, and Hawai'i we have so far found evidence of 9 new aphid species that have become established in the state of Hawai'i, over a 10% increase in the known fauna. Identifications were made in the laboratories of Dr. R. Footit and K. Pike. Biological data below are primarily from Blackman & Eastop (1984, 1994). Specimens are maintained in the insect collection of the Kauai Agricultural Research Center (KARC), Kapa'a. Nomenclature follows Remaudiere & Remaudiere (1997).