

Acalolepta aesthetica (Olliff)

Queensland longhorn beetle

PLANT PEST CONTROL BRANCH
HAWAII DEPARTMENT OF AGRICULTURE

A single adult *Acalolepta aesthetica* (Olliff) was first collected on the window screen of a resident of Hawaiian Acres, Puna, Hawaii in 2009. Additional beetles were not recovered until 2013 and the first signs of damage to host trees were not discovered until 2014.

A. aesthetica is a beetle in the family Cerambycidae (longhorned beetles). Adults may feed on leaves, twigs, and bark of plants but the primary cause of damage to plants is caused by larval feeding. Larvae bore into and feed within the branches and trunks of stressed, weak, or dying plants. It remains unknown if *A. aesthetica* will attack healthy host plants.

A. aesthetica should not be confused with *Anoplophora glabripennis*, the Asian longhorned beetle or ALB.

ORIGIN

- Native to Australia (Queensland)

KNOWN DISTRIBUTION IN HAWAII

- **HAWAII ISLAND**

While adults have hitched rides on vehicles, breeding populations have only been confirmed from **Lower Puna**: Ainaloa, Hawaiian Acres, Hawaiian Paradise Park, Orchidland, Keaau, and Kurtistown

DESCRIPTION

ADULTS

- 2 cm - 4.5 cm ($\frac{3}{4}$ in – $1\frac{13}{16}$ in)
- Antennae over 1-2 times the length of its body
- Dark brown, velvety-matte surface
- No patterns or spots on body
- Two spines on sides of pronotum (“neck” area behind the head)

LARVAE

- Legless
- Cream-colored
- Can reach lengths of over 5.75 cm ($\sim 2\frac{1}{3}$ in)



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PEST STATUS

- *A. aesthetica* was not considered a pest in its native range (Australia)
 - Information on the biology and management of this species remains unknown in literature
- *A. aesthetica* became an invasive species once established in Hawaii and it continues to exhibit its significant pest potential
 - We continue to learn more about this beetle as time progresses



CONFIRMED HOSTS IN HAWAII

These plants have been verified by the Hawaii Department of Agriculture as larval hosts

- Kukui (*Aleurites moluccanus*)
- Breadfruit (*Artocarpus altilis*)
- Various citrus (*Citrus* spp.)
- Queen sago (*Cycas circinalis*)
- Cacao (*Theobroma cacao*)
- Mulberry (*Morus alba*)
- Trumpet tree (*Cecropia obtusifolia*)
- Norfolk pine cut logs (*Araucaria heterophylla*)
- Avocado (*Persea americana*)
- Kalamungay (*Moringa oleifera*)

UNVERIFIED HOSTS IN HAWAII

These plants either exhibited symptoms of infestation or possible evidence of adult emergence. They are probable hosts and need verification through rearing immature larvae to adulthood

- Gunpowder tree (*Trema orientalis*)
- Hibiscus (*Hibiscus* spp.)
- Croton (*Codiaeum variegatum*)

SIGNS AND SYMPTOMS OF INFESTATION

- Sap oozing at oviposition sites
- Girdling on trunk
- Sawdust-like frass being pushed out of holes of trunk
- Round exit holes about 1.25 cm (½ in)
- Branch dieback and dropping



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IF YOU FIND AN ADULT BEETLE

Collect the beetle and contain it in a secure container. Take clear digital photos and record the location, date, person who collected the beetle, and describe how you found the beetle: if you found it on a specific plant, what plant? Did you find it resting on your wall? Was this at night or during the day? Email the photos and the information to: HDOA.PPC@HAWAII.GOV



IF YOU SUSPECT DAMAGE TO HOST PLANTS BY LARVAL FEEDING

It is important to track the spread of this pest, as well as plant hosts it may be attacking. Take many clear digital photos of the damage. Use an object (coin, ruler) next to any emergence holes for a size reference. Record the host plant, location of the infestation, date observed, and what infestation symptoms you saw.

Email the photos and the information to: HDOA.PPC@HAWAII.GOV



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