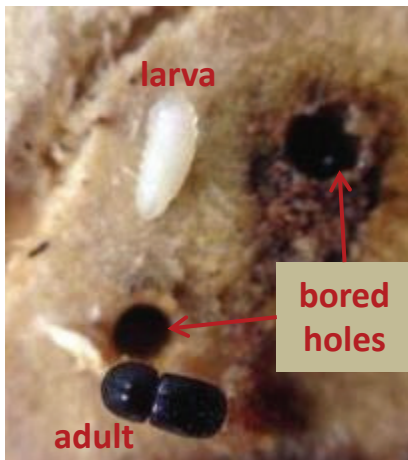


AMBROSIA BEETLES

Scientific names: *Xyleborus perforans*, *X. affinis*,
X. ferrugineus

Order: Coleoptera Family: Curculionidae

Common names: island pinhole borer, ambrosia beetle,
sugarcane shothole borer



HOST PLANTS

Ambrosia beetles are known to infest ornamentals and fruit trees, including:

anthurium	hibiscus
avocado	koa haole
brush box	kukui
Dracaena	litchi
cacao	macadamia
Christmas berry	mahogany
citrus	mango
coconut palms	paper-bark
coffee	red ginger
ti	Surinam cherry
eucalyptus	turpentine tree
guava	



■ actual size

Adult females are slightly larger (2 to 3 mm) than males (1.5 mm). They are stout bodied, dark reddish brown, and have a hunched-back appearance, with their heads completely hidden when viewed from above.



DAMAGE

Sawdust tubes are extruded from tunnels bored by adult beetles.

Pinholes with staining and sawdust tubes are signs of ambrosia beetle damage.



Ambrosia beetles are considered secondary pests, attacking stressed or unhealthy plants.

LIFE CYCLE/BEHAVIOR

Egg to Reproducing Adult - approximately 50-55 days

- **Adult females** bore into host plant trunks and branches, excavating tunnels or galleries.
- **Galleries** are inoculated with a symbiotic **fungus ("ambrosia")** on which **adults** and **larvae feed**.
- **Mating, egg laying** and **larval development** are completed within these galleries.
- **Mature females** leave infested plants and fly to new hosts; **flightless adult males** remain within the infested plant.

References: Mayfield, A.E. and M.C. Thomas MC. 2009. The redbay ambrosia beetle, *Xyleborus glabratus* Eichhoff (Scolytinae: Curculionidae). DACS-P-01651 .Florida Dept of Agric. & Consumer Services, Gainesville, FL.
Rabaglia, R. 2008.. *Xyleborus glabratus*. Exotic Forest Pest Information System for North America. Forest Health Protection, USDA Forest Service, Arlington, VA..

BEST MANAGEMENT PRACTICES FOR AMBROSIA BEETLE

	OPTIONS AVAILABLE
MONITORING TECHNIQUES	<ul style="list-style-type: none"> ▪ Visually inspect plants for sawdust strings from gallery excavation and stains from ambrosia fungus near beetle tunneling. ▪ Check plantings near water sources, which may be more susceptible to ambrosia fungi infection. ▪ Set out isopropyl alcohol traps 1-5 feet off the ground, 30-50 feet apart to monitor ambrosia beetle populations in the nursery.
SELECT BEST CONTROL METHOD	<ul style="list-style-type: none"> ▪ There are no effective treatments once beetles bore into plant trunks or stems; preventative measures include: <ul style="list-style-type: none"> ○ Keep plant stock healthy to minimize attracting ambrosia beetles. ○ Remove and properly discard or destroy infested plants or plant parts. ○ Use pyrethroids or chlorpyrifos (a restricted use pesticide, RUP) as preventative trunk treatments every two weeks in 3 to 4 applications to reduce infestations (systemic insecticides are not as effective because beetles do not feed on plant material).
TREATMENT BEFORE MARKET	<ul style="list-style-type: none"> ▪ Remove infested plant material.
FINAL INSPECTION	<ul style="list-style-type: none"> ▪ Visually inspect for evidence of ambrosia beetle infestation (sawdust).

PRECAUTIONARY STATEMENT / DISCLAIMER: These recommendations are provided only as a guide.
Please read and follow all label directions