

Poison vine (*Derris elliptica*)

An Alien Plant Report

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In cooperation with:
American Water Works Association Research Foundation
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Poison vine

(Derris elliptica)

What is Poison vine? Why is it bad?

Poison vine is a climbing, woody, vine that forms a dense canopy, and smothers vegetation, fences, forests, pastures, and farm land. On Maui, poison vine is currently known to be restricted to a few acres in Nahiku.

What should you do if you see this plant in areas other than Nahiku?

1. Call the Hawaii Ecosystems at Risk (HEAR) project at 572-4418.
2. Dig out the root of the vine, if possible. Otherwise, cut the vine near the root of the plant, and treat with an herbicide.
3. For more information or additional copies of this flyer, call 572-4418 or websurf to www.hear.org.



You can help keep Maui no ka oi.



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Poison vine

(*Derris elliptica*)

Overview: Poison vine is a large climber that is mainly cultivated in the tropics for its roots, a source of a valuable insecticide (Rotenone). It is known to be invasive in Fiji and western Polynesia. On Maui, poison vine is known from just one location, where it is restricted to 2-3 acres, and landowner has been unsuccessfully trying to control it. This plant may still be eradicable.

Potential for public involvement: *Derris* is one of the most winnable battles on Maui. Although this is a tough plant, it is restricted to a small area. Volunteer groups could be mobilized to keep the plant from spreading and possibly eradicate it. This would be a likely candidate plant for the Maui Invasive Species Committee (MISC) if it ever receives funding.

Common name: Poison vine, derris, tuba root, Rotenone

Scientific name: *Derris elliptica* Benth.

Taxonomy: In the Fabaceae (pea) family, *Derris* is a genus of perhaps 70-80 species of woody lianas and trees, native to Old World (Bailey 1976).

Description: Large climber; leaflets in 4-6 pairs, obovate-oblong, to 6 inches long, brown-silky-hairy beneath; racemes to 1 foot long; petals bright red, standard 5/8 inches across; fruit to 3 inches long, narrow-winged along one margin (Bailey 1976).

Value to humans: *Derris* is used as a pesticide. A compound obtained from the roots has been used as a fish poison for quite some time, but more recently, it was discovered that it could be an effective insecticide.

Noxious weed acts: *Derris elliptica* is not on the Hawai'i State noxious weed list.

Problems: *Derris* is invasive, strangling vegetation and anything else that gets in its way as it spreads.

Native range: Native from India to Indonesia (Bailey 1976).

Range of invasion: Fiji and western Polynesia.

Climate where invading: On Maui, *Derris* is invading in wet lowlands in Nahiku.

Biology and ecology: *Derris* is best known for its pesticide qualities. It has not been seen setting seed in Hawai'i yet.

Physical control: Hand pulling the vine off objects works, but the tangle of large stems makes finding the main root difficult.

Chemical control: No information on chemical control was found, but the vine did die back where it had been sprayed by the road crew in Nahiku.

Biological control: No information on biocontrol was found, but we did notice brown spots on the leaves.

Management recommendations: *Derris* is one of the most winnable battles on Maui. Although this is a tough plant, it is restricted to a small area. Volunteer groups could be mobilized to keep the plant from spreading and possibly eradicate it. This would be a likely candidate plant for the Maui Invasive Species Committee (MISC) if it ever receives funding. In addition, the statewide distribution and invasiveness should be documented.

Literature cited and references:

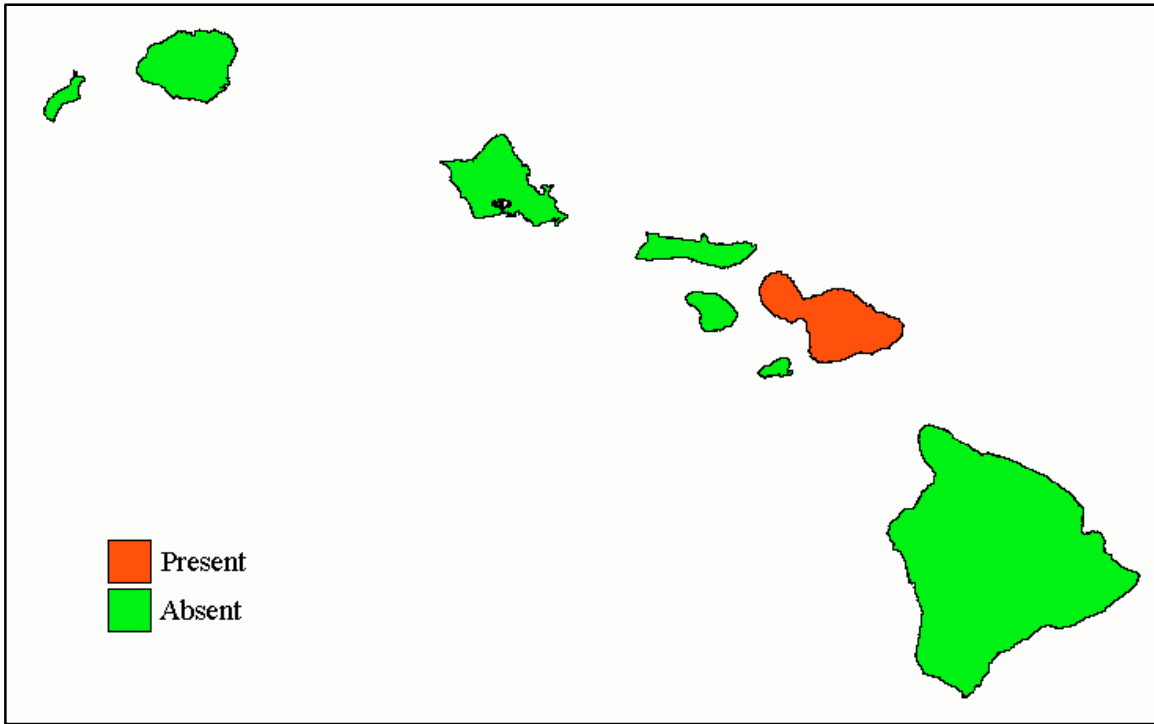
Bailey, L. H. and E. Z. Bailey. 1976. Hortus Third: A concise dictionary of plants cultivated in the United States and Canada. Macmillan Press. New York.



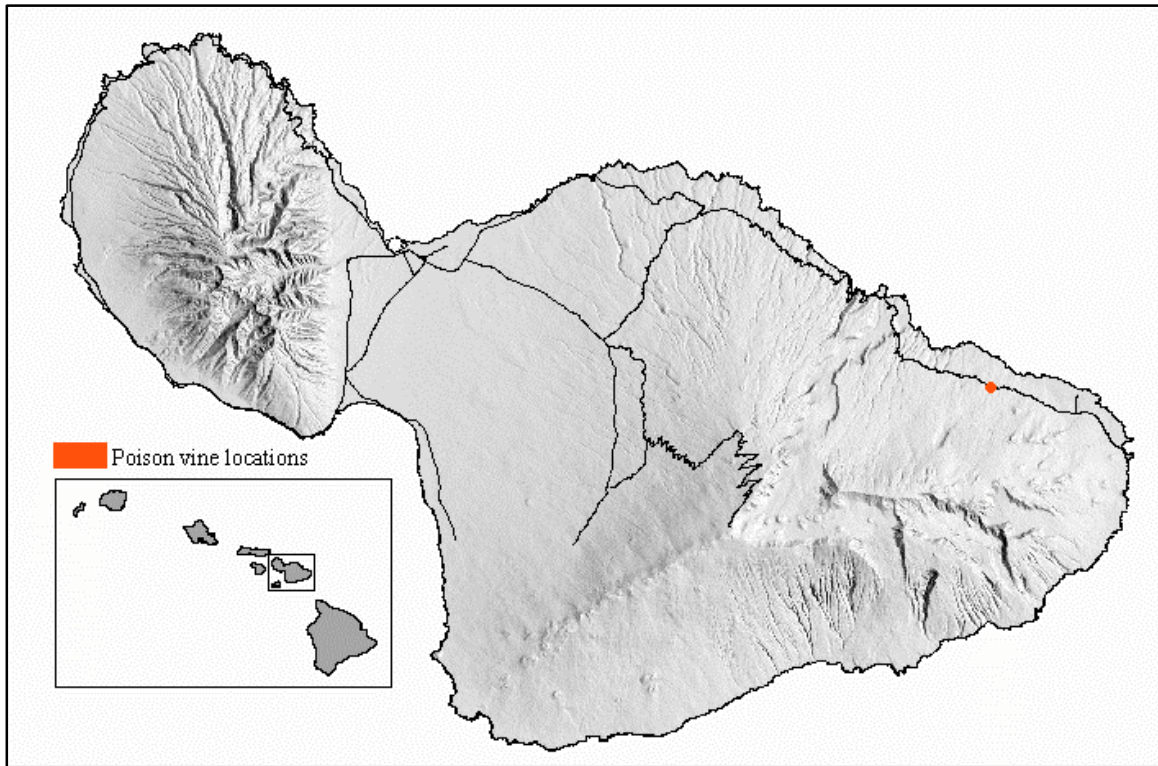
Poison vine leaves - Nahiku, Maui



Poison vine leaves with brown spots - Nahiku, Maui



Known distribution of poison vine in the State of Hawai'i, U.S.A



Known distribution of poison vine, island of Maui, state of Hawai'i