GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Ardisia elliptica***

Ardisia elliptica 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Primulales	Myrsinaceae

Common name shoebutton ardisia (English), ati popa'a (English, French Polynesia)

Synonym *Ardisia humilis* , Vahl.
Ardisia squamulosa , Pr.

Similar species

Summary Ardisia elliptica is a shade tolerant evergreen tree whose fast growth and attractive fruit made it a popular ornamental plant in the past. It has escaped from private and public gardens to invade natural areas. Due to high reproductive output and high shade-tolerance, carpets of seedlings can form underneath adult trees. High seed viability (99%) and seed consumption by both avian and mammalian frugivores can lead to rapid spread across a landscape.

view this species on IUCN Red List

Species Description
Ardisia elliptica is a tropical understorey shrub that can reach heights of up to 5 metres. Undamaged plants in forest habitats are characterised by a single stem, producing short, perpendicular branches. Leaves are elliptic to elliptic-obovate, entire, leathery and alternate. Most plants in South Florida have pink to red coloured petioles, although some populations have light green petioles. Umbellate inflorescences develop in leaf axils of branch leaves. Petals are light pink. Fruits are drupes that first turn red as they mature and then deep purple/black. Pulp from the fruits will stain fingers a deep purple. Seeds are approximately spherical with a diameter of about 5mm.

Notes
Ardisia elliptica readily invades moist disturbed forests, however, it has also been able to invade relatively undisturbed sites. Its fast growth and attractive fruit made it a popular ornamental plant in the past. From private and public gardens it has invaded natural areas. Close resemblance between it and *A. escallonioides* in Florida led to its introduction to the Everglades National Park in 1947. Because its fruit is readily consumed by both avian and mammalian frugivores, rapid spread across a landscape is possible. High seed viability (99%) greatly increases success of rare long-distance dispersal events.

Lifecycle Stages
Seeds do not have any long-term dormancy (i.e., greater than 6 months), however, seedlings and juveniles can survive under very shady conditions for many years. Given enough light, juveniles rapidly develop into reproductive adults. In Florida (USA) habitats, there is very little adult mortality. Fruits are readily eaten by frugivores.

Habitat Description
Ardisia elliptica readily invades moist disturbed forests, however, it has also been able to invade relatively undisturbed sites. Its fast growth and attractive fruit made it a popular ornamental plant in the past. From private and public gardens it has invaded natural areas. Close resemblance between it and *A. escallonioides* in Florida led to its introduction to the Everglades National Park in 1947. Because its fruit is readily consumed by both avian and mammalian frugivores, rapid spread across a landscape is possible. High seed viability (99%) greatly increases the success of rare long-distance dispersal events.

Reproduction
Ardisia elliptica is highly autogamous. Given ideal conditions, individuals can reach reproductive maturity in 2-4 years in the field and 1-2 years in a shade house. Large adults in bright forested sites have been measured producing up to 400 fruits. However, adults can also successfully set fruit under shady conditions.

Nutrition
A shade-adapted species that can survive under extreme low light levels. In Florida it grows in alkaline soils and limestone substrates. Prefers moist forests. Seedlings can tolerate submergence for short periods.

General Impacts
Ardisia elliptica readily forms dense monotypic stands that exclude native species. Due to high reproductive output and high shade-tolerance, carpets of seedlings (>400 plants per square metre) can form underneath adult plants under ideal conditions (moist soil and shallow litter). Seedling carpets and increased shade levels inhibit recruitment by native species.

Management Info
Preventative measures: A Risk Assessment of *Ardisia elliptica* for Hawaii and other Pacific islands was prepared by Dr. Curtis Daehler (UH Botany) with funding from the Kaulunani Urban Forestry Program and US Forest Service. The alien plant screening system is derived from Pheloung *et al.* (1999) with minor modifications for use in the Pacific islands (Daehler *et al.* 2004).
Physical: Hand pull seedlings.
Chemical: \"In areas with a dense groundcover of seedlings, a broadcast spray of a glyphosate herbicide is effective, but be careful to avoid damaging desirable plants. Mature specimens should be treated with a basal application of a triclopyhr herbicide mixed with an oil diluent\" (Hammer, 1996).

Pathway
Although this method has not been documented, it is a likely invasion path.Sold as an ornamental.

Principal source: Pacific Islands Ecosystems at Risk, (PIER, 2002)

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ALIEN RANGE

[1] AUSTRALIA
[3] FRENCH POLYNESIA
[1] SAINT LUCIA
[1] COOK ISLANDS
[1] REUNION
[2] UNITED STATES

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General information
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