Syngonium podophyllum **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Liliopsida	Arales	Araceae

Common name African evergreen (English), selkesingketieu (Pohnpeian), American evergreen (English), arrowhead vine (English), nephthytis (English), goose-foot plant (English)

Synonym *Syngonium podophyllum* , var. *albolineatum*
Syngonium angustatum

Similar species *Syngonium angustatum*

Summary *Syngonium podophyllum* is an ornamental vine native to Central and parts of South America that has established invasive populations in the United States, South Africa, Singapore, the Carribbean, and on several Pacific islands. It may establish dense populations that displace native plants and grow over native trees.

view this species on IUCN Red List

Species Description
Syngonium podophyllum has alternate, three-lobed, arrow-shaped leaves that vary in size, shape and color with age and cultivar variety. Juvenile leaves are simple, entire, and sagittate with silvery-white veins or centre, bounded by green. Mature leaves are compound, dark green, and segmented into three leaflets, developing with age to 5–9 leaflets. The central leaflet is the longest. Leaflets are generally dark green above and pale green below and leaves and stem contain a milky sap. It has four to eleven flower spikes (spadixes) which develop in leaf axils, each comprising 6–9 green tubular flowers, enclosed in a creamy-white to green modified leaf (a spathe), similar to that of an arum ‘lily’. Its fruits are red to reddish-orange with many black or brown seeds within a soft, grayish pulp (DEEDI, 2010; Morgan *et al*., 2004). However, *S. podophyllum* rarely fruits even within its native range (PIER, 2005).

Lifecycle Stages
Seedlings have one to several simple, sagittate leaves while mature plants have compound leaves that are highly variable (Morgan *et al*., 2004).

Uses
Syngonium podophyllum is an ornamental vine that is cultivated in many tropical countries and widely exported (Brunel, 2009; PIER, 2009). As with many plants in the horticultural trade, *S. podophyllum* goes by numerous common names including American evergreen, fivefingers, and nephthitis. Commonly available cultivars include “white butterfly” and “pink allusion” Morgan *et al*., 2004). At least 10 different cultivars of *S. podophyllum* have been developed by the nursery industry (DEEDI, 2010).

Habitat Description
Syngonium podophyllum requires moist, well-drained, fertile soils and prefers shady conditions. Within its native range in Central America it is most frequent in tropical forests but also occurs in premontane wet forest. It ranges in elevations from sea level to 1000 m but is more abundant below 750 m and especially abundant between 100 and 500 m. *S. podophyllum* is known to grow in sandy and loam soils and within a pH range of 5.5-6.5 (PIER, 2005; DEEDI, 2010).

Reproduction
Syngonium podophyllum reproduces almost entirely vegetatively. It is able to reproduce from a single node (Space & Flynn, 2002).It may rarely produce viable seeds in its native range. Many voucher specimens are \"sterile" and lack flowers even from its native range (PIER, 2005). However in Singapore and probably in Peninsular Malaysia, many *S. podophyllum* have been found flowering and fruiting (Chong *et al*., 2010). This suggests that there is an effective pollinator present in Singapore.

Nutrition
Syngonium podophyllum requires moist, well-drained, fertile soils and prefers shady conditions (PIER, 2009).

General Impacts
Syngonium podophyllum can established dense populations that displace surrounding vegetation (Ferriter *et al*., 2001; Morgan & Overholt, 2005). It has the ability to spread in the deep shade of intact forests, forming a dense mat on the forest floor as well as climbing trees (Space & Flynn, 2001). The stems by which it climbs are thick and fleshy giving them a weight much heavier than most native vines, thus potentially making trees top heavy and more susceptible to toppling in a strong wind (Morgan *et al*., 2004). It is an abundant FLEPPC category I invasive in Florida where it is known to displace native plants including rare ferns (Possley, 2004; FLEPPC, 2009). In several areas of St. Lucie and Indian River counties of Florida, *S. podophyllum* has created a thick ground cover that is largely impenetrable to other plants, and its extensive root system makes the plant extremely difficult to remove (Morgan *et al*., 2004). Similarly, it has completely dominated the groundcover layer along one area of the Mount 'Alava trail in the National Park of American Samoa, seemingly to the exclusion of all other species and has a tendency to climb and cover the trunks of most of the mature trees in the area (Space & Flynn, 2002). *S. podophyllum* may cause mild to severe poisoning if ingested (IFAS, 2009).

Management Info
Preventative measures: A Risk assessment of *Syngoinum podophyllum* by the Pacific Island Ecosystems at Risk (PIER) yielded a high risk score of 15 'reject the plant for import (Australia) or species likely to be of high risk (Pacific)'. (PIER, 2005). It is considered a potential invasive and sleeper weed by the World Wildlife Federation (WWF, 2006).
Physical: *S. podophyllum* may be removed by hand pulling or mechanical removal. It is difficult to eradicate and may reproduce from small root and plant fragments. All vegetation must be removed to achieve eradication and multiple treatments are usually required (Space & Flynn, 2002; Space & Flynn 2001). Hand pulling is typically only effective on isolated plants and small infestations. Discarded plant materials should be bagged and properly disposed (DEEDI, 2010). Gloves should be worn when removing *S. podophyllum*, as sap can be irritating to sensitive individuals (Morgan *et al*., 2004).
Chemical: Several herbicides are known to control *Syngonium podophyllum* including glyphosate, 2,4-D, fluroxypr, and Metsulfuron-methyl. Glyphosate should be mixed at 360 g/L and diluted 1 L/100 L of water. 2,4-D should be 500 g/L and 4 mL/ 1L of water. Fluroxypyr should be 200 g/L and 0.5-1 L/ 100 L of water. Metsulfuron-methyl should be 600 g/kg and 10 g / 100 L of water plus a wetting agent. All may be applied by a spot spray (DEEDI, 2010).
Integrated management: PIER recommends hand pulling combined with spraying resprouts with 3% Roundup (glyphosate) or applying 10% Garlon 4 (triclopyr) to stems. Foliar application of 3% Garlon 4 in water with a surfactant is also effective. Multiple treaments are required (PIER, 2009).

Pathway
Syngonium podophyllum is cultivated in tropical countries and widely exported (Brunel, 2009). Most of its introductions are believed the result of its planting as an ornamental or escape from cultivation.

Principal source: Pacific Islands Ecosystems at Risk (PIER), 2005. Risk Assessment *Syngonium podophyllum*. Schott, Araceae.
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Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

Review: Hugh T.W. Tan, Department of Biological Sciences, National University of Singapore.

Pubblication date: 2010-08-10

ALIEN RANGE

[1] AMERICAN SAMOA
[1] BAHAMAS
[1] ECUADOR
[1] MICRONESIA, FEDERATED STATES OF
[1] NIUE
[1] PUERTO RICO
[1] SINGAPORE
[1] SOUTH AFRICA
[2] UNITED STATES
[2] AUSTRALIA
[1] CHRISTMAS ISLAND
[1] FRENCH POLYNESIA
[1] NEW CALEDONIA
[1] NORTHERN MARIANA ISLANDS
[1] SAINT LUCIA
[1] SOLOMON ISLANDS
[1] TONGA
[1] VIRGIN ISLANDS, U.S.

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