

*Eugenia uniflora*  [简体中文](#) [正體中文](#)

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Myrtales	Myrtaceae

**Common name** Cayennekirsche (German), Surinaamsche kersh (English, Surinam), cerisier de Cayenne (French), Florida cherry (English), cayenne cherry (English), pitanga (Spanish), Brazilian cherry (English), cerises-cotes (English, Guadeloupe), cerese à côtes (English, Guadeloupe), nagapiry (Spanish), cerezo de Cayena (Spanish), pitanga-da-praia (Portuguese), Surinamkirsche (German), guinda (English, El Salvador), cereza cuadrada (English, Colombia), pendanga (English, Venezuela), monkie monkie kersie (English, Surinam), cerise de pays (English, French Guiana), cerise de Cayenne (English, French Guiana), zoete kers (English, Surinam), Surinam cherry (English), cerise carée (English, French Guiana), French cherry (English), Barbados cherry (English), red Brazil cherry (English), kafika papalangi (English), kafika palangi (English), kafika (English), menemene (English), venevene (English), ñanga-piré (English, Argentina), cerisier carré (French)

**Synonym** *Eugenia michelii*, Lam.  
*Eugenia brasiliiana*, (L.) Aubl.  
*Myrtus brasiliiana*, L.  
*Myrtus brasiliiana*, L. var. *normalis* Kuntze  
*Plinia pedunculata*, L.f.  
*Plinia rubra*, L.  
*Stenocalyx michelii*, O. Berg  
*Stenocalyx uniflorus*, (L.) Kausel

**Similar species** *Eugenia* spp.

**Summary** *Eugenia uniflora* is an evergreen shrub that can reach tree like proportions. It is a hardy species that can thrive in a variety of habitats, both in its native and introduced range. *Eugenia uniflora* can quickly reach thick densities which affect understorey light levels, subsequently changing micro-environments. It is also known to host recognised pests and pathogens.



[view this species on IUCN Red List](#)

## Species Description

*Eugenia uniflora* is an evergreen, multi-branched shrub (sometimes classified as a small tree) with slender, spreading branches and resinously aromatic foliage. It can reach heights of 10 m. Young stems are often covered with red hairs and dark red new foliage. The leaves of this species are opposite, simple, short petioled, oval to lance shaped, 2.5-8cm long, shiny and dark green above while paler below and with margins entire. The opposite leaves are bronze when young; turn deep-green and glossy when mature; and turn red in cold, dry winter weather. Long-stalked flowers are borne singly or as many as 4 together in the leaf axils and have 4 delicate, recurved, white petals and a tuft of 50 to 60 prominent white stamens with pale-yellow anthers. The flowers are fragrant and about 13mm across. *E. uniflora* fruit are fleshy, juicy, orange-red berries 4cm wide and are depressed-globose, conspicuously 8-ribbed, and contain 1-3 seeds. The fruit turns from green to orange as it develops and, when mature, bright red to deep-scarlet or dark, and purplish maroon ("black") when fully ripe. The skin is thin, the flesh orange-red, melting and very juicy. (FLEPPC, 2005; and Morton, 1987).

## Notes

On Tahiti, invasive species such as the carnivorous snail *E. rosea* have impacted much of indigenous species or habitats. However, thanks to the extreme ecological conditions in altitude, this invasive species have not reached higher elevation where endemic fauna still occur. On Mount Aorai, second highest peak of Tahiti (2066 m), the impact of *E. rosea* reaches a maximum altitude of 1400 m. Above this altitude, endemic gastropod species are still found alive and some remain to be described (Gargominy 2008). The 2006 two surviving Raiatean partulid lineages (*Samoana attenuata* and *Partula Meyeri*) were discovered on the upper slopes of Mount Tefatua, the highest peak on the island. The unexpected discovery of these two surviving montane populations raises the possibility of preserving some fraction of Raiatea's endemic tree snail diversity in the wild (Lee et al. 2008).

## Uses

*Eugenia uniflora* is ecologically important in its endemic range as a pioneer species in the restinga ecosystem. Thus, the species has been used to recover and manage disturbed and fragmented areas. Initial steps to understand the genetic diversity of *E. uniflora* are now being undertaken, due to its ecological versatility and wide economic application (Salgueiro et al. 2004).

Ripe fruits can be eaten out-of-hand and can be made into pie or sauce or preserved whole in syrup. They are often made into jam, jelly, relish or pickles. Brazilians ferment the juice into vinegar or wine, and sometimes prepare distilled liquor. Seeds are extremely resinous and should not be eaten. The strong, spicy emanation from bushes being pruned irritates the respiratory passages of sensitive persons. The leaves have been spread over the floors of Brazilian homes. When walked upon, they release their pungent oil, which repels flies. The bark contains 20 to 28.5% tannin and can be used for treating leather.

**Medicinal Uses:** In Brazil the leaf infusion is taken as a stomachic, febrifuge and astringent. In Surinam, the leaf decoction is drunk as a cold remedy and, in combination with lemongrass, as a febrifuge (Morton, 1987).

## Habitat Description

*Eugenia uniflora* is endemic to Brazil, occurring in areas of medium and large levels of rainfall. It can also be found in different vegetation types and ecosystems, including forests, restingas (The restingas ecoregion along the Brazilian Atlantic coast are characterized by sandy dunes with shrubs and low forests further inland), arid and semiarid environments in the Brazilian north-east. *E. uniflora* is, in general, a hardy species that is adaptable to all soil conditions that are not subject to flooding and is found in tropical and subtropical regions (FLEPPC, 2005; Morton, 1987; and Salgueiro et al. 2004).

Young plants are damaged by temperatures below -2.22° C, but well-established plants have suffered only superficial injury at -5.56° C. The plant revels in full sun. It requires only moderate rainfall and, being deep-rooted, can stand a long dry season. *E. uniflora* grows in almost any type of soil-sand, sandy loam, stiff clay, soft limestone-and can even stand water logging for a time, but it is intolerant of salt (Morton, 1987).



## Reproduction

*Eugenia uniflora* is hermaphrodite with white flowers pollinated by insects. The flowers are small having four petals and lots of yellow stamens. Flowering happens twice a year, in January and September, and fruit ripening occurs in February and October, approximately five to six weeks after flowering. Seeds remain viable for not much longer than a month and germinate in 3 to 4 weeks. *Eugenia uniflora* seedlings grow slowly; some begin to fruit when 2 years old; some may delay fruiting for 5 or 6 years, or even 10 if in unfavourable situations. The fruits develop and ripen quickly, only 3 weeks after the flowers open (Morton, 1987; and Salgueiro *et al.* 2004).

## General Impacts

Because of its hardy nature *E. uniflora* can invade a wide variety of habitats and can achieve such thick densities that it affects light levels and can change the microenvironment of an invaded habitat. This species is also known to host recognized pests and pathogens and is therefore an undesirable species to allow in native habitats where it has invaded (Forbes, 2006; and PIER, 2005).

## Management Info

Preventative measures: A [Risk Assessment of \*Eugenia uniflora\*](#) 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 Pacific islands (Daehler *et al.* 2004. The result is a score of 12 and a recommendation of: "Likely to cause significant ecological or economic harm in Hawaii and on other Pacific Islands as determined by a high WRA score, which is based on published sources describing species biology and behaviour in Hawaii and/or other parts of the world."

Chemical: Kline and Duquesnel (1996) report that using the Cut Surface method of chemical application with Garlon 3A at 50% concentration or a 10% concentration of Garlon 4 achieved a rating of "Good" control. Basal bark application of Garlon 4 at 10% concentration only received a rating of "Moderate" control.

Biological: Research into the biological control of *E. uniflora* has not been conducted, but certain invertebrates and diseases are known to attack this species. *E. uniflora* are highly attractive to Caribbean and Mediterranean fruit flies, but the incidence of infestation was found to vary greatly from location to location, with some plants being unmolested. Scale insects and caterpillars occasionally attack the foliage. Diseases encountered in its invasive range in Florida are leaf spot caused by *Cercospora eugeniae*, *Helminthosporium* sp., and *Phyllostica eugeniae*; thread blight from infection by *Corticium stevensii*; anthracnose from *Colletotrichum gloeosporioides*; twig dieback and root rot caused by *Rhizoctonia solani*; and mushroom root rot, *Armillariella (Clitocybe) tabescens* (Morton, 1987).

## Pathway

*E. uniflora* is widely planted in central and south Florida, especially for hedges (FLEPPC, 2005). *E. uniflora* was introduced for ornament and edible fruit before 1931 (FLEPPC, 2005).

**Principal source:** Salgueiro *et al.* 2004. Even population differentiation for maternal and biparental gene markers in *Eugenia uniflora*, a widely distributed species from the Brazilian coastal Atlantic rain forest [Morton, 1987 \*E. uniflora\*](#)

**Compiler:** National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

## Review:

**Publication date:** 2006-04-21

## ALIEN RANGE

[2] AMERICAN SAMOA

[1] AUSTRALIA

[1] BAHAMAS	[1] BERMUDA
[1] CAYMAN ISLANDS	[1] CHRISTMAS ISLAND
[9] COOK ISLANDS	[1] CUBA
[1] DOMINICAN REPUBLIC	[2] FIJI
[6] FRENCH POLYNESIA	[1] GUADELOUPE
[1] HAITI	[2] INDIA
[1] INDONESIA	[2] ITALY
[1] JAMAICA	[2] MARSHALL ISLANDS
[1] MARTINIQUE	[2] MICRONESIA, FEDERATED STATES OF
[5] NEW CALEDONIA	[1] NIUE
[1] NORFOLK ISLAND	[1] NORTHERN MARIANA ISLANDS
[1] PAPUA NEW GUINEA	[1] PITCAIRN
[1] PUERTO RICO	[1] REUNION
[1] SAINT BARTHELEMY	[1] SAMOA
[1] TONGA	[16] UNITED STATES
[1] UNITED STATES MINOR OUTLYING ISLANDS	[3] VIRGIN ISLANDS, U.S.

**Red List assessed species 1: EN = 1;**

[Coffea myrtifolia](#) EN

## BIBLIOGRAPHY

18 references found for *Eugenia uniflora*

### Management information

Kline, W. N., and J. G. Duquesnel. 1996. *Management of invasive exotic plants with herbicides in Florida*. Down To Earth, Vol. 51, No. 2, 1996.

[Morton, J. 1987. \*E. uniflora\*. p. 386-388. In: Fruits of warm climates. Julia F. Morton, Miami, FL.](#)

**Summary:** Available from: [http://www.hort.purdue.edu/newcrop/morton/surinam\\_cherry.html](http://www.hort.purdue.edu/newcrop/morton/surinam_cherry.html) [Accessed 3 March 2006]

[Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.](#)

**Summary:** This database compiles information on alien species from British Overseas Territories.

Available from: <http://www.jncc.gov.uk/page-3660> [Accessed 10 November 2009]

### General information

Barthelat, F. 2005. Note sur les espèces exotiques envahissantes à Mayotte. Direction de l'Agriculture et de la Forêt. 30p

**Summary:** Tableau synthétique des plantes exotiques de Mayotte classées en fonction de leur niveau d'envahissement.

[Centre des ressources biologiques. Plantes tropicales. INRA-CIRAD. 2007.](#)

**Summary:** Available from: <http://collections.antilles.inra.fr/> [Accessed 31 March 2008]

[Conservatoire Botanique National De Mascarin \(BOULLET V. coord.\) 2007. - Eugenia uniflora Index de la flore vasculaire de la Réunion \(Trachophytes\) : statuts, menaces et protections. - Version 2007.1](#)

**Summary:** Base de données sur la flore de la Réunion. De nombreuses informations très utiles.

Available from: <http://flore.cbnm.org/index2.php?page=taxon&num=ef67f7c2d86352c2c42e19d20f881f53> [Accessed 1 April 2008]

[Florence J., Chevillotte H., Ollier C. & Meyer J.-Y. 2007. Eugenia uniflora Base de données botaniques Nadeaud de l'Herbier de la Polynésie française \(PAP\).](#)

**Summary:** Available from: [http://www.herbier-tahiti.pf/Selection\\_Taxonomie.php?id\\_tax=2727](http://www.herbier-tahiti.pf/Selection_Taxonomie.php?id_tax=2727) [Accessed 1 April 2008]

[Florida Exotic Pest Plant Council \(FLEPPC\), 2005. Identification and Biology of Non-Native Plants in Florida's Natural Areas Eugenia uniflora Editors : K.A. Langeland and K. Craddock Burks](#)

**Summary:** Available from: [http://www.fleppc.org/ID\\_book/eugenia%20uniflora.pdf](http://www.fleppc.org/ID_book/eugenia%20uniflora.pdf) [Accessed 3 March 2006]

[Forbes, K. A. 2006. Bermuda's Flora: Flowers, trees, fruits, grasses, herbs, trees, vegetables grow year round. The Royal Gazette DAILY newspaper of Bermuda.](#)

**Summary:** Available from: <http://www.bermuda-online.org/flora.htm> [Accessed 3 March 2006]

Fournet, J. 2002. Flore illustrée des phanogames de Guadeloupe et de Martinique. CIRAD-Gondwana editions.

[Global Biodiversity Information Facility \(GBIF\), 2010. Species: Eugenia uniflora O.Berg](#)

**Summary:** Available from: <http://www.gbif.net/species/15644130/> [Accessed 15 June 2010]

[ISB-AFVP \(Institute for Systematic Botany - Atlas of Florida Vascular Plants\), 2005. Eugenia uniflora. USF: University of Southern Florida.](#)

**Summary:** Available from: <http://www.plantatlas.usf.edu/main.asp?plantID=1388> [Accessed 3 March 2006]

[ITIS \(Integrated Taxonomic Information System\), 2006. Online Database Eugenia uniflora](#)

**Summary:** An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

Available from: [http://www.itis.usda.gov:8080/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=27224](http://www.itis.usda.gov:8080/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=27224) [Accessed 3 March 2006]



# GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Eugenia uniflora*

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MacKee, H.S. 1994. Catalogue des plantes introduites et cultivées en Nouvelle-Calédonie, 2nd edn. MNHN, Paris.

**Summary:** Cet ouvrage liste 1412 taxons (espèces, sous espèces et variétés) introduits en Nouvelle-Calédonie. L'auteur précise dans la majorité des cas si l'espèce est cultivée ou naturalisée.

Meyer, Jean-Yves & Loope, Lloyd & Sheppard, A. & Munzinger, Jérôme & Jaffré, Tanguy. (2006). Les plantes envahissantes et potentiellement envahissantes dans l'archipel néo-calédonien : première évaluation et recommandations de gestion.

[PIER \(Pacific Island Ecosystems at Risk\). 2006. \*Eugenia uniflora\* L., Myrtaceae.](#)

**Summary:** Available from: [http://www.hear.org/pier/species/eugenia\\_uniflora.htm](http://www.hear.org/pier/species/eugenia_uniflora.htm) [Accessed 3 March 2006]

Salgueiro, F., D. Felix, J. Caldas, M. M. Pinheiro, and R. Margis. 2004. *Even population differentiation for maternal and biparental gene markers in Eugenia uniflora, a widely distributed species from the Brazilian coastal Atlantic rain forest.* Diversity and Distributions 10: 201-210.

[USDA-GRIN \(Germplasm Resources Information Network\). 2006. \*Eugenia uniflora\*. National Genetic Resources Program \[Online Database\] National Germplasm Resources Laboratory, Beltsville, Maryland.](#)

**Summary:** Available from: [http://www.ars-grin.gov/cgi-bin/npgs/html/tax\\_search.pl?Eugenia+uniflora](http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl?Eugenia+uniflora) [Accessed 3 March 2006]