Cryptostegia grandiflora 简体中文 正體中文 **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Gentianales	Asclepiadaceae

Common name India rubber vine (English), caucho de la India (Spanish, Galapagos), rubber vine (English), palay rubber vine (English), purple allamanda (English), liane de gatope (French, New Caledonia)

Synonym *Nerium grandiflorum* , Roxb. ex R. Br.

Similar species

Summary Cryptostegia grandiflora is a self supporting, many-stemmed vine that is capable of growing over trees up to 15m high, smothering and pulling them down. It occurs in dry and moist forests in disturbed situations where there is temporary or permanent water, such as in rainforest openings and along roadsides. C. grandiflora is poisonous to stock when consumed and it forms impenetrable thickets that may restrict stock access to water. It decreases water catchments due to increased transpiration resulting in a loss of trees and native vines, which in turn leads to a loss of biodiversity and habitat.

view this species on IUCN Red List

Species Description
Cryptostegia grandiflora, is a self supporting, scrambling, many-stemmed vine that grows to 2 metres tall with long trailing whips. A milky sap oozes from stems, leaves and seedpods when cut or broken. Leaves are dark green and glossy, 6-10cm long, 3-5cm wide and in opposite pairs. Roots have been found at a depth of 13 metres in mine shafts. Roots of seedlings are twice as long as shoots. The growth form of the vine differs depending on the surrounding conditions. They can form dense canopies of overpapping plants with long whips, form towers upto 30mts high the height of native trees and grow as freestanding shrubs in the absence of other vegetation. Flowers are large and showy, with five white to light purple petals in a funnel shape. The seedpods are rigid, 10-12cm long, 3-4cm wide and grow in pairs at the end of a short stalk. The flowers resemble those of the purple Allamanda (*Allamanda violacea*) (PIER, 2003).

Lifecycle Stages
Cryptostegia grandiflora produces seeds that last more than 12 months in the soil (Grice, 1996). Plants begin reproducing at about 200 days (CSIRO Australia, 2001).

Uses
Ornamental

Habitat Description
Cryptostegia grandiflora is an aggressive woody climbing shrub which is capable of growing over trees up to 30m high. Plants are common in disturbed situations where there is temporary or permanent water, such as along gullies, rivers, creeks, waterholes and in saltmarsh areas (Marohasy and Forster, 1991. In PIER, 2003). It found growing in dry forest, roadsides, moist forest, rainforest openings at low elevations (PIER, 2003).

Reproduction
Wind- and water-dispersed seeds. Seeds form in large pods about 15cm long which are often found in pairs, joined at the base. Each pod contains numerous seeds, each seed has a tuft of long white silky hairs. (WA, Department of Agriculture).
It can produce more than 8000 seeds in a single reproductive episode and can set seed at least twice per year. More than 90% of seeds will germinate within 10 days of moisture becoming available (Grice 1996). Each seed pod produces 340-840 seeds, and seeds can float in salt water for up to 40 days, and may still remain 60% viable after this.

Nutrition
Prefers high levels of soil moisture for rapid growth, and subsequently is often found bordering rivers, (WA, Department of Agriculture). However roots have been known to grow up to 13m deep allowing growth even in arid conditions.

General Impacts
Cryptostegia grandiflora forms impenetrable thickets and smothers vegetation resulting in a loss of trees and native vines which in turn leads to a loss of biodiversity and habitat, (CSIRO Australia, 2001). *C. grandiflora* is poisonous to stock when consumed and its rampant growth may restrict stock access to water points reducing productivity and pasture production, (WA, Department of Agriculture).

Management Info
Preventative measures: A Risk assessment of *Cryptostegia grandiflora* for Australia was prepared by Pacific Island Ecosystems at Risk (PIER) using the Australian risk assessment system (Pheloung, 1995). The result is a score of 16 and a recommendation of: reject the plant for import (Australia) or species likely to be a pest (Pacific).
The Rubber vine management manual includes a comprehensive range of techniques for controlling rubber vine, and a selection of case studies demonstrating landholder approaches and experiences. Several of the landholder case studies indicate that controlling rubber vine would have been easier if they had taken steps to remove it before it 'took off'. Maintaining good pasture competition is also beneficial in preventing the establishment and spread of rubber vine.
The Weed Control Methods Handbook provides you with detailed information about the tools and techniques available for controlling invasive plants, or weeds, in natural areas. This Handbook is divided into eight chapters, covering a range of different control methods: manual, mechanical, promoting competition from native plants, grazing, biocontrol, herbicides, prescribed fire, solarization, flooding, and other, more novel, techniques. Each control method has advantages and disadvantages in terms of its effects against the target weed(s), impacts to untargeted plants and animals, risks to human health and safety, and costs.

Pathway
Introduced for cultivation in India to produce a poor quality rubber latex, (WA, Department of Agriculture).Initially introduced to Australia as an ornamental species, (CSIRO Australia, 2001).
http://www.rareflora.com/cryptostegiagran.htm

Principal source: Pacific Islands Ecosystems at Risk (PIER), 2003, 2009. *Cryptostegia grandiflora* Roxb. ex R.Br., Apocynaceae

Compiler: IUCN SSC Invasive Species Specialist Group
Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

Review: Dr Wayne Vogler. Weed Scientist Tropical Weeds Research Centre, Dept. Natural Resources and Mines, Queensland Australia

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ALIEN RANGE

[1] ARUBA
[3] AUSTRALIA
[1] CURACAO
[1] FIJI
[1] GUAM
[1] MARSHALL ISLANDS
[1] MAYOTTE
[3] NEW CALEDONIA
[1] REUNION
[1] SOUTH EAST ASIA
[1] VIRGIN ISLANDS, U.S.
[1] ATLANTIC - WESTERN CENTRAL
[1] CAYMAN ISLANDS
[1] ECUADOR
[1] FRENCH POLYNESIA
[1] INDIA
[1] MAURITIUS
[1] MONTSERRAT
[1] NORTHERN MARIANA ISLANDS
[1] SAINT MARTIN (FRENCH PART)
[1] UNITED STATES

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IUCN/SSC Invasive Species Specialist Group (ISSG)., 2010. A Compilation of Information Sources for Conservation Managers.
Summary: This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.
Kriticos, D.J.; R.W. Sutherst; J.R. Brown; S.W. Adkins and G.F. Maywald, 2003. Climate change and biotic invasions: a case history of a tropical woody vine. Biological Invasions 5: 145–165, 2003.
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Summary: Management of Rubber Vine in Queensland- Factsheet.
PIER (Pacific Island Ecosystems at Risk), 2003, 2009. *Cryptostegia grandiflora*
Summary: Ecology, synonyms, common names, distributions (Pacific as well as global), management and impact information. Available from: http://www.hear.org/pier/species/cryptostegia_grandiflora.htm [Accessed 4 July 2010]
Renter©a, Jorge Luis; Rachel Atkinson, Ana Mireya Guerrero, Johanna Mader 2006. Manual de Identification y Manejo de Malezas en las Islas Gal©pagos. Segunda edici©n, Fundaci©n Charles Darwin, Santa Cruz, Gal©pagos, Ecuador.
Summary: An illustrated guide providing practical information for the effective control of the worst invasive plant species in Galapagos. Designed for farmers and other land managers, it describes manual and chemical control methods. It also includes 8 species that are potential problems for Galapagos. Language: Spanish
Una gu©a con ilustraciones que provee informaci©n para el control efectivo de las peores plantas invasoras en Gal©pagos. Esta dise©ada para los agricultores y personas involucradas en conservaci©n. De una forma clara y simple se describe los m©todos de control manuales y qu©micos; tambi©n incluye 8 especies que potencialmente podr©an ser un problema para Gal©pagos. Lenguaje: Espa©ol.

Renter�a, Jorge Luis; Rachel Atkinson & Chris Buddenhagen., 2007. Estrategias para la erradicaci�n de 21 especies de plantas. Fundaci�n Charles Darwin, Departamento de Bot�nica. Programa de Especies Invasoras en Gal�pagos potencialmente invasoras en Gal�pagos.
Summary: This document comprises costed eradication plans for 21 invasive species in Galapagos. The plans were developed as part of a GEF funded project ECU/00/G31 Control of Invasive species in the Galapagos Archipelago. The management plans report projects at different stages of development and for species that have invaded to different extents. Three of the projects have already been finished successfully, 5 have yet to be started, and for the rest the projects have been running for between 1 and 6 years. The cost and time needed for eradication varies considerably by species and demonstrates the importance of species eradication as soon as possible after detection
Resumen
El presente documento proporciona planes de manejo y el costo para la erradicaci n de 21 especies que se encuentran presentes en Gal pagos. Los planes fueron desarrollados como parte del proyecto ECU/00/G31 Control de las especies invasoras en el Archipi lago de las Gal pagos , suscrito por el Gobierno Ecuatoriano, representado por el Ministerio del Ambiente, con el Fondo para el Medio Ambiente Mundial (GEF). El Proyecto es implementado por el Programa de las Naciones Unidas para el Desarrollo (UNDP), tiene como instituciones ejecutoras al Servicio Parque Nacional Gal pagos (SPNG), Instituto Nacional Gal pagos (INGALA), Servicio Ecuatoriano de Sanidad Agropecuaria-Gal pagos (SESA-Gal pagos), y Fundaci n Charles Darwin (FCD). Los planes de manejo representan proyectos en diferentes estados de desarrollo y dimensi n. Tres de estos proyectos ya han sido desarrollados completamente, trece est n en proceso y cinco a n no se han iniciado. El costo y tiempo para la erradicaci n varia considerablemente seg n la especie y se muestra la importancia econ mica que implica desarrollar proyectos de erradicaci n tan pronto las especies son detectadas.
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