**Cryptostegia grandiflora**

**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.

**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).


Compiler: IUCN SSC Invasive Species Specialist Group
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ALIEN RANGE
GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: Cryptostegia grandiflora

[1] UNITED STATES

BIBLIOGRAPHY

23 references found for Cryptostegia grandiflora

Management information


Department of Natural Resources, Mines and Energy, Queensland Government, 2004. Rubber vine management: Control methods and case studies. This manual is sponsored by the National Weeds Program (Natural Heritage Trust).

Department of Natural Resources, Mines and Energy and Department of Primary Industries and Fisheries


European and Mediterranean Plant Protection Organization (EPPO), 2006. Guidelines for the management of invasive alien plants or potentially invasive alien plants which are intended for import or have been intentionally imported. EPPO Bulletin 36 (3), 417-418.


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.


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.


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 guía con ilustraciones que provee informaci?n para el control efectivo de las peores plantas invasoras en Galápagos. 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 Galápagos. Lenguaje: Espa?ol.
GLOBAL INVASIVE SPECIES DATABASE
FULL ACCOUNT FOR: Cryptostegia grandiflora

Rentería, Jorge Luis; Atkinson, Rachel & Buddenhagen, Chris. 2007. Estrategias para la erradicación de 21 especies de plantas invasoras en Galápagos. Programa de Especies Invasoras en Galápagos. 2007. El presente documento proporciona planes de manejo y el costo para la erradicación de 21 especies de plantas invasoras en Galápagos. Los planes fueron desarrollados como parte del proyecto ECU00/G31 Control de las especies invasoras en el Archipiélago de las Galápagos, 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 el Servicio Parque Nacional Galápagos (SPNG), Instituto Nacional Galápagos (INGALA), Servicio Ecuatoriano de Sanidad Agropecuaria-Galápagos (SESA-Galápagos), y Fundación Charles Darwin (FCD). Los planes de manejo representan proyectos en diferentes estados de desarrollo y dimensión. Tres de estos proyectos ya han sido desarrollados completamente, trece están en proceso y cinco aún no se han iniciado. El costo y tiempo para la erradicación varía considerablemente según la especie y se muestra la importancia económica que implica desarrollar proyectos de erradicación tan pronto como se detectan.

Summary: Review of management of Rubber Vine in Queensland.

Tropical Savannas CRC. Cooperative Research Centre for the Sustainable Development of Tropical Savannas.

Summary: Factsheet - using fire to control Rubber Vine.


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, pers. comm., 2007

Summary: Personal communication with Fabien Barthelat, an expert of flora of Mayotte.


Summary: About seed numbers, germination rates, and methods of dispersal for C. grandiflora and Ziziphus mauritiana

ITIS (Integrated Taxonomic Information System). 2004. Online Database Cryptostegia grandiflora

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.itiswa.org/iucn/gisd/species.php?sc=347 [Accessed 22 March 2020]

Summary: Resource that includes the distribution of invasive species throughout the Pacific Islands.


Western Australia (WA), Department of Agriculture, 2002. Cryptostegia grandiflora

Summary: General information about the weed Rubber Vine in an Australian context.