Cinnamomum camphora

System: Terrestrial

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
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<tbody>
<tr>
<td>Plantae</td>
<td>Magnoliophyta</td>
<td>Magnoliopsida</td>
<td>Laurales</td>
<td>Lauraceae</td>
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</tbody>
</table>

Common name

arvore da camphora (Portuguese), camphor laurel (English), camphre (French), camphrier (French), Japanese camphor (English), kampferbaum (German), canfora (Italian), kuso-no-ki (Japanese), alcanfor (Spanish), alcanforero (Spanish), campher (German), camphor tree (English)

Synonym

Laurus camphora, (L.)

Similar species

Cinnamomum zeylanicum

Summary

Cinnamomum camphora is native to Japan, China, Taiwan and northern Vietnam. C. camphora has become widely naturalised in Australia. In the United States, it grows along the Gulf Coast and in California. C. camphora seeds are easily spread by birds from cultivated yards to open forests, and it is also spread to new locations through plant nursery sales. C. camphora fruits, leaves, and roots are toxic to humans in large doses.

Species Description

The camphor tree is a broadleaved evergreen growing to heights of 15 - 30m achieving a canopy that is twice as wide as its height. According to FFI (2003), the leaves of C. Camphora are 5-8cm long, 1.5-5cm wide, oval-shaped, and taper into an acute apex. Leaf bases are wedge-shaped or rounded and the leaf surfaces are bright green and lustrous above, duller and slightly greyish-green below. The fruit of C. Camphora is a black drupe, about 2cm in diameter, held by a leathery floral, funnel-like tube that occurs in clusters at the end of a stalk. The leaves of the camphor tree give off a strong odour when crushed making it easy to identify.

Notes

Major chemical compounds in wood and leaves of C. camphora are camphor, safrole, linalool, 1,8-cineole, a-pinene, a-terpineol, ?-cymene.

Uses

According to LCD (2000), C. camphora is widely planted as a shade tree, screen, or windbreak. In China and Japan, it is grown commercially for its medicinal oil.

Habitat Description
LCD (2000) indicates that *C. camphora* prefers fertile, sandy soil. It will tolerate a pH anywhere in the range of 4.3 to 8, and will grow in full sun or partial shade. However, *C. camphora* does not do well in wet soils. Established trees are tolerant of drought. Occurs primarily in drier disturbed areas such as roadsides and fencerows, but has invaded natural areas such as mesic hammocks, upland pine woods, and scrubland.

Reproduction
WAC (UNDATED) indicates that *C. camphora* flowers are hermaphroditic. The fruit ripens in autumn and turns black when ripe. Seeds of *C. camphora* have poor germination due to a hard seed coat.

General Impacts
Murray and Ramey (2003) note that *C. camphora* grows like a weed, infesting forests and displacing native trees. According to LCD (2000), *C. camphora* fruits, leaves, and roots are toxic to humans in large doses. They contain chemicals that stimulate the central nervous system and may affect respiration or cause convulsions. In Chinese medicine, camphor is forbidden for pregnant women and those with a deficiency of vital energy or yin.

Management Info
Preventative measures: A Risk Assessment of *Cinnamomum camphora* for Hawai‘i 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 7.5 and a recommendation of: "Likely to cause significant ecological or economic harm in Hawai‘i and on other Pacific Islands as determined by a high WRA score, which is based on published sources describing species biology and behaviour in Hawai‘i and/or other parts of the world."
Physical: According to Starr *et al.* (2003), small seedlings of *C. camphora* can be hand pulled or grubbed out. It is important that the roots are removed otherwise the tree could regrow.
Chemical: Foliar spray with herbicides on young *Cinnamomum camphora* trees up to 3m tall is also effective. Basal bark or cut stump herbicide treatments are effective for trees up to 6m, or with a basal stem diameter up to 30cm with no multi stems. For basal bark, spray from ground level up to a height of 30cm or higher than where multi stems branch.

Principal source: *Cinnamomum camphora* (LCD, 2000)
Pacific Islands Ecosystems at Risk, (PIER, 2002)

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

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ALIEN RANGE

[1] AUSTRALIA
[1] CUBA
[1] FRENCH POLYNESIA
[1] GUADELOUPE
[1] NEPAL
[1] PUERTO RICO
[1] UNITED STATES
[1] VIRGIN ISLANDS, U.S.

BIBLIOGRAPHY

19 references found for Cinnamomum camphora

Management information

Summary: A study on the use of a screening system to assess proposed plant introductions to Hawaii or other Pacific Islands and to identify high-risk species used in horticulture and forestry which would greatly reduce future pest-plant problems and allow entry of most nonpests.


Summary: Advice to the Minister for the Environment and Heritage from the Threatened Species Scientific Committee (TSSC) on Amendments to the List of Key Threatening Processes under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act): Cinnamomum camphora, Camphor Laurel most toxic chemotypes.


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.

PIER (Pacific Island Ecosystems at Risk), 2002. Cinnamomum camphora

Summary: Ecology, synonyms, common names, distributions (Pacific as well as global), management and impact information.


Summary: A description of management and control procedures of C. camphora.


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


Conservatoire Botanique National De Mascarin (BOULLET V. coord.) 2007. - Cinnamomum camphora Index de la flore vasculaire de la R'union (Trach?ophytes) : statuts, menaces et protections. - Version 2007.1

Summary: Base de donn?es sur la flore de la R’union. De nombreuses informations tr?s utiles.


Summary: A short summary on the description of C. camphora.


Summary: A report on various aspects of *C. camphora*.


Summary: A short summary of the biology and ecology of *C. camphora*.

RGIS (Rockledge Gardens Information Sheet). UNDATED. *Camphor Tree*.
Summary: This site describes a similar species.

USDA-ARS. 2001. *Cinnamomum camphora*. National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland

Summary: A brief description of the various names of *C. camphora*.


Summary: A summary on the biology, and distribution of *C. camphora*.

World Agroforestry Centre (WAG). UNDATED. *Cinnamomum camphora*. International Centre for Research in Agroforestry (ICRAF).

Summary: A brief summary on the biology of *C. camphora*.