GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Wisteria sinensis***

Wisteria sinensis 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Fabales	Fabaceae

Common name Chinese wisteria (English)

Synonym
Glycine sinensis , (Sims 1819)
Kraunhia chinensis , (Greene 1892)
Kraunhia floribunda , (Willd.) Taub. var. *sinensis* (Sims) Makino 1911
Kraunhia sinensis , (Sims) Makino 1910
Millettia chinensis , (Benth. 1852)
Rehsonia sinensis , (Sims) Stritch 1984
Wisteria chinensis , DC. 1825
Wisteria chinensis , DC. var. *albiflora* (Lem.)W.Miller 1902
Wisteria sinensis , (Sims) Sweet var. *albiflora* Lem. 1858
Wisteria sinensis , (Sims) Sweet var. *alba* Lindl. 1849

Similar species *Wisteria floribunda, Wisteria frutescens*

Summary Wisteria sinensis invades forest edges and disturbed areas, including riparian zones. It tolerates shade and a variety of soil types. In riparian areas, it spreads downstream as seeds float to new locations. Most infestations of natural habitats are escaped landscape plantings. Wisteria sinensis remains a popular ornamental in the nursery trade.

view this species on IUCN Red List

Species Description
According to Martin (2002), *Wisteria sinensis* is a perennial vine that can live for 50 years or more and grows up to 38cm in diameter. The leaves are alternate and pinnately compound. They grow up to 30cm long and consist of 7-13 leaflets. The fragrant flowers are 1.27-2.5cm long and hang in clusters that sometimes exceed 40cm in length. Flowers are usually blue-violet, but other cultivars (which may be escaped plants) are white, purple, pink, and lavender. Flowers are usually produced from April to May (in the North American region). Seedpods are 10-15cm long, hairy, and brown; they are narrow at the base and have constrictions between the seeds. The vine always twines around host plants counter-clockwise.

Notes
The seeds and pods of *Wisteria sinensis* are toxic if ingested and may cause nausea, vomiting, stomach pains, and diarrhea (Martin, 2002).

Uses
Wisteria sinensis has been commonly used as an ornamental. Martin (2002) notes that it has been grown extensively in the United States; since 1816 when it was first introduced (Remaley, 1999), for ornamental uses on porches, gazebos, walls, and gardens. Many alternatives to this vine exist, including American wisteria (*Wisteria frutescens*), Trumpet creeper (*Campsis radicans*), Trumpet honeysuckle (*Lonicera sempervirens*), Dutchman's pipe/pipevine (*Aristolochia macrophylla*), and Crossvine (*Bignonia capreolata*).

Habitat Description
Typically, *W. sinensis* infests forest edges and disturbed areas (Martin, 2002). Remaley (1999) notes that it grows best in full sun but is shade-tolerant. *W. sinensis* can tolerate a variety of soil and moisture types but it prefers loamy, deep, well drained soils.

Reproduction
According to Remaley (1999), vegetative reproduction is the primary means of expansion for *W. sinensis*. In its preferred habitat, however, seeds may be produced, and in riparian areas they may be carried downstream for long distances.

General Impacts
According to Remaley (1999), native shrubs are overtaken by *Wisteria sinensis* through strangling and shading. Even larger trees can be killed by this vine, causing large gaps in the canopy when they fall; this open canopy then furthers the growth of *W. sinensis*. This aggressive vine can form dense thickets allowing little else to grow. This vine has been discovered as a threat not only to the eastern United States, but to the Hawai'ian ecosystem as well (UHBD, 1998).

Management Info
According to Martin (2002), current management approaches consist of mechanical and chemical methods. \r\nPhysical: Mechanical methods should be used for small populations or where herbicides could damage desirable species. When cutting vines, cut close to the root collar to discontinue growth of existing vines and reduce seed production. *W. sinensis* will resprout, so it is recommended that the vine be cut repeatedly every two weeks from early in the growing season to autumn. Vines should be removed because they may continue to grow and girdle the host plant. Try to remove the entire plant (including roots) and dispose of all parts because any plant parts left can resprout.
\r\nChemical: Cut-stump herbicide applications should be used where there are large stands of established vines or where desirable plants occur and could be affected by foliar spray. Cut the vine close to the ground and apply glyphosate or triclopyr (25% solutions in water) to the cut area. If resprouting occurs retreatment may be necessary. This treatment is not effective if the ground is frozen. Foliar sprays should be used where mechanical controls would be disruptive and cut-stump methods are impractical, but additional precautions should be taken not to harm non-target species. Spray the foliage thoroughly, but do not apply so much that it drips off. Application may be more effective in warmer temperatures (above 60-65 F) because translocation is slower in cooler weather.
\r\nTriclopyr is specific for control of broadleaved plants and may be beneficial if protection of valuable native grasses is of concern. Glyphosate is non-selective and should be used with care. Chlopyralid targets aster, buckwheat, and the pea family. However, chlopyralid can seep into groundwater in sandy and limestone soil types. Picloram may provide control in areas where desirable vegetation is not present. There have been successes with backpack-spraying of the base of the trunk of the vine from ground level up to 12-18\" high (depending on the diameter of the vine) and completely encircling the trunk with a mixture of Garlon 4 and Impel Red in a 25%(G4) to 75%(IR) mix ratio. Impel Red is a mineral oil that seems to provide good penetration of Garlon 4 (Lorraine Miller. pers. comm., 2003).

Pathway
W. sinensis is a popular ornamental (Martin, 2002).

Principal source: Exotic Wisterias (Remaley, 1999)

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

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ALIEN RANGE

[1] BERMUDA
[21] UNITED STATES

[1] GIBRALTAR

BIBLIOGRAPHY

7 references found for **Wisteria sinensis**

Managment information

Martin, Tunyalee. 2002. *Weed Notes: Wisteria sinensis (Chinese Wisteria) Wisteria floribunda (Japanese Wisteria)* . The Nature Conservancy: Wildland Invasive Species Team [Online database].
Summary: Detailed description, distribution, biology, similar species description, alternative ornamental plants, and control measures used. Available from: http://tncweeds.ucdavis.edu/ [Accessed 16 April 2003].

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

Atlas of Florida Vascular Plants, 2003. Institute for Systematic Botany.
Summary: Images

ITIS (Integrated Taxonomic Information System), 2005. Online Database *Wisteria sinensis*
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.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing&taxa=Wisteria+sinensis&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]

UHBD (University of Hawaii Botany Department). 1998. *Wisteria sinensis*Sweet. Hawaiian Alien Plant Studies [Online database].
Summary: *W. sinensis* is included on the list of Pest Plants of Hawaiian Native Ecosystems.
Available from: http://www.botany.hawaii.edu/faculty/cw_smith/aliens.htm [Accessed 19 April 2003].

USDA National Resources Conservation Service - Plants Database
Summary: Images.

Wunderlin, Richard and Hansen, Bruce. 2002. *Wisteria sinensis* Institute of Systematic Botany: Atlas of Florida Vascular Plants [Online database].
Summary: Detailed taxonomy and Florida distribution.