Solanum viarum 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Solanales	Solanaceae

Common name tropical soda apple (English), juà (Portuguese, Brazil), juà-bravo (Portuguese, Brazil)

Synonym

Similar species *Solanum capsicoides*

Summary Solanum viarum is an aggressive perennial shrub native to Brazil and Argentina, that has been introduced to other parts of South America, North America, Africa and Asia. The primary means of dispersal seems to be by livestock (cattle) and wildlife, such as raccoons, deer, feral hogs and birds that feed on its fruits. Intra- and inter- county and state movement of livestock that have recently fed on Solanum viarum may be the primary vector for its spread. However, contaminated hay, seeds and bags of manure for composting also serve as a means for its dispersal.

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Species Description
According to Bryson *et al*. (2002), mature plants of *Solanum viarum* are 1 - 2m tall and are armed on the leaves, stems, pedicles, petioles and calyxes with broad-based white to yellowish thorn-like prickles up to 1cm long. Leaves and stems are pubescent; flowers are white with five recurved petals and white to cream-coloured stamens. The immature fruits are mottled light and dark green like a watermelon. The mature fruits are smooth, round yellow, and 1 to 3cm in diameter with a leathery skin surrounding a thin-layered, pale green, scented pulp and 180 to 420 flattened, reddish-brown seeds.

Habitat Description
According to Mullahey (2003), *S. viarum* has been observed as a common weed in pastures, ditch banks, citrus groves, sugarcane fields, and wet areas of rangeland. *S. viarum* is typically found in soils belonging to the order of spodosols (nearly level, somewhat poorly drained sandy soil with a spodic horizon 1 -2m below the soil surface).

Reproduction
According to Mullahey (2003), seedling emergence has been observed to primarily occur during the dry season. New plants will emerge either from seed or from roots of existing plants. Roots have buds that regenerate new shoots.

General Impacts
Bryson *et al*. (2002) indicates that *S. viarum* is a threat to the vegetable crop industry as a competitive weed and because it is an alternate host for numerous pathogens that cause disease in eggplant, peppers, potatoes, tomatoes, etc. These vegetable crop pathogens include the cucumber mosaic virus, gemini virus, potato leafroll virus, potato virus Y, tobacco etch virus, tomato mosaic virus, tomato mottle virus, and the fungal pathogen, *Alternaria solani*. Mullahey (2003) notes that it is occasionally found growing as a monoculture covering up to 50 acres or more. Bryson et al. (2002) states that damage to croplands, forestlands, and natural habitats and the cost of control of currently infested areas is difficult to determine, but *S. viarum* has the potential to become a major problem throughout the southern U.S. and could cost farmers and the public billions of dollars annually.

Management Info
Preventative measures: In the United States Animal and Plant Health Inspection Service has initiated an education and notification campaign on the potential weed problem of *S. viarum*. According to Bryson *et al*. (2002), early detection is paramount to eliminate the threat of this weed, which has the potential to infest millions of acres of pastures, crops, forests, and natural areas in the U.S.
\r\nControl: The best means of control varies according to the population size. Individual plants and small populations of *S. viarum* should be pulled up and burned completely along with all fruit. Larger populations require repeated mowing and/or one or more applications of an effective herbicide. It is important that the plants are not allowed to fruit. Individuals who find *S. viarum* should contact their appropriate local agency to verify the identity, document the spread, and begin control measures.

Pathway
Contaminated hay, seeds, and bags of manure for composting also serve as a means of its dispersal (Bryson *et al.*, 2002).

Principal source: *Tropical Soda Apple* (Bryson *et al*., 2002)

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

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ALIEN RANGE

[1] AFRICA
[1] GEORGIA
[1] MEXICO
[1] PARAGUAY
[7] UNITED STATES
[1] ARGENTINA
[1] INDIA
[1] NEPAL
[1] SWAZILAND

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9 references found for **Solanum viarum**

Managment information
Bryson, C., Byrd, J., Westbrooks, R. 2002. *Tropical Soda Apple*. Mississippi Department of Agriculture and Commerce.
Summary: A detailed report on the biology and ecology of *S. viarum*.
Available from: http://www.ceris.purdue.edu/napis/pests/tsa/pausda1.html [Accessed 19 July 2003].
Swaziland s Alien Plants Database., Undated. *Solanum viarum*
Summary: A database of Swaziland s alien plant species.

General information

CONABIO. 2008. Sistema de informaci&#65533;n sobre especies invasoras en M&#65533;xico. Especies invasoras - Plantas. Comisi&#65533;n Nacional para el Conocimiento y Uso de la Biodiversidad. Fecha de acceso.
Summary: English:
The species list sheet for the Mexican information system on invasive species currently provides information related to Scientific names, family, group and common names, as well as habitat, status of invasion in Mexico, pathways of introduction and links to other specialised websites. Some of the higher risk species already have a direct link to the alert page. It is important to notice that these lists are constantly being updated, please refer to the main page (http://www.conabio.gob.mx/invasoras/index.php/Portada), under the section Novedades for information on updates.
Invasive species - Plants is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Plantas [Accessed 30 July 2008]
Spanish:
La lista de especies del Sistema de informaci&#65533;n sobre especies invasoras de m&#65533;xico cuenta actualmente con informaci&#65533;n aceca de nombre cient&#65533;fico, familia, grupo y nombre com&#65533;n, as&#65533; como h&#65533;bitat, estado de la invasi&#65533;n en M&#65533;xico, rutas de introducci&#65533;n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p&#65533;gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci&#65533;n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci&#65533;n novedades, para conocer los cambios.
Especies invasoras - Plantas is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Plantas [Accessed 30 July 2008]
ITIS (Integrated Taxonomic Information System), 2005. Online Database *Solanum viarum*
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=Solanum+viarum&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]
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Summary: Information on plants that pose threats to natural resource areas in Florida.
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Summary: An information network that provides geographic distribution information on *S. viarum*.
Available from: http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?317433 [Accessed 21 August 2003]
USDA-NRCS (United States Department of Agriculture). 2002. *Solanum viarum*. Plants Database. Natural Resources Conservation Service.
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