

Cardiospermum grandiflorum 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Sapindales	Sapindaceae

Common name Balloon vine (English), Grand balloon vine (English), Showy balloonvine (English)

Synonym *Cardiospermum barbicule*,
Cardiospermum hirsutum,

Similar species *Cardiospermum halicacabum*, *Cayratia clematidea*, *Clematis glycinoides*, *Clematis aristata*

Summary Balloon vine (*Cardiospermum grandiflorum*) is an invasive tendril climber growing in damp situations, often near river banks. It forms dense but localised infestations and competes with, and smothers, indigenous plant species.



[view this species on IUCN Red List](#)

Species Description

Balloon vine (*Cardiospermum grandiflorum*) is a vigorous, vine-like climber with a spread of 6m or more; hairy leaves and stems; white or yellow flowers grouped together in clusters - pleasant smelling with two tendrils at the base of each cluster; fruits form a large round capsule; seeds are round, changing from green to black when ripe, with an oblong white spot (hilum). Reproduces only by seed WESSA (2006).

Please follow this link to view [images of balloon vine](#), its habit, flowers and seeds.

Lifecycle Stages

Germination of the seed on introduced habitats can occur at any time during the year. Seed longevity is estimated to be around 2 years (Vivian-Smith *et al.*, 2002). However, the exact plant and seed longevity is yet to be confirmed. Further research is currently being undertaken in order to determine various aspects of the plant ecology.

Uses

Various parts of balloon vine (*Cardiospermum grandiflorum*) can be extracted to provide medicinal applications. For example, the derivatives of the root of the plant has been shown to offer laxative, emetic and diuretic effects. Additionally, the leaves of the plant can be made into medicine which can effectively alleviate swelling, oedema and pulmonary complications (Aluka, 2008).

Habitat Description

Balloon vine (*Cardiospermum grandiflorum*) prefers moist soils and will tolerate occasional flooding. *C. grandiflorum* tolerates some shade but is most vigorous in full sun (PIER, 2007).

Reproduction

Seed - the light papery capsules float in water and can also be transported by wind (ESC, 2008).

Nutrition

Balloon vine (*Cardiospermum grandiflorum*) thrives in well-drained soil types, thus making riparian habitats the ideal location. It has also been noted that optimal growth takes place in well-lit (sunny) locations, although it is capable of germinating in dark conditions. (ARC, 2008)

General Impacts

Balloon vine (*Cardiospermum grandiflorum*) is an invasive climber growing in damp situations; often near river banks. It forms dense but localised infestations and can grow to enormous lengths and is capable of smothering a tree 10m tall. It competes with, and smothers, indigenous plant species by preventing their ability to effectively undergo photosynthesis. *C. grandiflorum* invades forest margins, watercourses and urban open spaces in subtropical regions (Wessa, 2006)

Management Info

Chemical: Chemical management (herbicides) of balloon vine (*Cardiospermum grandiflorum*) is difficult due to their close proximity to water sources. Furthermore, native species may be affected by the treatment. However, limited success is met with the use of glyphosate (Brain, 1997).

Physical: Hand-pulling or digging out of young plants and spraying larger plants. Plants can be cut at the base, leaving top growth to die off in and then the root dug out. Cutting and painting or scraping and painting very large plants (Brain, 1997).

Pathway

Balloon vine (*Cardiospermum grandiflorum*) was probably introduced to Australia as an ornamental garden creeper (BRAIN, 1997).

Principal source: [Pacific Island Ecosystems at Risk, \(PIER\), 2007. *Cardiospermum grandiflorum*](#)

Compiler: IUCN/SSC Invasive Species Specialist Group (ISSG) with support from ASB Community Trust, New Zealand

Review:

Publication date: 2008-04-17

ALIEN RANGE

[3] AUSTRALIA
[1] FRENCH POLYNESIA
[1] SOUTH AFRICA
[1] UNITED STATES

[1] COOK ISLANDS
[6] NEW ZEALAND
[1] SPAIN

BIBLIOGRAPHY

24 references found for ***Cardiospermum grandiflorum***

Management information

[Agricultural Research Council \(ARC\) 2008. Balloon vine: *Cardiospermum grandiflorum* \(Sapindaceae\). South Africa.](#)

Summary: Information on potential biocontrol agents.

Available from: <http://www.arc.agric.za/home.asp?PID=1&ToolID=63&ItemID=2963> [Accessed 4 February 2008]

[Brisbane Rainforest Action & Information Network \(BRAIN\), 1997. Balloon Vine *Cardiospermum grandiflorum*.](#)

Summary: Some general and control information on *Cardiospermum*.

Available from: <http://www.brisrain.webcentral.com.au/newsletters/issue8/bvine.html> [Accessed 1 February, 2008]

[Chatham Islands Council \(CIC\), 2006. Proposed Chatham Islands Regional Pest Management.](#)

Summary: Available from: <http://www.cic.govt.nz/pdfs/pestManagement/CIC-RPMs-06-DecIncorpFULL.pdf> [Accessed 17 April 2008]

[Department of Primary Industries and Fisheries \(DPIF\) 2006. Facts Pest Series Balloon or Heart seed vine *Cardiospermum grandiflorum*](#)

Summary: Available from: http://www.dpi.qld.gov.au/cps/rde/dpi/hs.xls/4790_7120_ENA_HTML.htm [Accessed 30 April 2008]

Environment Bay of Plenty (EBOP), 2008. Bay of Plenty Regional Pest Management Strategy.

Environment Canterbury (ECAN), undated. Regionally banned plants list

Summary: Available from: restoration of the subtropical rainforest at Wingham, New South Wales, Australia. [Accessed 17 April 2008]

Environment Waikato (EW), 2007. EW Waikato Regional Pest management Strategy/Appendix 2: National pest Plant Accord.

[Eurobodalla Shire Council \(ESC\), 2007. Balloon vine \(*Cardiospermum grandiflorum*\). New South Wales South Coast Weeds.](#)

Summary: Description and information on habitat, impacts, dispersal, lookalikes and control.

Available from: <http://www.esc.nsw.gov.au/Weeds/Sheets/vines/V%20Balloon%20vine.htm> [Accessed 1 February, 2008]

[Global Compendium of Weeds \(GCW\), 2007. *Cardiospermum grandiflorum* \(Sapindaceae\)](#)

Summary: The Global Compendium of Weeds (GCW) is a list of plant species (over 28,000 names) that have been cited in specific references (approximately 1,000) as weeds. An expert has assessed the status of the weed based on its context in each document. Sometimes, additional information--such as native range, whether the plant has reported medical/herbal uses, etc.--is included when available.

GCW is available from: <http://www.hear.org/gcw/>; this page is available from http://www.hear.org/gcw/species/cardiospermum_grandiflorum [Accessed 1 February 2008]

[New South Wales \(NSW\) Scientific Committee 2006. Exotic vines and scramblers - Key Threatening Process Declaration - final. DEC \(NSW\), Sydney.](#)

Summary: A summary of the current situation regarding invasive vines and scramblers on local fauna and flora ecology in the state of New South Wales, Australia.

Available from: <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=20052> [Accessed 20 Jan 2008]

[Pacific Island Ecosystems at Risk \(PIER\), 2007. *Cardiospermum grandiflorum*](#)

Summary: General information, including: Description, some distribution, common names and habitat.

Available from: http://www.hear.org/pier/species/cardiospermum_grandiflorum.htm [Accessed 1 February, 2008]

Strayer D, Eviner T, Jeschke, J, & Pace, M. 2006. Understanding the long-term effects of species invasions, *Trends Ecol Evol.* 21(11): 645-51.

Summary: This report reviews the potential long term effects associated with the introduction of various invasive species.

Vivian-Smith, G and Panetta D. 2002. Going with the Flow: Dispersal of Invasive Vines in Coastal Catchments. Coast to Coast, Alan Fletcher Research Station, Department of Natural Resources and Mines, Queensland, Australia.

Summary: Study on long distance dispersal with water currents.

[Wildlife and Environment Society of South Africa \(WESSA\), 2006. *Cardiospermum grandiflorum*. Alien Invader Plants.](#)

Summary: Some general and management information on Cardiospermum.

Available from: <http://www.geocities.com/wessaaliens/species/balloon.htm> [Accessed 1 February, 2008]

[Wollongong City Council \(WCC\), 2007. Weeds](#)

Summary: Management information in Wollongong, New South Wales.

Available from: <http://www.wollongong.nsw.gov.au/Environment/1251.asp#Balloon> [Accessed 20 Jan 2008]

General information

Aluka, 2008. Entry for *Cardiospermum grandiflorum* Swartz [Family Sapindaceae].

Summary: A short summary of the general uses derived from *Cardiospermum grandiflorum*.

Anning, A. K. & K. Yeboah-Gyan., 2007. Diversity and distribution of invasive weeds in Ashanti Region, Ghana African Journal of Ecology 45 (3), 355◆360.

Harden G.J, Fox M.D. And Fox B.J. 2004. Monitoring and assessment of restoration of a rainforest remnant at Wingham Brush, NSW *Austral Ecology* 29(5): 489◆507.

Summary: Restoration of the subtropical rainforest at Wingham, New South Wales, Australia.

[ITIS \(Integrated Taxonomic Information System\), 2005. Online Database *Cardiospermum grandiflorum* Sw.](#)

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.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=28669 [Accessed 1 February 2008]

[Meyer, J.-Y. 2000. Invasive plants in the Pacific Islands. In: The Invasive Species in the Pacific: A Technical Review and Draft Regional Strategy. Sherley, G. \(tech. ed\). Published in June 2000 by the South Pacific Regional Environment Programme \(SPREP\).](#)

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

[Ministry of Agriculture and Forestry \(MAF\)/Biosecurity New Zealand, 2008. Balloon vine \(*Cardiospermum grandiflorum*\). MAF Biosecurity New Zealand.](#)

Summary: A brief description of *Cardiospermum grandiflorum*

Available from: <http://www.biosecurity.govt.nz/pests/balloon-vine> [Accessed 17 March 2010]

[National Weeds Strategy \(NWS\) Australia, 1998. Weed identification. Balloon vine](#)

Summary: Available from: <http://www.weeds.org.au/cgi-bin/weedident.cgi?tpl=plant.tpl&state=&s=&ibra=all&card=V01> [Accessed 01 February 2008]

[USDA ARS, 2008. *Cardiospermum grandiflorum* Sw. National Genetic Resources Program. Germplasm Resources Information Network - \(GRIN\) \[Online Database\]. National Germplasm Resources Laboratory, Beltsville, Maryland.](#)

Summary: Available from: http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl?Cardiospermum%20grandiflorum [Accessed 1 February 2008]

[USDA, NRCS, 2008. The PLANTS Database *Cardiospermum grandiflorum* Sw. showy balloonvine \(<http://plants.usda.gov>, 25 July 2007\).](#)

[National Plant Data Center, Baton Rouge, LA 70874-4490 USA.](#)

Summary: Available from: <http://plants.usda.gov/java/profile?symbol=CAGR13> [Accessed 1 February 2008]