

*Ludwigia peruviana*  [简体中文](#) [正體中文](#)

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Myrtales	Onagraceae

**Common name** Peruvian primrose (English), ludwigia (English), Peruvian primrosebush (English), water-primrose (English), Peruvian primrose-willow (English)

**Synonym** *Jussiaea grandiflora*, Ruiz & Pav.  
*Jussiaea hirta*, (L.) Sw.  
*Jussiaea macrocarpa*, Kunth  
*Jussiaea peruviana*, L. var. *glaberrima* Donn.Sm.  
*Jussiaea peruviana*, L.  
*Jussiaea peruviana*, L. var. *typica* Munz  
*Jussiaea peruviana*, L. var. *macrocarpa* (Kunth) Bertoni  
*Jussiaea peruviana*, L. *forma hirsuta* Hassl.  
*Jussiaea peruviana*, L. *forma tomentosa* Hassl.  
*Jussiaea peruviana*, L. var. *australis* Hassl.  
*Jussiaea speciosa*, Ridl.  
*Jussiaea sprengeri*, L. H. Bailey  
*Ludwigia hirta*, (L.) M.Gómez  
*Ludwigia peruviana*, (L.) Hara var. *glaberrima* (Donn.Sm.) Alain  
*Oenothera hirta*, L.

**Similar species** *Ludwigia* spp.

**Summary** *Ludwigia peruviana* is a wetland species that has been introduced as an ornamental for its bright yellow and showy flowers. Once established, however, it forms dense, monotypic stands along shorelines and banks and then begins to sprawl out into the water and can form floating islands of vegetation. At this point, *Ludwigia peruviana* can clog waterways, damage structures and dominate native vegetation.



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

## Species Description

*Ludwigia peruviana* as is a perennial, sometimes deciduous, wetland shrub that can grow to 3 and 4 metres. It reproduces by seed and there are many small sand-like seeds in 4 to 5 rows within a capsule and can produce soil seed banks of 1 million seeds /m<sup>2</sup>. *L. peruviana*'s stems are brownish green, heavily branched, and hairy when young. The leaves are alternate, rarely opposite, ovate, 5 to 10cm long, 1 to 3cm wide, and hairy. The solitary flowers are bright yellow and quite showy and bisexual, 2 to 4cm in diameter, but the 4 (-5) petals last for only a day. There are 4 pale green sepals that are typically 8 to 12mm long, and petals 1 to 3cm long and wide. *L. peruviana*'s fruit is an erect capsule. The seed is light brown, subglobular, and 0.6 to 0.8mm long. The root system consists of a woody taproot with laterals close to the surface (PIER 2005; and Sydney Olympic Park Authority 2004) and sometimes with white spongy vertical pneumatophores, especially in water.

## Uses

Sydney Olympic Park Authority (2004) has found that, \"*L. peruviana* has poor wildlife value. However it does form small floating islands that can provide refuge for water birds.\"

## Habitat Description

PIER (2005) reports that, "*L. peruviana* forms dense, monotypic stands on shallow, still or slowly flowing streams, marshy areas, and streambanks." The Washington State Department of Ecology (2001) adds that *L. peruviana* grows in dense mats along shorelines and out into the water. It favours the margins of lakes, ponds, and ditches.

## Reproduction

The Sydney Olympic Park Authority (2004) reports that *L. peruviana* seed capsules open irregularly at maturity, and that the seeds are spread by birds. The seeds germinate in about 4 days in summer in clear water or on mud or sand surfaces. At least 80% of seeds are capable of germinating. Fallen stems also produce new shoots, which eventually take root. The authors state that, "The tiny seeds may adhere to their feathers and are easily dispersed. Probably the most common method of the spread of this weed is through humans unknowingly carrying the seeds in their clothing, hats and hair." Machinery used to modify creeks and wetlands is also known to be a significant method of causing spread (The Sydney Olympic Park Authority, 2004). The Sydney Weeds Committees (Undated) reports that seeds from their capsules could fall into water from where they can disperse down stream. The number of seeds below dense *L. peruviana* can be over 300 000 per sq metre.

## General Impacts

*Ludwigia peruviana* is vigorously opportunistic, clogging waterways and dominating other water and creek bank vegetation (The Sydney Weeds Committees, Undated).

## Management Info

**Physical:** The Sydney Weeds Committees (Undated) suggests to first carefully remove any seed heads and bag them securely in plastic bags. Bagged seed heads are best incinerated, to avoid further seed spread. Great care should be taken not to inadvertently spread seed that has attached to clothing. Seedlings can be hand pulled, but larger plants will re-shoot unless the majority of the many long embedded roots is removed. Also, discarded plants left lying on soil may take root. One must always follow up the control of *L. peruviana* by rechecking the area for any regrowth and new seedlings (The Sydney Weeds Committees, Undated).

The Sydney Olympic Park Authority (2004) reports that, "Research has shown that seeds will not germinate below about 5cm of sand, so covering the surface seeds can prevent germination from commencing." Also seed does not germinate well in shade so planting susceptible areas with trees or large shrubs suppresses *Ludwigia*.

**Cultural:** The Sydney Olympic Park Authority (2004) states that, "The yellow flowers on mature plants make it easy to recognize *L. peruviana*. Early identification is important and the community at large can play a vital part in preventing this invasive plant from spreading." But all *Ludwigia* spp. have yellow flowers, it is the hairy leaves and young branches, and the large yellow flowers that are characteristic (S. Jacobs, pers.comm., 2006).

## Pathway

*L. peruviana* is naturalised in Australia and could also spread to New Zealand through seed-contaminated products (Champion and Clayton, 2000).

**Principal source:** [Sydney Olympic Park Authority, 2004](#) Primrose willow (*Ludwigia peruviana*)  
[Washington State Department of Ecology, 2001](#). General Information About Water Primrose (*Ludwigia hexapetala*)

**Compiler:** National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG) with support from the Terrestrial and Freshwater Biodiversity Information System (TFBIS) Programme ([Copyright statement](#))

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FULL ACCOUNT FOR: *Ludwigia peruviana*

**Publication date:** 2006-10-30

## ALIEN RANGE

[13] AUSTRALIA  
[2] FRENCH POLYNESIA  
[1] INDONESIA  
[1] PUERTO RICO  
[12] UNITED STATES

[1] DOMINICAN REPUBLIC  
[2] INDIA  
[2] NEW ZEALAND  
[3] SRI LANKA

## BIBLIOGRAPHY

30 references found for *Ludwigia peruviana*

### Management information

Bankstown. 2004. Management plan for Australian White Ibis - *Threskiornis molucca* - in the Bankstown local government area. Ecologically Sustainable Development Environment Unit in conjunction with The NSW National Parks and Wildlife Service.

[Champion, P., Clayton, J. and Rowe, D. 2002. Alien Invaders Lake Managers Handbook. Ministry for the Environment.](#)

**Summary:** Available from: <http://www.mfe.govt.nz/publications/water/lm-alien-invaders-jun02.pdf> [Accessed 3 February 2005]

[Champion, P.D.; Clayton, J.S. 2000. Border control for potential aquatic weeds. Stage 1. Weed risk model. Science for Conservation 141.](#)

**Summary:** This report is the first stage in a three-stage development of a Border Control Programme for aquatic plants that have the potential to become ecological weeds in New Zealand.

Available from: <http://www.doc.govt.nz/upload/documents/science-and-technical/sfc141.pdf> [Accessed 13 June 2007]

[Champion, P.D.; Clayton, J.S. 2001. Border control for potential aquatic weeds. Stage 2. Weed risk assessment. Science for Conservation 185. 30 p.](#)

**Summary:** This report is the second stage in the development of a Border Control Programme for aquatic plants that have the potential to become ecological weeds in New Zealand. Importers and traders in aquatic plants were surveyed to identify the plant species known or likely to be present in New Zealand. The Aquatic Plant Weed Risk Assessment Model was used to help assess the level of risk posed by these species. The report presents evidence of the various entry pathways and considers the impact that new invasive aquatic weed species may have on vulnerable native aquatic species and communities.

Available from: <http://www.doc.govt.nz/upload/documents/science-and-technical/SFC185.pdf> [Accessed 13 June 2007]

Chandrasena, N., and R. Sim. 1999. Managing entrenched weed problems in botany wetlands - An urban stormwater basin in Sydney Water Supply. Vol. 17, no. 3-4, pp. 313-319. 1999.

Department of Natural Resources and Mines. 2005. Declared plants of Queensland. The State of Queensland.

[National Pest Plant Accord, 2001. Biosecurity New Zealand.](#)

**Summary:** The National Pest Plant Accord is a cooperative agreement between regional councils and government departments with biosecurity responsibilities. Under the accord, regional councils will undertake surveillance to prevent the commercial sale and/or distribution of an agreed list of pest plants.

Available from: <http://www.biosecurity.govt.nz/pests-diseases/plants/accord.htm> [Accessed 11 August 2005]

[Royal New Zealand Institute of Horticulture \(RNZIH\), 2005. Water primrose \*Ludwigia peruviana\*](#)

**Summary:** Available from: [http://www.rnzih.org.nz/pages/nppa\\_092.pdf](http://www.rnzih.org.nz/pages/nppa_092.pdf) [Accessed 1 October 2005]

Sadler, L and Dempsey, S., 2002. Water Quality of Burnt Bridge Creek. In: Freshwater Ecology Report of 2002, Department of Environmental Sciences, University of Technology, Sydney.

[Sydney Olympic Park Authority. 2004. Primrose Willow \(\*Ludwigia peruviana\*\). Education & Learning](#)

**Summary:** Available from: [http://www.sydneyolympicpark.com.au/education\\_and\\_learning/research/conservation\\_research/primrose\\_willow](http://www.sydneyolympicpark.com.au/education_and_learning/research/conservation_research/primrose_willow) [Accessed 21 July 2005]

Sydney Weeds Committees. Undated. *Ludwigia peruviana*. Noxious Weed Category: W2

[Washington State Department of Ecology. 2001. General Information About Water Primrose \(\*Ludwigia hexapetala\*\). Aquatic Plants and Lakes Pages.](#)

**Summary:** Available from: [http://www.ecy.wa.gov/programs/wq/plants/weeds/water\\_primrose.html](http://www.ecy.wa.gov/programs/wq/plants/weeds/water_primrose.html) [Accessed 21 July 2005]

### General information

Bambaradeniya, C. N. B., S. P. Ekanayake, L. D. C. B. Kekulandala, R. H. S. S. Fernando, V. A. P. Samarawickrama and T. G. M. Priyadharshana. 2002b. An Assessment of the Status of Biodiversity in the Maduganga Mangrove Estuary Occasional Papers of IUCN Sri Lanka No. 1, November 2002.

Bambaradeniya, C. N. B., S. P. Ekanayake, L. D. C. B. Kekulandala, V. A. P. Samarawickrama, N. D. Ratnayake, and R. H. S. S. Fernando. 2002a. An Assessment of the Status of Biodiversity in the Muthurajawela Wetland Sanctuary. Occasional Papers of IUCN Sri Lanka No. 3, December 2002. IUCN - The World Conservation Union, Sri Lanka Country Office.

Botany Groundwater Cleanup Project. Undated. Chapter 20 Flora and Fauna. Botany Groundwater Cleanup Project - Environmental Impact Statement 20-1.

City of Clearwater. 2002. City of Clearwater Wetland Evaluation Data.

Ferreira, P. S. F., E. R. da Silva, and L. B. N. Coelho. 2001. Miridae (Heteroptera) Fitofagos e Predadores de Minas Gerais, Brasil, Com Enfase em Espécies Com Potência Económica. Iheringia, Sér. Zool., Porto Alegre, (91): 159-169.

[Florence J., Chevillotte H., Ollier C. & Meyer J.-Y. 2007. \*Ludwigia peruviana\* Base de données botaniques Nadeaud de l'Herbier de la Polynésie française \(PAP\).](#)

**Summary:** Available from: [http://www.herbier-tahiti.pf/Selection\\_Taxonomie.php?id\\_tax=2910](http://www.herbier-tahiti.pf/Selection_Taxonomie.php?id_tax=2910) [Accessed 20 March 2008]

Global Invasive Species Database (GISD) 2024. Species profile *Ludwigia peruviana*. Available from:

<https://iucngisd.org/gisd/species.php?sc=871> [Accessed 25 November 2024]



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[ISB \(Institute for Systematic Botany\). 2005. \*Ludwigia peruviana\*. Atlas of Florida Vascular Plants.](#)

**Summary:** Available from: <http://www.plantatlas.usf.edu/main.asp?plantID=3077> [Accessed 21 July 2005]

[ITIS \(Integrated Taxonomic Information System\). 2005. Online Database \*Ludwigia peruviana\*](#)

**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=27359](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=27359) [Accessed 21 July 2005]

Jacobs, S.W.L., Perrett, F., Brock, M., Bowmer, K.H., McCorkelle, G., Rawling, J., Stricker, J. and Sainty, G.R. 1993. *Ludwigia peruviana* -- description and biology, pp. 225-228 in Swarbrick, J.T., Henderson, C.W.L., Jettner, R.J., Streit, L. and Walker, S.R. (eds) Proceedings 10th Australian and 14th Asian-Pacific Weed Conference, vol. 1. The Weed Society of Queensland, Brisbane.

Jacobs, S.W.L., Perrett, F., Sainty, G.R., Bowmer, K.H. & Jacobs, B.J. 1995. *Ludwigia peruviana* (Onagraceae) in the Botany wetlands near Sydney, Australia. Australian Journal of Marine and Freshwater Research 45 (8) 1481-1490.

Johnson, K., and M. Smith., 2004. The Lake Macquarie 2003/2004 State of the Environment Report. Lake Macquarie City Council.

[PIER \(Pacific Island Ecosystems at Risk\). 2005. \*Ludwigia peruviana\* \(L.\) H. Hara, Onagraceae](#)

**Summary:** Available from: [http://www.hear.org/pier/species/ludwigia\\_peruviana.htm](http://www.hear.org/pier/species/ludwigia_peruviana.htm) [Accessed 21 July 2005]

Sainty, G.R. & Jacobs, S.W.L. 1982. Waterplants of New South Wales. Water Resources Commission, New South Wales. 550 pp.

Sampath, K. V., and P. V. Sreekumar. 2000. *L. peruviana* (L.) Hara: A shrub new to Andamans. Journal of Economic & Taxonomic Botany. 24(2). September 20, 2000. 276-278.

Tsaprounis, S; Buckley, C; Jones, P., 2002. Cootamundra Reserve Wetland Restoration Project. In: UTS Freshwater Ecology Report 2002. Department of Environmental Sciences, University of Technology, Sydney.

[USDA-GRIN \(Germplasm Resources Information Network\). 2005. \*Ludwigia peruviana\*. National Genetic Resources Program \[Online Database\] National Germplasm Resources Laboratory, Beltsville, Maryland.](#)

**Summary:** Available from: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?403743> [Accessed 21 July 2005]

[USDA-NRCS \(Natural Resource Conservation Service\). 2005. \*Ludwigia peruviana\*. The Plants Database Version 3.5 \[Online Database\] National Plant Data Center, Baton Rouge, LA.](#)

**Summary:** Available from:

<http://plants.usda.gov/java/nameSearch?mode=Scientific+Name&keywordquery=Ludwigia+peruviana&go.x=8&go.y=10> [Accessed 21 March 2006]

Warriewood Wetlands. 2003. Warriewood Wetlands.