GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Ludwigia peruviana***

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.G�mez
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 /m2. *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, 2004Primrose willow (*Ludwigia peruviana*)
Washington State Department of Ecology, 2001. General Information About Water Primrose (*Ludwigia hexapetala*)

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Review: Dr. Surrey Jacobs Principal Research Scientist Royal Botanic Gardens Sydney NSW, Australia

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ALIEN RANGE

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[2] FRENCH POLYNESIA
[1] INDONESIA
[1] PUERTO RICO
[12] UNITED STATES
[1] DOMINICAN REPUBLIC
[2] INDIA
[2] NEW ZEALAND
[3] SRI LANKA

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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.
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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.
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