GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Utricularia gibba***

Utricularia gibba 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Scrophulariales	Lentibulariaceae

Common name conespur bladderpod (English), humped bladderwort (English), swollen-spurred bladderwort (English), creeping bladderwort (English), yellow flowering bladderwort (English)

Synonym *Utricularia fibrosa*
Utricularia obtuse
Utricularia pumila
Utricularia biflora

Similar species

Summary Low nutrient ecosystems, such as bogs and swamps, often contain unique plant species specially adapted to extreme conditions. While these habitats are more resilient to generalist invasive species they may be destabilised by introduced specialist invasive species adapted to similar environments. Bladderworts are carnivorous plants with complex modified underwater appendages or “sacs” that trap insects and other small animals; this excess nutrition allows them to survive in low nutrient substrate. *Utricularia gibba* has been identified as such a specialist invasive species and may out-compete native bladderworts in lowland wetland ecosystems in countries where it is introduced.

view this species on IUCN Red List

Species Description
Utricularia gibba is a perennial aquatic herb without roots. It has slender 25cm (10 in.) stems which may be floating, submerged or creeping along the substrate. The stem leaves are threadlike with hairless margins, alternate, numerous, and between 3 and 10mm (1/8 and 3/8 in.) long. They may be undivided or generally 2-parted at the base and each part may be forked again. The bladders or “traps” are 1 or 2 valve-lidded and borne on leaves that are less than 1/2mm (1/16 in.) wide – it is these structures that trap small invertebrates such as insects. This species has no winter buds. Inflorescence have 1 to 4 yellow flowers 6 to 8mm (¼ to 5/16 in.) long at the end of a 15cm (6 in.) stalk. The flowers are strongly irregular. The lower lips are broad, flat, and saddle shaped. The flower spurs are broadly coneshaped, but shorter than the lower lips. The fruit capsules are borne on erect stalks, and the seeds are winged (Douglas *et al*. 1999, Hickman 1993, in MDNR 2005).

Habitat Description
Utricularia gibba is an obligate wetland species and occurs in lakes and lake edges and muddy disturbed sites in the lowland zone; in its native range in Washington, for example, it occurs from elevations of 50m to 100m (160 to 490 feet) (MDNR 2005).

Reproduction
Rook (2004) reports that “reproduction of bladderwort occurs sexually by seed when it flowers between June-August and insect pollinated. Asexually by turions (winter buds), the most common method is dense starch-rich leaf masses form at tips of branches in late fall, drop in the bottom and remain dormant through the long winter. Turions begin growing as spring water temperature rises, absorbing leaves to become buoyant\".

Nutrition
Bladderworts are carnivorous plants with complex modified underwater appendages or “sacs” that trap insects and other small animals; this provides them with excess nutrition which allows them to survive in low nutrient conditions (DOC 2005).

General Impacts
The introduced yellow flowering bladderwort (*Utricularia gibba*) has spread throughout the gum fields and dune lakes in part of northern New Zealand, threatening to compete with native bladderworts and sundews, including *Utricularia dichotoma* and *U. delicatula*, and the sundews *Drosera auriculata*, *D. peltata* and forked sundew (*D. binata*) (DOC 2005).

Principal source:

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Review: Dr John Clayton and members of his team at the National Institute of Water and Atmospheric Research Ltd, Hamilton New Zealand

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ALIEN RANGE

[2] NEW ZEALAND

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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.
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