

Isolepis stellata



Scanned image by Richard Schahinger

FAMILY: CYPERACEAE

BOTANICAL NAME: *Isolepis stellata*
(C.B.Clarke) K.L.Wilson, *Telopea* 2: 169 (1981)

COMMON NAME: Star clubsedge

COMMONWEALTH STATUS (EPBC Act):
Not Listed

TASMANIAN STATUS (TSP Act): rare

Description

Isolepis stellata is a small, tufted annual with fibrous roots. Its flowering stems (culms) are erect, filiform, and up to 10 (–15) cm high. Each culm has 1 to 3 leaves that are up to half their length or reduced to short points; the basal leaf sheaths are 5 to 7 mm long, membranous and often reddish-purple. The inflorescence consists of a head of 3 to 10 closely-packed but spreading spikelets, subtended by a bract to 10 mm long. Spikelets are 2.5 to 4 mm long, yellowish-green, and consist of several flowers. Individual flowers have a 3-fid style and 1 stamen, and are subtended by a 1.5 to 2 mm long bract (glume). The glumes have a broad midrib, 1- to 3-nerved sides, a subulate, shortly excurrent apex, and are straw-coloured, often dotted or tinged red-brown. The fruit is an unequally trigonous nut, c. 0.8 mm long, minutely reticulate, glistening, dark brown to black. Flowering from October to January. [description from Curtis & Morris 1994, Walsh & Entwisle 1994]

Distribution and Habitat

On mainland Australia *Isolepis stellata* occurs in Western Australia, South Australia, Victoria and New South Wales (Curtis & Morris 1994), though it is apparently naturalised in the latter State (Harden 1993). In Tasmania the species has been recorded from near-coastal areas in the State's north and east, and also in the Northern Midlands near Conara. Habitat includes the margins of sedgey wetlands, wet soaks and seasonally inundated heathy sedgeland; the altitude of recorded sites in Tasmania ranges from close to sea level to elevations of 240 m.

Key Sites and Populations

Moulting Lagoon, Port Sorell, Conara, Luttrells Bay (Little Swanport).

Known Reserves

Little Swanport Conservation Area and Moulting Lagoon Game Reserve. Sites near Port Sorell and Conara occur on private land covered by conservation covenants under the Tasmanian *Nature Conservation Act 2002*.

Ecology and Management

As an annual species, numbers may fluctuate considerably from year to year depending on conditions pre- and post-germination, with wind the most likely pollination vector. Survival through unfavourable periods depends upon the presence and persistence of a soil seed-bank; its fruit does not have obvious dispersal aids, so any movement will generally be associated with water flow and/or animals. The species is believed to benefit from disturbance, having been observed growing in wheel ruts and increasing in numbers after fire.

Potential threats to the species and its habitat include changes to local and broader hydrological processes, stock trampling, nutrient enrichment associated with stock and fertiliser application, and weed invasion.

The species' ephemeral nature means that the risk of inadvertent habitat destruction is high, as environmental impact assessments may not be conducted at optimal times for detection, while its diminutive character and similarity to other taxa in the Cyperaceae family means that it may be easily overlooked (or simply ignored).

Conservation Status Assessment

Isolepis stellata was listed as rare on the original schedules of the Tasmanian *Threatened Species Protection Act 1995*. At that time it was known from collections from three locations (Kirkpatrick et al. 1988), none of them in reserves: Bellerive (1897), Low Head (1955) and Conara (1955 & 1968). Several additional sites have been discovered in the interim and the species' reservation status has improved, with five of the ten recorded sites in either formal or private reserves. However, the extent and abundance of the species at recorded sites is poorly known, and it has not been recorded again at either Bellerive or Low Head. The species has been described as being 'common' at the Port Sorell site, while plant numbers at the more southerly of the two Moulting Lagoon sites were estimated in January 2006 to be in excess of 10,000 plants in an area of 0.5 ha.

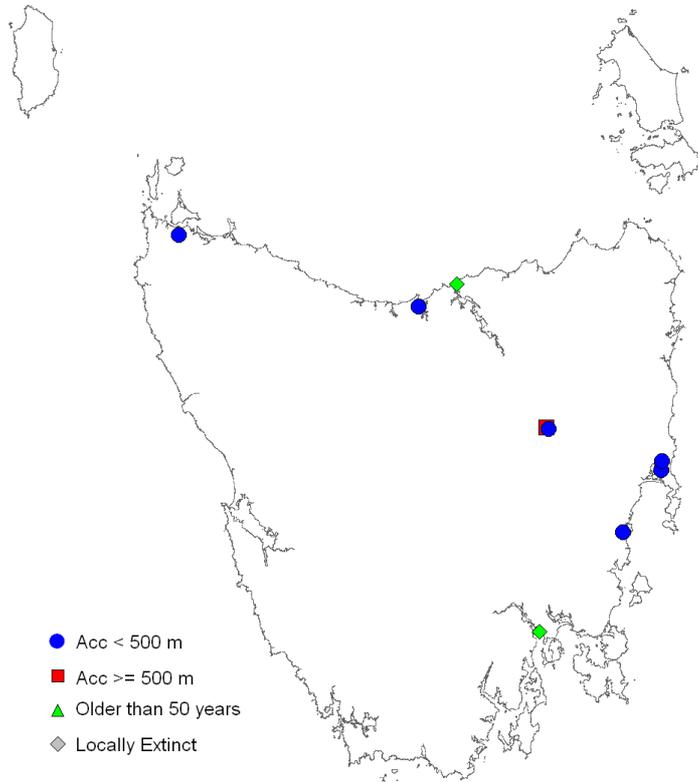
Surveys are required of all known sites and adjacent areas of potential habitat before a meaningful reassessment of the species' conservation status can be undertaken.

Further Information

- Curtis, W.M. & Morris, D.I. (1994). *The Student's Flora of Tasmania, Part 4B. ANGIOSPERMAE: Alismataceae to Burmanniaceae*. St. David's Park Publishing, Hobart.
- Harden, G.J. (1994). *Flora of New South Wales. Volume 4*. New South Wales University Press, Kensington.
- Kirkpatrick, J., Gilfedder, L. & Fensham, R. (1988). *City Parks and Cemeteries: Tasmania's Remnant Grasslands and Grassy Woodlands*. Tasmanian Conservation Trust Inc., Hobart.
- Walsh, N.G. & Entwisle, T.J. (1994). *Flora of Victoria. Volume 2. Ferns and Allied Plants, Conifers and Monocotyledons*. Inkata Press, Melbourne.

Tasmanian Distribution

(As per Threatened Species & Marine Section records, February 2014)



1:25 000 Map Sheets

Cleveland, Conara, Friendly, Hobart, Lodi, Low Head, Montagu, Port Sorell, Royalty.

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View

<http://www.dpipwe.tas.gov.au/threatenedspecieslists>

Contact details

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Permit

It is an offence to collect, disturb, damage or destroy this species unless under permit.