

Weed Sheet

Declared weed sheet : Water Hyacinth



Government of South Australia
South Australian Murray-Darling Basin
Natural Resources Management Board

Water Hyacinth

(*Eichhornia crassipes*)

Water hyacinth is a perennial floating water weed which can rapidly increase to form dense mats that reduce water quality, impede water flow, block irrigation channels and equipment and reduce the amenity value of waterways.



Water Hyacinth



What is it?

Water Hyacinth is a perennial floating water weed which can rapidly increase to form dense mats that reduce water quality, impede water flow, block irrigation channels and equipment and reduce the amenity value of waterways.

What does it look like?

Growth habit: Water hyacinth is a perennial erect floating waterweed with a fibrous root system capable of reproducing by seed and stolons.

Stems: Erect up to 600mm long and bearing flowers or short, up to 100mm long on which new plants are produced.

Leaves: Dark green rounded leaves up to 300mm in diameter. The leaves are held upright by swollen stems so they act like sails. The leaf stalk is thick and spongy with bladder like swellings, which helps to keep the plant buoyant.

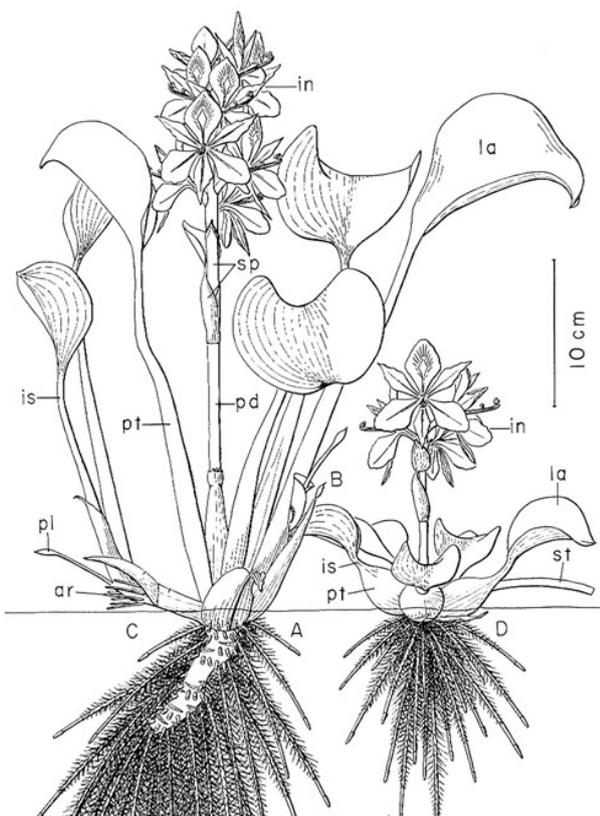
Flowers: Attractive bluish-purple or lilac-coloured flowers, 50-80mm in diameter with a yellow centre. They are carried in dense spikes projecting up to 600mm above the plant.

Why is it a problem?

The rapid growth of Water hyacinth leads to the formation of dense mats across water surfaces. These mats reduce the water quality by reducing sunlight and air exchange from the water. The mats may also cause up to four times the loss of water from normal water surface evaporation due to its high rates of transpiration through the leaves during summer.

The rotting plant removes oxygen from the water causing pollution and stagnation. This can result in the death of fish, crustaceans and other aquatic organisms. Large mats create a haven for mosquito larvae to breed and the mosquitoes can be vectors for Ross River Fever and Encephalitis.

Large infestations have the potential to restrict water flow in irrigation channels and interfere with irrigation equipment. Water hyacinth also reduces the amenity value of aquatic areas by preventing swimming and boating activities.



Affected Land uses: Urban, aquatic and irrigated horticulture and irrigated pasture land uses are affected by the presence of Water hyacinth.

Where is it found?

Water hyacinth was originally brought into Brisbane as an ornamental pond specimen in the early 1890s. The plant is valued for its purple/blue floral features and was released into public parks lagoons throughout Queensland. Flooding then spread the species into waterways where it became established in calm water areas of rivers and creeks. It is declared as a Class 2 pest (under QLD legislation) and has spread over substantial areas of QLD.

In 1937 a few plants were taken from a fishpond in South Australia and released into Ramco lagoon near the River Murray. This resulted in a serious outbreak between Ramco lagoon and Murray Bridge. A smaller outbreak was later recorded near Ramco in 1955. Since this time the plant has been successfully eradicated from South Australia.

- QLD - common along lagoons and ponds
- NSW - establishing in wetland areas and lagoons.
- VIC - not yet recorded, potential to spread along the Murray-Darling system.
- SA - not recorded since 1955, potential to spread along the Murray-Darling system.
- TAS - not yet recorded, potential to spread along river systems.

How is it spread?

The plant can reproduce vegetatively by forming daughter plants and by seeds which are produced in three-celled seed heads containing many minute, ribbed seeds. Flowering can occur in October and continue throughout the summer months. Flowers remain open for several days before beginning to wither and release seeds into the water after 18 days. The major vector for transport between water bodies is humans through accidental and deliberate movement e.g. boat trailers and fishing equipment.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		1	1	1	1	1	1				

1) Perennial Crowns persist through Autumn and Winter

Yearly Weed Life Cycle of WATER HYACINTH (*Eichhornia crassipes*) in the State of South Australia

- Germination
- Active growth
- Flowering
- Seed set

How do we control it?

Prevention: Ensuring no vegetative material is present on boat trailers or fishing equipment will reduce the accidental introduction of aquatic pests into other water bodies.

Physical control: Physical removal is most effective for small infestation before rapid growth commences prior to flowering and seed set. Water hyacinth can be controlled by hand or machine removal which can be time consuming and expensive.

Chemical control: In South Australia, herbicides registered for Water hyacinth control are 2,4-D, Amitrole, Diquat and Glyphosate. Always carefully read and follow the product label.

Biological control: Four insect species have been introduced from South America into QLD by the CSIRO since 1975. The weevil, *Neochetina eichhorniae*, has been the most successful in removing large infestations in tropical areas of QLD.

For more advice on recognising and controlling Water hyacinth, contact your local Natural Resources Management Board Officer.

References:

Queensland Government, NRMW (2006) Water hyacinth (*Eichhornia crassipes*) pest series.
www.dpiw.tas.gov.au
www.plants.nrcs.usda.gov/cgi

W.T. Parson and E.G. Cuthbertson 2001 Noxious Weeds of Australia, 2nd Ed, CSIRO Publishing. www.publish.csiro.au



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Legislation

Water hyacinth is declared under the Natural Resource Management (NRM) Act 2004.

Declared Plant Class: 1A
Declared Plant Category: 1

The following provisions of the NRM Act 2004 are to be applied to the whole of the State:

- 175(1)(2) - relates to the movement of plants into a control area or on public roads.
- 177(1)(2) - relates to the sale of plants, or produce or goods carrying plants.
- 180(1)(2)(3) - relates to the notification of a plants presence to a relevant NRM authority.
- 182(1)(3) - relates to the obligation of an owner of land to destroy or control the plant and take any measures prescribed by the relevant authority.
- 185(1) - relates to the ability of the NRM authority to recover costs of control on roadsides from adjoining landholders.

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