

# Hygrophila (*Hygrophila costata*)

## Weed management guide

Weed type  
**Water  
Weed**

February 2023

[www.lls.nsw.gov.au/regions/central-west](http://www.lls.nsw.gov.au/regions/central-west)



In NSW, weeds are regulated by the NSW Biosecurity Act, 2015. All land managers have a General Biosecurity Duty to contain the spread of weeds.

*“General Biosecurity Duty means that any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable).”*

The Regional priority for Hygrophila is Prevention. In order to achieve this, Land Managers are asked to: *Mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.*

For further information, contact your local Biosecurity (Weeds) Officer via Central West Local Land Services or visit NSW WeedWise.

NSW WeedWise



# Habit and description

Hygrophila is an aquatic weed growing up to 1.5 m high but branched at its lower parts. Its stems appear red to purplish and square in cross-section. The green leaves are veined and hairy, growing up to 18 cm long and 5 cm wide arranged as opposite pairs along the stems. The flowers are white or mauve in colour and are sparsely hairy developing into capsules 7-13 mm long containing up to 20 seeds.

The plant grows in shallow waters and at the margins of water bodies. It grows quickly in warm water. Records from property inspections show that Hygrophila is found along the Hunter River as far upstream as Maitland as well as a smaller infestation further south near Ourimbah.

It appears similar to East Indian hygrophila (*H. polysperma*), which have smaller leaves & bluish-white flowers and Alligator weed (*Alternanthera philoxeroides*), which have hollow stems.



Photo: © Sheldon Navie | NSW DPI



Photo: © Sheldon Navie | NSW DPI



Photo: © Ben P | iNaturalist

# Reproduction and spread

Hygrophila reproduce vegetatively from plant parts (stems and leaves) and by seeds. It is peculiar in that its leaves can form roots while on water (Queensland DAF, 2020). Stem fragments take root once it comes into contact with soil.

Meanwhile, its seeds can be spread by water, animals, wind or watercraft. In addition, it can spread by people disposing of aquarium or pond plants in waterways.

## Impacts

### Agriculture



- Dense infestations of Hygrophila limit access to water bodies and in conjunction, boating and fishing activities.
- This plant reduces stream flow in waterways which in turn increases risk of sedimentation.

### Native vegetation



- This plant forms dense mats that outcompete other plants.
- It also reduces food and habitat for fish and other aquatic animals dependent on native plants.

## Management

### Chemical



- Herbicide can be applied by foliar and spot spraying. Use only herbicides approved for aquatic use when targeting plants directly on water.
- Seek the guidance of an experienced Weeds Officer for expert advice on herbicide use.
- Visit [www.apvma.gov.au](http://www.apvma.gov.au) for a list of registered products, product labels and permit requirements.
- NSW DPI (2018) provides a list of recommended herbicides for the control of Hygrophila at <https://weeds.dpi.nsw.gov.au/Weeds/Hygropila>

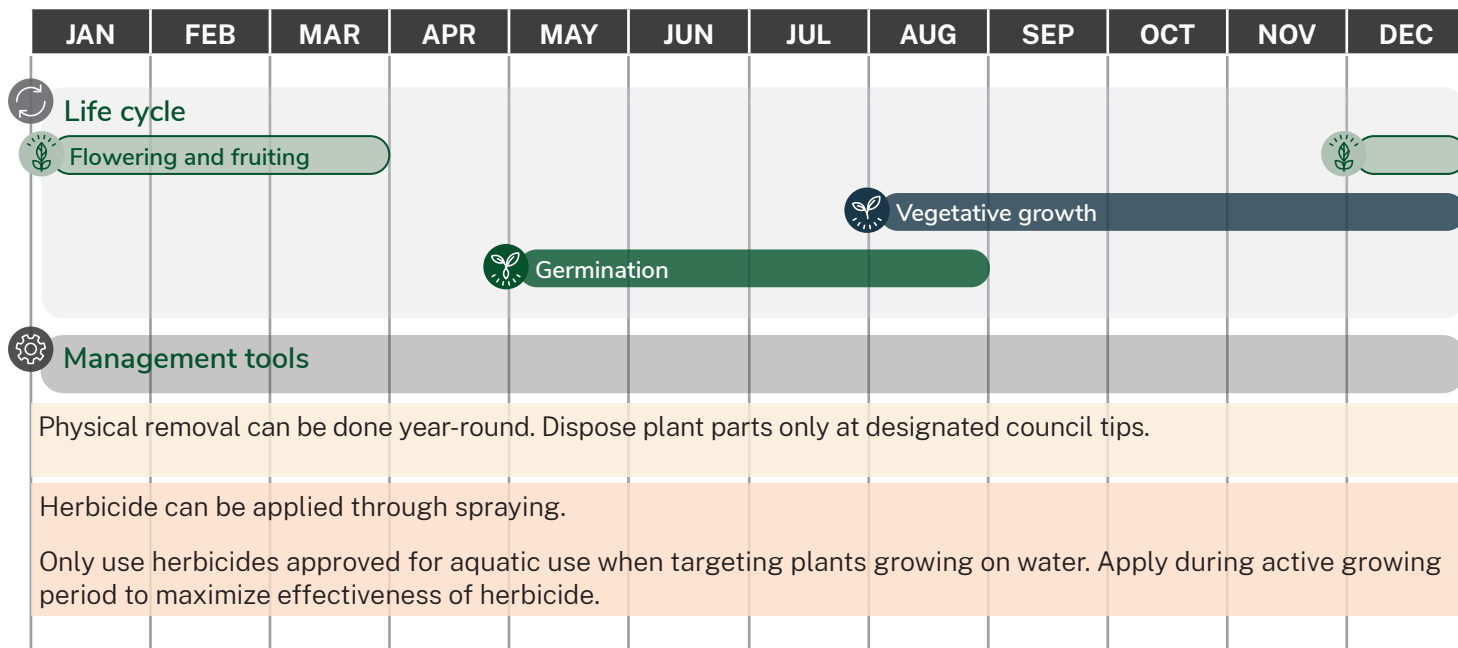
### Non-chemical



- Avoid disposing aquarium or pond plants in waterways to prevent the spread of this plant and other potentially weedy species.
- Small infestations can be removed by hand, but follow-up may be required to check for shoots from stem fragments that were missed.
- Plant material must be left under the sun to decompose in a sealed bag before being disposed in approved landfill or left to dry before being burned.



# Management calendar



Optimal control options may vary depending on your location and climate. Consult an experienced Weeds Officer based in your local government area for control methods suited to your conditions.

All herbicides must be used in accordance with the herbicide label and permit requirements.

## Further information

For more information on your general biosecurity duties, visit [www.dpi.nsw.gov.au/biosecurity](http://www.dpi.nsw.gov.au/biosecurity).

For the best guidance on how to meet this duty on your property, contact your expert Weeds Officer at your local council or via Local Land Services [www.lls.nsw.gov.au/regions/central-west](http://www.lls.nsw.gov.au/regions/central-west).

NSW WeedWise



## References

NSW DPI. (2018). *NSW WeedWise*. <https://weeds.dpi.nsw.gov.au/Weeds/Hygropila>

The State of Queensland, Department of Agriculture and Fisheries. (2020). *Hygrophila (Hygrophila costata)*. Queensland Government. [https://www.daf.qld.gov.au/\\_data/assets/pdf\\_file/0006/383820/hygrophila.pdf](https://www.daf.qld.gov.au/_data/assets/pdf_file/0006/383820/hygrophila.pdf)



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