

East Indian hygrophila (*Hygrophila polysperma*)

Weed management guide

Weed type
**Water
Weed**

February 2023

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 East Indian 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

East Indian hygrophila is a marsh plant that can grow up to 1 m high. Its stems are rounded when underwater but square and slightly hairy above water. It has oblong-shaped leaves with pointed tips and similarly, are different above (rounder and stalkless) or below water (longer with small leaf stalks). Leaves can appear bright green, brown or reddish and can grow up to 8 cm long and 2 cm wide occurring as opposite pairs on the stem. The flowers are bluish-white to white in colour and found between the leaf and stem of the upper leaves. These transform into a narrow capsule about 6-7 mm long containing about 15-30 seeds.

The plant can grow in waters up to 3 m deep and grows best in flowing water. It prefers growing in warm temperatures and neutral to slightly acidic water. As it can grow in low-light conditions, it can outcompete other aquatic plants.

It appears similar to Hygrophila (*H. costata*), which has larger leaves and Alligator weed (*Alternanthera philoxeroides*) which has white ball-like flowers and hollow stems.



Photo: © John Hasking | NSW DPI



Photo: © USDA APHIS PPQ Archive | Atlas of Living Australia



Photo: © V. Seymour | NSW DPI



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Reproduction and spread

New plants can form from its stems which easily break from the parent plant. This makes it particularly hard to control, as plant parts can travel freely and start new infestations downstream.

Currently there is not a lot of information regarding the importance of reproduction by seeds.

Impacts

Agriculture



- Because of the plant's potential to dominate waterways, it can reduce the flow of water and water quality by encouraging sedimentation and increased decomposition of dead plants (Department of Conservation and Recreation, 2003).
- This weed can block irrigation equipment.

Native vegetation



- It can outcompete native aquatic plants and reduce habitat for fish and other native animals.

Management

Chemical



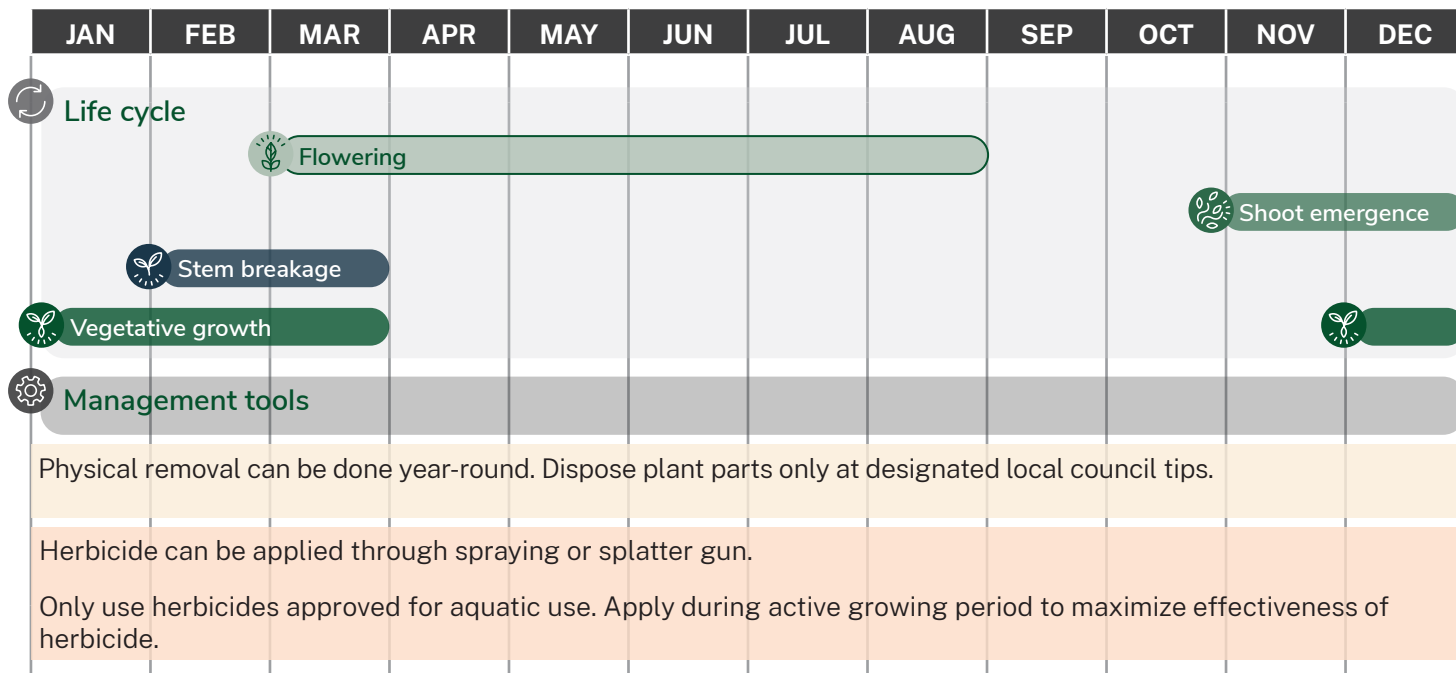
- Herbicide can be applied by spot spraying or by splatter gun. Use only herbicides approved for aquatic use.
- Seek the guidance of an experienced Weeds Officer for expert advice on herbicide use.
- Visit www.apvma.gov.au for a list of registered products, product labels and permit requirements.
- NSW DPI (2018) provides a list of recommended herbicides for the control of East Indian hygrophila at <https://weeds.dpi.nsw.gov.au/Weeds/EastIndianHygropila>

Non-chemical



- As this plant is a commonly traded species among aquarium and water garden hobbyists (Kay and Hoyle, 2001), disposal of wastewater from areas where it is present into water bodies must be avoided to prevent its spread.
- 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 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.

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.

NSW WeedWise



References

Department of Conservation and Recreation. (2003). *Eastern Indian Hygrophila: An Exotic Aquatic Plant*. Massachusetts, USA: Commonwealth of Massachusetts. <https://www.mass.gov/doc/hygrophila-1/download>

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

Kay, S. H., & Hoyle, S. T. (2001). Mail Order, the Internet, and Invasive Aquatic Weeds. *Journal of Aquatic Plant Management*, 39 (1), 88-91. <https://apms.org/wp-content/uploads/japm-39-01-088.pdf>

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