Rapid response to the inadvertent sale and propagation of *Sagittaria* (Sagittaria platyphylla), an aquatic Weed of National Significance

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**Summary**

*Sagittaria* (Sagittaria platyphylla) is an aquatic Weed of National Significance and a declared Class A weed in the Northern Territory. In 2016 it was misidentified, mislabelled, propagated and sold by a commercial plant wholesale nursery which triggered a rapid response with the aim to eradicate it in the Top End. During the highly successful response, 109 potted plants were seized and destroyed prior to sale. Of the 28 plants sold to the public prior to detection, 23 plants have been recovered. In addition, two historical pond plantings were discovered and controlled. Surveys of surrounding land and native waterways failed to detect any wild populations. The incident demonstrated the importance of correctly identifying and labelling plants prior to propagation and sale, and the vital role that government agencies play in reducing the risk of weedy garden and pond plants spreading into the natural environment.

**What is the problem?**

- *Sagittaria* (Sagittaria platyphylla), also known as arrowhead, is an ornamental aquatic plant that can invade waterways and native vegetation.
- First reported naturalised in 1959 near Brisbane and spread rapidly in the 1970s in Victoria, New South Wales and Queensland.
- Chokes wetlands and waterways and restricts water flow, adversely impacting biodiversity and recreational activities such as boating and fishing.
- Prolific seeder, producing up to 20,000 seeds per plant and can also spread through stolons and tubers.
- Spread by humans as an ornamental plant and can be accidentally spread from ponds into native waterways.
- Early detection is critical to successful control because *sagittaria* is difficult to control with herbicides.

**How to distinguish *sagittaria* from other plants?**

- Aquatic herb.
- Flowers with 3 white petals and yellow stamens.
- Leaf form is variable with different submerged and emergent forms.
- Emergent leaves have stems that are triangular in cross section.
- Easily confused with sword plants (*Echinodorus spp.*) which are commonly cultivated in pots and ponds.
- Definitive method of distinguishing them requires flowers – *sagittaria* has separate male and female flowers, while sword plants have only one type of flower (with male and female parts on the same plant).
- *Sagittaria* can also be confused with other *sagittaria* species. The most common is ‘arrowhead’ (*Sagittaria sagittifolia*) which is also cultivated and traded. Arrowhead (*Sagittaria sagittifolia*) can easily be distinguished from *sagittaria* (*Sagittaria platyphylla*) by the long lobes on the leaves which resemble the barbs of an arrowhead.

**The Response**

1. **Detection**
   - An off-duty NT Government Officer detected *sagittaria* for sale in Bunnings in mid-2016, labelled Melon Sword (*Echinodorus crassipes*)
   - Bunnings immediately removed the plants from sale, but 27 had already been sold to the general public.
   - Weed Management Officers seized 109 potted plants from the commercial plant wholesaler, and all remaining plants from Bunnings.
   - Several plants were also found at Mitre 10 in Katherine, of which one had been sold.

2. **Media campaign and recall**
   - An intense media campaign commenced, alerting the general public to report and return any *sagittaria* purchased.
   - Many plants were reported and returned. One of these reports was a pond that was planted with *sagittaria* (more than 10 years old).
   - The pond discovery triggered a rapid response.

3. **Rapid response**
   - Searching of residential blocks within 500 m of the historic pond detected a second pond cultivated for 17 years.
   - Extensive surveys of surrounding wetlands and potential habitat within 2.5 km of pond failed to detect any wild populations.
   - A compliance investigation was undertaken into the sale of a declared weed under the Weeds Management Act.

4. **Outcomes**
   - The public recall raised community awareness, prompted the reporting of purchased plants and the discovery of two historic pond plantings, both of which have been controlled.
   - To date, 23 *sagittaria* plants have been recovered, out of the 28 sold to the public.
   - The plant wholesaler was fined for selling declared weeds to the retailers.
   - The risk of spread to the natural environment of a new weed has been significantly reduced.

5. **What went wrong?**
   - Potting up an unknown plant with weedy characteristics – not a good idea.
   - Not getting accurate identification prior to sale.
   - Plant labelled with a wrong name.
   - Biosecurity checks were then conducted on the wrong name and did therefore not pick up the error.
   - Nursery Industry Best Management Plant Labelling Guidelines are voluntary and not binding.

**We still need your help**

Although the recall and response from the general public has been successful, there may be up to five more mature *sagittaria* plants that were sold from Bunnings and Katherine Mitre 10 in 2016 still growing in gardens. We still need your help to locate them as well as any older plantings that may have gone undetected. If you see a plant that might be *sagittaria*, report it to the Weed Management Branch on 08 8999 4567.

Further information

[weeds.ali.org.au/WoNS/sagittaria]

[www.nt.gov.au/sagittaria]

**References**


**Acknowledgements**

The Weed Management Branch would like to thank everyone who has reported suspected *sagittaria* plants during 2016–2017. The recall was reported incidentally due to the high level of support from the general public. We would also like to particularly thank the two gardeners that reported the plants that led to their removal and help with the eradication.