



FRINGED WATER LILY

Rongomai, Tararua



OUTLINE

1. What is fringed water lily?
2. Why do we care?
3. How did we find it?
4. What did we do about it?
5. Ongoing work - Surveillance



horizons.govt.nz



FRINGED WATER LILY

The basics:

- Has rhizomes that grow in sediments but also has long creeping stolons (up to 2 m long) that form a dense floating mat of vegetation.
- Leaves are heart-shaped with scalloped margins, up to 12 cm long. Leaves often have purple blotches.
- Flowers bright yellow, 5-petalled up to 4 cm across, produced on floating stems in groups of two to five.
- Capsules up to 2.5 cm long are produced which fragment and break away from the plant when mature.
- Seeds are flat, up to 3.5 mm long with a mass of stiff hairs on the margins. Released seeds float at the water's surface.



DISTRIBUTION

- Native to Eurasia, growing from England and Scandinavia south to Spain and Italy, and as far east as Japan, Korea and China.
- It is well naturalised in North America.
- First found in New Zealand in a farm dam near Whangaparaoa, Auckland in 1986.
- It has since been found in 3 ornamental ponds in Waikato Region in the early 1990's.
- All sites were considered eradicated after the destruction of water bodies containing this plant.



horizons.govt.nz



WHY IS IT BAD?

SEEDS!!!!

- Vegetative spread is by stoloniferous growth and fragmentation, but the floating seeds are fringed with many bristles which means they adapted for spread by water birds
- It was ranked the 9th worst aquatic weed in New Zealand and has unwanted organism status under the Biosecurity Act and is included in the National Pest Plant Accord.
- In New Zealand, Champion and Clayton (2000) performed an aquatic weed risk assessment on this species with a score of 58, indicating major weed potential here.



horizons.govt.nz



HOW DID WE FIND IT?

Manawatu River Catchment Collective - MRCC

- MRCC undertake water sampling and eDNA testing as part of an effort to improve water quality in various catchments of the Manawatu River.
- eDNA sample flagged this unusual plant, and so the Rongomai Catchment group got in touch with Horizons
- Farm owners and I surveyed a number of water bodies in the catchment, eventually being notified of 2 ponds in close proximity to each other with some funny looking lilies in them



horizons.govt.nz



Pond 1



horizons.govt.nz



Pond 2



horizons.govt.nz



HOW DO WE GET RID OF IT?

Ask the expert!!

We commissioned Dr Paul Champion to come look at the site to determine:

- Age of the infestations in each pond
- If any seeds or fruiting bodies were present
- How best to control the infestations



[horizons.govt.nz](https://www.horizons.govt.nz)



CONTROL PLAN

Take the water away from the plant

- Best option is to spray Pond 1 with 3% glyphosate solution: no fruit or seeds present.
- The best option for Pond 2 was to dry out the area, as there was a lot of fruit and seed present in the pond
- This meant earthworks to cap the pond, and drainage around the outside to prevent the area from turning into a bog



horizons.govt.nz







horizons.govt.nz



horizons.govt.nz



horizons.govt.nz



WHERE DID IT COME FROM??

Still unsure..

- Have surveyed a large number of ponds in the area, no new FWL found yet (although we did find a site of *Saggitaria platyphylla*)
- Social media and media releases trying to raise awareness in the area
- Everyone, check your ponds!

Thanks to MRCC and Dr Paul Champion



horizons.govt.nz



horizons

REGIONAL COUNCIL



For more information visit www.horizons.govt.nz
or freephone Horizons on **0508 800 800**