

# Controlling Aquatic and Wetland Invaders

**EVERYONE'S  
RESPONSIBILITY**



# Aquatic and wetland invaders

Identified as pests in the Tasman-Nelson Regional Pest Management Plan.

Consider carefully what plants you buy for ponds and aquariums. If unsure please check with a Biosecurity Officer. Never dump aquarium contents or water into stormwater drains or waterways.

## Pest plants in the plan

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### **CHILEAN RHUBARB** – *Gunnera tinctoria*

South America

*Sustained control pest plant*



**Stump treat** – Cut off leaf stalks and paint stalk stub tops with a Picloram or a Glyphosate 450 based herbicide gel (*see back page*), or 50 ml Triclopyr 600 EC / 1 litre of water.

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**Foliar spray** – 60 ml Triclopyr 600 EC and 10 ml penetrant / 10 litre.

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**Caution** – Ensure that spray does not enter water bodies. If not possible, stump treat rather than foliar spray.

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**Note** – Seeds spread in flowing water and by birds.

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**NPPA Pest Plant** (*see back page*).

## EGERIA OR OXYGEN WEED – *Egeria densa*

South Africa

Eradication pest plant



**Difficult to control in water.**

If located, please contact your local Biosecurity Officer (*see back page*).

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**Note** – Has characteristic tiny white flowers.

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**NPPA Pest Plant** (*see back page*).



## ENTIRE MARSHWORT – *Nymphoides montana*

Australia

Eradication pest plant



**Difficult to control in water.**

If located, please contact your local Biosecurity Officer (*see back page*).

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**NPPA Pest Plant** (*see back page*).



## HIMALAYAN BALSAM – *Impatiens glandulifera*

Himalaya

Eradication pest plant



**Remove** – Hand pull or dig plants/seedlings.

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**Foliar spray** – 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

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## **HORNWORT** – *Ceratophyllum demersum*

Asia, Africa, Australia, North America

*Exclusion pest plant*



**Difficult to control in water.**

If located, please contact your local Biosecurity Officer (*see back page*).

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**Note** – Infestations near Māpua, Tasman and Moutere have been eradicated. Now thought to only occur in the North Island.

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**NPPA Pest Plant** (*see back page*).



## **LAGAROSIPHON OR OXYGEN WEED** – *Lagarosiphon major*

South Africa

*Sustained control pest plant*



**Remove** – Hand-weed small infestations.

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**Cover** – Cover completely with a weed mat to exclude sunlight.

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**NPPA Pest Plant** (*see back page*).



## **PHRAGMITES** – *Phragmites australis*

Temperate zones in both hemispheres

*Exclusion pest plant*



**Highly spreadable.**

If located, please contact your local Biosecurity Officer (*see back page*).

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**Note** – The only infestation at Murchison has been eradicated.

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**NPPA Pest Plant** (*see back page*).



## PURPLE LOOSESTRIFE – *Lythrum salicaria*

Europe and Asia

*Progressive containment pest plant*



**Remove** – If the infestation is limited, remove individual plants.

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**Foliar spray** – 100 ml Glyphosate 360 and 10 ml penetrant / 10 litre. Repeat applications will be required as this plant is a prolific and persistent seeder.

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**NPPA Pest Plant** (*see back page*).

## REED SWEET GRASS – *Glyceria maxima*

Europe

*Progressive containment pest plant*



**Foliar spray** – Spring to autumn, 200 ml Glyphosate 360 and 10 ml penetrant / 10 litre. Spray twice during the growth season.

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**Note** – Can be toxic to cattle.

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## SABELLA OR MEDITERRANEAN FANWORM – *Sabella spallanzanii*

Mediterranean & North Seas and NE Atlantic Ocean

*Eradication Marine Pest Plant*



**Vessel owners to notify** – If located on your vessel hull, please immediately contact your local Biosecurity Officer (*see back page*).

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**Note** – Sabella has been found at Nelson Haven, Tarakohe / Golden Bay and at Waikawa / Picton. “Sabella Small Scale Management Programmes” are set up in all three of the above locations, to limit its spread.

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## SENEGAL TEA – *Gymnocoronis spilanthoides*

Mexico to Argentina  
Exclusion pest plant



### Difficult to control in water.

If located, please contact your local Biosecurity Officer (*see back page*).

**Note** – Infestations in Motueka and Upper Moutere have been eradicated.

**NPPA Pest Plant** (*see back page*).



## SPARTINA – *Spartina anglica*, *Spartina alterniflora*

England, North America  
Eradication pest plant



### Difficult to control in estuaries.

If located, please contact Department of Conservation or your local Biosecurity Officer (*see back page*).

**Note** – Now isolated to a few plants in Moutere Inlet, Northern Golden Bay, Waimea Estuary and Whanganui Inlet.

## WATER HYACINTH – *Pontederia crassipes*

Amazon Basin, Brazil  
Exclusion Pest Plant



### Difficult to control in water.

If located, please contact your local Biosecurity Officer (*see back page*).

**NPPA Pest Plant** (*see back page*).



## YELLOW FLAG – *Iris pseudacorus*

Europe, Asia, North Africa  
Sustained control pest plant



**Remove** – Dig out small infestations, remove all rhizomes.

**Foliar spray** – 200 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

**Note** – This plant is extremely toxic to livestock.

**NPPA Pest Plant** (*see back page*).



# Pest fish and a pest reptile, in the plan

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These pest fish and a reptile are banned from the Tasman-Nelson region, but are being illegally released here. Please report any suspected sightings of these pest animals to the Department of Conservation or your local Biosecurity Officer.



## **GAMBUSIA OR MOSQUITOFISH** – *Gambusia affinis*

Watershed of Gulf of Mexico

*Eradication pest fish*

Please contact Department of Conservation or your local Biosecurity Officer (*see back page*).

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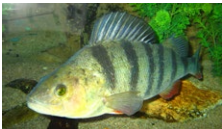
## **KOI CARP** – *Cyprinus rubrofuscus*

Japan

*Exclusion pest fish*

Please contact Department of Conservation or your local Biosecurity Officer (*see back page*).

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## **PERCH** – *Perca fluviatilis*

Europe & Asia

*Eradication pest fish*

Please contact Department of Conservation or your local Biosecurity Officer (*see back page*).

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## **RED-EARED SLIDER TURTLE** – *Trachemys scripta elegans*

Mexico & Southern USA

*Eradication Pest Animal*

If located in the wild, please contact your local Biosecurity Officer (*see back page*).

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### **RUDD** – *Scardinius erythrophthalmus*

Europe, Russia and Central Asia

*Eradication pest fish*

Please contact Department of Conservation or your local Biosecurity Officer (*see back page*).

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### **TENCH** – *Tinca tinca*

Western Europe to Asia including Britain

*Eradication pest fish*

Please contact Department of Conservation or your local Biosecurity Officer (*see back page*).

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## Other aquatic and wetland plant invaders

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### **BEGGARS' TICKS** – *Bidens frondosa*

North America



**Remove** – Hand pull, before seed has formed in April.

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**Foliar spray** – Spray before flowering (November), with 5 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant/ 10 litre.

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### **CANADIAN POND WEED OR OXYGEN WEED** – *Elodea canadensis*

Canada



**Remove** – Use trained divers to hand-weed small infestations.

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**Cover** – Cover completely with a weed mat to exclude sunlight.

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**Note** – This is the only oxygen weed that may be legally sold in New Zealand. In some situations control may become necessary.

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## CAPE POND WEED – *Aponogeton distachyos*

South Africa



**Cover** – Cover completely with a weed mat to exclude sunlight.

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**Foliar spray** – Spray emergent foliage 200 ml Glyphosate 360 / 10 litre.  
This plant seeds prolifically.

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## EEL GRASS – *Vallisneria australis*

Australia



**Remove** – Use trained divers to hand-weed small infestations. Very difficult to eradicate.

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**Cover** – Cover completely with a weed mat to exclude sunlight.

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**NPPA Pest Plant** (see back page).



## ELEPHANT'S EAR – *Alocasia brisbanensis*

Eastern Australia



**Stump treat** – Cut off leaf stalks and paint the cut stalk stub top with a Metsulfuron-Methyl based herbicide gel (see back page).

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**Foliar spray** – 3 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

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## GREEN GODDESS – *Zantedeschia aethiopia* 'Green Goddess'

South Africa



**Stump treat** – Cut off leaf stalks and paint the cut stalk stub top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

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**Foliar spray** – 3 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

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**Note** – Poisonous to humans and stock. Listed as one of the National Poisons Centre's top 10 plants, consistently involved in unintentional or childhood poisonings.

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**Note** – White flowered Arum Lily can be similarly treated.

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**NPPA Pest Plant** (*see back page*).

## MYRIOPHYLLUM OR WATER MILFOIL – *Myriophyllum variifolium*

Australia



**Remove** – In small ponds, rake up and dispose of plant material.

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**Cover** – Cover completely with a weed mat to exclude sunlight.

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**Foliar spray** – Spray emergent vegetation including banks, 100 ml Glyphosate 360 / 10 litre. Respray recovering growth before it reaches 50 mm high. Check periodically and spray regrowth.

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## PARROT'S FEATHER – *Myriophyllum aquaticum*

South America



**Remove** – In small ponds, rake up and dispose of plant material.

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**Cover** – Cover completely with a weed mat to exclude sunlight.

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**Foliar spray** – Spray emergent vegetation, including banks above the present water level. 100 ml Glyphosate 360 / 10 litre. Respray regrowth before growth reaches 50 mm high. Check periodically and spray regrowth.

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**NPPA Pest Plant** (*see back page*).

## VIETNAMESE PARSLEY – *Oenanthe javanica*

East Asia



**Remove** – Hand pull.

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**Foliar spray** – 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

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**Note** – This plant is a recent arrival (2016) in the streams of Richmond and Stoke. It is proving to be very invasive.

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## WATER CELERY – *Helosciadium nodiflorum*

Western Europe



**Remove** – Hand pull.

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**Foliar spray** – 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

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**Note** – This plant is another recent arrival (2005) in the streams of Richmond and Stoke. It is proving to be very invasive.

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## Disclaimer

Information in this fact sheet regarding herbicide does not necessarily appear on the labels of the products concerned. Tasman District and Nelson City Councils do not accept liability for any damage to any person, property or thing that may arise from use of chemicals at non-standard rates. Mention of product trade names (*see back page*) implies neither endorsement of those products nor criticism, of similar products not mentioned.

## Helpful websites

**Agro, Agrochemicals** – [www.agpro.co.nz](http://www.agpro.co.nz)

**Auckland Council Pest Plants identification** – [www.aucklandcouncil.govt.nz/environment/plants-animals/pests-weeds/pages/identify-weeds.aspx](http://www.aucklandcouncil.govt.nz/environment/plants-animals/pests-weeds/pages/identify-weeds.aspx)

**Cut 'N' Paste** – [www.cutnpaste.co.nz](http://www.cutnpaste.co.nz)

**Find-A-Pest** – [www.findapest.nz](http://www.findapest.nz)

**Freshwater Invasive Species of New Zealand 2020** – [docs.niwa.co.nz/library/public/FreInSpec.pdf](http://docs.niwa.co.nz/library/public/FreInSpec.pdf)

**Rainbow & Brown, Herbicides** – [www.rainbowbrown.co.nz/herbicides](http://www.rainbowbrown.co.nz/herbicides)

**Top of the South Marine Biosecurity Partnership** – [www.marinebiosecurity.co.nz](http://www.marinebiosecurity.co.nz)

**Weed Busters** – [www.weedbusters.org.nz/weed-information/weed-list](http://www.weedbusters.org.nz/weed-information/weed-list)

## Explanations

**NPPA Pest Plant:** National Pest Plant Accord. Has a list of pest plants banned from sale or propagation throughout New Zealand and is administered by Ministry for Primary Industries.



**Timing:** Herbicides are more potent when they are applied to actively growing shrubs during spring and summer.

**Water PH:** When mixing water with herbicides, use community supply or stream water. Rain water may be too acidic and will inhibit herbicide potency.

**Dispersal Mechanisms:** Most aquatic and wetland plants are dispersed by stem or root fragments, so care should be taken when removing such plants to remove all material.

Contact your local Biosecurity Officer:

 **tasman** district council | Te Kaunihera o **te tai o Aorere**

03 543 8400 • [info@tasman.govt.nz](mailto:info@tasman.govt.nz)  
[tasman.govt.nz](http://tasman.govt.nz)

## Herbicides notes – always read label instructions!

**Glyphosate 360** – Brand names: Agpro Green Glyphosate 360, Rainbow & Brown Glyphosate, Roundup®Renew, Roundup®360 pro, WeedMaster G360.

**Herbicide Gel (Glyphosate 120)** – Brand names: AGPRO Glyphosate Gel, Cut 'N' Paste Shrub and Tree, Weed Weapon Invade Gel.

**Herbicide Gel (Glyphosate 240)** – Brand name: Cut 'N' Paste Bamboo Buster.

**Herbicide Gel (Glyphosate 450)** – Brand name: Cut 'N' Paste Glimax™ Professional.

**Herbicide Gel (Picloram)** – Brand names: AGPRO Piclorum Gel, Cut 'N' Paste Picloram, Triumph Gel, Vigilant™II.

**Herbicide Gel (Metsulfuron-Methyl) –**  
Brand name: Cut 'N' Paste Met Gel.

**Metsulfuron-Methyl 600** – Brand names: Agpro Meturon®, Associate®600WDG, Eradicate 600, Escort®, Mustang®, Rainbow & Brown MSF600.

**Triclopyr 600 EC** – Brand names: Agpro Triclo 600, Brush Off®, Eliminate, Grazon®, Rainbow & Brown Triclo Herbicide, Scrubcutter®.

**Penetrant** – Sticking or wetting agent that assists the potency of herbicides. Brand name: Pulse.

## Caution in use of herbicide and penetrant over water bodies

In the Tasman District the only herbicide that can be sprayed over water is **Glyphosate**. No such condition is available in Nelson City, so check with your local Biosecurity Officer. If foliar spraying is not possible, then consider "stump treat" methods. Note that **Aquakynde** is a penetrant with low aquatic toxicity.

 **Nelson** City Council | Te Kaunihera o **Whakatū**

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