

The logo features a green background with a faint, stylized plant motif. The text is arranged in four lines: 'National' in white, 'PEST' in large yellow-outlined letters, 'PLANT' in large yellow-outlined letters, and 'ACCORD' in dark blue. A vertical white line is on the left, and a yellow bar at the bottom contains the year '2008' in white.

National  
PEST  
PLANT  
ACCORD

2008

## Regional councils and unitary authorities by region



New Zealand regional map

|   |               |                   |  |
|---|---------------|-------------------|--|
|    | Northland     | TEL (09) 438 4639 | <a href="http://www.nrc.govt.nz">www.nrc.govt.nz</a>                         |
|    | Auckland      | TEL (09) 366 2000 | <a href="http://www.arc.govt.nz">www.arc.govt.nz</a>                         |
|    | Waikato       | TEL 0800 800 401  | <a href="http://www.ew.govt.nz">www.ew.govt.nz</a>                           |
|    | Bay of Plenty | TEL 0800 368 267  | <a href="http://www.envbop.govt.nz">www.envbop.govt.nz</a>                   |
|    | Gisborne      | TEL (06) 867 2049 | <a href="http://www.gdc.govt.nz">www.gdc.govt.nz</a>                         |
|    | Taranaki      | TEL (06) 765 7127 | <a href="http://www.trc.govt.nz">www.trc.govt.nz</a>                         |
|    | Hawkes Bay    | TEL (06) 835 9200 | <a href="http://www.hbrc.govt.nz">www.hbrc.govt.nz</a>                       |
|    | Manawatu      | TEL 0508 446 749  | <a href="http://www.horizons.govt.nz">www.horizons.govt.nz</a>               |
|    | Wellington    | TEL (04) 384 5708 | <a href="http://www.gw.govt.nz">www.gw.govt.nz</a>                           |
|    | Tasman        | TEL (03) 543 8400 | <a href="http://www.tdc.govt.nz">www.tdc.govt.nz</a>                         |
|    | Nelson        | TEL (03) 546 0200 | <a href="http://www.nelsoncitycouncil.co.nz">www.nelsoncitycouncil.co.nz</a> |
|    | Marlborough   | TEL (03) 578 5249 | <a href="http://www.marlborough.govt.nz">www.marlborough.govt.nz</a>         |
|    | West Coast    | TEL 0508 800 118  | <a href="http://www.wcrc.govt.nz">www.wcrc.govt.nz</a>                       |
|    | Canterbury    | TEL 0800 324 636  | <a href="http://www.ecan.govt.nz">www.ecan.govt.nz</a>                       |
|   | Otago         | TEL 0800 474 082  | <a href="http://www.orc.govt.nz">www.orc.govt.nz</a>                         |
|  | Southland     | TEL 0800 768 845  | <a href="http://www.envirosouth.govt.nz">www.envirosouth.govt.nz</a>         |

## *Alternanthera philoxeroides* · alligator weed, pigweed



Marginal Aquatic  
Plant



Photo courtesy of Carolyn Lewis

**SYNONYMS** · *Telanthera philoxeroides*

**DESCRIPTION** · This is a perennial aquatic or terrestrial herb with dark-green waxy leaves in opposite pairs. Stems are hollow and often reddish in colour. White clover-like flower clusters, 1-2 cm in diameter, appear during summer.

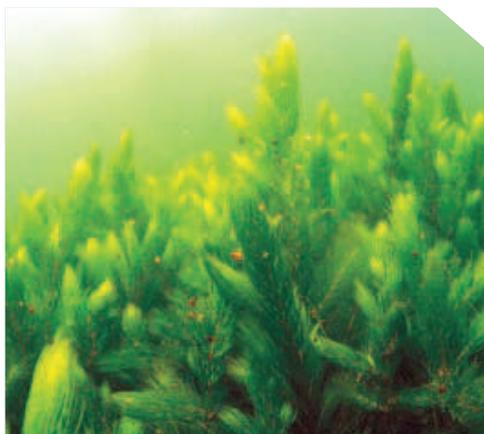
**IMPACT** · Alligator weed forms extensive floating mats. These outcompete other species and block waterways, causing silt accumulation, flooding and degradation of habitat for aquatic flora and fauna. Alligator weed is also invasive in terrestrial areas affecting crops and pasture. It is toxic to livestock.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control. This plant is widespread in Northland and Auckland, but rare or absent elsewhere.

## *Ceratophyllum demersum* · hornwort, coontail



Aquatic Plant



**DESCRIPTION** · Hornwort is a submerged freshwater weed found in still and flowing waters, growing to depths of 16 m in clear deep lakes. Leaves are finely divided, with minute teeth which make the plant feel rough to the touch. It lacks roots but has modified leaves that anchor the plant in bottom sediments.

**IMPACT** · New plants can form from each piece of the easily broken stems. Hornwort rapidly invades water of varying clarity, temperature, light and nutrient level, and its dense growth habit crowds out native species. It is a major weed in hydroelectric dams, also impeding irrigation, drainage and other water uses.

**WHAT TO DO** · Hornwort is still of limited distribution in much of New Zealand, and has only recently been discovered in the South Island. In the North Island contact your regional council to determine the status of this species and responsibility for control and/or advice on control. **Report all sightings in the South Island to MAF Biosecurity New Zealand on 0800 80 99 66.**

Photos courtesy of Rohan Wells

## *Egeria densa* · egeria, oxygen weed, Brazilian elodea



Aquatic Plant



Photos courtesy of Rohan Wells

**SYNONYMS** · *Anacharis densa*, *Elodea densa*

**DESCRIPTION** · *Egeria* is a freshwater aquatic herb. It is bottom-rooted, and grows up to 5 m tall. It is denser and leafier than other oxygen weeds *elodea*, *hydrilla* and *lagarosiphon*, and produces white flowers which protrude to just above the waterline.

**IMPACT** · Stems of *egeria* reroot, and then form new colonies which grow taller than other native species. Once established, *egeria* is very difficult to manage. It is a major weed in hydroelectric dams, also impeding irrigation, drainage and other water uses.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Eichhornia crassipes* · water hyacinth



Aquatic Plant



Photo courtesy of Melanie Newfield, MAF Biosecurity New Zealand

**DESCRIPTION** · Water hyacinth plants consist of a free-floating rosette of shiny rounded leaves with thick masses of feathery roots which hang in the water. The roots are dark in colour and can reach 2.5 m in length. A single flowering stalk with a cluster of mauve-blue flowers, each with a yellow spot, is produced from the rosette. The stalk grows up to 50 cm above the leaf canopy. Plants produce floating horizontal stems from which new plants arise. Mature mats of this plant are held together by these stems.

**IMPACT** · Water hyacinth forms dense mats, completely smothering large waterways and badly affecting water quality. These mats kill off native plants, attract breeding mosquitoes, block dams and irrigation systems, remove oxygen from the water and create a drowning risk for people and animals.

**WHAT TO DO** · All sightings must be reported to MAF Biosecurity New Zealand on 0800 80 99 66.

## *Gymnocoronis spilanthoides* · Senegal tea



Marginal Aquatic  
Plant



Photos courtesy of D. Burnett / P. Mabin / R. Smart

**OTHER COMMON NAMES** · temple plant, costata

**DESCRIPTION** · This is a perennial aquatic herb which grows to more than 1 m tall. It has hollow stems (1-1.5 m long and 5-10 mm in diameter at first, increasing to 20 mm with age) which become prostrate and take root at nodes. It also has dark-green, slightly waxy, lance-shaped leaves (50-200 x 25-50 mm) with serrated edges. From November to April, highly scented clover-like flower heads are produced with many thin white “petals” (florets). Flowers are followed by small seeds. Senegal tea is dormant over winter and dies back to rootstock if chilled.

**IMPACT** · Senegal tea grows very quickly, and is known to rapidly cover water bodies with a floating mat, excluding other plants and the animals that rely on them. The effects of flooding are made much worse because infestations block drainage channels. Recreational activities, irrigation and navigation may also be affected.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Hydrilla verticillata* · hydrilla



Aquatic Plant



Photos courtesy of Rohan Wells / J. Clayton

**DESCRIPTION** · Hydrilla is a submerged perennial aquatic oxygen weed that can grow up to 9 m tall in still or slow-flowing fresh water. The bottom-rooted plant forms underground tubers on the tips of rhizomes. Its thin many-branched stems are produced in whorls of three to eight with obvious toothed edges.

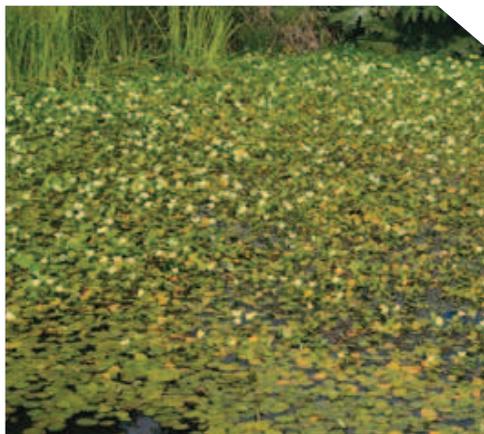
**IMPACT** · Hydrilla is spread primarily through stem fragments which are easily transported to other waterways by machinery, boats, trailers or nets. At present it is only found in four Hawkes Bay lakes, but once established is virtually impossible to eliminate, forming dense mats which clog waterways.

**WHAT TO DO** · You must report all sightings of this plant to MAF Biosecurity New Zealand on 0800 80 99 66.

## *Hydrocleys nymphoides* · water poppy



Aquatic Plant



**SYNONYMS** · *Hydrocleis nymphoides*

**DESCRIPTION** · Water poppy is a water lily-like perennial plant. Leaves are thick and shiny and float on the surface, with each shoot connected by a network of elastic creeping stems that form a dense mat. It has a distinctive three-petalled solitary pale-yellow flower with a dark-purple centre. Flowers are up to 8 cm across.

**IMPACT** · Water poppy grows rapidly in warm well-lit water bodies to depths of 2 m. It can completely choke streams, shallow ponds and lake margins, causing flooding and excluding native species.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

Photos courtesy of Trevor James

## *Iris pseudacorus* · yellow flag iris



Marginal Aquatic  
Plant



Photo courtesy of Carolyn Lewis

**DESCRIPTION** · This is an aquatic perennial growing in leafy clumps up to 2 m tall, and arising from dense rhizomes (up to 3 cm in diameter). Sword-like leaves emerge in fans from a reddish base. From October to December it produces pale-yellow to golden-orange flowers (up to 12 cm in diameter), followed by seed capsules containing many brown, flattened, three-sided disc-like seeds.

**IMPACT** · Yellow flag iris is poisonous to humans and animals. Rhizomes form dense floating mats, and the plant overtops native species that grow on margins of water bodies, including estuarine areas. It can also invade flood-prone pasture.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Lagarosiphon major* · lagarosiphon, oxygen weed



Aquatic Plant



Photos courtesy of Rohan Wells

**DESCRIPTION** · Lagarosiphon is a submerged bottom-rooting perennial which grows up to 5 m tall. Leaves are arranged spirally around the stem, and are curved backwards or downwards. All other oxygen weed species have leaves arranged in groups (whorls) of three to eight, rather than alternately. Tiny pinkish flowers are produced.

**IMPACT** · Lagarosiphon grows quickly, forming dense mats which block waterways and displace native plants. It is a major weed in hydroelectric dams, also impeding irrigation, drainage and other water uses.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Ludwigia peploides* subsp. *Montevidensis* · primrose willow



Marginal Aquatic  
Plant



Photo courtesy of Trevor James

**OTHER COMMON NAMES** · floating primrose willow, water primrose

**DESCRIPTION** · Primrose willow is a sprawling perennial aquatic herb with long many-branched stems, alternate shiny leaves and a 2 cm-wide yellow flower produced in summer/autumn. It either grows on water body margins or can spread to form floating mats, especially in autumn.

**IMPACT** · Primrose willow quickly invades and colonises when introduced, particularly on water edges, smothering other vegetation and impeding water movement.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Menyanthes trifoliata* · bogbean



Aquatic Plant



Photos courtesy of P. Champion / T. James

**DESCRIPTION** · Bogbean is a perennial plant that can grow in bogs and marshes and at the fringes of lakes or slow-flowing rivers. Bogbean has a creeping rootstock and thick green stems that often trail along the surface of the water body. It has very characteristic three-lobed light-green hairless leaves that emerge from the water. These die back in winter. In early summer long stalks bear pale-rose-coloured flowers (2.5 cm across) clustered together in a thick short spike. The inner petals are white and hairy, with reddish stamens. The flowers produce round orange seeds.

**IMPACT** · Bogbean grows rapidly and clogs waterways.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Myriophyllum aquaticum* · parrot's feather



Aquatic Plant



Photos courtesy of P. Champion / T. James

**OTHER COMMON NAMES** · thread of life, Brazilian watermilfoil

**SYNONYMS** · *Myriophyllum brasiliense*

**DESCRIPTION** · Parrot's feather is a bottom-rooted, perennial, sprawling, mat-forming emergent plant with stems that grow to 2 m long, emerging 10 cm above water. Feather-like blue-green leaves (25-45 x 7-15 mm) are in whorls of five to six, and are each divided into 25-30 leaflets (7 mm long).

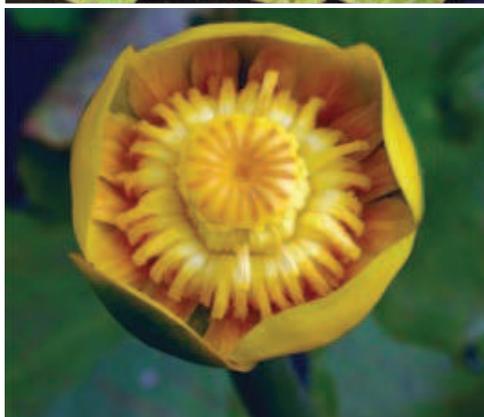
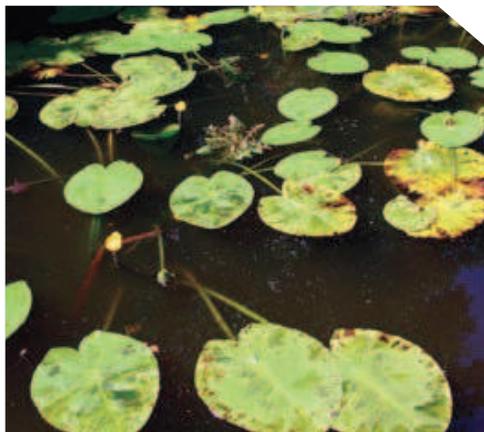
**IMPACT** · Parrot's feather, like savinia and hydrilla, forms dense floating mats which clog waterways.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Nuphar lutea* · yellow water lily



Aquatic Plant



Photos courtesy of Trevor James

**OTHER COMMON NAMES** · spatterdock, cow lily, brandybottle

**SYNONYMS** · *Nuphar luteum*, *Nymphaea lutea*

**DESCRIPTION** · Yellow water lily is a yellow-flowered water lily growing from large far-spreading spongy rhizomes, up to 10 cm thick. It has thick oval-shaped waxy floating leaves and thin lettuce-like submerged leaves. The flower is smaller than other water lilies, yellow, six-petalled and 6 cm across. It is very similar to a large buttercup flower. It has an alcoholic smell, and when fertilised produces a green flask-shaped fruit.

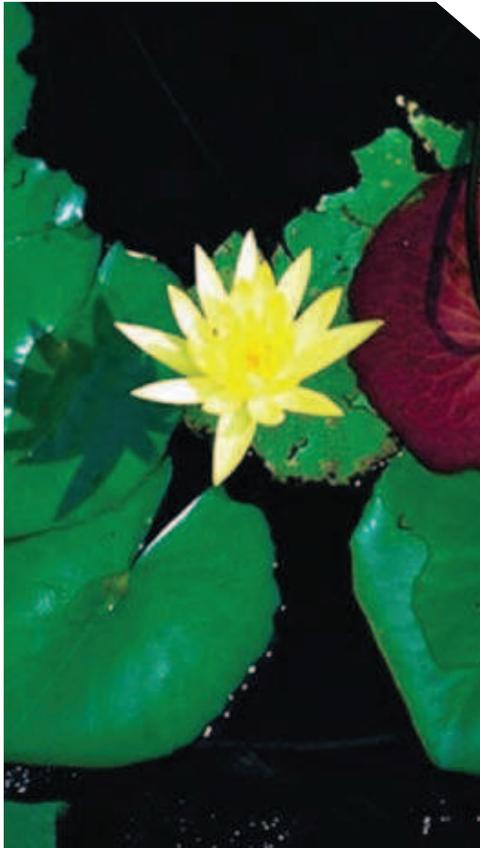
**IMPACT** · It forms dense mats of floating leaves which clog waterways, displacing other plants and obstructing recreational water users.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Nymphaea mexicana* · Mexican water lily, banana water lily



Aquatic Plant



**DESCRIPTION** · Mexican water lily is similar to other water lilies. It has underwater rhizomes and heart-shaped floating leaves. However, it often has dark-brown flecks on the upper surface of its leaves. Flowers are pale-yellow with many petals. Unlike other true water lilies (*Nymphaea* and *Nuphar* species), Mexican water lily produces far-reaching fleshy stems (stolons) with banana-shaped tubers.

**IMPACT** · It forms dense mats of floating leaves which clog waterways, displacing other plants and obstructing recreational water users.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Nymphoides geminata* · marshwort, entire marshwort



Aquatic Plant



**DESCRIPTION** · Marshwort is a bottom-rooted perennial water lily-like plant. It has long-branched running stems which extend for several metres and lie just beneath the water surface, producing groups of leaves, roots and/or flowers on each node. Its leaves are broadly ovate to rounded and are somewhat smaller than the leaves of other water lilies, being 30-80 mm long. It differs from other water lilies by its bright-yellow five-lobed flowers with distinct hair-like margins, which sit above the water surface on long stalks that grow in pairs. The flowers are 25-35 mm wide and have distinctive fringed wings. Flowers are produced from November through to April.

**IMPACT** · Marshwort rapidly colonises shallow water, forming dense mats which block waterways and smother other aquatic plants.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

Photos courtesy of P. Champion / J. Clayton

## *Nymphoides peltata* · fringed water lily



Aquatic Plant



Photos courtesy of Trevor James

**DESCRIPTION** · Fringed water lily is very similar to marshwort. The main difference is its leaves, which are frequently purple underneath and have scalloped margins. The flowers are golden-yellow, five-petaled and 3-4 cm in diameter, and are held above the water surface on long stalks, with one to several flowers per stalk. However, the flower edges are distinctively fringed and solid (rather than having hair-like processes). It also produces fruit, which is a capsule up to 2.5 cm long containing numerous seeds. These seeds are flat, oval and about 3.5 mm long, with hairy edges.

**IMPACT** · Fringed water lily has the potential to colonise waterways, forming dense mats which block them and restrict water activities.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Pistia stratiotes* · water lettuce



Aquatic Plant



Photos courtesy of Trevor James

**DESCRIPTION** · Water lettuce is a free-floating rosette of pale-green to bright-green leaves that are densely hairy, with thick masses of feathery roots which hang in the water. It produces smaller “daughter plants” on short horizontal stems which can form a dense floating mat, and also produces small flower spikes enclosed in a green hooded bract.

**IMPACT** · Water lettuce is an invasive and aggressive weed that could potentially cause serious damage to New Zealand’s waterways. It also reduces biological diversity and degrades water quality.

**WHAT TO DO** · All sightings must be reported to MAF Biosecurity New Zealand on 0800 80 99 66.

## *Potamogeton perfoliatus* · clasped pondweed



Aquatic Plant



Photo courtesy of J. Clayton

**DESCRIPTION** · Clasped pondweed is a submerged freshwater aquatic plant that occurs in still and flowing water. The most characteristic feature of this species is the way the leaves wrap around the stem, a feature not found in other pond weeds in New Zealand. The stems are long, trailing and leafy, and the leaves are very thin with wavy margins. They appear translucent and are either pale-green or bronze. Flowers and fruit are produced in summer and autumn on a short spike floating on the surface.

**IMPACT** · Clasped pondweed is an invasive weed that poses a serious threat to New Zealand waterways if allowed to establish here.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Salvinia molesta* · salvinia, Kariba weed



Aquatic Plant



Photos courtesy of Trevor James

**DESCRIPTION** · *Salvinia* is a perennial aquatic fern that forms floating mats on still waters and swamps. It has crowded brown-green leaves up to 4 cm long that are folded across the midrib. The upper surfaces of the leaves are densely covered in strongly water-resistant hairs. Finely dissected, submerged root-like structures hang down into the water, often with chains of small round spore-bearing organs.

**IMPACT** · *Salvinia* quickly forms extensive mats, completely smothering waterways and badly affecting water quality. It can double in area within 10 days. The mats kill off native plants, attract breeding mosquitoes, block dams and irrigation systems, remove oxygen from the water and create a drowning risk for people and animals.

**WHAT TO DO** · All sightings must be reported to MAF Biosecurity New Zealand on 0800 80 99 66.

## *Utricularia gibba* · bladderwort, humped bladderwort



Aquatic Plant



**SYNONYMS** · was initially identified as *Utricularia biflora* (Flora vol. 4) *Utricularia exoleta*

**DESCRIPTION** · Bladderworts are mat-forming algae-like perennials that are submerged just below the surface of the water or entangled with other plants. *U. gibba* is a carnivorous plant with complex modified underwater appendages or “sacs”. These sacs trap insects and other small animals. It has no roots, and very thin stems with filament-like leaves which are either single or paired with sacs (1-2 mm long). From December to May yellow flowers (6 mm in diameter) are produced that protrude up to 20 cm above the water surface. **There are several native species of bladderwort, including a very similar plant (*Utricularia australis*) which is endangered.**

**IMPACT** · Bladderwort has specially adapted to low-nutrient environments, such as bogs and swamps, and outcompetes native bladderworts also adapted to similar environments.

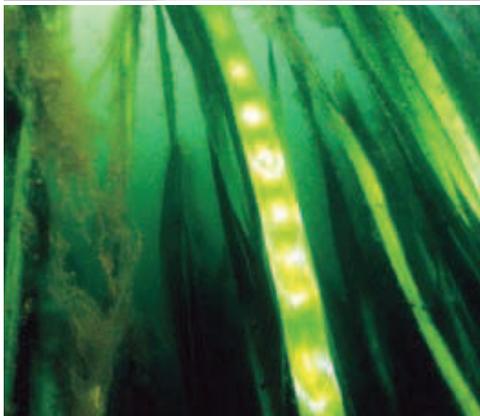
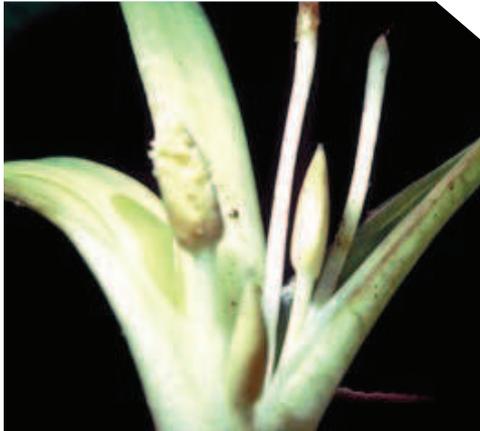
**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

Photos courtesy of Plant Protection Society / P. Champion

## *Vallisneria gigantea* · eelgrass



Aquatic Plant



Photos courtesy of Paul Champion

**SYNONYMS** · *Vallisneria* “Lake Pupuke variety” under Noxious Plants Act 1978

**DESCRIPTION** · Eelgrass is a submerged perennial freshwater aquatic plant which can grow up to 5.5 m tall. It is bottom-rooting with stout rhizomes, and produces long ribbon-like light-green leaves from nodes at regular intervals. Only male plants are known in New Zealand, with large pollen-filled sacs produced at the base of mature plants. These are released when ripe, with pollen spreading over the surface of the water.

**IMPACT** · Eelgrass forms dense beds of vegetation which displace native plants, and may affect recreational activities, impede navigation and obstruct water out-takes.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

## *Vallisneria spiralis* · eelgrass



Aquatic Plant



**SYNONYMS** · *Vallisneria* “Meola Creek variety” under Noxious Plants Act 1978

**DESCRIPTION** · *V. spiralis* is a submerged perennial freshwater plant. The leaves are generally narrower than *V. gigantea*. Only male plants are known in New Zealand, with inconspicuous flowers produced on the end of a very long spirally coiled pedicel. The pedicel arises from a rosette at the base of the plant which reaches the surface.

**IMPACT** · Eelgrass forms dense beds of vegetation which displace native plants, and may affect recreational activities, impede navigation and obstruct water out-takes.

**WHAT TO DO** · Contact your regional council to determine the status of this species and responsibility for control and/or advice on control.

Photo courtesy of Paul Champion

## *Zizania latifolia* · Manchurian wild rice



Marginal Aquatic  
Plant



Photos courtesy of Paul Champion, NIWA & Trevor James

**OTHER COMMON NAMES** · Manchurian rice grass

**DESCRIPTION** · Manchurian wild rice is a tall rhizome-producing perennial grass that grows up to 3 m tall. It has harsh, erect, dull-grey-green leaves (2-3 cm wide) up to 2.5 m long, which have a stout midrib and taper to a point. From November to December a purplish or red-brown flower head (40-60 cm long) is produced. Unlike raupo, which can look similar, it remains green over winter.

**IMPACT** · It forms dense long-lived stands on land and water margins, overtopping other riparian species. It blocks drains and destabilises stopbanks, promoting flooding, and also invades flood-prone pastures and wetlands.

**WHAT TO DO** · In Northland, Auckland, Waikato and Wellington contact your regional council. In all other regions contact MAF Biosecurity New Zealand on 0800 80 99 66 if you find this plant.

The background is a solid olive green color. It features several overlapping, semi-transparent circles of varying shades of green, creating a layered, organic pattern. A thin white horizontal line runs across the middle of the page, separating the abstract graphic from the text below. The text 'New Zealand Government' is positioned in the bottom left corner, with 'New Zealand' underlined.

New Zealand Government