

This manual contains photographs and descriptions of plants that are considered pests throughout New Zealand. All of these plants are present in New Zealand, and are banned from sale, propagation and distribution.

The information included in this manual is correct at the time of printing (September 2008) and will be updated on a regular basis. If you wish to receive updates to the manual as they become available, please e-mail nppa@maf.govt.nz

A full copy of the NPPA booklet and updates can be viewed at http://www.biosecurity.govt.nz/nppa

Further information on plants may be found on the Weedbusters website http://weedbusters.co.nz

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Key for plant types



Aquatic Plant



Herb



Marginal Aquatic Plant



Shrub



Fern / Fern Ally



Tree



Grass

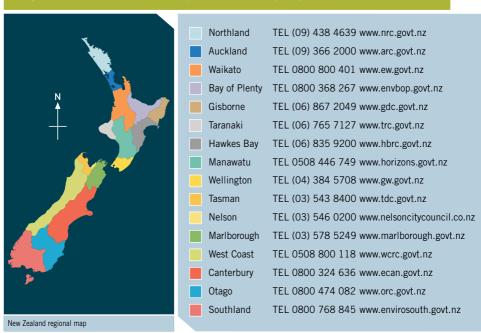


Vine



Ground Cover

Regional councils and unitary authorities by region



National Pest Plant Accord List · by Scientific Name (A-E)

Acmena smithii monkey apple
Ailanthus altissima tree of heaven

Akebia quinata akebia, chocolate vine, five-leaved akebia

Alternanthera philoxeroides alligator weed, pigweed

Anredera cordifolia madeira vine, mignonette vine

Araujia sericifera mothplant, cruel plant, white bladder

flower

Aristea ecklonii aristea, wild iris, blue iris
Arundo donax giant reed, arundo grass

Asparagus densiflorus bushy asparagus, fern asparagus,

emerald feather, Sprengeri fern,

Sprenger's asparagus, foxtail fern, possum tail

ussulli tali

smilax, bridal creeper

Asparagus scandens climbing asparagus
Berberis darwinii Darwin's barberry

Bomarea caldasii, B. multiflora bomarea, climbing alstromeria

Bryonia cretica white bryony
Calluna vulgaris (excluding heather, ling

double flowered cultivars)

Asparagus asparagoides

Cardiospermum grandiflorum balloon vine
Cardiospermum halicacabum small balloon vine

Carpobrotus edulis and hybrids iceplant

Celastrus orbiculatus climbing spindle berry, Oriental bittersweet

Ceratophyllum demersum hornwort, coontail

Cestrum parqui green cestrum

Chrysanthemoides monilifera boneseed

Clematis flammula clematis, fragrant virgin's bower,

plume clematis

Clematis vitalba old man's beard
Cobaea scandens cathedral bells
Cortaderia jubata purple pampas
Cortaderia selloana pampas
Cotoneaster simonsii Khasia berry
Cotyledon orbiculata pie's ear

Crassula multicava fairy crassula

Cyathea cooperii Australian tree fern, lacy tree fern

Dipogon lignosus mile-a-minute
Drosera capensis Cape sundew

Eccremocarpus scaber Chilean glory creeper, Chilean glory vine,

glory vine, Chilean glory flower

Egeria densa egeria, oxygen weed, Brazilian elodea

Ehrharta villosa pyp grass
Eichhornia crassipes water hyacinth

Eomecon chionantha snow poppy, poppy of the dawn,

Chinese bloodroot

Equisetum (all species) horsetail

Eragrostis curvula African love grass
Erigeron karvinskianus Mexican daisv

Euonymus japonicus Japanese spindle tree

National Pest Plant Accord List · by Scientific Name (F-P)

Ficus rubiginosa Port Jackson fig
Fuchsia boliviana Bolivian fuchsia

Galeobdolon luteum artillery plant, aluminium plant

Gunnera tinctoria Chilean rhubarb

Gymnocoronis spilanthoides Senegal tea, temple plant, costata

Hedychium flavescens yellow ginger
Hedychium gardnerianum Kahili ginger

Heracleum mantegazzianum giant hogweed, wild rhubarb, cartwheel

flower, wild parsnip

Hieracium (all species) hawkweed

Homalanthus populifolius Queensland poplar, bleeding heart tree,

poplar leaved omalanthus

Homeria collina Cape tulip
Houttuvnia cordata chameleon plant

Hydrilla verticillata hydrilla

Hydrocleys nymphoides water poppy
Hypericum androsaemum tutsan, sweet amber
Ipomoea indica blue morning glory
Iris pseudacorus yellow flag iris
Jasminum humile Italian iasmine

Lagarosiphon major lagarosiphon, oxygen weed

Lantana camara lantana Ligustrum lucidum tree privet

Lilium formosanum Formosa lily, trumpet lily, St Joseph's

lily, Taiwan lily

Lonicera japonica Japanese honeysuckle

Ludwigia peploides primrose willow, floating primrose Montevidensis willow, water primrose subsp.

Lythrum salicaria purple loosestrife

Macfadyena unguis-cati cat's claw creeper, cat's claw vine,

cat's claw ivy, yellow trumpet vine

Menvanthes trifoliata bogbean

Myoporum insulare and hybrids Tasmanian ngaio, boobialla

Myrica faya fire tree, candle berry myrtle

Myricaria germanica false tamarisk

Myriophyllum aquaticum parrot's feather, thread of life, Brazilian

watermilfoil

Nassella (all species) nassella

Nephrolepis cordifolia tuber ladder fern

Nuphar lutea yellow waterlily, spatterdock, cow lily,

brandybottle

Nymphaea mexicana Mexican waterlily, banana waterlily
Nymphoides geminata marshwort, entire marshwort

Nymphoides peltata fringed waterlily
Ochna serrulata Mickey Mouse plant

Osmunda regalis royal fern

Panicum maximum Guinea grass, green panic, buffalo grass

Passiflora caerulea blue passion flower

Passiflora tarminiana Northern banana passionfruit

National Pest Plant Accord List · by Scientific Name (P-Z)

Passiflora tripartita (all subspecies)

banana passionfruit

Pennisetum (all species) Phragmites australis

pennisetum phragmites

water lettuce

Pinus contorta Pistia stratiotes lodgepole pine, contorta pine

Pittosporum undulatum

sweet pittosporum. Victorian box. Australian cheesewood, New Zealand

daphne

Plectranthus ciliatus

plectranthus, blue spur flower

Polygala myrtifolia

sweet pea shrub, sweet pea bush, myrtle leaf milkwort

Potamogeton perfoliatus clasped pondweed

Prunus serotina

rum cherry, wild black cherry, mountain black cherry, black cherry

Pvracantha angustifolia

firethorn, orange firethorn, vellow firethorn

Reynoutria japonica and hybrids Asiatic knotweed, Japanese knotweed, Mexican bamboo

giant knotweed

Revnoutria sachalinensis and hybrids

Rhamnus alaternus

rhamnus, evergreen buckthorn

Rhododendron ponticum

Sagittaria montevidensis

Wild rhododendron, pontic rhododendron, pontian rhododendron

arrowhead, sagittaria, Californian

arrowhead

Sagittaria platyphylla

Sagittaria sagittifolia arrowhead. Hawaiian arrowhead Salix cinerea

Salix fragilis

Salvinia molesta

Schinus terebinthifolius Schoenoplectus californicus

Selaginella kraussiana

Solanum marginatum

Solanum mauritianum

Tradescantia fluminensis

Tropaeolum speciosum Tussilago farfara

Typha latifolia

Utricularia arenaria Utricularia gibba

Utricularia livida

Utricularia sandersonii Vallisneria gigantea Vallisneria spiralis

Zantedeschia green goddess

Zizania latifolia

sagittaria, delta arrowhead

grey willow, pussy willow, grey sallow

crack willow

salvinia. Kariba weed

Christmas berry, Brazilian pepper tree

Californian bulrush

African club moss, selaginella white edged nightshade

woolly nightshade, tobacco weed, wild tobacco tree

wandering Jew Chilean flame creeper

coltsfoot

bladderwort

great reedmace, cumbungi, common cattail

bladderwort, humped bladderwort

bladderwort bladderwort eelgrass eelgrass green goddess

Manchurian wild rice. Manchurian rice grass

National Pest Plant Accord List . by Common Name (A-C)

African club moss Selaginella kraussiana African love grass Eragrostis curvula akebia Akebia guinata alligator weed aluminium plant Galeobdolon luteum aristea Aristea ecklonii arrowhead Sagittaria sagittifolia arrowhead artillery plant

Asiatic knotweed Revnoutria iaponica and hybrids

Australian cheesewood

Australian tree fern, lacy tree fern halloon vine

banana passionfruit

arundo grass

banana waterlily bladderwort bladderwort bladderwort bladderwort bleeding heart tree blue iris blue morning glory

blue passion flower

Alternanthera philoxeroides

Sagittaria montevidensis Galeobdolon luteum

Arundo donax

Pittosporum undulatum

Cyathea cooperii Passiflora tripartita

Cardiospermum grandiflorum

(all subspecies) Nymphaea mexicana Utricularia arenaria Utricularia livida Utricularia sandersonii

Utricularia gibba Homalanthus populifolius

Aristea ecklonii Ipomoea indica Passiflora caerulea blue spur flower

bogbean Bolivian fuchsia

bomarea, climbing alstromeria honeseed

boobialla brandybottle Brazilian elodea

Brazilian pepper tree Brazilian watermilfoil bridal creeper buffalo grass

Californian arrowhead Californian bulrush candle berry myrtle

bushy asparagus

Cape sundew Cape tulip cartwheel flower

cathedral hells cat's claw creeper, cat's claw vine.

cat's claw ivy chameleon plant

clematis, fragrant virgin's bower.

plume clematis

Plectranthus ciliatus Menyanthes trifoliata Fuchsia boliviana

Romarea caldasii R multiflora Chrysanthemoides monilifera Myoporum insulare and hybrids

Nuphar lutea Egeria densa

Schinus terebinthifolius Myriophyllum aquaticum Asparagus asparagoides Panicum maximum

Asparagus densiflorus Sagittaria montevidensis Schoenoplectus californicus

Myrica faya Drosera capensis Homeria collina

Heracleum mantegazzianum

Cohaea scandens Macfadvena unguis-cati

Houttuvnia cordata

Clematis flammula

National Pest Plant Accord List · by Common Name (C-H)

Chilean flame creeper Tropaeolum speciosum Chilean glory creeper, Chilean glory Eccremocarpus scaber vine, glory vine, Chilean glory flower Chilean rhubarh Gunnera tinctoria Chinese bloodroot Fomecon chionantha chocolate vine Akebia quinata Christmas berry Schinus terebinthifolius clasped pondweed Potamogeton perfoliatus climbing asparagus Asparagus scandens climbing spindle berry Celastrus orbiculatus coltsfoot Tussilago farfara common cattail Typha latifolia contorta pine Pinus contorta Ceratophyllum demersum coontail costata Gymnocoronis spilanthoides cow lily Nuphar lutea crack willow Salix fragilis cruel plant Araujia sericifera cumbungi Typha latifolia Darwin's barberry Rerheris darwinii delta arrowhead Sagittaria platyphylla eelgrass Vallisneria gigantea eelgrass Vallisneria spiralis Egeria densa egeria emerald feather Asparagus densiflorus

evergreen buckthorn Rhamnus alaternus fairy crassula Crassula multicava false tamarisk Myricaria germanica fern asparagus Asparagus densiflorus Myrica fava fire tree firethorn, orange firethorn, yellow firethorn Pyracantha angustifolia five-leaved akehia Akebia guinata Lilium formosanum Formosa lilv foxtail fern Asparagus densiflorus fringed waterlily Nymphoides peltata giant hogweed Heracleum mantegazzianum Reynoutria sachalinensis and hybrids giant knotweed Arundo donax giant reed great reedmace Typha latifolia green cestrum Cestrum parqui green goddess Zantedeschia green goddess green panic Panicum maximum grev willow, grev sallow Salix cinerea Guinea grass Panicum maximum Hawaiian arrowhead Sagittaria sagittifolia Hieracium (all species) hawkweed heather Calluna vulgaris hornwort Ceratophyllum demersum Equisetum (all species) horsetail humped bladderwort Utricularia gibba

National Pest Plant Accord List · by Common Name (H-P)

hvdrilla Hvdrilla verticillata

iceplant Carpobrotus edulis and hybrids

Italian jasmine Jasminum humile
Japanese honeysuckle Lonicera japonica

Japanese knotweed Reynoutria japonica and

hybrids

Japanese spindle tree Euonymus japonicus
Kahili ginger Hedychium gardnerianum

Kariba weed Salvinia molesta
Khasia berry Cotoneaster simonsii
lagarosiphon Lagarosiphon major
lantana Lantana camara
ling Calluna vulgaris
lodgepole pine Pinus contorta
madeira vine Anredera cordifolia
Manchurian wild rice, Manchurian rice grass Zizania latifolia

marshwort, entire marshwort Nymphoides geminata

Mexican bamboo Reynoutria japonica and hybrids
Mexican daisy Erigeron karvinskianus

 Mexican waterlily
 Nymphaea mexicana

 Mickey Mouse plant
 Ochna serrulata

 mignonette vine
 Anredera cordifolia

 mile-a-minute
 Dipogon lignosus

 monkey apple
 Acmena smithii

 mothplant
 Araujia sericifera

myrtle-leaf milkwort

nassella

New Zealand daphne

Northern banana passionfruit

old man's beard Oriental bittersweet

oxygen weed oxygen weed

pampas parrot's feather

pennisetum phragmites pig's ear

pigweed plectranthus

poplar leaved omalanthus poppy of the dawn

Port Jackson fig possum tail

primrose willow, floating primrose

willow

pyp grass

purple loosestrife purple pampas pussy willow Polygala myrtifolia

Nassella (all species) Pittosporum undulatum Passiflora tarminiana

Clematis vitalba Celastrus orbiculatus

Egeria densa Lagarosiphon major Cortaderia selloana

Myriophyllum aquaticum
Pennisetum (all species)

Phragmites australis Cotyledon orbiculata

Alternanthera philoxeroides Plectranthus ciliatus

Homalanthus populifolius Eomecon chionantha Ficus rubiginosa

Asparagus densiflorus Ludwigia peploides subsp

Montevidensis Lythrum salicaria Cortaderia jubata Salix cinerea

Ehrharta villosa

National Pest Plant Accord List · by Common Name (Q-Z)

Queensland poplar Homalanthus populifolius rhamnus Rhamnus alaternus roval fern Osmunda regalis rum cherry, wild black cherry. Prunus serotina mountain black cherry, black cherry sagittaria Sagittaria montevidensis sagittaria Sagittaria platyphylla salvinia Salvinia molesta selaginella Selaginella kraussiana Senegal tea Gymnocoronis spilanthoides small balloon vine Cardiospermum halicacabum smilax Asparagus asparagoides snow poppy Fomecon chionantha spatterdock Nuphar lutea Sprengeri fern, Sprenger's asparagus Asparagus densiflorus St Joseph's lily Lilium formosanum sweet amber Hypericum androsaemum Polygala myrtifolia sweet pea shrub, sweet pea bush Pittosporum undulatum sweet pittosporum Taiwan lilv Lilium formosanum Tasmanian ngajo Myoporum insulare and hybrids temple plant Gymnocoronis spilanthoides thread of life Myriophyllum aquaticum Solanum mauritianum tobacco weed Ailanthus altissima tree of heaven

tree privet Ligustrum lucidum Lilium formosanum trumpet lily tuber ladder fern Nephrolepis cordifolia Hypericum androsaemum tutsan Pittosporum undulatum Victorian box Tradescantia fluminensis wandering Jew water hyacinth Eichhornia crassipes water lettuce Pistia stratiotes Hydrocleys nymphoides water poppy water primrose Ludwigia peploides subsp. Montevidensis white bladder flower Araujia sericifera white bryony Bryonia cretica white edged nightshade Solanum marginatum wild iris Aristea ecklonii wild parsnip Heracleum mantegazzianum Wild rhododendron, pontic rhododendron, Rhododendron ponticum pontian rhododendron wild rhubarb Heracleum mantegazzianum wild tobacco tree Solanum mauritianum woolly nightshade Solanum mauritianum vellow flag iris Iris pseudacorus vellow ginger Hedychium flavescens vellow trumpet vine Macfadvena unguis-cati vellow waterlily Nuphar lutea

Acmena smithii · monkey apple





SYNONYMS · Eugenia smithii, Syzygium smithii

DESCRIPTION · Monkey apple is a tree, 6-20 m tall, which grows in forest, scrub and shrub-lands. It has glossy oval leaves which are aromatic when crushed, whitish flowers, and berry-like fruit that are white or pink-mauve.

IMPACT · Birds disperse the abundant seed, spreading it into nearby native forest. Seedlings are shade-tolerant and form dense carpets. They can grow rapidly into long-lived canopy trees, outcompeting native trees.

Ailanthus altissima · tree of heaven







Photos courtesy of Trevor James

DESCRIPTION · Tree of heaven is a fast-growing deciduous tree. It has compound leaves composed of smaller alternating leaflets, and yellow-green flowers. All parts of the tree have an odour that is similar to peanuts or cashews.

IMPACT · Tree of heaven is a prolific seed producer that grows rapidly. It has an aggressive root system and produces toxins that prevent other plant species establishing.

Akebia quinata · Akebia, chocolate vine, five-leaved akebia







Photos courtesy of Trevor James

SYNONYMS · Rajania quinata

DESCRIPTION · Akebia is a twining vine or ground cover, with leaves of five oval shaped leaflets (3 cm) which meet at a central juncture. It has chocolate-purple coloured flowers, which have an odour that is similar to chocolate or vanilla, and appear from August to October in New Zealand.

IMPACT · Akebia can form dense patches which outcompete and kill ground cover and shrubs/young trees. Birds can spread the seeds, but mostly this plant is spread by human activity.

Alternanthera philoxeroides · alligator weed, pigweed





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.

Anredera cordifolia · madeira vine, mignonette vine





Photo courtesy of Trevor James

SYNONYMS · Boussingaultia cordifolia

DESCRIPTION · Madeira vine is a perennial hairless vine with fleshy rhizomes and slender reddish stems with small aerial tubers. It has heart-shaped leaves (2-11 x 2-10 cm) which are glossy and arranged alternately on the stems. It produces slender drooping flower heads (18 cm long) of small fragrant cream flowers from January to April. Seeds are not produced.

IMPACT · This vine forms heavy long-lived masses that dominate medium to high canopy. It tolerates a wide range of conditions. Although no seeds are produced, it spreads via the aerial tubers.

Araujia sericifera · mothplant





OTHER COMMON NAMES · cruel plant, white bladder flower SYNONYMS · Araujia hortorum

DESCRIPTION · This is an evergreen vine that grows to 10 m tall with pungent, milky sap and down stems which are woody near the base. It has dark-green leaves (3-12 x 2-6 cm) which are hairless and dull on the top, greyish-downy underneath and arranged alternately on the stems. Clusters of 2-4 bell-shaped white flowers (20-25 mm in diameter), occasionally with pink streaks, appear from December to May, followed by thick choko-like pods (10 x 7 cm) which contain hundreds of black thistledown-like seeds.

IMPACT · Mothplant produces abundant wind-dispersed seeds. It is long-lived, fast-growing and shade-tolerant, forming dense, heavy, smothering masses that overtop and strangle supporting plants. It invades intact or disturbed forest and is poisonous, with the sap also being a skin irritant. Mothplant has a very wide environmental tolerance, with frost the main limiting factor.

Aristea ecklonii · Aristea, wild iris, blue iris







Photos courtesy of Trevor James

DESCRIPTION · Aristea is a perennial with stiff, upright, iris-like leaves that grow in clumps up to 70 cm tall. In spring, dozens of small blue flowers are produced, which then turn into seed capsules 2cm long containing flat dark brown seeds.

IMPACT · Aristea tolerates a wide variety of conditions. It spreads by seeds and also by division of the rooted clumps. It can form dense stands, displacing other species and opening canopy to invasion from other weeds.

Arundo donax · giant reed, arundo grass







Photos courtesy of Trevor James

DESCRIPTION · Giant reed is a clump-forming bamboo-like grass with a dense root mass and short rhizomes. It can grow up to 5 m in height. Hollow stems, up to 4 cm across, are initially erect but become semi-lax over time. Bluish-white (occasionally white-striped) bamboo-like leaves (30-90 x 5 cm) with parallel veins are arranged alternately, clasping the stems. A plume-like flowerhead is produced at the top of the stem in late summer.

IMPACT · This grass forms tall dense clumps, usually on wasteland, but is a potential weed of river and stream margins that can block waterways, promoting flooding. It provides a habitat for rats and possums, and poses a fire risk.

Asparagus asparagoides · smilax, bridal creeper





Photo courtesy of Carolyn Lewis

SYNONYMS · Myrsiphyllum asparagoides

DESCRIPTION · Smilax is a scrambling or twining perennial with dense clusters of white tuberous roots and thin-branched green stems to 3 m. The true leaves are inconspicuous, but it has ovalish pointed cladodes which resemble leaves (10-35 x 4-15 mm) scattered along the stem. Greenish-white flowers (5-6 mm) appear from July to August, followed by round red berries (6-10 mm) each containing 2-8 tiny black seeds.

IMPACT · Smilax has tough wiry stems and a smothering growth habit. It has long-lived tubers that resprout following control, making it a difficult species to kill. The seeds are dispersed by birds. Smilax is a serious weed in Australia, where it is known as bridal creeper.

Asparagus densiflorus · bushy asparagus (excluding cultivar "Myersii")







Photos courtesy of Trevor James

OTHER COMMON NAMES · fern asparagus, emerald feather, Sprengeri fern, Sprenger's asparagus, foxtail fern, possum tail

SYNONYMS · A. aethiopicus

DESCRIPTION · Two growth forms are known: (1) cultivar "Sprengeri" is a trailing scrambler with stems that are branched towards tips, and sparse cladodes (flattened leaf-like stems, 10-25 mm) that are flat in cross section; (2) cultivar "Meyeri" has erect stems to 700 mm forming a dense cylinder, and is covered in cladodes (5-10 mm) that are triangular in cross section. Both cultivars have small tubers, thin wiry stems, tiny pinkish flowers and bright red berries.

IMPACT · Bushy asparagus forms dense patches, is tough and has long-lived tubers that resprout.

Asparagus scandens · climbing asparagus







Photos courtesy of Trevor James

SYNONYMS · Myrsiphyllum scandens

DESCRIPTION · This vine is a scrambling or climbing perennial with tuberous roots, and green, thin, wiry stems (2-4 m long) that are branched at the top. The true leaves are inconspicuous, but it has flat cladodes (5-15 mm x 1-1.5 mm) that are leaf-like (resembling miro). These are usually in groups of three at each node. Tiny whitish flowers appear from September to December, and are followed from October to February by round berries (8 mm in diameter) that ripen from green to yellow.

IMPACT · Climbing asparagus forms dense patches on the ground or sub-canopy in most forest types. The combination of wiry stems and dense foliage smothers small plants. It has tough long-lived tubers that resprout easily, a moderate growth rate and well-dispersed seeds.

Berberis darwinii · Darwin's barberry







Photos courtesy of Department of Conservation & Trevor James

DESCRIPTION • This is an evergreen shrub that grows up to 4 m high. It has small clusters of dark-green leaves (each up to 3 cm long) with spiny edges and five short sharp spines below each group of leaves. Small yellow-orange flowers are produced in small clusters from September through to February, and are followed by hanging groups of purple-black berries with a white bloom on the surface.

IMPACT · Birds eat the berries and spread the seeds of this plant. It can invade native bush and replace native species.

Bomarea caldasii, B. multiflora · bomarea, climbing alstromeria







DESCRIPTION · The two species of bomarea are similar and are difficult to distinguish. Both are tuberous-rooted vines with thin, pale green, elongated and pointed leaves. They produce trumpet-shaped flowers in dense drooping clusters of 15-20 or more; flowers are tinged red on the outside, and bright yellow with red spots on the inside. Flowering is mainly in the spring or summer. The fruit is a capsule that ripens and splits to reveal bright orange/red fleshy seeds.

IMPACT · If uncontrolled, bomarea can smother and destroy garden plants. It also invades remnant forest and shrubland interiors, with the vines growing into the tree canopy forming large masses which overtop and smother the supporting trees. Extensive infestation in the tree canopy can alter light levels, damage trees and prevent the establishment of native species.

Bryonia cretica · white bryony







Photos courtesy of Jaap Knegtmans and Trevor James

SYNONYMS · Bryonia cretica subsp. dioica

DESCRIPTION · White bryony is a soft green cucumber like vine that climbs up to 6 m by means of its curled tendrils. It produces clusters of small cream white flowers in spring/summer, with male and female flowers on separate plants. On female plants these are followed by 8 mm berries, in bunches of 3-8 that ripen to light red from January to April. The shoots die back in autumn to a persistent perennial tuber.

IMPACT · White bryony smothers and shades out whatever it grows on. It is dispersed by birds and its tubers are hard to find. The fruit and tubers contain toxic alkaloids, which may be poisonous if consumed in quantity. White bryony is of very limited distribution in the wild in New Zealand.

WHAT TO DO · If you find this plant contact MAF Biosecurity New Zealand on 0800 80 99 66.

Calluna vulgaris · heather, ling (excluding double flowered cultivars)







Photos courtesy of Trevor James

DESCRIPTION · Heather is an evergreen plant that can grow up to 60 cm high. Its leaves are tiny and are arranged in four rows. Individual flowers are small, purple or pink, and arranged in dense spikes produced between December and March. Although individual flowers are small, groups of plants can make a colourful display. The fruit capsule breaks open to disperse seeds.

IMPACT · This plant tolerates cold, some shade and poor soils. In some parts of New Zealand (for example National Park) it is an invasive weed of tussock grasslands.

Cardiospermum grandiflorum · balloon vine





Photo courtesy of G. D. Carr, Dept of Botany, University of Hawaii

DESCRIPTION · Balloon vine is a perennial climber. Its name comes from the light-green thin-walled papery 4-8 cm long inflated capsule containing three black seeds. The light-green leaves are divided into three sets of three leaflets. White four-petalled flowers occur throughout the year.

IMPACT · The fruits are carried by wind or water. The plant grows in moist areas along river edges, forest margins and road edges. It can climb up to 10 m high, smother taller vegetation and shade small plants.

Cardiospermum halicacabum · small balloon vine





Photo courtesy of J. Manhart, Herbarium, Dept of Biology, Texas A & M University

DESCRIPTION · This is a smaller version of balloon vine, growing up to 3 m high. Each leaf has three coarsely toothed leaflets. The flowers are minute (3 mm across) and greenish-white in colour. Flowers are followed by 2 cm papery inflated fruits like a three-sided balloon containing black seeds, each with a pale heart-shaped mark. This vine has a pair of tendrils in each flower cluster.

IMPACT · This plant thrives in full sun and well-drained soil. Small balloon vine can climb over and smother other plants.

Carpobrotus edulis and hybrids · iceplant





Photo courtesy of Trevor James

DESCRIPTION · Iceplant is a low-growing perennial with fleshy succulent leaves 7-12 cm long. Large (up to 10 cm diameter) many-petalled yellow flowers can be produced year-round but are most common from October to February. Flowers are followed by fleshy fruit. Hybrid plants are slightly smaller with pink, orange, yellow or whitish flowers. Hybrid plants do not form seeds but spread by stem fragments.

IMPACT · Iceplant forms mats over sand dunes and open areas, displacing other vegetation. It can also change the structure of sand dunes. The South African iceplant species (*Carpobrotus edulis*) hybridises with and replaces the much smaller pink-flowered native iceplant (*Disphyma australe*).

Celastrus orbiculatus · climbing spindle berry







Photos courtesy of Salisbury University Arboretum

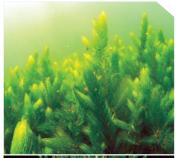
OTHER COMMON NAMES · Oriental bittersweet

DESCRIPTION · Climbing spindle berry is a deciduous vine that can grow up to 12 m tall. Leaves taper to a point, are 5-10 cm long and serated. Climbing spindle berry has inconspicuous flowers, followed by brilliant orange fruit with a scarlet centre. It is easiest to find in the autumn when the leaves turn yellow.

IMPACT · Climbing spindle berry is a vigorous vine that prefers sunny spots but is also shade-tolerant. Once established, it can "wait" for a disturbance in forest canopy and then compete with native species for resources.

Ceratophyllum demersum · hornwort, coontail







Photos courtesy of Rohan Wells

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.

Cestrum parqui · green cestrum







Photos courtesy of Trevor James

DESCRIPTION · Green cestrum is a shrub that grows 1-3 m high. Its erect stems become woody as it matures. Leaves are hairless, up to 120 cm long and 2.5 cm wide, and foulsmelling when crushed. They are arranged alternately on the stems. The greenish-yellow tubular flowers (15-23 mm long), in dense clusters at the end of the branches, appear from November to June. Flowers are followed by glossy purplish-black berries about 1 cm long.

IMPACT \cdot This plant grows anywhere with high temperatures and high rainfall, and forms dense stands in the forest understorey, preventing the establishment of native plant seedlings. The whole plant is toxic to both animals and humans.

Chrysanthemoides monilifera · boneseed





Photo courtesy of Trevor James

DESCRIPTION • This is a bushy shrub that grows 2-3 m high. Stems are ribbed and woolly when young but become smooth as they mature. Smooth, leathery, bright-green leaves (7 x 3.5 cm) have irregularly toothed edges and are arranged alternately on the stems. Bright-yellow daisy-like flowers (25-30 mm across) are produced from September to February, followed by hard, oval, green fruit (6-9 mm) which ripen to black and contain a hard seed.

IMPACT · Boneseed replaces lower-growing native species and prevents the establishment of native plant seedlings. It colonises disturbed sites faster than native species, and creates heavy shade in otherwise open spaces.

Clematis flammula · clematis, fragrant virgin's bower, plume clematis







DESCRIPTION · Fragrant virgin's bower is a deciduous climbing vine with long woody round and weakly ribbed stems. Leaves are in opposite pairs on the stem and are bipinnate with thick, sparsely hairy, unlobed small leaflets that fall in Autumn. Its white flowers appear in large bunches from January to March, and are followed by dense, fluffy clusters of hairy seeds (5-6mm long) with distinctive white-plumes (3-4cm long) in May.

IMPACT · Fragrant virgin's bower grows rapidly and can smother plants to medium canopy height. This can prevent native species establishing. It moves readily into shrub land and forest margins as stems take root where they touch the ground.

Clematis vitalba · old man's beard







DESCRIPTION · This is a deciduous climbing vine that grows to 20 m tall. It has very long woody stems with six prominent ribs, and pale easily rubbed-off bark. Leaves are arranged in opposite pairs on the stems, and are made up of five leaflets. The thin leaftlets are sparsely hairy and have bluntly toothed or smooth edges. Fragrant creamy-white flowers (2-3 cm in diameter) are produced from December to May. Flowers are followed by grey hairy seeds with distinctive white plumes (3-4 cm long) in dense fluffy clusters persisting over winter (hence the name "old man's beard").

IMPACT · This vine smothers and kills all plants to the highest canopy, and prevents the establishment of native plant seedlings. It moves readily into established forest over the canopy by layering. Seeds are spread by wind, water, the movement of soil, etc.

Cobaea scandens · cathedral bells







Photos courtesy of Trevor James

DESCRIPTION · Cathedral bells is a fast-growing perennial vine. It grows over trees and shrubs in open forest-edge situations after escaping from gardens. It has bell-shaped flowers that are green when young but turn purple once pollen is shed. Capsules are hard, oval and usually 5.5-8.5 cm long. They split into sections to release numerous flat, winged seeds.

IMPACT · The vines can grow over trees and shrubs, forming a dense canopy and smothering desirable plants.

Cortaderia jubata · purple pampas







Photos courtesy of Department of Conservation

DESCRIPTION · This is a giant clump-forming grass growing up to 3 m or more. The leaves tend to droop, and each has sharp edges and a wide conspicuous midrib but no secondary veins between midrib and leaf edge. Both leaf surfaces are dark green. Leaves snap readily when tugged, and dead leaf bases curl like wood shavings (unlike the related native toetoes). From January to March dense, erect, fluffy, brightpurple flower heads are produced well above the foliage. They later fade to a dirty brown.

IMPACT · Windborne seeds allow the grass to easily spread far and wide. It readily colonises disturbed sites, quickly becomes dense and can suppress the growth of other species. It replaces ground cover, shrubs and ferns, creates a fire hazard, provides habitats for possums and rats, and impedes access.

Cortaderia selloana · pampas





Photo courtesy of Department of Conservation

DESCRIPTION • Pampas is another giant, clump-forming grass that can grow to 4 m or more. The leaves are bluishgreen above and dark-green below, and have a conspicuous midrib and sharp edges but no secondary veins between midrib and leaf edge. The leaves snap readily when tugged. Dead leaf bases curl like wood shavings, unlike the related native toetoes. Fluffy white-pinkish flower heads are produced from mid-March to June and fade to a dirty white as seeds forms.

IMPACT · Windborne seeds allow the grass to easily spread far and wide. It readily colonises disturbed sites, quickly becomes dense and can suppress the growth of other species. It replaces ground cover, shrubs and ferns, creates a fire hazard, provides habitats for possums and rats, and impedes access.

Cotoneaster simonsii · Khasia berry





Photo courtesy of Department of Conservation

DESCRIPTION · Khasia berry is a deciduous or semievergreen shrub that grows up to 4 m. Young stems are covered with dense brown downy hairs. As the plant ages, stems become hairless and brownish-grey and are often covered in sooty mould. Leaves are shiny pale-green $(13-25 \times 7-15 \text{ mm})$ and have thin hairs on top when young but are hairless when mature. Clusters of one to four small whitish to pale-pink flowers appear from November to December. Flowers are followed by shiny orange-red or scarlet berries (5-10 mm long).

IMPACT \cdot This shrub forms the understorey in open forest and invades margins. It overtops and replaces shrub species, and prevents the establishment of native plant seedlings.

Cotyledon orbiculata · pig's ear







Photos courtesy of Trevor James

DESCRIPTION · Pig's ear is a succulent species with greygreen opposite leaves with red margins. The leaves appear greyish and powdery. In summer, clusters of orange bell shaped drooping flowers form on 60cm stalks from the centre of the leaf rosette. Flowers are about 2.5cm in length.

IMPACT · Pig's ear competes with and replaces native species, mainly in coastal areas. It can also be poisonous to stock.

Crassula multicava · fairy crassula





Photo courtesy of Department of Conservation

DESCRIPTION · Fairy crassula is a creeping succulent herb. Leaves are fleshy, about $4 \times 4 \text{ cm}$ and covered with small, pitted dots. Flowers are pale pink and small, but in large clusters. Small plantlets develop in these clusters after flowering.

IMPACT · Fairy crassula spreads easily by small fragments, particularly on rocky sites. While it grows well in open areas it also tolerates some shade, competing with native species.

Cyathea cooperii · Australian tree fern, lacy tree fern







SYNONYMS · Sphaeropteris cooperi

DESCRIPTION · Australian tree fern can grow up to 12 m in height, and has a slender trunk of about 3-6" thick. It looks similar to native tree ferns, but the stipe base has two different types of scales, the first being dark small scales, and the other being large, pale papery scales. The fronds can grow up to 5 m long.

IMPACT · Australian tree fern is a fast growing fern that can displace native vegetation by forming dense stands. Its spores also spread easily by wind and germinate rapidly.

Dipogon lignosus · mile-a-minute







Photos courtesy of Trevor James

SYNONYMS · Dolichos capensis, Dolichos gibbosus, Dolichos Iignosus, Verdcourtia Iignosa

DESCRIPTION · Mile-a-minute is an evergreen climbing vine. Stems are rounded and moderately hairy. Leaves, green above and pale below, are made up of three heart-shaped leaflets (25-55 mm long). Pea-like white, lavender and white, or pink to reddish-purple flowers (10-15 mm long) are produced from July to January. Flowers are followed by sickle-shaped seed pods (30-40 mm long).

IMPACT · A fast-growing vine, it smothers and kills most plants from ground level to medium canopy and prevents the establishment of native plant seedlings. It thrives in bare sites and increases nitrogen in impoverished soil types, potentially changing the species that can grow there.





Photos courtesy of Department of Conservation

DESCRIPTION · Cape sundew is a perennial, with linear leaves up to 6.5 cm long, arranged in a basal rosette. The leaves are densely covered with tentacle-like hairs, each tipped with a sticky sap that attracts and captures small insects. Leaves curl around captured prey and then enzymes are secreted to digest it. Cape sundew is easily distinguished from New Zealand native species. It has dark-pink flowers borne in long flower spikes, whereas the New Zealand plants do not.

IMPACT · Cape sundew grows well in a range of New Zealand wetlands, displacing small native plant species. It spreads rapidly by seed.

Eccremocarpus scaber · Chilean glory creeper





Photo courtesy of Department of Conservation

OTHER COMMON NAMES · Chilean glory vine, glory vine, Chilean glory flower

DESCRIPTION · Chilean glory creeper is a rapidly growing perennial vine and is evergreen or deciduous in colder climates. The leaves are bipinnate and there are three to seven leaflets. It has numerous orange-red tubular flowers in summer. Seeds have a prominent wing that aids dispersal.

IMPACT · Chilean glory creeper is a rapid-growing vine that prefers open, sunny, well-drained areas.

Egeria densa · egeria, oxygen weed, Brazilian elodea







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.

Ehrharta villosa · pyp grass







Photos courtesy of Horizons Regional Council, Trevor James, and The Conservation Company

DESCRIPTION · Pyp grass is a perennial grass growing from long, creeping rhizomes. The jointed stems are robust and usually around 90 cm tall, although they can be up to 150 or even 200 cm tall. Leaves are bluish-green and short in proportion to the stems, about 1.5-13 cm long. The leaves may be absent. The inflorescence is a panicle up to 25 cm long, narrow and rather lax.

IMPACT · Pyp grass has a limited distribution in New Zealand, being known from three sites where it has invaded sand dunes. Pyp grass is a serious agricultural weed in South Australia. It commonly grows as a dense sward displacing most other species, in some cases even scrambling over shrubs up to 2-3 metres in height. Pyp grass is a significant threat to sand dune systems throughout New Zealand. It is expected to invade dunes and contribute to the degradation of sand dune habitats.

WHAT TO DO · Contact MAF Biosecurity New Zealand on 0800 80 99 66 if you find this plant.

Eichhornia crassipes · water hyacinth





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.

Eomecon chionantha · snow poppy







Photos courtesy of Trevor James

OTHER COMMON NAMES · poppy of the dawn, Chinese bloodroot

SYNONYMS · Eomecon chionanthum

 $\label{eq:decomposition} \textbf{DESCRIPTION} \cdot \textbf{This is a herbaceous perennial which spreads by underground rhizomes. Snow poppy grows low to the ground and has small oval leaves with scalloped edges. In spring, a pure-white four-petalled flower blooms, with bright golden-yellow stamens.}$

IMPACT · Snow poppy is a shade-tolerant ground cover which has recently gone wild in New Zealand and begun spreading into the bush.

Equisetum (all species) · horsetail







Photos courtesy of Environment Canterbury / Trevor James

DESCRIPTION · Horsetails are mostly small perennials (but one species can be as tall as 2 m) that grow from creeping rhizomes. They often have separate sterile and fertile shoots, the latter producing spores. The sterile stems are hollow and jointed, with bristle-like branches growing from the joints. All species grow in wet places.

IMPACT · Invasive in wet places, species in this genus are extremely hard to control once they are established, being resistant to most herbicides.

Eragrostis curvula · African love grass





DESCRIPTION · African love grass is a vigorous deeprooted clump-forming perennial grass growing 1.5 m tall. It is densely tufted, with narrow leaves that are harsh to the touch, have margins rolled inwards and are usually hairless. It has pyramid-shaped flower heads with small white flowers.

IMPACT · African love grass quickly forms dense strands in open country, displacing other grasses.

Erigeron karvinskianus · Mexican daisy





Photo courtesy of Department of Conservation

SYNONYMS · Erigeron mucronatus, Erigeron "Profusion"

DESCRIPTION · This is a sprawling perennial daisy which grows to 40 cm tall with fibrous roots and long thin stems. It has small narrow leaves (the upper leaves are usually three-lobed) which are fragrant when crushed, and white, white-purplish or pink daisy-like flowers with a central yellow disc from January to December, followed by masses of fluffy seeds.

IMPACT · Mexican daisy forms dense mats and produces huge amounts of seeds that travel long distances.

Euonymus japonicus · Japanese spindle tree







Photos courtesy of Trevor James

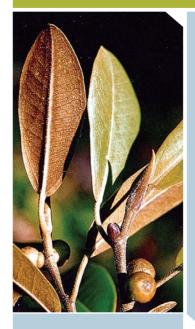
Does not include small-leaved cultivars such as Microphylla and emerald Gem.

DESCRIPTION · This is a hairless, evergreen shrub or small tree growing to 7 m. It has round or slightly ribbed twigs which are usually smooth but wrinkle when dry, and glossy, ovalish, finely toothed leaves (25-70 mm long) in opposite pairs along the stems. Japanese spindle tree is usually grown as a variegated yellow-leaved cultivar, but all seedlings revert to the green form. Its flowers are green. It has fleshy, round, pink seed capsules (6-10 mm in diameter) which are four-celled with orange to red flesh surrounding the seeds.

IMPACT · It forms dense stands in open or shady sites including forest margins, disturbed and secondary inland and coastal forest and shrubland, and coastal cliffs and sand dunes preventing the establishment of native plant seedlings.

Ficus rubiginosa · Port Jackson fig





DESCRIPTION · Port Jackson fig is an evergreen tree (to about 15 m) that often begins life as an epiphyte. Young stems are finely hairy and become hairless as they mature. Its leaves are narrow-oval and leathery (6-12 cm long). The tops of leaves are shiny and hairless, while the underside is densely covered in fine hairs and is pinkish-brown in colour. Small round green flowers with rusty hairs develop into deepyellow to dull-red fruit (12-20 mm long).

IMPACT · Port Jackson fig is a strangler fig that grows into a long-lived large tree. It can damage or kill its supporting plant, and can invade scrub and forest in any successional phase and regardless of disturbance. It is very drought-tolerant, and is a major threat to native lava communities (for example, Rangitoto Island).





Photo courtesy of Department of Conservation

DESCRIPTION · Bolivian fuchsia is a small erect shrub (2-5 m tall) with grey-green opposite leaves (5-10 cm long). Red (or sometimes white) trumpet-like flowers are produced in hanging, terminal clusters, followed by cylindrical darkpurple berries.

IMPACT · Bolivian fuchsia forms dense tall thickets of up to 2 m. It establishes along track and stream sides, along forest margins, and in disturbed and intact forest, and is very shade-tolerant. It is also able to disperse large distances from cultivated and naturalised individuals via bird dispersal.

Galeobdolon luteum · artillery plant, aluminium plant







Photos courtesy of Trevor James / Department of Conservation

SYNONYMS · Lamium galeobdolon, Galeobdolon argentatum

DESCRIPTION · This is a mat-forming perennial ground cover. Stems are square and purple in colour. Aromatic mint-like oval leaves (30-80 x 25-60 mm) are coarsely serrated along the edges, and arranged alternately on the stems. The leaves are hairy below, with large pale-silvery-grey patches on the upper surface. From December to May, tubular hairy lemon-yellow flowers (20-25 mm long) are produced.

IMPACT · This herb forms a dense ground cover in shaded areas and prevents seedlings of native species establishing.

Gunnera tinctoria · Chilean rhubarb





Photo courtesy of Department of Conservation

DESCRIPTION · Chilean rhubarb is a large clump-forming herbaceous plant which can grow up to 2 m high. It has stout rhizomes, and massive umbrella-sized leaves which, along with the stems, are covered in rubbery prickles. Overall the plant resembles a giant rhubarb, hence its name. In summer, tiny green flowers are formed on a spike which is up to 1 m long. The flowers are followed by tiny red fruit.

IMPACT · Chilean rhubarb forms dense colonies and displaces native vegetation. For example, it has invaded coastal cliffs in Taranaki which are home to a number of low-growing endangered plants. Birds spread the seeds into remote areas.

Gymnocoronis spilanthoides · Senegal tea







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.

Hedychium flavescens · yellow ginger





Photo courtesy of Trevor James

DESCRIPTION • This plant is a non-woody ginger-scented perennial growing to 2.5 m tall, with massive taro-like rhizomes that are long and shallow-rooted and that grow over each other to form deep beds. Each rhizome segment (4 x 10 cm) usually produces an aerial stem each year. These stems grow to 2.5 m and are erect. Leaves (50 x 10 cm) are alternate and shiny, and point upwards. Flower heads (15 x 10 cm) with fragrant cream-coloured flowers in clusters are produced in May to June. However, no fruit is produced.

IMPACT · Yellow ginger is long-lived and fast-growing, and forms deep rhizome beds. Rhizomes resprout from any fragment, and can survive for years away from soil. They can also survive crushing and immersion in the sea. No seed is produced so virtually all spread is the result of human activity, such as dumping garden waste.

Hedychium gardnerianum · Kahili ginger





Photo courtesy of Trevor James

DESCRIPTION · Kahili ginger is a non-woody perennial growing to 2 m tall, which is also ginger-scented. Like yellow ginger, it has long shallow-rooted rhizomes which grow over each other close to the ground surface and form deep beds. Each rhizome segment produces an aerial stem and has shiny, slightly hanging, alternate leaves (20-45 x 10-15 cm). The flower heads (which are 25-45 cm tall with fragrant lemon-yellow flowers with conspicuous red stamens) are different from yellow ginger. These develop into fruiting spikes with fleshy orange fruits (15-20 mm long) which contain many bright scarlet seeds.

IMPACT · Kahili ginger is extremely shade-tolerant. It is long-lived and fast-growing and forms deep rhizome beds. It is spread by birds and also by human activity, such as dumping garden waste.

Heracleum mantegazzianum · giant hogweed





Photo courtesy of Trevor James

OTHER COMMON NAMES · wild rhubarb, cartwheel flower, wild parsnip

DESCRIPTION · Giant hogweed is a perennial that grows 4-6 m in height. It has stout dark-reddish-purple stems, and spotted leaf stalks with sturdy pustulate bristles which contain a toxic sap. The stems and stalks are hollow, the stems being 5-10 cm in diameter. Giant hogweed has extremely large leaves (up to 1.5 m) and tuberous root stalks. When the plant is two to three years old it produces large umbrella-like clusters of greenish-white flowers. It usually grows on the banks of rivers or creeks.

IMPACT · Giant hogweed is poisonous to humans. Touching it, or exposure to dust from weed-eating, can irritate skin and cause blisters and swelling. The toxin actually causes photosensitisation so that the skin reacts badly to sunlight.









DESCRIPTION · The Hawkweed group comprises small hardy plants which colonise tussock lands.

IMPACT · Hawkweed grows rapidly in tussock grasslands, displacing native species.

Homalanthus populifolius · Queensland poplar







Photos courtesy of Jonathon Boow, Auckland Regional Council

OTHER COMMON NAMES · bleeding heart tree, poplar leaved omalanthus

DESCRIPTION · Queensland poplar is a shrub or tree up to 5 m tall. It has smooth heart-shaped leaves which turn distinctively red with age. Individual flowers are small and inconspicuous, and occur in spikes up to 17 cm long. Fruits are up to 1 cm in diameter.

IMPACT · Queensland poplar produces prolific seeds and is spread by birds. It is shade-tolerant and competes with native species.

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

Homeria collina · Cape tulip







Photos courtesy of Plant Protection Society

DESCRIPTION · Cape tulip has a single strap-like drooping leaf, and branched flower stalks that can grow up to 90 cm in height. The flowers are attractive, have six petals, are about 5 cm wide and are variable in colour from yellow-orange and orange-scarlet to salmon pink.

IMPACT · Cape tulip is reputedly poisonous to animals and humans. It has been under official control since the 1940s, but still persists in a few places.

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

Houttuynia cordata · chameleon plant







Photos courtesy of Carolyn Lewis and Trevor James

DESCRIPTION · Chameleon plant is a perennial ground cover. The leaves are heart-shaped and are usually variegated cream, bronze, scarlet and green but may revert to a plain green colour. They have a peppery scent when crushed. The leaves are opposite along thin erect stems which arise from slender rhizomes, and the plant has minute flowers which are densely clustered on short spikes, with four white petal-like bracts at the base.

IMPACT · Chameleon plant has a very rapid growth rate, overtaking gardens where it is planted and being likely to displace native plants in forest and wetland ecosystems.







Photos courtesy of Rohan Wells / J. Clayton

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

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.







Photos courtesy of Trevor James

SYNONYMS · Hydrocleis nymphoides

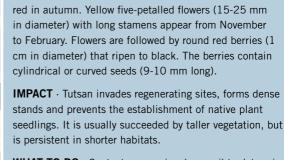
DESCRIPTION · Water poppy is a water lily-like perennial plant. Leaves are thick and shiny and float on the surface, with each shoot connected by a network of elastic creeping stems that form a dense mat. It has a distinctive three-petalled solitary pale-yellow flower with a dark-purple centre. Flowers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

Hypericum androsaemum · tutsan, sweet amber









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

DESCRIPTION · Tutsan is a small, perennial, semievergreen shrub. This plant grows to 1.5 m with fibrous

roots and no rhizomes. Fragrant ovalish leaves (35-100 x 25-50 mm) are usually bluish underneath and turn

Photos courtesy of Trevor James

Ipomoea indica · blue morning glory





Photo courtesy of Trevor James

DESCRIPTION · Blue morning glory is a high-climbing vine with tough hairy stems and tough fibrous roots without rhizomes. Its leaves are usually three-lobed and silky-hairy underneath. From late spring to early winter it produces groups of three to 12 deep-blue-purple, funnel-shaped flowers that are pink at the base, which wither in the midday sun.

IMPACT · Blue morning glory is very fast-growing, producing dense smothering blankets of foliage that can reach into the canopy. It quickly becomes the dominant vine wherever it occurs.

Iris pseudacorus · yellow flag iris





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.





Photos courtesy of Department of Conservation & Trevor James

DESCRIPTION · Italian jasmine is a scrambling shrub up to 2.5 m tall. Leaves are pinnate, usually with 3-7 oval leaflets up to 5 cm long but often much less in the wild. Yellow, trumpet-shaped flowers are up to 2 cm long and in clusters of up to 10. Flowers are followed by black fruit. It is sometimes confused with primrose jasmine (Jasminum mesnyi), but this species, which isn't reported as fruiting in New Zealand, has dark green leaves with only three leaflets and solitary flowers that are much larger.

IMPACT · Italian jasmine is particularly invasive around Golden Bay, where it forms large patches in forest gaps and cliffs, excluding native species. The fruit is spread by birds.

Lagarosiphon major · lagarosiphon, oxygen weed







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.





Photos courtesy of Department of Conservation

DESCRIPTION · Lantana is a significant weed with over 600 varieties. It is a low, erect or scrambling shrub with backwards-pointing prickles and a strong root system. Its leaves are wrinkly and more or less oval, with dense and often prickly hairs on the upper surface. The small flowers can be many different colours and occur in clusters, often with more than one colour in a single cluster, for example yellow and pink. Flowers are followed by small blue-black fruit. Lantana camara var. aculeata is the most common variety of lantana found in New Zealand. It has small cream and pink flowers in bunches, but other varieties may have other flower colours, such as orange.

IMPACT · Overseas, lantana is a major weed of both natural and agricultural ecosystems, and is spreading in New Zealand as the climate warms. It grows in clumps or dense thickets and crowds out more desirable species. It is sometimes toxic to livestock.





Photos courtesy of Department of Conservation & Trevor James

DESCRIPTION · This is an evergreen hairless tree that can grow to more than 15 m. This plant has distinctive lumpy warts on the stems. Dark-green leaves (5-13 x 3-6 cm) are glossy on the top surface and arranged in opposite pairs on the stems. Tiny fragrant creamy flowers (25×20 cm) are produced from November to March. The smell is unpleasant to some people. Flowers are followed by bluish or purplish-black berry-like fruit (6×5 mm) coated with a powdery "bloom".

IMPACT · Tree privet forms a dense carpet of seedlings on the forest floor, and grows through the understorey to dominate and replace canopy trees in most forest types. Poisonous berries may possibly impact on native fauna, especially insects. Privet species are commonly believed to cause hay fever and asthma, although privet allergies are less common than most people think.

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

Ligustrum Iucidum · tree privet

Lilium formosanum · Formosa lily, trumpet lily, St Joseph's lily, Taiwan lily





Photo courtesy of Department of Conservation

DESCRIPTION \cdot Formosa lily grows up to a metre tall and has narrow, lance-shaped leaves up to 13 cm long and coming off the main stem. It produces purpletinged white, trumpet-shaped flowers which are 15 to 18 cm long.

IMPACT · Formosa lily is a common garden escape, forming colonies in the wild. It is salt-tolerant, and has become naturalised in roadside areas and dunes, mainly in the North Island.

Lonicera japonica · Japanese honeysuckle





DESCRIPTION • This plant is a vigorous evergreen (semievergreen in cold districts) climber. Young stems are purple and hairy. As the plant ages the stems become woody. Stems are long and tough and twine clockwise. Leaves (3-12 x 2-6 cm) sit in opposite pairs on the stems. Upper surfaces of leaves are shiny dark-green (occasionally yellowish) and lightergreen on the underside. Pairs of two-lipped sweetly scented tubular white flowers (2-5 cm long) that age to yellow are produced from September to May. Flowers are followed by egg-shaped glossy black berries (5-7 mm in diameter).

IMPACT · The vine climbs over and smothers most plants from the ground to the medium canopy. It can cause canopy collapse and subsequent invasion of grasses or ground vines. It also provides support for faster-growing weedy vines (for example, morning glory and mothplant). Most spread is by the movement of stem fragments, such as the dumping of garden rubbish, rather than by seed.

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





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.

Lythrum salicaria · purple loosestrife





Photo courtesy of Paul Champion

DESCRIPTION • This is an erect, summer-green perennial herb growing to 1-2 m (occasionally to 3 m) with a taproot and fibrous roots that form dense surface mats and produce up to 50 stems per rootstock. Its many-branched stems are four- to eight-sided, are pink at the base and die off in winter. Narrow leaves (20-100 x 5-25 mm) are usually paired, clasping around the stem. From December to February a showy dense flower spike (20-25 cm long) is produced, made up of purple-magenta flowers with five to six petals which are followed by blackish seed capsules (3-5 mm long).

IMPACT · This plant rapidly invades damp ground, wetlands and shallow water. It overtops native species with dense bushy growth, is long-lived and produces millions of long-lived highly viable seeds from an early age. It tolerates hot or cold conditions and low to high nutrient levels in the water, but is intolerant of salt water.

Macfadyena unguis-cati · cat's claw creeper







Photos courtesy of Forest & Kim Starr, USGS

SYNONYMS · Doxanthus unguis-cati

DESCRIPTION · Cat's claw creeper is a tendril climber from South America with large yellow trumpet flowers in late spring, followed by long bean-like seed pods. It is named because the leaves have branched claw-like tendrils which cling tightly to whatever they are climbing on.

IMPACT · This is a smothering vine that is difficult to control and has become a serious problem overseas, especially in Australia. It has naturalised near Napier and is expected to become a more widespread problem in New Zealand in future.

Menyanthes trifoliata · bogbean







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.

Myoporum insulare (and hybrids) · Tasmanian ngaio







Photos courtesy of Trevor James

OTHER COMMON NAMES · boobialla

DESCRIPTION · Tasmanian ngaio is very similar to New Zealand ngaio, Myoporum laetum. The main difference is the almost universally green, sticky leaf buds of the Tasmanian ngaio, whereas the New Zealand ngaio usually has black buds and leaves dotted with glands. Also the Tasmanian ngaio has smaller flowers (7-8 mm) than the New Zealand ngaio (10-15 mm).

IMPACT · Where naturalised, Tasmanian ngaio competes with the New Zealand ngaio as the natural habitats are very similar. Tasmanian ngaio is commonly planted in the mistaken belief that it is the native species.

Myrica faya · fire tree, candle berry myrtle







Photos courtesy of Forest & Kim Starr, USGS

SYNONYMS · Morella faya

DESCRIPTION • Fire tree is an evergreen shrub or small tree that usually grows around 8 m tall. Its branches are covered with reddish hairs and its leaves are narrow and leathery (4-11 cm long). Flowers are on short spikes and the fruit are purple-black and warty in appearance.

IMPACT · Overseas, this is a fast-growing small tree which forms dense invasive colonies edging out native species. It has yet to naturalise in New Zealand, but if it does it is expected to become a serious problem.

Myricaria germanica · false tamarisk







Photos courtesy of Department of Conservation

DESCRIPTION · False tamarisk is a deciduous shrub growing up to 1.5 m tall. Leaves are small (up to 5.5 mm long and 1.6 mm wide) and held close to branches. Flowers are small and pink, held in racemes, and formed from January. Seeds are formed in small grey capsules during February and March, often while there are still flowers on the plant.

IMPACT · False tamarisk has invaded stoney ground in riverbeds. It is expected to have a similar impact to that of other weeds which invade braided riverbeds, such as reducing the habitat available for the birds that nest in braided riverbeds, while also providing cover for the predators that attack them.

Myriophyllum aquaticum · parrot's feather







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.



Photos courtesy of Ben Minehan, Marlborough District Council

DESCRIPTION · The nassella family are tussock-forming perennial grasses, with fibrous roots from small shallot-like bases. They all have extremely tough, thin, round leaves $(300-500 \times 1 \text{ mm})$ which do not break when pulled.

IMPACT · Nassella are long-lived and form pure colonies, producing masses of long-lived seeds which are extremely well picked up and dispersed.

Nephrolepis cordifolia · tuber ladder fern





DESCRIPTION · This is a terrestrial or epiphytic fern that grows to 1 m tall. This plant has small, erect, scaly rhizomes. Rhizomes produce many long runners and round (1-3 cm) hairy potato-like tubers. Fronds (40-100 x 5-8 cm) are erect or arching when long, with serrated divided leaflets.

IMPACT · It crowds out ground cover, shrubs and other ferns, and can contribute to streamside erosion.







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.

Nymphaea mexicana · Mexican water lily, banana water lily





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.

Nymphoides geminata · marshwort, entire marshwort







Photos courtesy of P. Champion / J. Clayton

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.

Nymphoides peltata · fringed water lily







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-petalled 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.

Ochna serrulata · Mickey Mouse plant







Photos courtesy of Trevor James

DESCRIPTION · Mickey Mouse plant is a small shrub of 1-2 m in height. It produces spherical black berry-like fruits attached to red sepals, which resemble the face of Mickey Mouse. Mickey Mouse plant has elliptic leaves which are 13-50 mm long with toothed leave margins, and fragrant yellow blossoms about 20 mm in diameter which precede the black fruit. The young spring foliage starts as pinkish-bronze and matures to glossy green.

IMPACT · Mickey Mouse plant is easily dispersed, and could spread and naturalise in the wild. It has recently naturalised in New Zealand. It is regarded as a weed in Australia.

Osmunda regalis · royal fern





Photo courtesy of Trevor James

DESCRIPTION · Royal fern is a deciduous fern whose rhizomes form a short woody trunk up to 1.5 m high, bearing large fronds up to 3 m long and 75 cm wide. The fronds are feather-like, subdivided twice, yellow-green and tough. Its spores are produced in brown fertile fronds resembling tiny bunches of grapes. They may have green leaflets towards their bases. Plants die back to the woody trunk in winter.

IMPACT · Royal fern can naturalise and form dense colonies in a range of wetland types in New Zealand, especially in disturbed areas and under the shade of willows and/or manuka. They displace other small-stature native wetland plants.







Photos courtesy of Forest & Kim Starr, USGS

OTHER COMMON NAMES · green panic, buffalo grass

DESCRIPTION · Guinea grass is a large tufted perennial grass which grows up to 3 m tall.

IMPACT · Guinea grass seeds profusely and is spread by birds, wind, etc. Seeds can survive long periods of drought and the plant can regenerate rapidly due to underground rhizomes.

Passiflora caerulea · blue passion flower







Photos courtesy of Department of Conservation

DESCRIPTION · This is a vigorous evergreen high-climbing vine which grows to 6 m. Stems are long and angular with spiralling tendrils. Leaves are very thin and five-lobed almost to the base, each lobe being 3-8 cm long and narrow. Hanging whitish-purple flowers (6-9 cm in diameter) with purple filaments are produced from December to April. Flowers are followed by hanging round fruit (3-5 cm in diameter) that ripen from green to yellow. The fruit have small amounts of inedible pulp, and contain silver-brown seeds (4 mm long).

IMPACT · This plant smothers the canopy, can strangle host stems and prevents the establishment of native plant seedlings. It appears in light wells away from the parent plant.

Passiflora tarminiana · Northern banana passionfruit







Photos courtesy of Department of Conservation / Trevor James

SYNONYMS · Passiflora mixta (name incorrectly used)

DESCRIPTION · Northern banana passionfruit is a high-climbing vine which produces pink tubular flowers throughout the year. These develop into oval fruit that turn yellow or orange-yellow when ripe. It is very similar to banana passionfruit. A useful way to tell them apart is by the flowers: the length of the floral tube is shorter in northern banana passionfruit (6-8 cm) than in banana passionfruit (8-9.5 cm), while the flower lobes are longer in northern banana passionfruit (4-6.5 cm compared to 2-3.8 cm in banana passionfruit). Both species are pest plants.

IMPACT · Northern banana passionfruit is an aggressively invasive vine native to the Andes that invades disturbed areas. Its effects include the smothering of trees, a reduction in biodiversity and the encouragement of invasive species such as feral pigs, which feed on the fruit. This species is a major weed in Hawaii.

Passiflora tripartita (all subspecies) · banana passionfruit







Photo courtesy of Department of Conservation & Trevor James

SYNONYMS · Passiflora mollissima

DESCRIPTION · Banana passionfruit is very similar to Northern banana passionfruit. See the previous page for how to distinguish the two species.

IMPACT · Banana passionfruit is an aggressively invasive tropical vine native to the Andes that invades disturbed areas. Its effects include the smothering of trees, a reduction in biodiversity and the encouragement of invasive species such as feral pigs, which feed on the fruit.

Pennisetum (all species*) · pennisetum







Photos courtesy of Forest & Kim Starr, USGS

*excluding P. clandestinum (Kikuyu grass) and P. glaucum (pearl millet)

DESCRIPTION · The Pennisetum genus comprises large annual or perennial grasses, growing to 1-4 m tall.

IMPACT · Pennisetum competes with native species and can establish populations in pasture and grasslands.

Phragmites australis · phragmites







Photos courtesy of Trevor James

DESCRIPTION · Phragmites is a perennial grass that grows up to 3 m tall on water margins. It has bamboo-like stems which carry long, wide, flat leaves that taper to a point. It has large, fluffy, purplish-brown flower heads, and seed grain which is covered in silky hairs. It is similar to giant reed (Arundo donax), but phragmites is smaller and the stems are narrower in proportion to the leaves.

IMPACT · Phragmites reproduces asexually by rhizomes and, in its native range, forms dense patches on the edges of waterways. It is expected to invade waterways in New Zealand if it becomes more widespread, however it is unlikely to spread much unless distributed by people spreading rhizome fragments.

WHAT TO DO \cdot Contact MAF Biosecurity New Zealand on 0800 80 99 66 if you find this plant.







DESCRIPTION · Lodgepole pine is an evergreen tree that can grow to a height of 6-24 m depending on the variety and growing conditions. Its bark is reddish-brown, and it has two yellow-green to dark-green needles together in a twisted bunch. Cones are egg-shaped, 3-6 cm long and 2-4 cm across, and tend to point backwards on the branch.

IMPACT · Lodgepole pine is a prolific seeder which spreads its seed across a large distance. If ungrazed it will form dense thickets, making access impossible. It invades natural grassland at medium to high altitudes and displaces native species. It has already done so in Tongariro National Park and in parts of the South Island, where it is regarded as a major problem.





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.

Pistia stratiotes

water lettuce





Photos courtesy of Department of Conservation

OTHER COMMON NAMES · Victorian box, Australian cheesewood, New Zealand daphne

DESCRIPTION · Sweet pittosporum is a slender-branched shrub or tree which can grow to 12 m tall in its natural habitat. It has smooth grey bark. Its leaves are shiny and pointed at both ends, with wavy prominent margins. They are alternating, although often crowded at the ends, and 6-15 cm long and 1.5-4 cm wide. The plant has fragrant white flowers with five petals which bend abruptly downward at the ends. It also has globe-shaped fruit.

IMPACT · Sweet pittosporum invades native forest areas and shades out native plants. Its leaves contain toxins that can inhibit the growth of other plants. In Australia it is spreading outside its original range and has become a serious problem.





Photo courtesy of Carolyn Lewis

OTHER COMMON NAMES · blue spur flower

DESCRIPTION • Plectranthus is a trailing or straggling herb with stems covered in purple hairs. It has hairy, oval, textured leaves (5-12 x 3-7 cm) with serrated edges, the underside of which is purple. Erect stems (up to 30 cm tall) of tubular white flowers (1 cm long) with purple dots inside the lower lip appear from December to August.

IMPACT · This plant creeps along the ground, forming thick smothering mats that prevent seedling establishment.

Polygala myrtifolia (excluding cultivar "grandiflora") · sweet pea shrub







Photos courtesy of Trevor James

DESCRIPTION · Sweet pea shrub is many-branched and grows up to 2 m high. It has alternating leaves which are oval and up to 30 mm long. Pea-like purple or veined-purple flowers are clustered in simple racemes at the ends of the branches.

IMPACT · Sweet pea shrub rapidly colonises forest margins, coastal cliffs, shrublands and dunes, competing with and inhibiting regeneration of native species, primarily in northern New Zealand. It is also drought-tolerant.

Potamogeton perfoliatus · clasped pondweed





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.

Prunus serotina • rum cherry, wild black cherry, mountain black cherry, black cherry







DESCRIPTION · Rum cherry is a deciduous tree growing to 18m by 8m with a trunk diameter of up to 70-120 cm, occasionally more. The leaves are 6-14 cm long and aredeciduous. The flowers are small, usually 10-15mm diameter, with 5 white petals and about 20 stamens, and are fragrant. There are about 40 flowers on each raceme. The fruit green to red at first, ripening black, about 1cm in diameter.

IMPACT · Rum cherry invades forests in Europe and dense stands of seedlings have been reported from open forest in New Zealand. The leaves contain toxins and are sometimes reported as causing livestock poisoning overseas.







Photos courtesy of Trevor James

OTHER COMMON NAMES · orange firethorn, yellow firethorn

DESCRIPTION · Firethorn is a shrub growing up to 4 m tall. It has oblong-shaped leaves up to 5 cm long, and small branches which are tipped with a thorn. Small white flowers occur in bunches and are followed by abundant small brightorange berries.

IMPACT · Firethorn is a prolific seed producer whose bright orange seeds are readily dispersed by birds. It displaces native species in shrublands.

Reynoutria japonica (and hybrids) · Asiatic knotweed



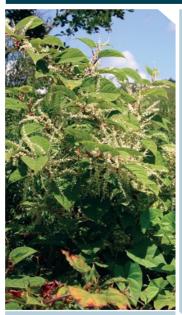


Photo courtesy of Trevor James

OTHER COMMON NAMES · Japanese knotweed, Mexican bamboo

SYNONYMS · Polygonum cuspidatum, Polygonum reynoutria, Fallopia japonica, Fallopia japonica x sachalinensis, Fallopia x bohemica

DESCRIPTION · Asiatic knotweed is an upright shrub-like herbaceous perennial that can rapidly grow to 3 m in height. It has red-purple shoots which appear early in spring but, as the canes grow, the leaves unfurl and the plant turns green. The mature canes are hollow and have a characteristic pattern of purple speckles. The leaves are long and triangular (15 x 10 cm) and pointed at the tip, with a characteristic flattened leaf base. In late summer it produces masses of creamy white flowers.

IMPACT · Once established, Asiatic knotweed forms dense stands that shade and crowd out all other vegetation, displacing native flora and fauna.

Reynoutria sachalinensis (and hybrids) · giant knotweed







Photos courtesy of Trevor James

SYNONYMS · Fallopia sachalinensis, Polygonum sachalinense

DESCRIPTION · Giant knotweed is similar to Asiatic knotweed but is taller, growing to heights of 1.5 m. Note: Hybrid plants have characters intermediate between the two parents.

IMPACT · Once established, giant knotweed forms dense stands that shade and crowd out all other vegetation, displacing native flora and fauna.

Rhamnus alaternus · rhamnus, evergreen buckthorn





Photo courtesy of Jonathon Boow, Auckland Regional Council

DESCRIPTION · This plant is an evergreen shrub that grows to 2-3 m tall. Ovalish leathery leaves (15-60 x 10-30 mm) are glossy and slightly toothed. It has small green petal-less fragrant flowers (3-4 mm in diameter) which are produced from May to November. Flowers are followed by showy glossy berries (5-7 mm long) which ripen from dark-red to black from December to January. It is commonly mistaken for a native plant.

IMPACT · Rhamnus forms dense stands and prevents the establishment of native plant seedlings. It acts as a low shrub on windswept rocky shores or as an understorey shrub in tall canopy. Seeds are capable of germinating and growing through a thick sward of kikuyu grass.

Rhododendron ponticum · Wild rhododendron, pontic rhododendron, pontian rhododendron







DESCRIPTION · Wild rhododendron is a dense suckering shrub growing to 5 m tall. The leaves are evergreen, 6-18cm long and 2-5 cm broad. The flowers are a violet purple, often with a small greenish-yellow spots of streaks, and are about 3.5-5 cm in diameter. While wild rhododendron resembles the cultivated garden rhododendrons, it is the only rhododendron in New Zealand that spreads easily by setting down roots from its branches.

IMPACT · Wild rhododendron is a serious pest in Britain but isn't widely naturalised in New Zealand yet. If forms dense patches as the branches take root and form an impenetrable mass. The thick leaved canopy starves native plants of light and makes it difficult for anything to grow and establish underneath. As well as spreading by rooting branches, the wind disperses the tiny seeds.

Sagittaria montevidensis · arrowhead







Top photo courtesy of D. Burnett

OTHER COMMON NAMES · sagittaria, Californian arrowhead

SYNONYMS · Sagittaria andina, Sagittaria multinervia, Sagittaria pugioniformis var. montevidensis

DESCRIPTION · Arrowhead is a perennial aquatic herb that grows in static or slow-moving shallow fresh water, such as drains and pond margins. It has a thick rootstock without creeping stems (unlike other sagittarias). Its large glossy arrow-shaped leaves are carried on stalks of up to $1\ m$ above the water. Its flowers are composed of three large white petals with a purple blotch at the base.

IMPACT · Arrowhead is an invasive weed with the potential to block waterways.

Sagittaria platyphylla · sagittaria, delta arrowhead





Photo courtesy of H. Pene

SYNONYMS · Sagittaria graminea var. platyphylla

DESCRIPTION · Sagittaria is an emergent aquatic plant that grows up to 80 cm in height, and is found in flowing or still fresh water and in marshes and swamps. It has long rhizomes which produce small tubers similar to S. sagittifolia. Large, lance-shaped leaves are held above the water on stems. It also produces strap-shaped submerged leaves. White flowers (6 cm across) are produced on spikes about the same height as leaves, each producing hundreds of seeds.

 ${f IMPACT} \cdot {f Sagittaria}$ is an invasive weed with the potential to block waterways.

Sagittaria sagittifolia · arrowhead, Hawaiian arrowhead





Photo courtesy of Trevor James

DESCRIPTION · Arrowhead is a herbaceous aquatic perennial that is very similar to S. montevidensis, the difference being its production of rhizomes and tubers. It is not known to flower in New Zealand.

 ${f IMPACT} \cdot {f Arrowhead}$ is an invasive weed with the potential to block waterways.

Salix cinerea · grey willow







Photos courtesy of Trevor James

OTHER COMMON NAMES · pussy willow, grey sallow

SYNONYMS · Salix atrocinerea

DESCRIPTION · Grey willow is a deciduous shrub or small tree that can grow to 7 m tall. This plant spreads by seed or by suckering from the roots. Plants are either male or female. Leaves (20-70 x 15-35 m) are oval and serrated. Topsides of leaves are shiny, and undersides of leaves are grey-blue with dense soft grey hairs underneath. Erect cylindrical catkins (15-35 mm long) are produced from September to October before leaves appear. Seed capsules are bivalved and contain many seeds which have fluffy outgrowths and are dispersed by wind.

IMPACT · This plant replaces native species in wetlands, and forms vast dense stands and thickets. It causes blockages, flooding and structural changes in waterways.







Photos courtesy of Trevor James

DESCRIPTION · Crack willow is a deciduous tree that grows to 25 m. This tree has spreading rather than hanging branches with rough and fissured bark. Root suckers and rootlets are bright-red when in or near water. Shoots and leaves are silky when young but become hairless as they mature. Leaves are narrow lance-shaped with tiny serrations. Undersides of leaves are pale, and the upper surface is shiny, green and often covered with bright-red galls. Narrow downward-curving catkins (40-75 mm long) appear from September to October. As there are only male plants in New Zealand, no fruit is formed unless hybridised with other species such as golden willow. Spread is by stem fragments carried by water movement which readily produce new plants.

IMPACT · This plant replaces native species in wetlands, and forms vast dense stands and thickets. It causes blockages, flooding and structural changes in waterways.





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.

Schinus terebinthifolius · Christmas berry





Photo courtesy of Trevor James

OTHER COMMON NAMES · Brazilian pepper tree

DESCRIPTION · Christmas berry is an evergreen shrub or tree up to 6 m tall. It has a short trunk, which is usually hidden by dense and intertwining branches. It has reddish aromatic leaves with three to 13 finely toothed leaflets. Its white flowers produce short-branched clusters of glossy, green, juicy fruit that turn red and dessicate into a papery shell surrounding the single seed.

IMPACT · Christmas berry is a serious weed in a number of countries overseas. It is only recently naturalised in New Zealand, but sightings in the wild are becoming more common.

Schoenoplectus californicus · Californian bulrush







Photos courtesy of Trevor James

SYNONYMS · Scirpus californicus

DESCRIPTION · This is a large aquatic perennial sedge, with tall rounded or triangular bright-green stems, growing up to 3 m tall. Instead of leaves it has thin papery sheathing bracts at the base of the stem, which produce small groups of flowers on drooping stalks near the tip. It grows from dense woody rhizomes buried in bottom sediments, usually in tidal reaches of large rivers like the Waikato and Northern Wairoa. It is very similar to the native S. tabernaemontani, which has bluish-green stems and erect flower stalks (not drooping).

Selaginella kraussiana · African club moss, selaginella







Photos courtesy of Trevor James

DESCRIPTION · This is a small carpet-forming fern-like plant with long fine roots and creeping, slender, irregularly branched stems. The tiny leaves (up to 4 mm long) are in four rows along the stem. The strobili, or cones that produce spores, are usually four-sided and stand up from the stem.

IMPACT · This species invades the forest floor, inhibiting the establishment of native plant seedings, but opens the way for succession by more aggressive weeds, especially vines. It is a classic example of a small initial impact leading to a catastrophic outcome.

Solanum marginatum · white edged nightshade







Photos courtesy of Trevor James

DESCRIPTION · White edged nightshade is a perennial shrub that can grow up to 5 m. It is easily recognised by characteristic prickly leaves that have a chalky-white underside and edge of the upper side. It has white flowers, sometimes with purplish veins, which bloom in clusters of two to 10 at the edges of branches. Berries, which mature from green to yellow, are borne on the end of stout prickly stalks.

IMPACT · White edged nightshade invades the forest floor, inhibiting the establishment of native plant seedings and leading to higher light levels and succession by more aggressive weeds, especially vines. It is a classic example of a small initial impact leading to a catastrophic outcome. This species also invades pastures.

Solanum mauritianum · woolly nightshade





Photo courtesy of Trevor James

 $\begin{tabular}{ll} \textbf{OTHER COMMON NAMES} & \cdot & \text{tobacco weed, wild tobacco} \\ \textbf{tree} & \end{tabular}$

DESCRIPTION · Woolly nightshade is a spreading capsicumsmelling shrub that grows to 10 m. The entire shrub is covered in dusty hairs. Leaves (10-35 x 3-15 cm) are velvety, oval, and grey-green in colour. Dense clusters of mauve to purple flowers (15-20 mm in diameter) with yellow anthers appear from January to December. Flowers are followed by clusters of round berries (1 cm diameter) that ripen from hard green to soft, dull yellow.

IMPACT · This shrub forms dense, often pure stands. It inhibits or prevents the establishment of native plant seedlings and slows the regeneration rate of native forests. It also invades pastures, reducing pasture production. It is possibly poisonous to livestock.

Tradescantia fluminensis · wandering Jew







Photos courtesy of Department of Conservation

DESCRIPTION · Wandering Jew is a trailing, soft, hairless, perennial ground cover with succulent creeping stems that root at all nodes touching the ground. Dark-green, shiny, smooth and slightly fleshy leaves (3-6 cm long) are oval, with pointed tips. White flowers (2 cm in diameter), produced from December to January, are three-petalled and in small clusters. Seeds are not produced.

IMPACT · This plant smothers ground in light to deep shade, preventing the seedlings of native species from establishing. It causes habitats to open and be invaded by exotic shrubs and vines. Mats growing on riverbanks can break away with water flow and contribute to flooding. It is spread by stem fragments, and via human activity such as the dumping of garden waste.

Tropaeolum speciosum · Chilean flame creeper





Photo courtesy of Department of Conservation

DESCRIPTION · Chilean flame creeper is a perennial vine with slender stems and delicate five-fingered leaves. Its leaf stalks coil round, allowing the plant to climb. It has scarlet flowers that are about 4 cm across, followed by blue berries.

IMPACT · Chilean flame creeper can suppress and replace native species by shading and smothering. It invades small gaps in native forest.

Tussilago farfara · coltsfoot





DESCRIPTION · Coltsfoot is a perennial mat-forming herb with long creeping rhizomes. Its large, leathery, kidney-shaped leaves are finely toothed at the margins. The top surface is smooth and green but the underside is covered with greyish-white woolly hairs. The leaves appear after flowers have faded and set seed. The dandelion-like yellow flowers appear in early spring, and are followed by dandelion-like seed heads. The plants die back in autumn.

Typha latifolia · great reedmace





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OTHER COMMON NAMES · cumbungi, common cattail

DESCRIPTION · Great reedmace is an erect perennial aquatic herb that grows up to 3 m tall. Its stems grow from thick underground rhizomes, and it has wide flat sheathing leaves which are pale-greyish-green. It flowers in early summer, producing distinctive dark-brown to black erect sausage-shaped flower spikes and fruit.

IMPACT · Great reedmace forms dense growths in shallow sheltered water bodies, displacing native vegetation. It could potentially hybridise with our native raupo (Typha orientalis).

Utricularia arenaria, Utricularia livida, Utricularia sandersonii





Photo courtesy of Department of Conservation

DESCRIPTION · Utricularias are creeping terrestrial bladderworts. They have broad green leaves up to 2.5 cm long that lie flat on the ground, thin creeping stems (stolons) at the base of these leaves, and underground roots containing tiny "sacs" which trap insects. The main difference between the Utricularias are their flowers, which are produced in summer and range from white to pale blue/mauve. U. sandersonii has an upper flower lobe divided into two spreading lobes (like rabbit ears). U. livida and U. arenaria both have undivided upper flower lobes, but have a differing flower spur length. U. arenaria has a long spur projecting below the flower lobe, whereas U. livida has a shorter spur hidden behind the flower lobe.

IMPACT · Bladderworts have specially adapted to low nutrient environments, such as bogs and swamps, and outcompete native bladderworts also adapted to similar environments.

Utricularia gibba · bladderwort, humped bladderwort







Photos courtesy of Plant Protection Society / P. Champion

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

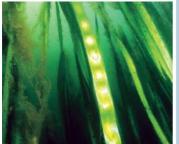
DESCRIPTION · Bladderworts are mat-forming algaelike perennials that are submerged just below the surface of the water or entangled with other plants. U. gibba is a carnivorous plant with complex modified underwater appendages or "sacs". These sacs trap insects and other small animals. It has no roots, 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 (Ultricularia 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.

Vallisneria gigantea · eelgrass







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.

Vallisneria spiralis · eelgrass





Photo courtesy of Paul Champion

SYNONYMS · Vallisneria "Meola Creek variety" under Noxious Plants Act 1978

 $\label{eq:decomposition} \textbf{DESCRIPTION} \cdot V. \ \text{spiralis} \ \text{is a submerged perennial} \\ \text{freshwater plant. The leaves are generally narrower than} \\ V. \ \text{gigantea}. \ \text{Only male plants are known in New Zealand, with inconspicuous flowers produced on the end of a very long spirally coiled pedicel. The pedicel arises from a rosette at the base of the plant which reaches the surface.} \\$

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

Zantedeschia "Green Goddess" · green goddess







Photos courtesy of Trevor James

DESCRIPTION · Green goddess is similar to the white-flowered arum lily, but is most easily distinguished by its green flowers. It is an evergreen plant with large arrowshaped leaves, growing in clumps up to 1.5 m tall. The flower spathe is white at the base but green towards the tip. The amount of green on the flower can vary. Fruits remain somewhat encased by the old flower spathe.

IMPACT · Green goddess is a common garden escapee, forming colonies in the wild. It is spread by birds and is particularly invasive in wet areas.

Zizania latifolia · Manchurian wild rice







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.

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New Zealand Government