

Weed Spotters' Network Queensland

Bulletin
June 2015



Pathways of weed spread: on the farm

Farm biosecurity is a set of measures designed to help protect your property from the entry and spread of weeds, pests and diseases and in turn, protect Queensland and Australian plant and livestock industries. Ways you can help protect your farm include:

- Developing an on-farm biosecurity plan to help identify and reduce potential risks and pathways for weeds, pests and diseases to enter your property. A free [Farm Biosecurity Action Planner](#) is available online.
- Incorporating weed seed spread prevention into existing management systems or following an industry code of practice. Develop a pest management plan to prevent weed seeds from entering or leaving your property.
- Putting a sign on your front gate requesting visitors to please respect farm biosecurity. Visitors should clean their vehicles, machinery and equipment before entering your property.
- Managing a buffer area/windbreak around your boundary.
- Setting aside containment areas to manage any weed emergence. When unsure of the weed status of livestock or feed, quarantine livestock for at least one week before they enter or leave your property.
- Reporting any new weeds, pests or diseases in your area immediately to increase the chance of effective and efficient eradication.

Upcoming Weed Spotter training

Longreach: 10 am–12 pm Tuesday 23 June 2015.

Brisbane: 1 pm–3 pm Tuesday 30 June 2015.

Stanthorpe: 10 am–12 pm Friday 17 July 2015.

Please email Melinda.Laidlaw@dsiti.qld.gov.au or phone (07) 3896 9323 if you would like to attend.

Regional coordinator profile: Paul Garland

Paul Garland is a senior biosecurity officer based in his home town of Bundaberg. He commenced work with the Department of Primary Industries in the early 1990s doing cattle research, then focused on insects in 1997. Paul trained in entomology at the University of Queensland in 2004 and returned to Bundaberg in 2005 as a plant health inspector. In 2009, he undertook a 6 month project as an invasive plants and animals biosecurity officer in Caboolture addressing alligator weed and hygrophila issues. Paul is the state surveillance coordinator for exotic plant insects and diseases for Biosecurity Queensland and can assist you with weeds advice in the Bundaberg region. Contact Paul on Paul.Garland@daf.qld.gov.au



Class 1 declared plants: *Neptunia plena* and *N. oleracea* (water mimosa)



Fig 1. Photo: DAF

Water mimosa is a Class 1 declared pest plant in Queensland. Two species of aquatic *Neptunia* are naturalised, *Neptunia oleracea* and *Neptunia plena* (also known as 'dead and awake'). Both species are recognisable by their fern-like compound leaves (fig.1) which are sensitive to touch. *N. plena* generally has more leaflet pairs per pinnae (>20) than does *N. oleracea* (≤ 20), and *N. plena* leaves have a suppressed gland between or just below the lowest pair of pinnae, which *N. oleracea* lacks. *Neptunia plena* grows in a more upright, branched fashion than does the lower, spreading *N. oleracea*. Both species produce solitary, yellow ball-shaped flowers

early in summer and a flat, oblong seed pod. Fibrous roots grow from the nodes when in contact with water. Water mimosa can, however, also grow outside of waterways in moist soil. Under such conditions it lacks spongy stems (fig. 2) and produces smaller leaves. Neptunias, relatives of the Acacias, fix nitrogen from the atmosphere into the water. This input of 'fertiliser' can assist the growth of other aquatic weeds, cause algal blooms and reduce oxygen levels, impacting on fish communities. Read more about water mimosa in the [June 2013 bulletin](#).



09.06.2013
Fig 2. Photo: J. Clouten

Class 2 declared plants: *Hymenachne amplexicaulis* (hymenachne)



Fig 3. A pure stand of hymenachne, Lake Mitchell, Nth Qld. Photo: R. Miller

Hymenachne (also known as olive hymenachne) is a 1–2.5 m tall, semi-aquatic grass native to tropical, seasonal, freshwater wetlands in South America. It was introduced into Australia to provide 'ponded pasture' for cattle and by the late 1980s had been planted on numerous properties in coastal Queensland and the Northern Territory. While it can provide valuable pasture, it has become an unwanted invasive pest outside grazing areas and is proving very difficult to manage (fig. 3).

The stems of hymenachne are erect and pithy.

The leaves are 10–45 cm long, up to 3 cm wide and wrap around or 'clasp' the stem (fig. 4a). Flower heads are spike-like and cylindrical, 20–40 cm long. A native species of hymenachne, *Hymenachne acutigluma*, can be distinguished from the weed by its lack of clasping stems (fig. 4c). Some evidence suggests that the two species may be hybridizing (fig. 4b). Read more about hymenachne in the [June 2013 bulletin](#).



Fig 4. Photo: J. Clarkson

If you think you have seen water mimosa or hymenachne growing in your region, please contact the Queensland Herbarium on (07) 3896 9323, email a photo to: Queensland.Herbarium@qld.gov.au or contact Biosecurity Queensland on 13 25 23.

Class 1 declared plants: *Lagarosiphon major* (lagarosiphon or oxygen weed)



Fig 1. Photo: Trevor James

Lagarosiphon (fig. 1) is an aggressive, fast growing, perennial aquatic plant capable of invading dams, lakes and streams. It is a Class 1 declared pest plant under *the Land Protection (Pest and Stock Route Management) Act 2002*. In its native range of southern Africa, it is found in high mountain streams and wetlands. Lagarosiphon is known to outcompete native aquatic plants, threaten wildlife and habitats, limit the recreational use of waterways and can interfere with power generation and irrigation infrastructure. Although not currently naturalised (weedy) in Queensland or Australia, cultivated lagarosiphon was recorded near Townsville in 1990.

Lagarosiphon has branched, brittle stems which can grow to a length of 5 m and can form dense surface mats up to 4 m in depth. Lagarosiphon has long thread-like adventitious roots branching from the stem along with rhizomes anchoring it to the bottom of waterways. The leaves are stiff and curl down and backwards towards the stem (fig. 2 and 3). Leaves are arranged alternately around the stem in a spiral. The flowers of Lagarosiphon are small, purple and are found in the joints of the upper leaves (fig. 3). Male flowers break from the plant and float towards the



Fig 3. Photo: New Zealand Plant Conservation Network

female flowers which remain attached to the stem by a long, thin filament. To date, flowers, fruits or seeds of lagarosiphon have not been recorded in Australia. Reproduction and spread is instead through the movement of stem fragments which break at the nodes, grow roots and either flow downstream or are transported between waterways.

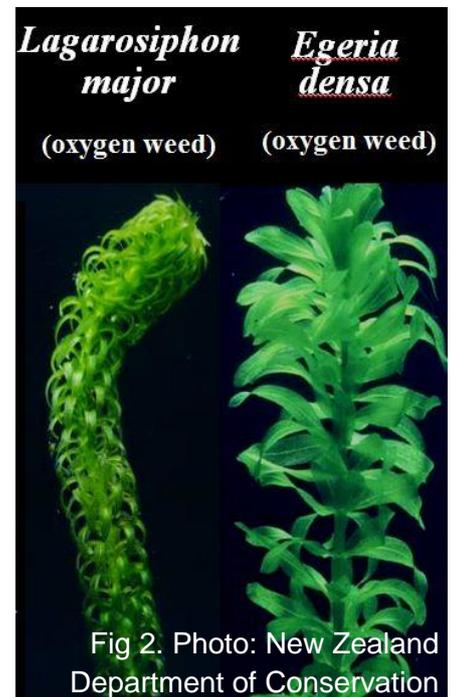


Fig 2. Photo: New Zealand Department of Conservation

Lagarosiphon can be confused with other species of water weeds in Queensland, however, both the naturalised *Elodea canadensis* (fig. 4) and *Egeria densa* (fig. 2) as well as the native *Hydrilla verticillata* differ from lagarosiphon by having leaves which are whorled around a node (fig. 4) on the stem rather than leaves that spiral alternately up it.

Lagarosiphon spreads easily when stem fragments are transported on boats, trailers and fishing equipment and as such, it is often first reported nearby boat ramps. Lagarosiphon can also escape when the contents of aquariums are emptied into waterways. As a Class 1 species, it is illegal to grow or sell lagarosiphon in Australia. Any outbreaks should be reported immediately and no attempt should be made to control lagarosiphon yourself.



Fig 4. Photo: C. Fischer

If you think you have seen lagarosiphon growing in your region, please contact the Queensland Herbarium on **(07) 3896 9323**, email a photo to: Queensland.Herbarium@qld.gov.au or contact Biosecurity Queensland on **13 25 23**.

Keep an eye out for these weeds in June...

Species	Common name	Watch for in this region	Field attributes to look for
# <i>Acaciella glauca</i> (July 2014 bulletin)	redwood	South East Queensland, Burnett/Mary, Cape York, Fitzroy Basin, Mackay Whitsunday, Torres Strait, Dry Tropics	white ball-shaped flowers, creek lines and dry tropics
<i>Annona glabra</i> (May 2014 bulletin)	pond apple	South East Queensland, Burnett/Mary, Cape York, Mackay Whitsunday, Torres Strait	pale yellow/cream flowers with a red throat
# <i>Cecropia</i> spp. (April 2013 bulletin)	Mexican bean tree	South East Queensland, Burnett/Mary, Mackay Whitsunday, Torres Strait, Wet Tropics	large lobed leaves with a pale underside
# <i>Chromolaena odorata</i> / <i>C. squalida</i> (May 2013 bulletin)	Siam weed	South East Queensland, Burnett/Mary, Cape York, Fitzroy Basin, Northern Gulf, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry Tropics	pale lilac/white flowers, triangular leaves with 3 prominent veins
# <i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i> (May 2014 bulletin)	Bitou bush	South East Queensland, Burnett/Mary,	Yellow-flowered shrub, coastal areas
# <i>Clidemia hirta</i> (March 2013 bulletin)	Koster's curse	Mackay Whitsunday, Wet Tropics	leaves hairy with teeth, branchlets with long bristly red hairs
# <i>Cylindropuntia prolifera</i> (August 2014 bulletin)	coastal cholla	Fitzroy Basin, Desert Channels, Southern Gulf, Dry Tropics, South West Queensland	spines to 2 cm long
# <i>Cylindropuntia tunicata</i> / # <i>C. rosea</i> (July 2013 bulletin)	chain-link cactus/ Hudsons pear	Fitzroy Basin, Desert Channels, Southern Gulf, Dry Tropics, South West Queensland	long spreading spines
# <i>Eichhornia azurea</i> / <i>E. crassipes</i> (October 2014 bulletin)	water hyacinth	Desert Channels, Queensland Murray Darling Region, Condamine, South West Queensland	water bodies, floating, purple flowers
<i>Elephantopus mollis</i> (March 2015 bulletin)	tobacco weed	South East Queensland, Burnett/Mary	daisy to 1 m tall, flowers white or pink
# <i>Equisetum</i> spp. (July 2013 bulletin)	horsetails	South East Queensland	primitive plant, no flowers, leaves reduced
<i>Heterotheca grandiflora</i> (September 2014 bulletin)	telegraph weed	South East Queensland	daisy to 2 m, flowers yellow
<i>Hymenachne amplexicaulis</i> (June 2013 bulletin)	hymenachne	Desert Channels, Queensland Murray Darling Region, Condamine, South West Queensland	robust grass to 2.5 m, water bodies & drains

Species (cont.)	Common name	Watch for in this region	Field attributes to look for
# <i>Limnocharis flava</i> (October 2013 bulletin)	yellow burrhead	South East Queensland, Burnett/Mary, Cape York, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry Tropics	water bodies & margins, yellow flowers & triangular stems
# <i>Miconia calvescens</i> (March 2013 bulletin)	miconia/purple plague	South East Queensland, Burnett/Mary, Cape York, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry tropics	underside of leaves purple
# <i>Miconia nervosa</i> (March 2013 bulletin)	miconia	South East Queensland, Burnett/Mary, Cape York, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry tropics	leaves hairy, reddish underside
# <i>Miconia racemosa</i> (March 2013 bulletin)	miconia	Wet Tropics	leaves hairy with teeth, branchlets hairless except at nodes
# <i>Mikania micrantha</i> (November 2013 bulletin)	mikania vine	South East Queensland, Burnett/Mary, Cape York, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry Tropics	heart shaped leaf & smothering habit
# <i>Mimosa pigra</i> (August 2013 bulletin)	giant sensitive tree	South East Queensland, Burnett/Mary, Cape York, Southern Gulf, Northern Gulf, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry Tropics	fern-like leaves, rose-like thorns, pink ball-shaped flowers
# <i>Neptunia oleracea/N.plena</i> (June 2013 bulletin)	water mimosa	South East Queensland, Burnett/Mary, Cape York, Fitzroy Basin, Mackay Whitsunday, Torres Strait, Wet Tropics, Dry Tropics	floating & taking over a water body, fern-like leaf
# <i>Opuntia dejecta</i>	prickly pear	Fitzroy Basin, Desert Channels, South West Queensland, Southern Gulf	spiny succulent shrub
# <i>Opuntia elata</i> (June 2014 bulletin)	prickly pear	Fitzroy Basin, Desert Channels, South West Queensland, Southern Gulf	spiny succulent shrub
# <i>Opuntia elatior</i> (June 2014 bulletin)	prickly pear	Fitzroy Basin, Desert Channels, South West Queensland, Southern Gulf	spiny succulent shrub
# <i>Opuntia leucotricha</i> (June 2014 bulletin)	prickly pear	Fitzroy Basin, Desert Channels, South West Queensland, Southern Gulf	spiny succulent shrub
# <i>Opuntia microdasys</i> (June 2014 bulletin)	bunny ears	Fitzroy Basin, Desert Channels, South West Queensland, Southern Gulf	succulent shrub, clustered yellow spines
# <i>Opuntia sulphurea</i> (June 2014 bulletin)	prickly pear	Fitzroy Basin, Desert Channels, South West Queensland, Southern Gulf	spiny succulent shrub

Species (cont.)	Common name	Watch for in this region	Field attributes to look for
<i>Pistia stratiotes</i> (November 2014 bulletin)	water lettuce	Desert Channels, Queensland Murray Darling Region, Condamine, South West Queensland	water bodies, resembles a small open lettuce
<i>Pueraria montana var. lobata</i> (February 2015 bulletin)	kudzu	South East Queensland, Burnett/Mary	vine with fragrant purple-pink flowers
<i>Salvinia molesta</i> (November 2013 bulletin)	salvinia	Desert Channels, Queensland Murray Darling Region, Condamine, South West Queensland	water bodies, leaves with water repellent hairs
<i>Senecio madagascariensis</i> (August 2014 bulletin)	fireweed	Wet Tropics	daisy to 60 cm, flowers yellow
# <i>Senegalia insuavis</i> (April 2014 bulletin)	pennata wattle or cha-om	Cape York, Mackay Whitsunday, Torres Strait, Wet Tropics, South East Queensland, Burnett/Mary	pink ball-shaped flowers, prickles along stems
# <i>Senegalia rugata</i> (April 2015 bulletin)	soap pod	Cape York, Mackay Whitsunday, Torres Strait, Wet Tropics	pink ball-shaped flowers, prickles along stems
<i>Solanum viarum</i> (April 2013 bulletin)	tropical soda apple	Burnett/Mary, Fitzroy Basin, Northern Gulf, Mackay Whitsunday, Dry Tropics	variegated cherry tomato, thorny leaves, look in sale yards, abattoirs
# <i>Vachellia karroo</i> (May 2013 bulletin)	karroo thorn	South East Queensland, Fitzroy Basin, Desert Channels, Queensland Murray Darling Region, Condamine, South West Queensland	long, white, paired thorns

Class 1 declared plant

Queensland Herbarium specimen data

Herbarium specimens are an important resource for research on the Australian flora and provide a permanent record of the occurrence of a species at a particular place and time. The [Atlas of Living Australia](#) contains information on Australian flora and fauna species collated from museums, herbaria, community groups, government departments, individuals and universities. The Queensland Herbarium's specimen records have recently been updated on the Atlas of Living Australia and are available for you to download for free, including records of weed species in your region. Specimen data from the Queensland Herbarium and other Australian State, regional and university herbaria can also be found online at [Australia's Virtual Herbarium](#).



Notifications – May 2015

Finding and reporting emerging weeds which could cause serious environmental, social and economic impacts across Queensland is a critical role of our network. **Putting them on the map** also means we can track their spread and the effectiveness of control measures across the landscape and through time.

If you see a plant in your region which raises your suspicions, please [collect it](#) and bring it to the attention of your regional coordinator and/or the Queensland Herbarium. You can find a full list of the declared plants of Queensland on the [Biosecurity Queensland website](#). (**WONS**=Weed of National Significance)

1. **Class 2 weed/WONS** *Cylindropuntia spinosior* (Engelm.) F.M.Knuth (walking stick cactus) from Bulloo Shire. Daniel McCudden, Biosecurity Queensland.
2. **Class 2 weed** *Harrisia martinii* (Labour.) Britton (harrisia cactus) from Muckadilla Reserve. Graham Hardwick, Weed Spotters' Network.
3. **Class 2 weed/WONS** *Hymenachne amplexicaulis* (Rudge) Nees cv. Olive (olive hymenachne) from Wivenhoe Dam. Perry Ward, SEQ Water.
4. **Class 2 weed/WONS** *Opuntia aurantiaca* Lindl. (tiger pear) from Laidley. Perry Ward, SEQ Water.
5. **Class 1 weed/WONS** *Opuntia elata* Link & Otto ex Salm-Dyck (Riverina pear) from Cunnamulla. Daniel McCudden, Biosecurity Queensland.
6. **Class 1 weed/WONS** *Opuntia microdasys* (Lehm.) Pfeiff. (bunny ears cactus) from Gympie. Debra Smith, Gympie Regional Council.
7. **Class 2 weed/WONS** *Opuntia monacantha* (Willd.) Haw. (drooping tree pear) from gympie. Debra Smith, Gympie Regional Council.
8. **Class 2 weed** *Sporobolus fertilis* (Steud.) Clayton (giant Parramatta grass) from south of Strathmay Homestead, Cape York. Simon Thompson, DATSI Partnerships.
9. **Class 1 weed** *Thunbergia fragrans* Roxb.(white thunbergia) from Rossville. Corey Bell, Biosecurity Queensland.



Class 1 and 2 declared plants: [Opuntia spp.](#) (prickly pears)

Prickly pears have no true leaves beyond their juvenile growth and instead, have jointed photosynthetic stem segments known as pads or cladodes which can be cylindrical or flattened. Spines and small detachable barbed bristles (glochids) grow from pits (areoles) on stems and on fruit surfaces. Read more about the diversity of *Opuntia* spp. naturalised in Queensland in the [June 2014 bulletin](#).

If you think you have seen prickly pears growing in your region, please contact the Queensland Herbarium on (07) 3896 9323, email a photo to: Queensland.Herbarium@qld.gov.au or contact Biosecurity Queensland on 13 25 23.

Your regional coordinators

Regional coordinators are your local weed experts and are able to answer your questions about training, specimen preparation and weed identification in your area. Give them a call!

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