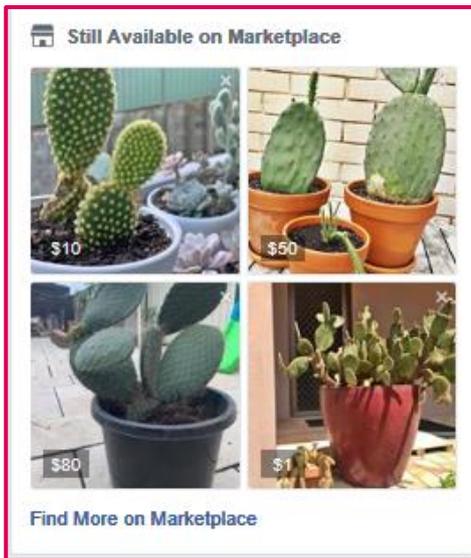


Opuntoid cacti in the Greater Sydney region by Nicola Dixon



Head to gumtree, facebook marketplace, wish, etsy or ebay on any given day and search for ‘cactus’ or ‘succulents’ and you will find dozens of ads offering a huge range of species. The plants available for sale are rarely correctly labelled and it is often difficult to know exactly which species are being traded just by perusing the photos.

But many of the species on offer are invasive weeds that have the potential to adversely impact our environment, economy and community. With online trade of plants on the rise, local council weed officers are increasingly required to have an active online presence and must be readily able to identify species that are not permitted to be sold under the NSW Biosecurity Act 2015.

So in May 2019, 44 people representing 22 different government and non-government organisations from across the Greater Sydney region met at the Elizabeth Macarthur Agricultural Institute in south-west Sydney to learn how to identify and manage Opuntoid cacti. The training was supported through the [Greater Sydney Weeds Action Program](#) and delivered by Matt Sheehan, co-author of the [Managing Opuntoid cacti in Australia : best practice control manual](#), and Director of [Wild Matters](#).



Workshop participants learning the key identifying features of different Opuntoid cacti species.

What are Opuntoid cacti?

‘Opuntoid cacti’ or ‘opuntoids’ are terms used to describe cacti species in the Cactaceae family, sub-family Opuntioideae. Opuntoid cacti are not native to Australia but 31 species are known to be in the country. 27 of those are listed as Weeds of National Significance (WoNS). 21 are known to have naturalised and infestations of these types of cacti occur in all states and territories. The problematic species found here in Australia are all from the *Austrocylindropuntia*, *Opuntia* and *Cylindropuntia* genera. Unfortunately, many of them are easily propagated and commonly available for purchase through online and physical markets.

The introduction of unspecified *Opuntia* species was attributed to Governor Phillip at Port Jackson in 1788. It is thought that the plants were introduced to support the establishment of a cochineal industry. Cochineal are scale insects that feed on *Opuntias*. They were used for dyeing the distinctive red coats worn by British soldiers. Cochineal is used as a biocontrol for *Opuntias* today.

What do Opuntoid cacti look like?



Areoles with glochids on *Opuntia microdasys*.
Photo credit: Paul Marynissen

Like all cacti they have **areoles**, round cushion-like bumps from which new shoots, spines, flowers, fruit and roots can grow. Opuntoid cacti are set apart from other Cactaceae sub-families by the presence of **glochids** – small, detachable, barbed bristles that protrude from the areoles, which is how they earned the common name of ‘prickly pear’. Glochids detach readily by disturbance such as wind or touch, often causing irritation to skin, eyes and lungs.

Opuntoid cacti have **jointed cladodes** (aka pads or stem segments). A joint occurs at the areole where new cladodes emerge during the growing season. Over time as more cladodes form a segmented stem is formed. Cladodes can break off at the joint and grow into new plants. Cladodes of plants in the *Opuntia* genera are typically flattened. Cladodes of plants in the *Austrocylindropuntia* and *Cylindropuntia* genera are commonly cylindrical.



Jointed pads on *Opuntia tomentosa*
Photo credit: Paul Marynissen

Opuntoid cacti seeds have a hard, pale coat called an **aril**, while most other cacti seeds are black.

What impacts can Opuntoid cacti have ?

Opuntoid cacti are highly competitive and have invaded grazing land, range lands, pastures, as well as native vegetation, from coastal systems to open grassland and woodlands, roadsides, gardens and recreational reserves. They also commonly occur along water courses and floodplains and have the capability to establish in the majority of soil types and climatic zones throughout Australia. They can form dense impenetrable thickets that prevent grazing and restrict access to land, shade, water infrastructure and assets. They can cause injury, infection and death to native animals and to livestock, injure humans, contaminate and devalue wool, cause bloat if ingested, harbour pests such as fruit fly and provide shelter for foxes and rabbits.

All species reproduce by vegetative means and many can also reproduce by seed. They are well adapted to spread and can be moved by wind, water and animals and are easily moved around on clothing, backpacks, machinery, vehicles and shoe laces, without detection.

Where are Opuntoid cacti found in Greater Sydney?

Several different species of Opuntoid cacti have been detected growing wild in the Greater Sydney region. Some of these records include:

- *Opuntia microdasys* in The Hills Shire, Central Coast and Blacktown LGAs.
- *Opuntia aurantiaca* in Blacktown, Hawkesbury, Campbelltown, Liverpool and Camden LGAs.
- *Opuntia schickendantzii* in Wollondilly Shire LGA.
- *Opuntia tomentosa* in Camden, Wollondilly Shire and Hawkesbury LGAs.
- *Opuntia stricta* - widespread throughout the region.

What are my legal requirements?

Under the NSW Biosecurity Act 2015, there is a prohibition on the import or sale of ALL Opuntoid cacti in NSW, except for *Opuntia ficus-indica* (Indian Fig).

The General Biosecurity Duty also applies and therefore any person who deals with these species, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.



Tiger Pear (*Opuntia aurantiaca*)
Photo: Paul Marynissen

One species of Opuntoid cacti (Tiger Pear - *Opuntia aurantiaca*) was recently included in the Greater Sydney Regional Weed Management Plan as a regional priority species. Blacktown and Wollondilly Shire LGAs are in the Core Infestation and land managers in those LGAs should mitigate spread from their land. Land managers in all other LGAs are in the Exclusion Zone and plants must be eradicated from the land and the land kept free of the plant.



Austrocyllindropuntia subulata* variety *subulata

What else can I do?

Put the 'us' in cactus!

- Contact the local council if you see them being advertised for sale or contact the Greater Sydney Regional Weed Coordinator at wadmin@hrcc.nsw.gov.au.
- Report any new infestations to your local council biosecurity weed officer.

- Add to the records of Opuntoid cacti in our region by [sending a sample to the NSW Herbarium for positive identification](#).
- Practice good hygiene after leaving sites that are infested with Opuntoid cacti.



Practicing good weed hygiene – check shoes, clothes and tyres

Where can I find more information?

Control options and legal responsibilities - www.weeds.dpi.nsw.gov.au

Best Practice Management - <https://www.agric.wa.gov.au/invasive-species/opuntoid-cacti-best-practice-control-manual>

General - www.aicn.org.au

Records of sightings - <https://avh.ala.org.au>