

June 2019, Issue #15

Welcome to the Winter edition of the Early Invader Update

2019 Victorian Weeds Conference

May 7 and 8 found the WESI team attending and presenting at the 2019 Victorian Weeds Conference held in Echuca, Victoria.

We were very lucky to have ABC's Gardening Australia host and environmentalist Costa Georgiadis as a special guest Master of Ceremonies at the event!

Costa brought some next level energy and passion to the conference, along with a wonderful ability to summarise the presentations and retell the story in his own special way, helping to really send the messages home.



Figure 1: The WESI team (Kate Blood left, Bianca Gold right) making friends with Costa Georgiadis.

Credit: Jackie Steel (DJPR).

The WESI team delivered two demonstrations at the conference. In the first we explained how to use a mobile phone to take better photos of weeds to help

with identification. Tips included taking close up photos of flowers, leaves and seed or fruits and how to find short cuts on your device. See our article "WESI tools and tips" further down in this newsletter for more ideas on taking better photos.



Figure 2: WESI doing a conference demonstration.

Credit: Bec James (DELWP).

In our other WESI demonstration, we shared information on using social media to promote invasive species projects. We explained the different social media platforms (e.g. Facebook, Twitter, Instagram etc.), terms used and social media tips.



Figure 3: WESI doing a conference demonstration.

Credit: Bec James (DELWP).

The keynote speakers at the conference were the very entertaining Chris Brodie, a Weed Botanist at the [South Australian Herbarium](#) and “Mr Buffel Grass” himself, Troy Bowman from [Primary Industry and Regions South Australia](#) (PIRSA).



Figure 4: Keynote speakers Troy Bowman (PIRSA) (left) and Chris Brodie (SA Herbarium).

Credit: Kate Blood (DELWP).

[Chris Brodie](#) specialises in naturalised (weedy) flora and identifying, collecting and documenting them in South Australia. He explained the role of the herbarium and the process involved with taking good “voucher specimens” (pressed plants) for herbarium records and identification. He also highlighted the importance of early detection of weeds, and prompt intervention as the most effective way to eradicate or contain infestations.

Troy Bowman is an Established Weeds Facilitator in the Invasive Species Unit of Biosecurity SA (PIRSA). Although he now works with other species, he has a long history with [Buffel Grass](#) (*Cenchrus ciliaris*) and has helped the WESI team with information to manage sites in Victoria.

Troy explained how to identify Buffel Grass from other grasses, the devastating impacts it causes to the surrounding environment and the “Buffel Grass Prioritisation Tool” which considers similar aspects to the WESI process. He shared the successes of the “Buffel Grass Control in Arid Rangelands Project” in raising the profile of Buffel Grass as a significant weed, dramatically increasing its management on both public and private land.

A suite of biocontrol presentations delivered by Ben Gooden ([CSIRO](#)), Rae Kwong, Jackie Steel and Greg Lefoe (all [Agriculture Victoria](#)) outlined the processes involved in discovering, testing and approving biocontrol agents.



Figure 5: Biocontrol display.

Credit: Bianca Gold (DELWP).

Community action was a strong theme in the conference with inspiring presentations from representatives of [Main Creek Catchment Management Landcare Group](#), [Tarrangower Cactus Control Group](#), the [Victorian Gorse Taskforce](#), [Mitta to Murray Blackberry Action Group](#), the [Victorian Blackberry Taskforce](#) and [Loddon Plains Landcare Network](#).

Zachariah Munakamwe (Agriculture Victoria), Callum Walker ([DELWP](#)), Sally Lambourne (DELWP) and Anthony Thomas ([Parks Victoria](#)) spoke about the issues and achievements of biosecurity and public land.

David Gopurenko & Hanwen Wu ([NSW DPI](#)) delivered an interesting demonstration of a portable DNA diagnostics for onsite identification of [Chilean Needle-Grass](#) (*Nassella neesiana*) and [Serrated Tussock](#) (*Nassella trichotoma*).



Figure 6: Lee Mead from Tarrangower Cactus Control Group.

Credit: Kate Blood (DELWP).

To close the first day, we heard from [Bioherbicides Australia](#) with a product using encapsulated dry herbicides and a new herbicide for industrial weed management from [Bayer CropScience](#).

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Day two of the conference took us on an informative and scenic field trip along Gunbower Creek, through the Gunbower State Forest and Gannawarra Wetlands of Kondrook with Wetlander Cruises. It was a great way to learn about aquatic weeds and potential early invaders in other parts of Victoria.



Figure 7: All aboard the Wetlander and aquatic weed id competition.

Credit: Bianca Gold (DELWP).

We had an educational stop along the Gunbower Creek, hearing from Adrian Martins (DELWP) and Allison McCallum (Campaspe Shire Council) about the challenges and local issues in removing *Salix* species (willow) from the site.



Figure 8: Field Trip discussion of the Willow removal project along Gunbower Creek.

Credit: Bianca Gold (DELWP).

The 2019 Victorian Weeds Conference was a huge success with over 60 attendees. Congratulations to the Weed Society of Victoria committee who made the event possible and put on such an educational event with great networking opportunities.

If you attended the conference and would like to give feedback please complete the survey sent to you via

email or email admin@wsvic.org.au with your comments.



Figure 9: Some of the WSV Committee members with Costa.
Credit: Bianca Gold (DELWP).

You can view more photos of the conference via The Weed Society of Victoria Inc. Facebook page.

Cactus Country Training Workshop

Matt Sheehan from Wild Matters together with the WESI team delivered another fantastic Opuntioide Cacti identification and management training workshop. This time we were lucky enough to have the event hosted at Australia's largest Cacti collection, Cactus Country in Strathmerton, north east Victoria.

A family-run business that began some decades ago as a hobby, now has over 4,000 species and hybrids of cacti and succulents growing in the open garden, including those of the Opuntioideae group which was our focus.



Figure 10: Welcome to Cactus Country.

Credit: Bianca Gold (DELWP).

Thirsty for cacti knowledge, participants heard about the history of Opuntioide Cacti in Australia, with 27 of 350 species world wide listed as Weeds of National Significance (WoNS) in this country. They discovered what differentiates Opuntioide Cacti from other cactus species, by the presence of glochids (barbed bristles)

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and jointed cladodes (also known as stems or pads), along with information on the best strategy for management dependent upon species.



Figure 11: Talking all things Cactus in the classroom.
Credit: Bianca Gold (DELWP).

The afternoon session took us for an educational stroll around the garden to put the newly learnt identification skills into practice using growing examples, to tell the differences between species.



Figure 12: Participants learning more about Opuntoid Id in the Cactus Country garden.
Credit: Bianca Gold (DELWP).

The Managing Opuntoid Cacti in Australia, Best practice control manual for *Austrocylindropuntia*, *Cylindropuntia* and *Opuntia* species is a useful guide to identifying and managing Opuntoid species. Our participants were trained in the use of the manual and received a copy to take away with them.



Figure 13: Practicing using the Opuntoid manual in the Cactus Country garden.
Credit: Kate Blood (DELWP).

The crew at Cactus Country were extremely welcoming and also keen to learn more about potential for invasiveness and spread of the species within their garden collection. Team WESI would like to thank Cactus Country staff for their wonderful hospitality and interest in the WESI Project.



Figure 14: A mix of Opuntia species.
Credit: Bianca Gold (DELWP).

Heywood adventures to Glenelg Eden

Bianca had her first official encounter with the Glenelg Eden when she met up with Mitch Williams in Heywood in April.

Mitch gave Bianca the guided tour of the Eden area and showed some of the weed treatment successes they've had and the code signage techniques they use to keep track of each site.



Figure 15: Treatment site signage Glenelg Eden
Credit: Bianca Gold (DELWP).

Once a site has been treated it is monitored for reinfestation or regeneration and the treatment method may be altered where required. Some sites have been treated using chemicals and others are small enough that some hand removal is effective.



Figure 16: Watsonia bulb hand removed.
Credit: Bianca Gold (DELWP).

We also confirmed that a possible Leucadendron plant was a native Leucopogon species. This highlighted the importance of taking good photos and ground truthing to get species identification correct before taking any action.

The WESI Project and Eden's have a close relationship, with Eden's using the WESI process and tools to assist them in weed management and identification.



Figure 17: Good vehicle hygiene post trip at the DELWP Heywood work centre.
Credit: Bianca Gold (DELWP).

Early Invader Manual - the great mail out!

We've been busy packing and posting out your copies of our newest publication, the Early Invader Manual. So far, we've shared 210 copies of the manual across Victoria with a couple of special deliveries interstate.

You can easily access the Early Invader Manual and other WESI tools, including the second edition of the six guides, to help you with early invader weed management on our web page <https://www.environment.vic.gov.au/invasive-plants-and-animals/early-invaders>.



Figure 18: Bianca packaging the first of the manuals.
Credit: Kate Blood (DELWP).

Weed to watch for: Amazon Frogbit

There's been a significant weed find in Victoria during May, with Amazon Frogbit (*Limnobium laevigatum*) spotted near Gembrook by Fiona Sutton, as she passed by. Although this plant is allowed for sale in Victoria, this marks the first weed record of it in the State. It has been kept and traded as a fishpond and aquarium plant.

Fiona confirmed identification with botanists and notified land managers before sharing to social media to raise awareness. As a result, Parks Victoria and Melbourne Water are working together to eradicate it from the waterway and will continue monitoring over time for reinfestations.



Figure 19: Amazon Frogbit growing in waterway near Gembrook.
Credit: Fiona Sutton.

Amazon Frogbit, also known as South American Spongeplant, is a highly invasive floating aquatic plant that impacts on water quality and aquatic biodiversity by forming a large mat across the water surface in freshwater habitats. It originates from central and South America and is tolerant of high temperatures.

This vigorous species can spread rapidly by producing runners and segments that become detached from the main plant, then spread wherever the water takes it. A single leaf can also grow roots and begin to reproduce vegetatively. Up to 2000-2500 plants can be found per square metre!



Figure 20: Roots and juvenile plant attached to runner.
Credit: Fiona Sutton.

The flowers are small and white, which develop into fleshy seed capsules maturing underwater, once fertilised. The seed itself is also very small (4-13mm x 2-5mm) and can remain viable for at least three years.

Leaves are lime green with a smooth surface, growing to a maximum of 15cm and have a distinctive bloated appearance when juvenile.



Figure 21: Leaves with badder to keep afloat.
Credit: Fiona Sutton

Mature plants grow up to 50cm in height and produce runners with juvenile plants at the end.

Techniques to “treat” infestations include mechanical and hand removal (in this case pool scoops), followed by careful disposal and thoroughly washing down equipment to prevent spread to other sites.



Figure 22: Foliage of Amazon Frogbit.

Credit: Fiona Sutton.

Early detection is the key to managing this species and you can help by keeping an eye out and reporting it to DELWP's Customer Contact Centre on 136 186.

WESI tools and tips

Accurate identification of an unknown plant is an important step to determining whether a plant is in its early stage of invasion.

Being able to photograph or video plants (including weeds) is a useful skill to help identify plants, especially if you do it well.

It allows you to record the plants in the area you manage, can be shared with others to seek help with identification, and can be used to help teach others about what is in your patch.

This is especially useful for weeds at the early stage of invasion, where they may be difficult to identify or locate.

Tips to help you take useful photos of weeds:

- Turn on the GPS feature in your phone settings, this will ensure spatial data is automatically attached to the image, meaning you don't have to have an actual GPS device to record the location.
- Take a range of photos of different aspects of the plant to gather as many of the diagnostic features as possible. Plant detail images may include flowers; buds; fruit or seed; leaves; how the leaves are attached and arranged on the stem; bark; the plant base; and roots or

underground storage organs if the plant is lifted out of the soil.

- Take some shots of the plant in its landscape, as well as close-ups. This will create context by showing the habit of the plant (e.g. shrub, tree, climber, grass) and what type of environment it is growing in.

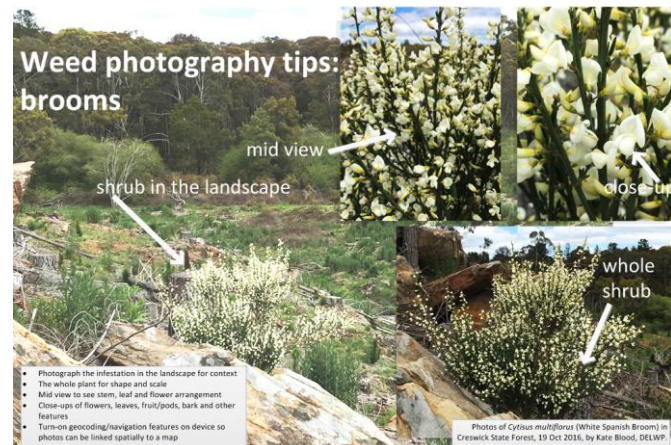


Figure 23: Example of photos to take.

Credit: Kate Blood (DELWP)

- Show the scale of the plant or plant parts by including a ruler or common object (such as a pen or set of keys).
- Photograph confusing look-alikes if there are any nearby to help determine differences.
- Ensure your photos are in focus, the target is fully in view, photos aren't too dark or too bright, there are no shadows or sun flare.
- If there is evidence of how a weed has been introduced or carried to the site, photograph this, and possible nearby sources.



Figure 24: Using "objects" for scale.

Credit: Bianca Gold (DELWP)

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For more information and tips to photographing weeds please refer to WESI Guide 2 – Looking for weeds – Name and Notify which can be found on the Early Invaders webpage at <https://www.environment.vic.gov.au/invasive-plants-and-animals/early-invaders>.



Figure 25: Cover of Guide 2 Name and notify.
Credit: WESI Project (DELWP)

Social Media Hot Topics

Don't forget to follow and interact with us on social media. You can find us at **@weedyk8** (Facebook, Twitter and Instagram) and **Bianca Goldweeds** (Facebook only). Also follow us on Yammer (for DELWP staff)

#WESIproject #EarlyInvaders

Some hot topics making the rounds at the moment are:

- ❖ Key to Salix (willow) Species and hybrids (in NZ)
- ❖ Fire and weeds – a vicious cycle.
- ❖ A prickly find in the ACT.

- ❖ Great volunteer effort to wipe out Rubber Vine in the Kimberley.

Til next time!

Follow us on social media @weedyk8 and Bianca Goldweeds (Facebook only)

Newsletter now available at:

<https://www.environment.vic.gov.au/invasive-plants-and-animals/early-invaders>



Your friendly WESI Project Team,
Bianca (aka Goldie) and Kate

If you do not wish to receive these updates, please reply 'unsubscribe' to our email and we will remove you from the list. We will not be sharing your details beyond our project.

If you wish to receive these updates via email please contact Bianca at bianca.gold@delwp.vic.gov.au to be added to the distribution list with the subject heading "subscribe to early invader newsletter".

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