

# Australian Wildlife Week Q & A's

## General Questions

### **Should snapped plastic rings go in the recycling or general waste bin?**

Unfortunately, the answer is not straightforward and can be somewhat confusing due to the recycling technology at different processing facilities.

Yes, you can separate the rings from the neck of the bottle before throwing the plastic ring in the recycling bin. However, plastic rings and lids on their own are often too small for current recycling technology to sort, so it is advised not to place them loose in the recycling bin. If the plastic ring is detected as too small, it will be automatically discarded and diverted to general waste. However, if its small size is not detected, the plastic ring is more likely to be recycled with the larger items. You may like to separate the plastic ring, place it in the bottle, and put the lid back on to ensure it gets recycled with the larger items.

Sometimes, the plastic rings and lids are not the same type of plastic as the bottle, but they can be easily separated in many processing facilities.

Ideally, it would be best for plastic rings to be eliminated during the product manufacturing stage – something the Society continues to encourage manufacturers to do to help protect native wildlife.

Please check with your council for any specific local advice around recycling plastic rings.

Additional information:

[Australasian Recycling Label](#)

[Australian Packaging Covenant Organisation](#)

### **Will you be providing a link to the recording of the Webinar?**

Yes, please find a link to the recording [HERE](#)

## Kyle Brewer

**Wandering domestic cats decimate wildlife in the suburban area I live. Hopefully, something can be done about them but not sure if the implant would work in this setting, but do you have any ideas about what we could do?**

I don't think PPIs could be used in this context. Generally, we are talking about people's pets, so any form of lethal control would (understandably) be out of the question. I think preventing predation in the first place by requiring all domestic cats to be confined to their owner's premises would be more appropriate. Some states (e.g., SA) already require desexing and registration of domestic cats, which would also aid in controlling and monitoring roaming cats. Combining all three of these approaches would likely limit predation of local wildlife by domestic cats. It sounds simple, but such an approach would require a concerted effort between state and local governments and support from the public, which would be quite challenging.

**How many of the individuals in the protected population need to be implanted? All of them?**

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To maximise the likelihood of a 'Problem Individual' being controlled with a PPI, the entire reintroduced mammal population would need to be implanted. Fortunately, we have made the PPIs compatible with conventional microchip implanters, which could be easily achieved. Hypothetically, when the native mammals are microchipped prior to their release, the PPIs could also be implanted. This wouldn't require any specialist equipment nor changes to common practice.

## **What measures are there for protecting native predators from ingesting the implant accidentally?**

Native Australian mammals generally have a small number of native predators and are predominately depredated by introduced species (namely the feral cat and European red fox). Notably, of the native predator species, many are innately resistant to the toxin used in the PPIs (sodium fluoroacetate, 1080). As a result, the dose incorporated into a PPI is often significantly below a lethal dose and poses little risk if consumed by a native predator. However, like any lethal control method, the risk to non-target species is an important consideration, and this would be assessed prior to the use of the PPIs within any reintroduction area.

## **James Trezise**

**With all the various cruel methods of killing introduced species, nothing has worked over the years and is increasing. Should you not be looking at other ways of controlling these animals? Sterilisation may be slow to begin with but effective in the long run. Poisoning and allowing a slow and very painful death to any living creature is immoral. The biggest cause of animal extinction is the loss of habitat. Why do I not see an active will program to promote plant-based diets?**

Horses will never be poisoned in Kosciuszko. The key lethal control measure would be shooting in line with RSPCA guidelines. See here for some more information on the feasibility of fertility control, which, as mentioned, will not drive down the current high levels of horses in the park. <https://theconversation.com/hold-your-horses-brumby-fertility-control-isnt-that-easy-97313>

## **What do you do to prevent the horse population growth?**

It is generally accepted that park managers need the full mix of control methods to tackle the current number of feral horses, including trapping and rehoming along with lethal control measures.

## **Bethany Nordstrom**

### **Do we know much about the species historic range?**

While we know that the seasonal clay-based wetlands the turtles rely on extended throughout the Swan Coastal Plain, but the turtles historic range is not well known. All records come from a

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narrow strip of the Swan Coastal Plain (west of the Darling Range and south to the Perth airport). It is hard to figure out retroactively as the Swan Valley was the first part of WA developed for intensive agriculture, and by the 1950s, most had already been cleared. The western swamp turtle was thought to be extinct until it was rediscovered in 1953, when a lot of its habitat had already been altered.

## **How can you ensure that they will not negatively impact the environments you are putting them in to colonise?**

I did not really have time to go into it in the five minutes, but we are also working on that. We expect the only impact they will have on the ecosystem is via the food web. A larger freshwater turtle naturally occurs in the southern seasonal wetland sites (*Chelodina oblonga*). I will also collect faecal samples from those turtles and compare what the two species are eating via DNA metabarcoding. The swamp turtles are much smaller than these naturally occurring long necks and eat a smaller range of prey (tadpoles/macroinvertebrates), so we expect it will have less impact than a species that already naturally occurs in the area.

The swamp turtles released are juveniles (between two and five years old) and have radio tracking tags on them, so if they have adverse impacts, we can find them and remove them from the site. They don't start reproducing until twelve to fifteen years when environmental conditions are ideal (so it could be a bit later in a cooler southern site).

## **I had no idea the western swamp turtle was the first species translocated due to climate change! Is this the first occurrence in Australia or worldwide?**

The western swamp turtle is the first vertebrate species undergoing assisted colonisation due to climate change (intentionally moving into an area not previously found to mitigate a threat) worldwide! There are lots of examples of assisted colonisation translocations done in Australia to mitigate the threat of invasive species (foxes and cats), but the western swamp turtle is the first vertebrate in the world to mitigate climate change.

### **Jenna Draper**

## **Is there any evidence of native mammals consuming the plant?**

I have not seen or even heard any evidence of native mammals consuming the plant. Toxicity studies on native mammals are minimal, while most are conducted on livestock because of the huge losses Pimelea poisoning (St George's disease) has caused the beef industry. Bad for business, potentially handy for conservation.

## **Did you see any introduced species assisting with pollination?**

Yes, I have seen some introduced species pollinating *P. microcephala*. I have not yet completed a full study, but I have noticed that other sites, in better weather, European honeybees are often collecting pollen.

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## Kerrie Allen

**I have heard about monogamy in swans, but not ducks. During the pandemic, I have heard many a conversation about people who want to go hunting again. Is there any evidence that the reprieve has given our waterbirds in Victoria a chance to flourish?**

We will not know for sure about bird numbers until the Centre for Ecosystem Science releases their next survey - hopefully mid-December.

## Karli Mylius

**During your research on microplastics, have you investigated plastic alternatives much at all, such as certified compostable, bamboo, etc.?**

Not so much for this project. However, some materials do not produce microplastics, such as cotton, linen, and bamboo but if they are not one hundred percent this material, they are likely also made with some plastics, unfortunately.

## Shae Jones

**I would be interested to know if Arbuscular Mycorrhizal Fungal alters the broader nutritional profile of native grasses under environmental challenges. Will you be looking into this at all? Or know of anyone who is?**

AMF's most recognised role is in increasing nutrient uptake. This is particularly true for Nitrogen and Phosphorus, but there can also be increased uptake of other nutrients and micronutrients as well. A lot of the work done on grasses on this topic are based in North America and Europe, where soil nutrient profiles can be drastically different to the soils found in Australia.

My project will focus on how AMF changes plant tolerance to extreme stress. At the moment, I do not directly measure how potential changes in nutritional profiles influence responses to environmental changes. However, I will be indirectly measuring this by measuring changes in the production of proteins, antioxidants, and other stress-protective compounds. Currently, I do not know of anyone looking at this specific question.