



Replacing Weeds with Suitable Native Species

TIN Topic 2

The best regeneration strategies for both flora and fauna are long term. This is not to say that we just accept the weeds on our sites because they are

- providing habitat or food source for native fauna,
- or preventing erosion,
- or maintaining continuous canopy cover in a wildlife corridor,
- or providing shade and shelter in an otherwise bare landscape.

Rather we need to at least consider all these positive aspects of weeds before we decide on the best strategy for gradual or mosaic removal, and that the regeneration, either natural or assisted, should replace not only the aesthetic value in the revegetated landscape but the functional values as well.



What good is a willow?



An excellent example of the turn-around in the thinking of post-1788 boat people is the saga of Camphor Laurel and Willows, which are now listed as noxious weeds in some areas.

When the European settlers moved into the Australian landscape, they cleared enormous tracts of lowland and riverine rainforest for both cabinet timbers and as farmland.

They then planted Camphor Laurels as shade and shelter trees for their stock, and planted Willows to hold the river banks together.

If they had been thinking strategically, they could have selectively left native laurel species or other rainforest species as shelter trees (as they did with some native figs), and not cleared the native forest from the riparian zones.

The legacy of these early settlers is a massive weed problem with both of these tree species, which, ironically, modern Landcarers are trying to overcome by strategically logging out Camphor Laurel as a cabinet timber, by removal of Willows from the riverbanks and by replacement planting of indigenous rainforest trees.

Ironic also is the fact that the presence of Camphor Laurel allowed the survival of frugivorous (fruit-eating) fauna, such as the Topknot Pigeon, the White-headed Pigeon (both of which have been sighted recently at Salts Bay eating Cabbage Tree Palm fruit), the Wompoo Pigeon, the Rose-crowned Fruit Dove, the Superb Pigeon and the Black Flying Fox, all of which were threatened with extinction following the destruction of their rainforest habitat on the east coast of NSW and Queensland.



Camphor Laurels provide an important winter food source for fruit-eating birds and bats.



Camphor Laurel, the animal attractive fruit and the trees in the bushland.

How is this applicable to our sites?

Let's look at a common scenario locally: a relatively small reserve, surrounded by houses with backyard exotic plantings; a degraded and weed-invaded creekline because as the lowest point in the topography that's where the sewer line goes; a developing "rainforest" understorey of natives (Cheese Trees, Lillypillies) and exotics (Small-leafed Privet, Large-leafed Privet, African Olive, Lantana, Camphor Laurel).



A small reserve, with a Lantana dominated developing rainforest.



A weed invaded creekline.

What do we do? Where do we start?

Do we try to put back the pre-suburban native plant community? Not likely, because of the changed hydrology and nutrients from surrounding gardens.

How are the “rainforest” species, both native and exotic, getting there? Birds? Possums? Water flow? Probably a combination of these dispersal mechanisms.

We want to get rid of the weeds but we don't want to lose the native wildlife.

Ideally...

- We start our weeding at the top of the catchment but this isn't always possible.
- We weed in mosaics because we want to maintain habitat zones.
Mosaic weed removal is a process whereby small areas are weeded but enough plant material is left next to these patches to provide all the benefits that vegetation offers. It is a target some leave some process.
- We do not weed and/or plant more than we can maintain as a group or as individuals.
- Over time we aim to replace weed species with natives that perform the same function: We plant similar fruiting species, Lillypillies, Blueberry Ash, Muttonwood, Sandpaper Fig, Native Olive, Native Elderberry, Red Ash, and native laurels to replace the fruiting weed species, the Privets and Camphor Laurel.



Privet can be replaced by...



Lillypilly



Muttonwood

- We replace the dense and prickly Lantana with prickly native species, such as *Citriobatus* / Orange Thorn, *Melaleuca nodosa*/Prickly-leafed Paperbark, *Bursaria*/Blackthorn or *Maclura*/ Cockspur Thorn, or with dense native vines, such as *Cissus* spp. /Native Grapes, *Pandorea* sp./ Wonga Wonga Vine and *Stephania*/Snake Vine.



Lantana can be replaced by...

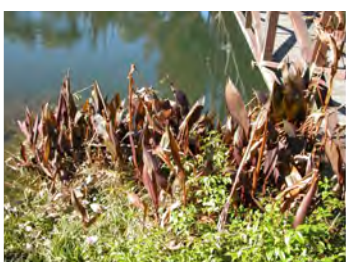


Citriobatus



Bursaria

- We replace the exotic Elephant's Ears, Canna Lilly, Indian Ginger, Palm Grass and Giant Reed on the creek bank with natives, *Alocasia* / Elephant's Ear, *Crinum*/Stream Lily, *Alpinia* /Native Ginger, *Lomandra*/ Mat Rush and *Dianella*/Flax Lily.



Canna Lilly can be replaced



Crinum - Stream Lilly



Alpinia -Native Ginger

For every weed on our sites, there is probably a native plant that will perform the same function and occupy the same niche.

In time with a gradual and systematic removal of weed species, and replacement with suitable natives, where there was once a weed-invaded and degraded creekline, there will be a bio-diverse, native riparian plant community providing habitat for native fauna.