

Happy Valley Weeding Trip: 19th - 25th November 2017

Volunteers:

Peter Shooter - Nambour
Chris Breitenbach - Auchenflower
Sue Findlay - Nambour
Peter Stirk - Holland Park
Judy Powell - Pomona
Peter Riedinger - Pomona

Abrus precatorius subspecies africanus

This is the 16th weeding trip I have led to Happy Valley, with our main focus being on the elimination of this species from Happy Valley.

While we have made huge inroads and the population is now a very small fraction of what it was at the start of the program, there is still work to do, and will be well into the foreseeable future. There needs to be ongoing mopping up and wider inspection for other so far undetected infected areas.

This trip we re-examined areas where the population is now at very low levels, to mop up and most importantly prevent any new flowering and seed set. The majority of our target area has very low infestation and all but no mature plants. Hopefully very little to no new seed will set this summer in the bulk of the originally infected areas.

Because we are working on such a big area, in excess of 40ha, ensuring there are no remaining infestations requires extensive traversing of the area looking for previously undiscovered infestations. This trip we discovered two new areas on our last day. Both are quite large and will require considerable work to control them. One is in the area between Yidney Rocks Bypass Road and the beach and the other is slightly South West of the communication tower. We did no work on either of these areas this trip. They will be our first jobs in February. We will also establish new permanent photo points at both places.

There had been good Spring rainfall since the last trip, resulting in quite a bit of germination and resultant small seedlings. These were mainly small enough to hand pull, or were spot sprayed with 1.5% Roundup.

Germination Trial:

In March 2016 we established a germination trial to observe the rate of seed germination and viability in the soil over time. 1000 seeds were planted at Boreen Point in sandy soil conditions not dissimilar to Happy Valley. They received no artificial watering. One month later 14.9% had germinated and this slowly increased until August 2016 when 19.8% had germinated. Since then, none have germinated, suggesting the seeds do not remain viable in the soil long term.

This is extremely pleasing and makes our plan to prevent further seeding all the more critical, and suggests with vigilance and persistence we can eliminate this weed faster than may otherwise have been the case.

We collected a further 1000 seeds this trip and intend to replicate the trial.

Other species:

The bulk of our time this trip was committed to Easter Cassia (*Cassia pendula* var *grabata*) and Lantana (*Lantana camara*) control. This work was done mainly in the area between Yidney Rocks Bypass Road and the beach. Our main focus was on Cassia, and in places we deliberately left lantana, as to remove it all at once would leave the area excessively bare and open to erosion. These areas will need subsequent follow up to reduce the lantana population as the area revegetates.

The same work was also done on the North side of the town over the first sand dune adjacent to the Ambulance Station. Here we also mopped up *Abrus*.

This area is considerably better now than when we started this program, but will need follow up to hunt down the remaining *Abrus*, while continuing our work to reduce the Cassia and Lantana population.

Spring rains had resulted in considerable Cassia germination across the entire site, which will require more follow up in the medium and long term. This clearly shows that destroying mature plants and stopping seed set is essential.

A number of other species such as basket asparagus (*Asparagus aethiopicus*) were taken out across the site, and a few broad leafed pepper (*Schinus terebinthifolius*). To my surprise some large broad leafed pepper trees cut previously had rooted on the ground, requiring frustrating reworking.

Cassia and Lantana were hand pulled where small enough. Larger ones were cut low and the stump squirted with 100% roundup.

One permanent photo spot was established in the Yidney Rocks Bypass Road area in a valley heavily infested with Cassia and Lantana.

Large sections of the area between Yidney Rocks Bypass Road and the beach remain heavily weed infested making access and work extremely difficult. Cassia and Lantana are intertwined, multi stemmed and sprawling with very long stems, sometimes going many metres along the ground and up into trees. There are months of work ahead of us in this area to attain a reasonable situation.

In April/May we intend to work in conjunction with the Fraser Island Association on a Cassia blitz, as it will be in flower and easy to locate. We strongly encourage other Land Care groups to join us for this venture.

Because *Abrus* has virtually been eliminated at previous photo monitoring sites, it is proposed to set up new photo monitoring stations before teams move into new areas and afterwards.

Next trips to Happy Valley in 2018

4th - 10th February

29th April - 5th May

6th - 12th August

18th - 24th November

Peter Shooter



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