



St. Arnaud Field
Naturalists

Project Report

Small Milkwort Populations

Grazing Exclusion Studies in Kara Kara National Park



Small Milkwort (*Comesperma polygaloides*) is listed as threatened under Victoria's Flora and Fauna Guarantee Act(1988) and described as "an uncommon component of the grassy woodlands of the Wimmera, extending east to the Bendigo area"

Once widespread it is now confined to a few scattered patches across the inland slopes of Victoria with only a few plants known from our region.

Its main threats to survival are browsing, grazing, land clearing and probably fire.

In 2010, Small Milkwort was discovered on private property at Carapooee West.

A small plant protected by a farm fence. This colony is now presumed lost to overzealous clearing for fencing.

Searches by the Field Nats in late 2010 turned up another 2 patches of this tiny plant, remarkable only for its summer flowering habit, just inside the Kara Kara National Park.

In 2011 with Parks Victoria's assistance, the Club fenced out the major colony to protect the area(on a buckshot gravel ridge!) from grazing and browsing animals (sheep, rabbits, hares, wallabies, kangaroos). In 2012 we fenced the smaller colony which is about 1/2km away from the main patch.

In conjunction with Parks Victoria we have continued to monitor the progress of our grazing exclusion plots.

Small Milkwort belongs to the Family Polygalaceae and is one of quite a number of Australian plants described as "myrmechorous"- we leave you to work out the pronunciation.



Enclosure established 2012 Rabbit and Hare-proof, Kangaroo, Wallaby and Sheep-grazing control fences



In 2012 we fenced the smaller colony which is about 1/2km away from the main patch. Marking new plants for mapping.

It means that the seeds bear a structure known as an elaiosome which is food for various ant species.

Many wattles have this feature too.

The seed is not harmed but ejected from the ant nest and so colonies of plants grow up in much the same place because of this ant "rubbish tip" habit.

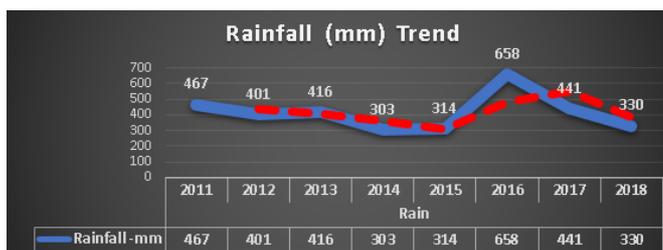
Small Milkwort is a great survivor having an underground rootstock, proof against hard seasons.

In 2016, a new plant was discovered about 100m from the small colony and it is quite possible that there may be more plants out there. Our 2 fenced plots are giving us a look at the survival of this inconspicuous species.

As part of the rich tapestry of life around us we need to ensure its survival; we have no real idea as yet of its role in the ecosystems it inhabits but it deserves our consideration and protection.

Here are the results of the monitoring surveys carried out since 2011.

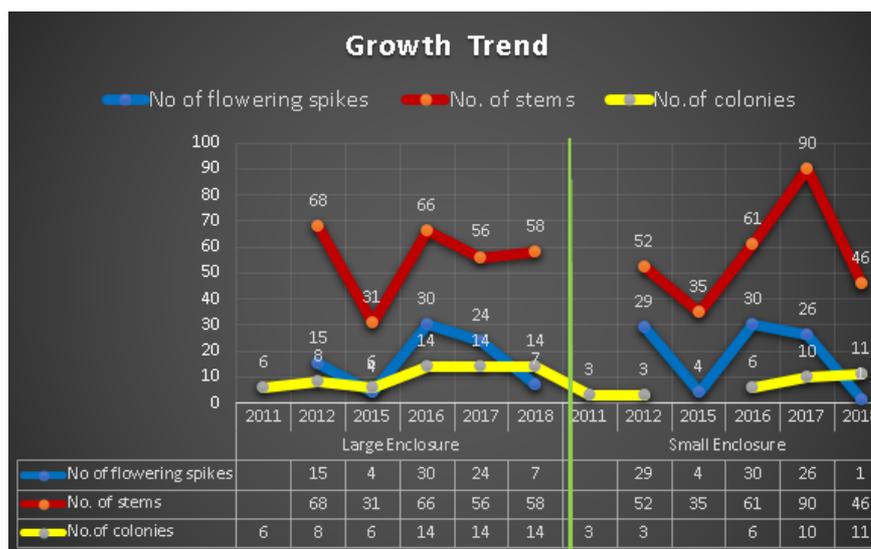
2013 and 2014 no monitoring occurred.



There is correlation between rain fall and the number of flowering spikes.

While the populations seem to be constant, we need to work out why we are not seeing new plants.

We need to determine what factors are important to monitor - whether or not viable seed is produced and where it is going.



Anne Hughes
President