Threatened flora bushfire recovery – monitoring results

Mobilising and supporting a community-led fire recovery initiative for KI threatened flora

Outcomes April 2022



Asperula tetraphylla (Mountain Woodruff) – vulnerable in South Australia

This species was regenerating mostly via reshooting from perennial rootstock. Drought and weeds threaten this species. Mountain Woodruff cover more than doubled where a site was weeded, vs halved at an un-weeded site.

Volunteers weeding one of the sites





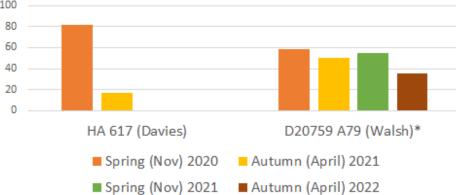
Calytrix smeatonia (KI Heath-myrtle) – rare in South Australia

This species appears to be declining at one site (Davies) and appears relatively stable at the other (Walsh). There are ongoing threats with invasion by Tasmanian Blue Gums and dieback from the root mould Phytophthora.





Calytrix smeatoniana Numbers of plants in quadrat

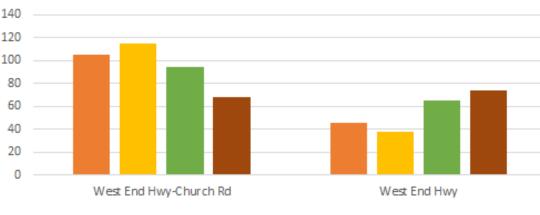


Cheiranthera volubilis (Twining Finger-flower) – vulnerable in SA and AUS

This species resprouts from root stock after fire. Numbers of individuals seem to be declining at one site (105 in spring 2020, to 68 in autumn 2022) and increasing at another (45 in spring 2020, to 75 in autumn 2022).



Cheiranthera volubilis Number of plants in quadrat



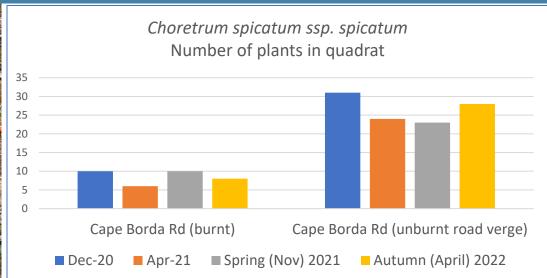
Spring (Nov) 2020 Autumn (April) 2021 Spring (Nov) 2021 Autumn (April) 2022



Choretrum spicatum ssp. spicatum (KI Spiked Sour-bush) – vulnerable in SA

This species appears relatively stable. Similar numbers of individuals were recorded in spring 2020 (10, 24) and spring 2021 (10, 23) in both burnt and unburnt sites, with both sites showing only a slight reduction in abundance since the baseline surveys.



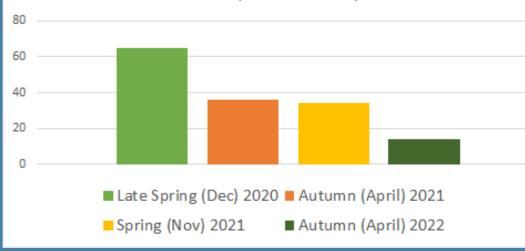




Correa calycina var. halmaturorum (De Mole River Correa) – endangered in SA

The number of plants was stable between spring 2021 and autumn 2021 (36,34). This species is vulnerable due to its highly restricted distribution and is also threatened by weeds, infrequent fire and the root mould *Phytophthora*. In January 2022 the site was damaged by flooding. Its numbers were down (14 plants in the quadrat) in the autumn 2022 survey but there were still seedlings present and some of the more established plants appeared healthy.

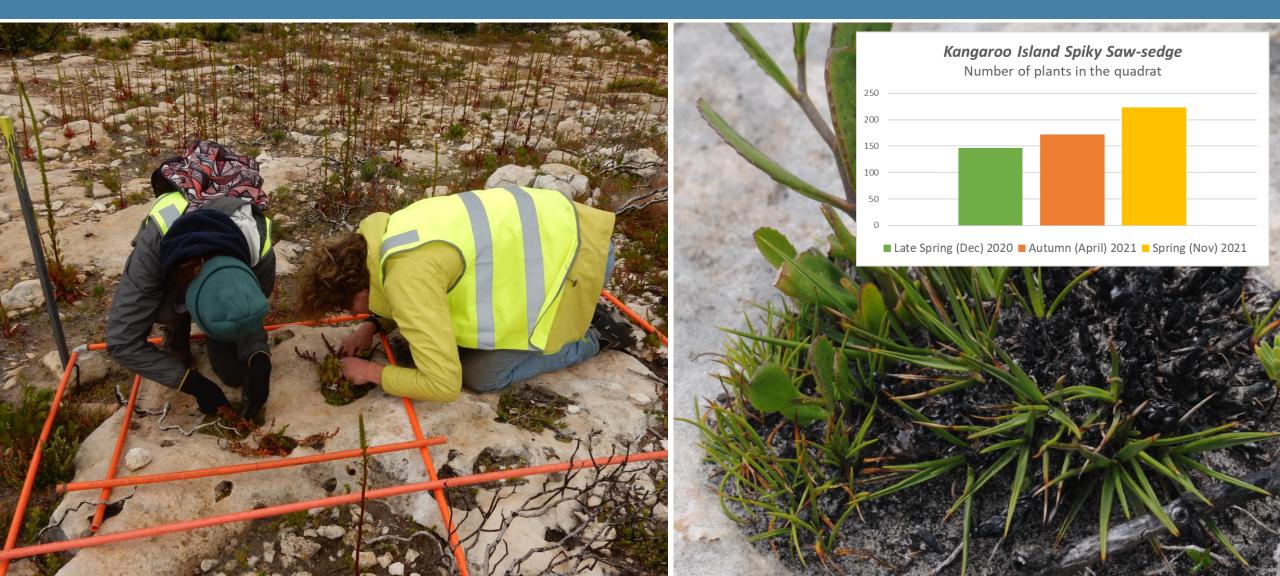
> **De Mole River Correa** Number of plants in the quadrat





Gahnia hystrix (Kangaroo Island Spiky Saw-sedge) – vulnerable in SA

This species appears to be increasing, with 147 plants counted in spring 2020, 172 in autumn 2021, increasing to 223 the following spring.

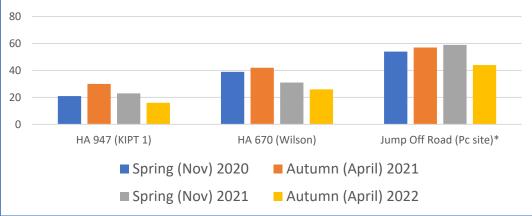


Grevillea lavandulacea ssp. rogersii (Roger's Spider Flower) – rare in SA

This species appears to be relatively stable. From spring 2020 to spring 2021, there was a decrease at two sites. In autumn 2022 all sites experienced a decrease, finishing with lower numbers than the baseline survey in 2020. Ongoing threats are *Phytophthora*, weeds such as Tasmanian Blue Gums and roadworks.



Grevillea lavandulacea ssp. rogersii Number of plants in quadrat





Grevillea halmaturina ssp. halmaturina (Prickly Grevillea) - vulnerable in SA

Overall this species declined by 28% (Thomas) and 24% (Playford Hwy) since the baseline spring 2020 survey. It is threatened by competition from weeds and disturbance from roadworks.

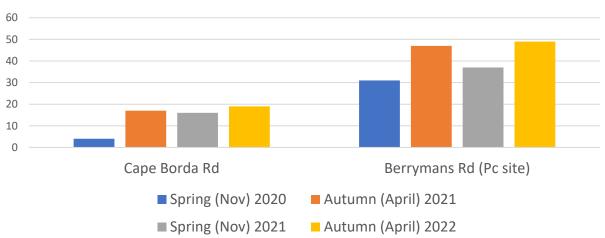


Hakea aenigma (Enigma Hakea) - rare in SA

This species was found to reproduce only via suckers. It appears to be increasing. Its clonal nature makes it vulnerable to decline. Other threats include *Phytophthora*, roadworks and weeds.



Hakea aenigma Number of plants in quadrat





Irenepharsus phasmatodes (Kangaroo Island Cress) - rare in SA

This species regenerates quickly after fire then dies off. Fifty (50) Plants were observed in Spring 2020, and all had died off one year later.





Leionema esquestre (Saddleleaf Phebalium) - endangered in SA and AUS

This species declined from 197 in spring 2020 to 82 in spring 2021. Browsing by macropods exacerbated this decline so the project replaced and fixed fencing to remove grazing pressure. It requires fire or disturbance to germinate.

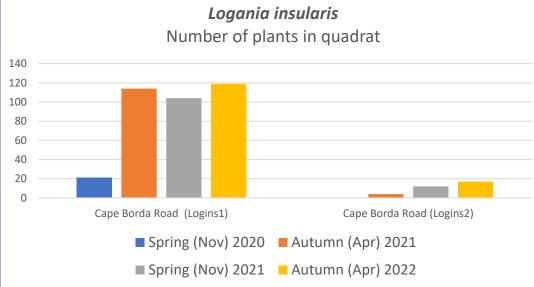


Leionema equestre Number of plants in quadrat 100 100 100 100 North Coast Rd Spring (Nov) 2020 Autumn (April) 2021 Spring (Nov) 2021 Autumn (April) 2022



Logania insularis (Kangaroo Island Logania) - vulnerable in SA and AUS

This species has increased over the period of our surveys. It requires fire or disturbance to germinate, but plants are slow to establish and requires enough time to set seed between fires.





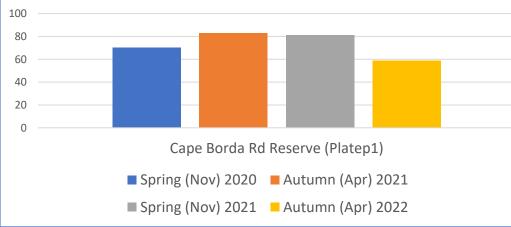


Platysace heterophylla var. tepperi (Lobed Platysace) - rare in SA

This species has declined slightly since the baseline 2020 survey (-16% between 2020 & 2022). Plant numbers increased from 70 to 81 between spring 2020 and 2021 and declined to 59 in 2022.



Platysace heterophylla var. tepperi Number of plants in quadrat

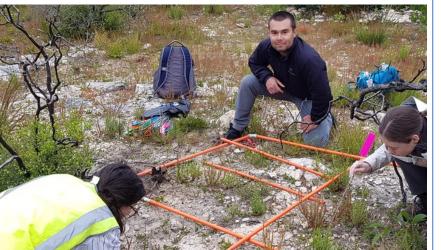




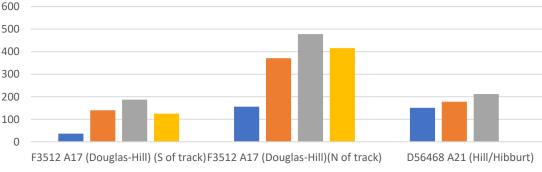
Stylidium tepperianum (Tepper's Trigger Plant) - rare in SA

Plant abundance followed a similar pattern at all sites. Seedling numbers increased both in response to rainfall events, and during lower-than-average rainfall periods, finishing with higher numbers overall than the 2020 baseline survey.





Stylidium tepperianum Number of plants in quadrat



Late Spring (Dec) 2020 Autumn (Apr) 2021

Autumn (Apr) 2022

Spring (Nov) 2021



Zieria veronicea ssp. insularis (Pink Zieria) - rare in SA

Number of plants increased markedly at all sites at each monitoring period. Seedling numbers increased both in response to rainfall events, and during lower-than-average rainfall periods.

