



Friends with Benefits - Supporting the post-fire recovery of mutualistic insects

Lithgow - Oberon Landcare Association Inc.

Purple Copper Butterfly post-fire habitat restoration project

The issue

The 2019/2020 Gospers Mountain bushfire and associated summer backburning impacted numerous Purple Copper Butterfly (*Paralucia spinifera*) habitat sites in and around Lithgow.

Of the known 38 sites, at least 11 of them were affected by varying degrees of medium to high-intensity fire at critical points in the lifecycle of the Butterfly.

Following the fires, habitat sites were overrun with ecosystem-transforming weeds such as Scotch and Montpellier Broom. Both species (and others) threaten native bushland and habitat; affecting the butterfly's ability to successfully and freely forage for food when flying.

The Purple Copper Butterfly is an endangered species that has a mutualistic relationship with Blackthorn (*Bursaria spinosa* ssp. *lassiophylla*), and a species of ant (*Anonychomyrma itinerans*). The Butterfly exists in a restricted habitat zone that requires the above components, plus altitudinal restrictions, and the specific subsp of *Bursaria* for it's larvae to feed upon, in order to successfully survive.

The solution

A partnership between Lithgow Oberon Landcare Association, the 'Save our Species Program' and the Central Tablelands Local Land Services collectively applied to the Federal 'Wildlife and Habitat Bushfire Recovery Fund' to deliver site-based monitoring post-fire, weed control works to improve habitat areas, and community awareness raising activities.

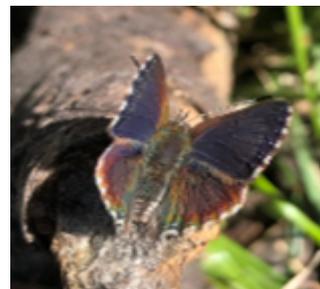
The grant application was successful and two community days have since been held providing information to the local community regarding the value of this local endangered species. One event controlled weeds across 2 ha of butterfly habitat, the second event saw community volunteers establish 150 plants to increase the diversity of available post-fire forage plants for this coming Spring.

The impact

Nineteen hectares of weeds controlled across the district following the 2019 / 2020 bushfires. This is a significant biodiversity gain as it improves the Purple Copper Butterfly's access to available habitat and forage flora.

150 ground cover plants planted on a community day.

Two surveys conducted - species occupancy to determine target species survival post bushfires and a vegetation survey - both giving greater insight into the species survival after the 2019 / 2020 bushfires.



Key facts

- 2019/ 2020 bushfires affected 11 known Purple Copper Butterfly sites
- Partnership between Central Tablelands LLS, DPIE 'Save Our Species Program' and Landcare funded to work across numerous tenures on impacted butterfly habitat
- 2 community days weeding and planting ground layer natives
- 2 monitoring surveys assessed species occupancy and vegetation health

Project Partners



This initiative is made possible by the NSW Landcare Enabling Program, a collaboration between Local Land Services and Landcare NSW supported by the NSW Government.