



SAVING OUR SPECIES

Purple copper butterfly

Paralucia spinifera

Endangered

The purple copper butterfly (*Paralucia spinifera*) is one of Australia's rarest butterfly species. It is also known as the Bathurst copper butterfly.

The purple copper butterfly is a small butterfly with a thick body, and a wingspan of only 20–30 millimetres. The upper sides of its wings are black or deep brown, with a copper, green or purple iridescence when they're sunning. The undersides of its wings are patterned with subtle brown, black and grey. Its black antennae are dotted with white spots and have a black tip.

This species is only found in the Central Tablelands of New South Wales. It is restricted to elevations above 850 metres in open woodland where a type of blackthorn (*Bursaria spinosa* subsp. *lasiophylla*) that grows at higher altitudes is found. The larvae of the species feed only on this type of blackthorn.

Butterflies emerge in spring (September to October) to mate and lay eggs, and they only live for about two weeks. On fine sunny days during the middle of the day they can be spotted flying low to the ground and close to patches of blackthorn.

A particular species of ant 'husbands' the purple copper butterfly larvae in much the same way a farmer benefits from keeping livestock.

The ants house the butterfly larvae in their nest, and shepherd them out to feed every night, keeping them safe from predators. In return the larvae provide the ants with a sugary exudate called 'honeydew' to feed on.

Larvae hatch between October to January and rely on a 'mutualistic' relationship with a species of small black ant, *Anonychomyrma itinerans*. The ants escort the caterpillars up the plants to feed at night and protect them from predation, receiving a sugary reward in return. Ants also host the pupae within their nest from February to August.

The purple copper butterfly is declining in numbers due to threatening processes, including habitat loss or modification through clearing, spraying, grazing, inappropriate use of fire, weed invasion and illegal collection.

Support local action and help save the purple copper butterfly



Paralucia spinifera. Photo: Stuart Cohen/DPIE



Paralucia spinifera caterpillar. Photo: Stuart Cohen/DPIE

Butterflies are not only a beautiful insect but play several important roles in the environment. They act as a pollinator and a food source for other species and are an important indicator of a healthy ecosystem.

It is found in a total of 37 sites comprising less than thirty hectares of habitat. It is thought that native vegetation clearing has reduced the area of potential habitat to small isolated remnants. The small size of these remnants compounds the harm that the various threats to the species may have on the remaining sites.

This species has been assigned to the Site-managed stream for management under the *Saving our Species* (SoS) program. This species requires site-based management in order to meet the objective of SoS to secure it from extinction in New South Wales for 100 years.

The purple copper butterfly recovery effort aims to:

- stabilise the population through the prevention of threatening processes, then to increase the in-situ population through habitat management, with the aim of down-listing the species to vulnerable
- inform and involve land managers and the community in recovery actions to enable participation in the conservation effort
- encourage appropriate research and assessment of potential and known sites to gain an understanding of the distribution, population dynamics and ecology of the species.

Project partners include the NSW Department of Planning, Industry and Environment, Central Tablelands Local Land Services, NSW National Parks and Wildlife Service and landholders.

You too can help

If you want to support managers in looking after purple copper butterflies or in caring for other threatened species you can find out more about volunteering and research projects related to threatened species at environment.nsw.gov.au/SOS

If you are interested in inspiring your community to save this species, you can be on the lookout for this beautiful butterfly in appropriate habitat in Spring. You can protect existing native vegetation and plant new native species in your gardens and on your properties. Native blackthorn can be found in nurseries in the Central Tablelands area.

SoS is a NSW Government flagship program targeting on-ground action to secure threatened plants and animals from extinction. The program aims to increase the number of species that can survive securely in the wild.

SoS can only succeed if we work together. We need your support to ensure that today's actions help to secure the future of NSW's threatened species.

Find out more about threatened species in New South Wales and the SoS program at environment.nsw.gov.au/SOS