



SAVING OUR SPECIES

Giant dragonfly

Petalura gigantea
Endangered

The endangered giant dragonfly is one of the largest dragonflies in the world. It occurs along the coast and ranges of New South Wales and south east Queensland and breeds in permanent peat swamps and bogs. The Blue Mountains and Newnes Plateau areas are considered a stronghold for the giant dragonfly.

The giant dragonfly has large eyes and a brownish-black segmented body with light yellow markings along the back and sides. Females are larger than males with an abdomen length of 8 to 9.5 centimetres and a wingspan of up to 12.5 centimetres. Males have an abdomen length of 6 to 7.5 centimetres, a wingspan up to 11 centimetres.

Larvae may spend as long as six to 10 years in burrows which are in wet ground near swamp edges. It is important that the ground water levels remain high enough during this time so that the eggs and larvae do not dry out. Adults then emerge for a single late spring to summer flying season.

In New South Wales, the giant dragonfly is distributed in patches of peat swamp habitats, many of which are threatened.

The giant dragonfly is also known as the south-eastern petal tail, as the male has petal-shaped claspers at the end of the abdomen – a unique feature of the family

The giant dragonfly is one of the world's largest dragonflies still in existence.

You can tell this species apart from other large dragonflies by its widely separated eyes.

There are wing fossils that are 190 million years old which look remarkably similar to those of the giant dragonfly.

The species is threatened by loss and degradation of habitat including urban development, lowering water tables (e.g. from longwall coal mining), more intense fire regimes and climate change

Dragonflies catch their prey by forming a basket of their spiny front and middle legs. They are expert fliers with the ability to hover and fly backwards as well as forwards. They have two large eyes and

Support local action and help save the giant dragonfly



A male giant dragonfly in a sedge swamp in the Blue Mountains. Note the petal-shaped claspers at end of the abdomen. Photo: Dr Ian Baird

three small eyes, called ocelli, which allow for excellent vision.

Projects to help save the giant dragonfly are focussing on protecting the essential peat swamp habitat. The health of local peat swamps is integral to the survival of this species. The Saving our Species funded *Swamped by Threats* project is a 10-year multi-agency collaborative project targeting swamps that are damaged on the Blue Mountains and Newnes Plateaus.

The *Swamped by Threats* project is addressing threats and improving the condition of over 40 swamps through activities such as stormwater and access management, erosion control, swamp rehydrating, weeding and bush regeneration.

The Blue Mountains City Council Bushcare group runs 'Swampcare', the flagship program related to Blue Mountains swamps. Swampcare hosts educational workshops to increase awareness of threatened species like the giant dragonfly and runs practical workshops to help volunteers develop the skills to care for swamps. Central Tablelands Local Land Services and Forestry Corporation also run community education and bush regeneration events to protect the swamps on the Newnes Plateau.

Swampcare events are free, fun, informative and all work towards helping preserve our unique upland swamps. Visit the website for more information or to get involved

www.bmcc.nsw.gov.au/environment/swampcare

Recently emerged female *Petalura gigantea* perched on the empty shell. Photo: Dr Ian Baird



Swampcare volunteers in the Blue Mountains. Photo: Blue Mountains City Council

Helping to protect the habitat of the giant dragonfly will also protect the endangered Blue Mountains water skink, which shares the same peat swamp habitat.

If you want to find out more about volunteering and projects related to the giant dragonfly and other threatened species, you can find out more on our website:

www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/help-save-our-threatened-species

Saving our Species 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.

Saving our Species 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.

To find out more about threatened species in NSW and the Saving our Species program: www.environment.nsw.gov.au/SOS