

SPECIES FEATURE

KAPOKAPOWAI | KAPOWAI Carové's Giant Dragonfly *Uropetala carovei*

The Brook Waimārama Sanctuary is home to New Zealand's largest dragonfly, *Uropetala carovei*, an endemic insect also known as the Bush Giant Dragonfly, Carové's Giant Dragonfly and kapokapowai or kapowai. Females are slightly larger than males and may grow 98mm long with a wingspan of up to 130mm. Males can be identified by a pair of petal-shaped appendages at the tip of the abdomen. Both males and females are dark brown with pale yellow spots along their thorax and abdomen. This colouration may break up their outline, making them more difficult to spot, which is a type of camouflage known as disruptive colouration.

Adults may be seen flying around from mid-November to mid-May. Males aggressively defend breeding territories along the banks of streams. Following copulation, the female lays her eggs along shaded stream beds using her ovipositor to attach eggs to clumps of moss. When the eggs hatch, the naiads (larvae) tunnel into soft earth where they live in a chamber half-filled with water for about five years. The naiad stage is aquatic and the only one in which growth occurs. As with all insects, naiads have a tough protective exoskeleton. Growth can only take place when an exoskeleton is shed and replaced with a larger one that has formed underneath. Following a moult, a naiad inflates its body, stretching the pliable new exoskeleton before it hardens, disabling further growth until the next moult.

Naiads emerge at night to catch prey that pass by their burrow. Kapokapowai means 'water snatcher', which is a reference to the way naiads shoot out their long, extendable jaws to grab prey. Naiads may themselves be preyed upon by weka, kōtare/kingfisher, rats and feral cats.

When they become adults, males may disperse up to 5km whereas females typically remain within 100m of their natal site. Thanks to large compound eyes, powerful wings and excellent manoeuvrability, dragonflies are very capable predators of other insects. Kapokapowai catch prey on the wing, including butterflies, cicadas and wasps. Indeed, so formidable are kapokapowai that in Māori lore, a huge number came to the aid of Rakeiao, helping him defeat his enemies in battle by flying into the faces of his opponents.



kapokapowai © Alistair Jerrett



kapokapowai © William Harland, iNaturalist.org

Kapokapowai are distributed in native forests throughout the North Island, top of the South and West Coast through to west Southland. Their official conservation status is that they are of 'least concern', but this doesn't make them any less wonderful and interesting.

Compiled by Katherine Chamberlain