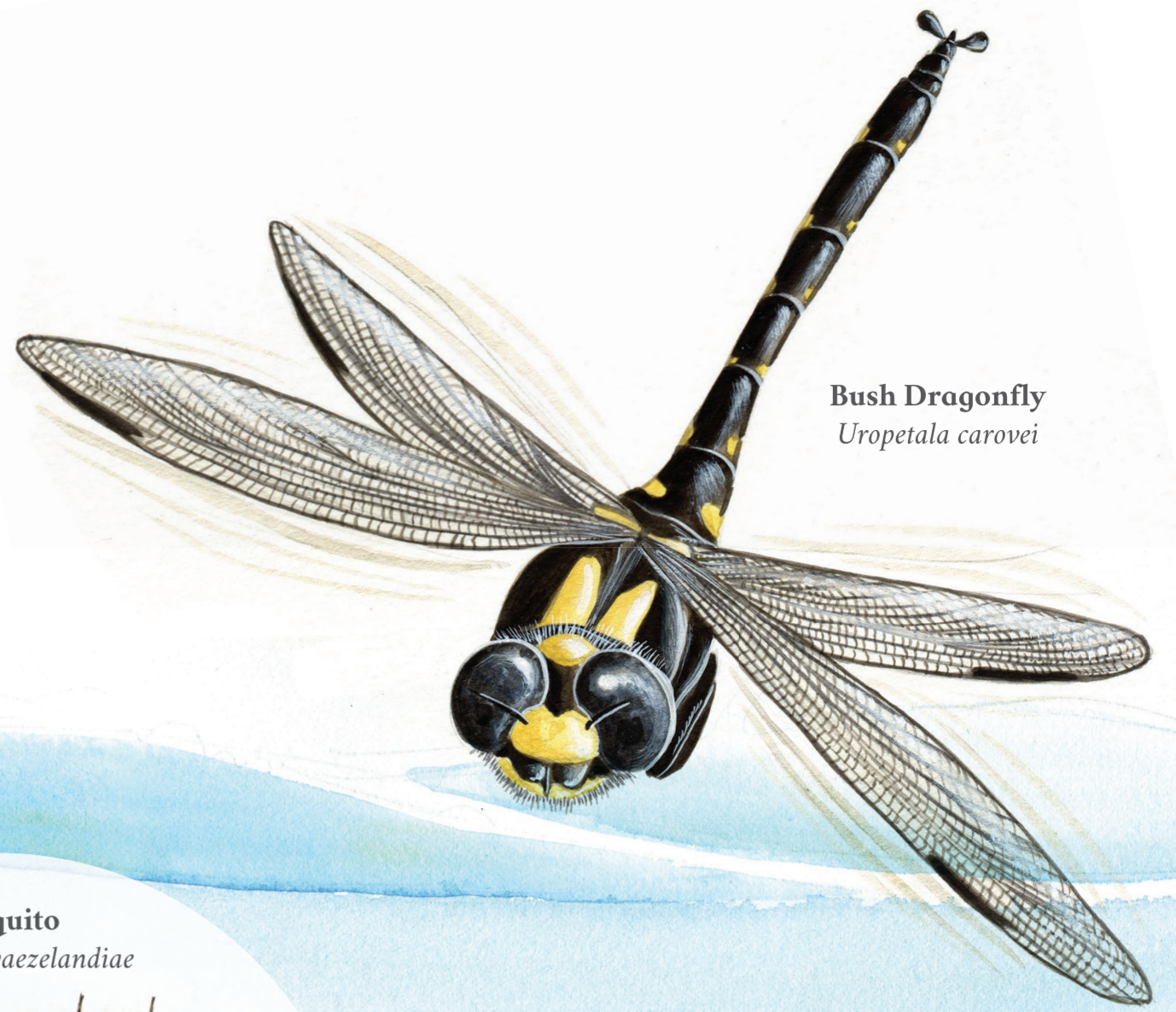


Aquatic Insect Life

We usually think of insects as being animals of the land but did you know that many insects spend part of their lives in water? Some spend the entirety of their early lives under water while some are just great swimmers.



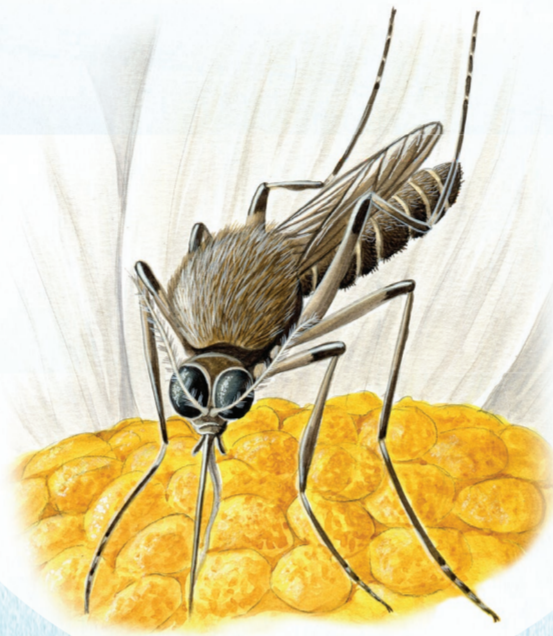
Bush Dragonfly
Uropetala carovei

Aquatic Larvae

The larvae of some insects live entirely underwater. These larvae often look quite different to their adult forms and some even have gills to help them breathe underwater.

Insects with aquatic larvae include mosquitoes, stoneflies and dragonflies. Because their larvae are aquatic, you can often find the adults flying near rivers and ponds as well.

Mosquito
Culiseta novaezelandiae



You can find different kinds of insect larvae in different kinds of rivers or ponds. Because some insects prefer to only live in clean rivers while others can survive in still or polluted water, scientists can measure the quality of a river is based on what insects they find living in and near it! This is called the “**macroinvertebrate community index.**”



Diving beetle | (*Rhantus plantaris*)
This endemic beetle traps air under its hardened wing case (“elytra”) to breathe. Diving beetles can be found in roadside ponds.

Dobsonfly
Archichauliodes diversus



Swimmers

Unlike a aquatic larvae, adult insects do not have gills and so cannot breathe underwater. Insects also don't have lungs like humans do. Instead, they breathe through tiny holes or “spiracles” along the sides of their bodies. But this doesn't stop water boatmen or diving beetles from being great swimmers. When these insects dive underwater, they trap air against their spiracles and use it to breathe, a bit like an oxygen tank. In a way they're literally “holding their breath”!

These insects tend to be found in slow-moving streams, ponds and lakes (or even water troughs!).



Water boatman | (*Sigara arguta*)
These insects use their long hind legs which are fringed with long hairs to propel themselves through the water.