

# Macroinvertebrate Fact File 10



## Mayfly – sensitivity scale 7 – 9

- There are about 40 species of mayfly in New Zealand and all of them are endemic – found nowhere else.
- Mayflies have been around for 359 million years, since the carboniferous period and are the oldest living winged insects that are alive today.
- Most New Zealand mayflies live in flowing water.
- They eat algae, dead plant and animal material (detritus) that they sweep from rocks, wood and leaves with brush-like mouthparts.
- Mayflies have seven pairs of gills on their abdomen through which they breathe and long tails ( cerci), usually three of them.
- Adult mayflies lay between 500 and 3000 eggs in water or on the surface at a time. The eggs sink to the bottom and hatch into nymphs. The nymphs live in the water for around one year. During this time they grow and moult up to 30 times.
- Eventually the mayfly comes out of the water onto the shore. It moult s and emerges as a creature with wings. It is called a subimago. It lives long enough to harden off its skin and fly to a nearby tree where it moult s again and turns into a true adult that is able to reproduce.
- The subimago and the adult mayfly do not have a digestive system or mouth so cannot eat.
- The adult mayfly may live for a few minutes to 24 hours.
- The mayfly has a number of predators including frogs, newts, toads, small reptiles, birds and rodents but fish eat the most mayflies.



**Swimming  
Mayfly**

*Image courtesy of Otago Regional Council*

## Freshwater Bug Fact File 10

*Collect the fact files, laminate them and put them on to a key ring to produce a macroinvertebrate reference guide.*