



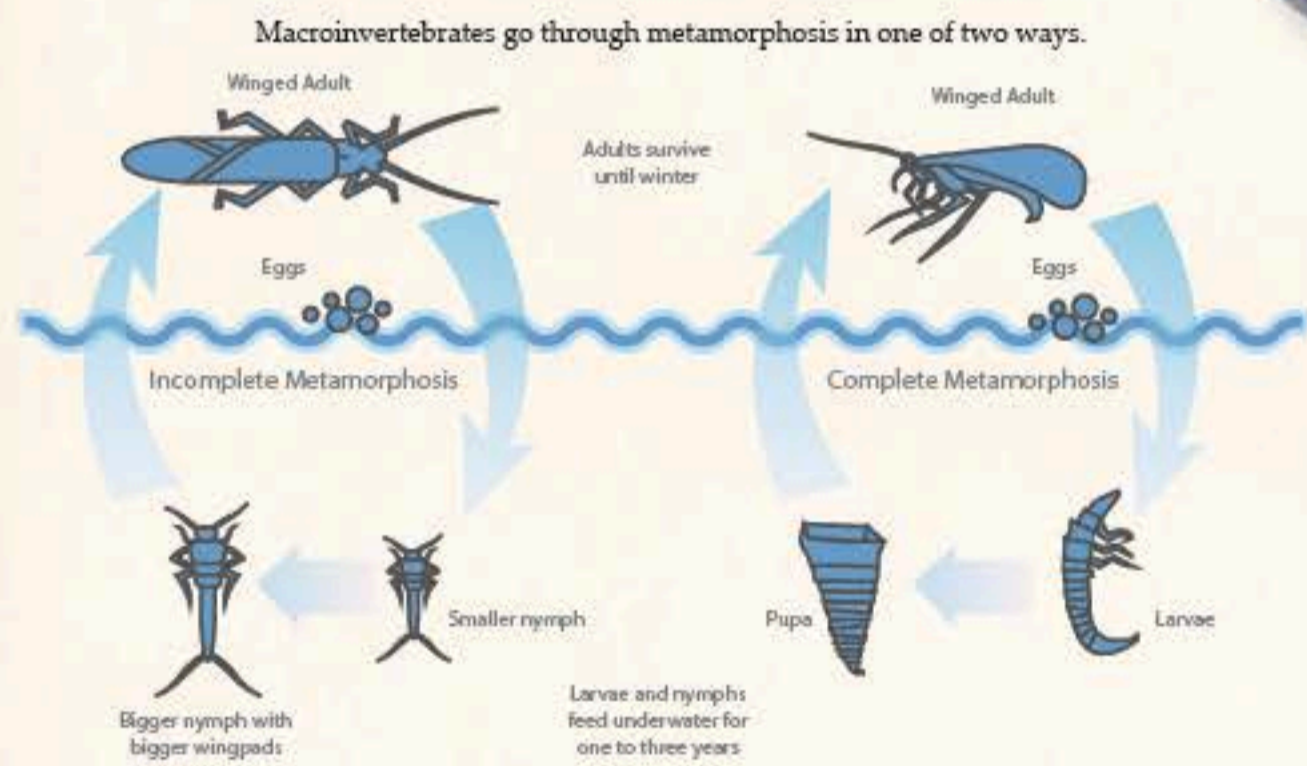
# Macroinvertebrates

Small but mighty creatures of the wetlands



Macroinvertebrates are organisms that lack a spine and are large enough to be seen with the naked eye. They are an important food source for other creatures and they help filter the water from the treatment plant and keep it clean. Examples that you may see at these wetlands include dragonflies, mayflies, leeches, aquatic worms and crawfish. Macroinvertebrates have long been used as indicators to assess water quality. Caddisflies, mayflies and stoneflies for example, cannot live in polluted water. If these bugs are found in a stream, it is a good sign of a healthy ecosystem.

The recycled sewer water here is healthy enough to support a variety of habitat types, which leads to more diversity of macroinvertebrates, which then support different kinds of wildlife. For example, a fish may eat a caddisfly, then a small bird may eat the fish and a larger bird of prey then eats the bird.



All macroinvertebrates are spineless but some, like the crawfish, have exoskeletons. An exoskeleton is the tough external material, made from chitin and calcium carbonate, that surrounds, supports and protects a crawfish's body.

Macros like to live under rocks and leaves, and in the sediment on the streambed. But you'll see some skipping on the surface of the water using water-repellent hairs on the end of their legs.

Dragonflies were some of the first winged insects to evolve around 300 million years ago. Modern dragonflies have wingspans of only two to five inches, but fossil dragonflies have been found with wingspans of up to two feet!



Thanks to:

Powell Butte Community Charter School class of 2018

Find out more

<http://www.xerces.org/macroinvert-pnw>

