

KIDS' PAGE

DISCOVER NEW AND EXCITING STUFF FROM THE ROYAL BC MUSEUM

MARSH MONSTERS

Most ponds, marshes and lakes teem with an incredible variety of life. We are all familiar with the larger animals, such as frogs, ducks and fish, but most of us are unaware of the millions of tiny creatures swimming through the water, crawling over the bottom or climbing up aquatic plants in search of food. Many of these animals are so small that you can't see them without a magnifying glass or a microscope. But, no matter how small, they are essential to the health of the aquatic environments they live in and to the survival of the larger animals that share these waters.

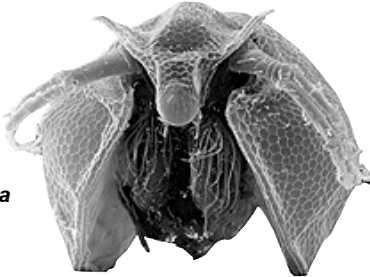
One group of animals that is abundant in marshes and lakes is the **cladocerans** (kla-doss-er-anz). Because they are small and they swim with a jerky motion that resembles the hopping of a flea, cladocerans are sometimes called water fleas. But they are not fleas at all, and they don't bite or affect swimmers in any way. Cladocerans are related to crabs and shrimps. Millions of them live in lakes, ponds and marshes, and even in roadside ditches and water-filled tire ruts. An important link in aquatic food chains, cladocerans eat plants and decaying organic matter and provide an important food source for larger animals. Most people never see these animals because they are so tiny, ranging in size from a few millimetres to less than half a millimetre. Some species are no bigger than the period at the end of this sentence. But magnified hundreds of times, cladocerans look like monsters in a science-fiction movie.



TRAPPING FOOD WITH HAIRY LEGS

A cladoceran's body is covered by a shell that can open to allow water to flow through. The shell is clear, so with the help of a microscope you can see the legs moving, the heart beating and food going into the mouth and down the intestine.

Most cladocerans eat small bits of algae and other plant material floating in the water. They have 8 to 12 legs covered with long hairs. By moving their legs back and forth they create a current that flows between their shells. They trap small pieces of plant material in their hairs and move them to the mouth to be eaten.



Ceriodaphnia

HUNTING MARSH MONSTERS

You can explore the hidden world of marshes and ponds with a small net and a glass jar. A small aquarium net with fine mesh is ideal. At the water's edge, fill your jar with pond water, then swish the net through the water. Move it through open water in an area where plants are growing close to shore – this is where most of the animals live. Take a couple of scoops with the net, then turn it inside out in the jar and shake it around to wash the animals out. You should be able to see some small animals swimming around in the jar. If you have a magnifying glass you'll be able to get a closer look at the weird and wonderful creatures you've caught. How many different kinds can you see? When you're done looking, partially submerge your jar in the water and gently pour the animals out.



MAKE YOUR OWN NET

If you don't have a suitable net you can make one with a wire coat hanger and a pair of pantyhose. Get an adult to help you straighten out a wire coat hanger and bend one end into a circle about 15 centimetres across. Fold the remaining straight part in half to make a handle. Sew the waistband of the panty hose to the circle and cut the legs off. Tie a string around the bottom of the piece of stocking to close the bottom of your net and you're ready to go hunting! If you don't have pantyhose that can be cut up you can use cheesecloth or any other fine mesh material.

PREDATORS

The predatory cladoceran *Polyphemus*.



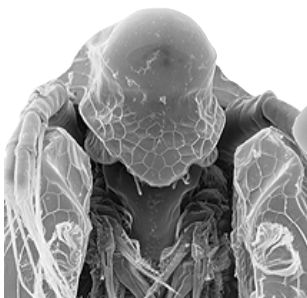
A few cladocerans are predators feeding on other tiny animals in ponds, lakes and marshes. Using its antennae to swim, *Polyphemus* moves quickly through the aquatic plants and seizes its prey with spiny front legs.

WETLANDS

Marshes, swamps and bogs are among the most productive ecosystems on Earth. They are home to a great variety of plants and animals that feed, rest, make their home and seek shelter from predators. Wetlands are also important to people; they store and purify our water and prevent flooding. They act like giant sponges soaking up huge amounts of water when it rains or when snow melts in the spring, and then releasing it slowly. Without wetlands, most of the water would run directly into streams and rivers, overflow their banks and cause flooding.

Wetland plants clean our water by trapping dirt with their roots and stems and removing it from the water. They also absorb many pollutants from the water and turn some of them into substances that don't harm the environment.

There are more cladocerans in one medium-sized lake than there are people on Earth.



Cladocerans only have one eye, which is usually quite large. The large bulge on the head of this cladoceran is its eye.

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WETLAND WORD SEARCH

- CLADOCERANS
- DUCKS
- FROGS
- LAKE
- MARSH
- POLYPHEMUS
- POND
- PREDATOR
- SWAMP
- WATER
- WATERFLEA
- WETLANDS