

RAINBOW TROUT



Trout swim upstream. They swim into water vortices, where water flows in circles. By swimming into the upstream flow, they likely save energy.



Trout can sense magnetic fields. This helps them navigate in water.

LODGEPOLE PINE



Pine trees share pollen to make new trees. Their pollen have air sacs. This helps pollen float in liquids. Air sacs could also help pollen float in air to travel long distances.



BLACK-CAPPED CHICKADEE



Chickadees conserve energy to survive cold winters. To do so, they lower their body temperature. They also slow their heart rate.



Chickadees get their name from the sounds they make. Their calls sounds like "seet" and "chickadee dee dee."

GREAT HORNED OWL



Owls are silent when they fly. Owls fly slowly which reduces sound. Owl wings also reduce noise. The outside of owl wings have serrations and fringe. The top of the wing has soft, velvety feathers. These features make flying very quiet.



ELK



Male elk use antlers to fight. Elk antlers are strong and hard to break. Antlers are made of a mix of flexible and very strong materials.



BRONZE JUMPING SPIDER



Jumping spiders hunt flying insects. They have hairs on their legs that sense air movement. This allows jumping spiders to know when an insect is close. They can then time their jump to catch the insect.



WOOD FROG



Wood frogs can survive freezing. These frogs produce an anti-freeze. It limits ice in their blood and organs. In the spring they can then thaw.



Glucose (sugar) stops ice from forming in wood frogs.

BROOK STICKLEBACK



Brook stickleback have many different predators. These fish can sense and respond to chemical alarm signals in the water. When one fish is hurt, the other fish will gather together. Swimming together protects them from predators.



PAINTED TURTLE



Turtles use a shell for protection. This shell is made up of bony plates. These plates are connected with tissue. Bendable tissue connects these plates. This allows growth and movement. They can also stiffen for protection.



GREAT POND SNAIL



Snails move around using a large foot. They produce a mucus that their foot moves through. The mucus helps the foot glide when the snail is traveling. Mucus also helps the snail stay in one place. This allows snails to hang sideways and upside down.



CANADIAN BEAVER



Beavers build dams to protect themselves from predators. These dams create deep pools of water where beavers build their homes. This also makes a place for many other animals to live.



Beaver dams improve water quality. They do this by filtering pollutants. Dams also can prevent flooding and store water during droughts.

MUSKRAT



Muskrats dive underwater to find food. Muskrats can store oxygen in their muscles before a dive. This allows them to stay underwater longer.



BLACK-BILLED MAGPIE



Black-billed magpie feathers can change colour. Light reflects off structures in the feather. This creates the colours we see. When light hits the feathers in different ways, the feather colour changes.



COMMON GARTER SNAKE



Snakes must be a comfortable temperature to move and eat. Snakes will move to stay comfortable. They will find a sunny spot when they are too cold. They will hide under rocks or crawl into burrows when they are too hot.



GOLDENROD GALL FLY



Goldenrod gall fly larvae live in goldenrod plants during the winter. They have molecules in their cells that stop ice from forming. This allows them to survive freezing temperatures. When the weather is warm, they fly away as adults.



GOLDENROD CRAB SPIDER



Spiders can travel long distances in the air by "ballooning." Spiders climb to a high spot. They release silk into the air. Electric fields and wind catches the silk, lifting the spider up. The spider then floats through the air.



Spiders can detect electric fields. More spiders try to balloon when they sense good electric fields.

WESTERN SNOWBERRY



Western snowberry lives in colonies. Many shrubs are connected by an underground stem. These stems can grow outward and make more plants. This helps snowberry spread to new places.



WHITE-TAILED JACKRABBIT



White-tailed jackrabbits are active all winter long. When it gets colder, their body temperature falls. They also slow their metabolism. This allows them to conserve energy.



Jackrabbits' fur changes color in winter. This helps them hide from predators.