

Aquatic Engineers



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WHILE I WAS LIVING in northern Alberta, one of my favorite places to go was the local beaver pond. I was guaranteed to find not only the beavers hard at work on their latest dam, but all their neighbors too: muskrats running and swimming, countless frogs hopping along the edges, herons stalking through the shallows, ducks nesting on shore, brightly colored dragonflies skimming over the pond's surface, and birds singing in the trees all around. It was beautiful. The beavers, stopping the flow of water, had unwittingly made a new habitat (or home) for countless other creatures they shared the forest with.

As odd as these large rodents (who can weigh up to 75 pounds) might look, they have been created to be the perfect underwater engineers. They have built-in nose plugs, ear plugs, and swim goggles (clear lenses protect their eyes), and they are able to chew underwater. Their webbed hind feet act like flippers in the water, while their front paws are like hands and are perfect for placing sticks and filling spaces with mud. Their big, flat tails help them pack the mud and sticks together and help them balance while they are using their extra-strong, iron-reinforced orange teeth to cut down building materials.

Beavers create water barriers called dams using only a combination of sticks and mud. As they clear trees to build their dams and lodges (houses) and to eat, they change forests into meadows. Over time their ponds become wetlands. Wetlands are important for filtering water and preventing floods, and they are an amazing source of life. Wetlands support all kinds of plants and animals—some living in the wetland, others using it for food or water. Wetlands are also a refuge in times of drought. Often beavers build dams in a series (the ones in my area were working on their sixth) to create not just one, but many wetlands. As the beavers move on and the dams begin to break, they leave behind another water-rich ecosystem: beaver meadows. Filled with grasses and shrubs, beaver meadows continue to hold onto water under the surface and support life even after the beavers have left.

Beavers fill me with awe. They remind me how incredibly complex creation is and how God designs and creates with purpose.

Dig Deeper

Are there other lessons we can learn from the beavers? How do they form communities? What would happen if they didn't build their dams? What would happen if beavers disappeared?

Try This

Try building a dam using only sticks and mud. Can you do it? **B**

