

Beavers, Engineers of the Forest

[1]

Can you guess what this photo shows? It is the largest dam that has been built by beavers in the world. It is in Canada, and it is 850 meters long. Beavers are great dam builders. They cut down trees with their sharp teeth, cut off the branches, carry them one by one to a river, and pile them up. In this way a dam is completed. The beaver dam stops the flow of water and forms a large pond. The beaver is the only animal other than humans that has the ability to change the environment on such a large scale.

Beavers make dams to keep themselves safe. Though they are very good swimmers, beavers move slowly on land and can easily be caught by bears and coyotes. To create a safe home, they build a lodge by piling up branches in the center of the pond. Because the entrance of the lodge is underwater, the beavers don't have to worry about being attacked by other animals.

[2]

There were once millions of beavers in North America and Europe. From the 17th century, however, hats made of beaver fur became very popular among rich gentlemen. Large numbers of beavers were killed for their fur until the early 19th century and they almost died out. Then the silk hat was invented. It was made of silk instead of beaver fur. As a result, demand for beaver fur fell and the number of beavers began to increase again.

The beavers' comeback, however, has led to a problem: flooding caused by burst beaver dams. When the water level in a beaver pond rises because of heavy rain, the dam may burst. The results can be terrible. Roads, houses, and farms may be flooded and crops may be badly damaged. Beavers are therefore sometimes seen as a nuisance.

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Recent research has shown that beavers play an important role in the ecosystem of the forest. "Beavers do something miraculous," explains Dr. Suzanne Fouty of the U.S. Forest Service. "They bring back an area's biological diversity by turning it into wetlands."

When beavers build a dam, water birds like geese and ducks gather at the pond they have created. Many kinds of plants grow there, and animals come to eat them. After several decades, the pond naturally becomes filled in with soil that has flowed downstream, and the beavers move somewhere else. The rich land left behind becomes a grass field, and plant eaters like deer and squirrels come there to feed. By changing the environment, beavers attract many different kinds of living things to the forest. They are the engineers of the forest's ecosystem.

[4]

In the state of Washington in the United States, an experiment is being conducted on using beavers to save local rivers. Scientists bring beavers from other areas and use them to bring back biological diversity by attracting other wildlife to the rivers. The number of salmon in some rivers in Washington was falling before, but it has started to increase since the beavers were brought there. The ponds that beavers build provide a safe place for young salmon to grow.

Beavers have an amazing ability to change the natural environment. If we humans want help from beavers, we have to give beavers what they need — enough room to live. So, we need to be careful not to damage the beavers' natural habitats. Whether the beaver is a mere nuisance that causes flooding or a "hero" for environmental protection depends on us.

第 1 学年課題研究 [サイエンス] 授業プリント続き

Task 1 要約 (個人→グループ)

[1]	[2]
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[3]	[4]

Task 2 結論 : beaver の特徴 (グループ)

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Task 3 What is the most [] animal on earth? And why?

Your idea
Your group's idea

Your friends' ideas
