

*Originally published in the April, 2005, issue of the Active Page:*

## **Exploring Our Little Corner of the World with the Galiano Naturalists**

**by Brian Mitchell**

I've never killed a beaver. But I've tasted one. Only one. It tasted as muddy as a bottom-feeding duck. The tail – somewhere described as a delicacy, but really just gristle and fat – was equally bad. (I can recommend the much tastier porcupine, but that's a different story.) When I once told a friend about my beaver tasting experience, he replied "WHAT! You ATE our national animal?!"

The beaver is Canada's national animal for good reason. Its highly-valued fur drove exploration and development across the continent. Beaver skins even became a unit of currency for a time. By the late 1920s, however, the animal had been wiped out from large areas and its numbers greatly reduced everywhere else.

Successful conservation measures begun in the 1930s probably saved the beaver from extinction. Populations were able to increase while reintroduction programs expanded their range across North America. Fortunately, Galiano Island is home to several colonies of these valuable animals.

Quite apart from the worth of their pelts or their appearance on the Canadian nickel, beaver provide incalculable benefits to humans and the natural world. By creating and expanding wetlands with their dams, beaver raise water levels and reduce erosion. Tons of topsoil are prevented from being washed out to sea. As a result, water passing over a dam flows cleaner and for a longer season.

By opening the forest canopy along their channels, extending the duration of

flow, and significantly increasing the area of wet surfaces, beaver tend to make natural fire breaks.

Once called the "pied piper of biodiversity", the beaver's work provides for increases in the number and variety of animals and plants in forest ecosystems. Where beavers take up residence, songbirds and waterfowl, mammals (including bats), insects, amphibians, reptiles, and fish, along with invertebrates in their millions, all benefit.

Besides appreciating beavers for these benefits, I have been personally helped by a beaver. Here's how:

Years ago when I lived much closer to the edge of the Earth, I enjoyed hunting. Once, hunting alone beside a large beaver pond, I shot a duck. It landed in the middle of the pond. Without a dog, or boat or current or even any breath of wind, it seemed the bird could not be retrieved. A waste, unless I could think of how to get it. I sat down to puzzle out a solution: a long pole? None long enough. Swim? Not in this pond. Hmm. Suddenly, a beaver surfaced and swam straight to the duck. He grabbed it and moved it to the near shore. I quickly recovered the duck; the beaver slapped its tail and disappeared.

Curious and somewhat encouraged, I shot a second duck. Same thing happened. But this time the beaver took the duck to the far side of the pond. I crossed over via the nearby dam and retrieved this one too.

I didn't want to press my luck and anyway had enough for dinner, so I left. But I've often wondered why the beaver retrieved those ducks. He clearly wasn't doing it for my benefit. Maybe he just liked to keep his pond clean.

I haven't had an interest in hunting for a long time now. Here on Galiano, just sitting quietly by an evening pond and watching the

silent V of ripples or hearing the slap and splash of the beaver will evoke memories. Memories akin to the loon's call on a misty lake or to a wolf's howling from somewhere in the frozen woods. Memories that say to me: "We're still here; everything's all right with us."

I hope so.

\* \* \*

### **Natural Mysteries**

Last month's mystery was: On some sandstone rock outcrops high above the shoreline the stone is pocked and eroded in forms resembling those seen along the shore. Was this the result of wave action when the sea was once higher, or are other processes responsible for this fantastic erosion? Something besides waves worked on the stone. Sandstone soft enough to be pitted and sculpted by waves would, in the thousands of years since the sea level was higher, have been worn away by other types of erosion. It's likely that the cavities high in sandstone cliffs were once "concretions", or irregularities in the stone formed around a piece of organic material, such as wood or the remains of an animal. Some concretions are harder than the surrounding sandstone, and these remain as prominences after erosion. Other concretions are softer and are eroded by groundwater or surface water into small holes or caverns. Sometimes small creatures, looking for a home, enlarge these cavities.

We also discovered why there were so many jellyfish around our beaches last summer. The species we saw is the Lion's Mane Jellyfish (*Cyanea capillata*), a large jellyfish that can sometimes be found in the inside waters of the Strait of Georgia but is much more common in the upper levels of the open Pacific Ocean. Although tidal water flows back and forth from the Pacific

through the Strait of Juan de Fuca daily, the net flow of surface water is normally outward to the Pacific. This is due to the lower salinity and hence lower density of Strait of Georgia water, which is diluted by the fresh water of the Fraser River. A couple of times a year this flow pattern breaks down and we get an intrusion of oceanic surface water into the Strait of Georgia, which brings all sorts of open ocean critters with it. Unfortunately the Lion's Mane Jellyfish doesn't do well in the lower-salinity inside waters, and the dying animals wash up on our beaches.

### **This month's Natural Mystery:**

Why does arbutus bark peel, and how do the trees survive without bark?

Have an answer? Send your thoughts to [galianonaturalists@gulfislands.com](mailto:galianonaturalists@gulfislands.com).

Have a Natural Mystery of your own? Let us know, and we'll try to answer it.

**THE GALIANO NATURALISTS** are a group of curious explorers who enjoy observing, marveling, and sharing information about the natural world around us. Come join us.