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Exploring Our Little Corner of the World with the Galiano Naturalists

by Pauline Brest van Kempen

To some, wetlands are regarded as wastelands: swampy, smelly, dreadful places swarming with mosquitoes. Popular culture and Hollywood movies reinforce negative imagery utilizing wetland settings and imaginary wetland creatures such as 'Swamp Thing' and 'Creature from the Black Lagoon'. In addition, we have coined terms such as 'bogged down' and 'swamped with work'. On the contrary, wetlands are wonderful ecosystems teeming with life. A wetland is a 'nursery', providing critical breeding and rearing habitats for large numbers and species of wildlife. With an abundance of food, vegetative cover (shelter), and water, wetlands are rich in biodiversity. A wetland is a giant sponge, absorbing excess water, retaining it, and then releasing it slowly over a period of weeks to months. This reduces the impact of flooding by slowing and storing flood water, playing a critical role in overall watershed hydrology. Wetlands are nature's kidneys, filtering and purifying the water. Soils and vegetation filter silt and debris, as well as excess nutrients such as phosphates, pesticides and heavy metals. Numerous toxins bind to the sediment and settle to the bottom of the wetland, where they are absorbed by plants and converted into non-toxic substances. A wide variety of reptiles, amphibians, insects and crustaceans also breed and live in wetlands.

On Galiano, students have discovered the wonders of wetlands at the Great Beaver Swamp, which adjoins the Pebble Beach Reserve. In 2006, three off-island groups from the mainland traveled to the Great

Beaver Swamp. Since then, Grade 4-8 students from the Galiano Community School have participated in the Galiano Conservancy Association's EnviroMentors program, where they research topics and create activities to share their knowledge about the Great Beaver Swamp with their younger compatriots from the mainland. Here's what students and teachers say about their experiences in the swamp:

"The most important thing I learned was that younger kids get excited about other older kids showing them." (Shelby Garner, Galiano School)

"The best part of the experience - it was kind of cool watching these kids learn." (Aisha Balint, Galiano School)

"Our spirits have been calmed and cleansed by the Great Beaver Swamp." (Joan Storlund, Teacher, Lord Kitchener Elementary)

"I remember that duck weed makes oxygen in the water and ducks eat duckweed too." (Kyra, Gr. 2, Lord Kitchener)

"25 years ago the great beaver swamp was a forest with a creke running through it when a beaver hears the sound of water he starts making a dam and it makes a pond or a swamp in this case it made the great beaver swamp not a pond ." (sic) (Scott, Gr. 1, Lord Kitchener)

"Beavers have orange teeth probly the trees wood did that. Beavers can stay underneath the water up to fifteen minits!" (sic) (Sophia, Gr. 1, Lord Kitchener)

"Beaver chew on wood is because they don't want to have thir teeth growing

anymore and they eat the soft part of the bark called cambum.” (sic)
(Hollis, Gr. 2, Lord Kitchener)

“We met the enviro-mentors that taught us a lot of things about Galiano like frogs, beavers, duck weed, oxyegyn and the bugs we caught in the swamp and we studied them.” (sic) (Alvin, Gr. 2, Lord Kitchener)

About 3 % of British Columbia is covered in wetlands. Environment Canada estimates that up to 70 % of Pacific estuary wetlands have been converted to other uses, mainly for agriculture and urban and industrial expansion since European settlement. In Canada, millions of hectares of wetlands have been drained, dredged, and filled in; destroying habitat for ducks and other wildlife, as well as lowering the water table, making that water less available for human use. Wetlands are important ecosystems which deserve our attention and preservation.

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Natural Mysteries

Last month’s mystery was: Sometimes I see spider webs 3 or 4 feet wide. Since spiders can’t fly, how do they get the first long strings in place? No, she can’t fly. And she can’t shoot the web across the gap as if she were, well, Spiderman. And she doesn’t climb down to the ground, walk across and up the other side, carrying the web over her shoulder like a longshoreman. The answer is simpler and more elegant. She waits for a breeze. That first strand of thread she produces is coated with a sticky substance. She lets it dangle in the breeze, and when it sticks to some distant point, she crawls across like a tightrope walker and reinforces this first thin line with a strand of stouter thread. She continues to reinforce the main cable until it’s strong enough to

anchor the web. By the way, though spiders don’t fly, they do go ‘ballooning’. You see them especially in the fall, drifting through the air dangling on a few strands of thread. They’re so light that they can send out some silk, and when the when catches it, they’re off, dispersed to new haunts by the autumn breeze.

This month’s Natural Mystery (contributed at the Spring Wingding): Why – and how – do birds fly in tightly choreographed formations?

Have an answer? Send your thoughts to galianonaturalists@gulfislands.com. Have a Natural Mystery of your own? Let us know, and we’ll try to answer it.

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