Cape Meares Crossing
Snapshots of a Wetland Community

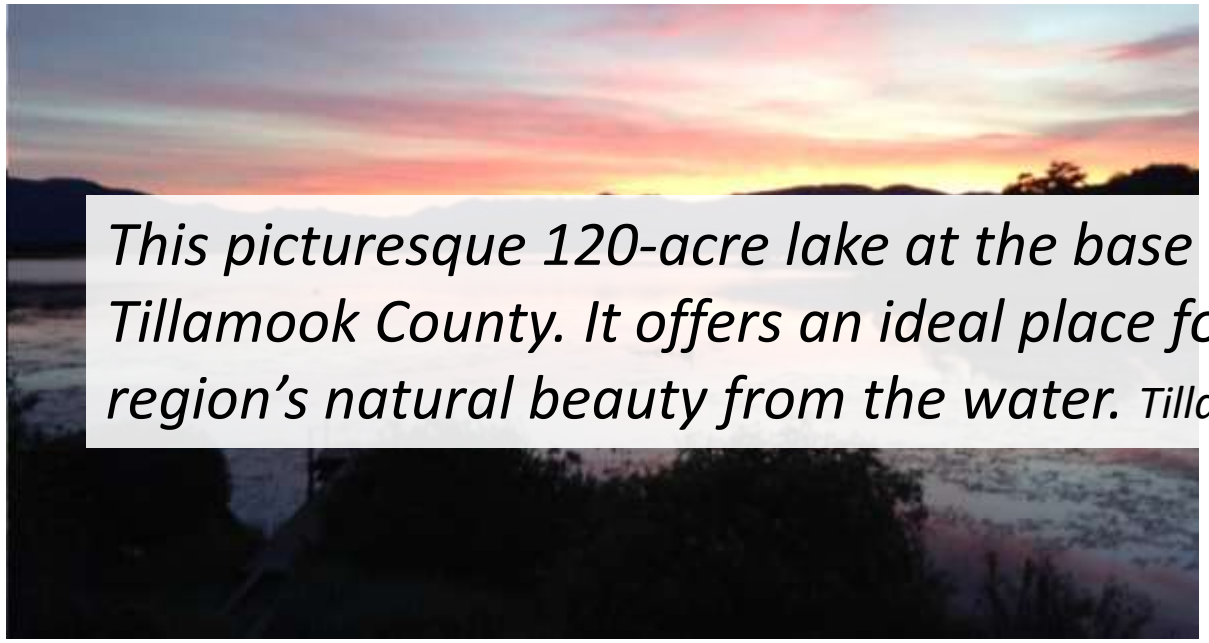
Wendy Burroughs – March 2024

Cape Meares Crossing – Where it all comes together

"I share with you, my observations, snapshots, and spectacular wildlife and landscape photographs that have been shared with me, to highlight the amazing plants and animals, engaged in the interplay of mutualism, competition and resilience. A place where land and water intersect. A place I call *Cape Meares Crossing."* Wendy Burroughs 2024

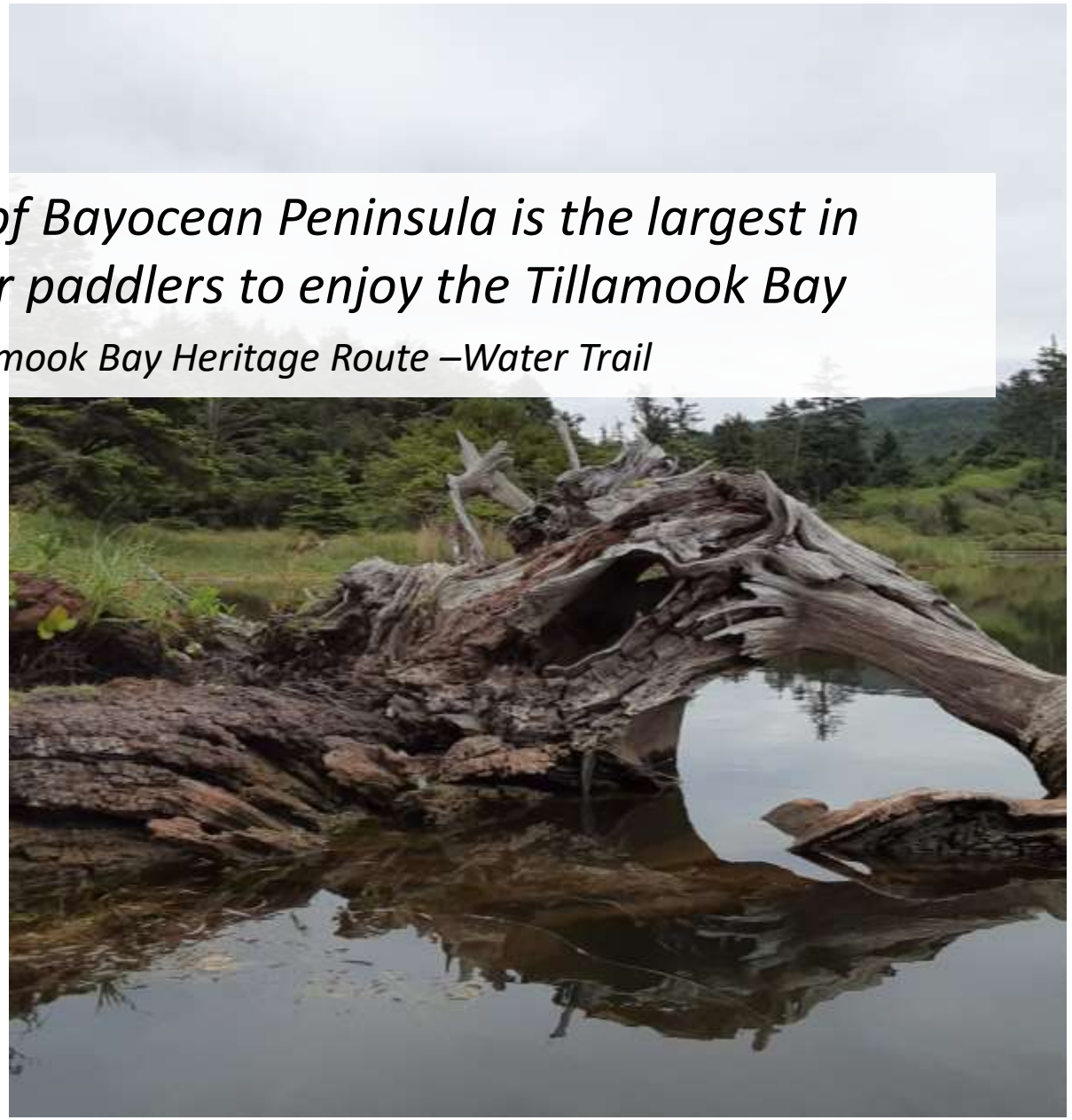
Cape Meares Lake -Tillamook County Oregon

At this location, the Cape Meares Wetlands are divided from Cape Meares Lake by Meares Avenue. Water from the wetland flows through one culvert and over the roadway during major flood events.



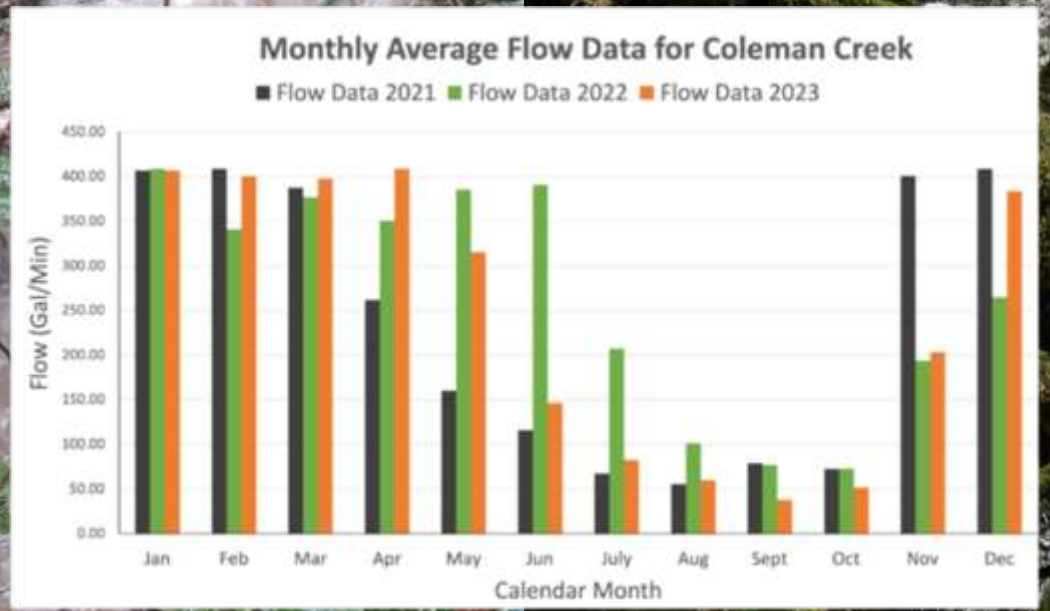
This picturesque 120-acre lake at the base of Bayocean Peninsula is the largest in Tillamook County. It offers an ideal place for paddlers to enjoy the Tillamook Bay region's natural beauty from the water. *Tillamook Bay Heritage Route –Water Trail*

Ciel Downing



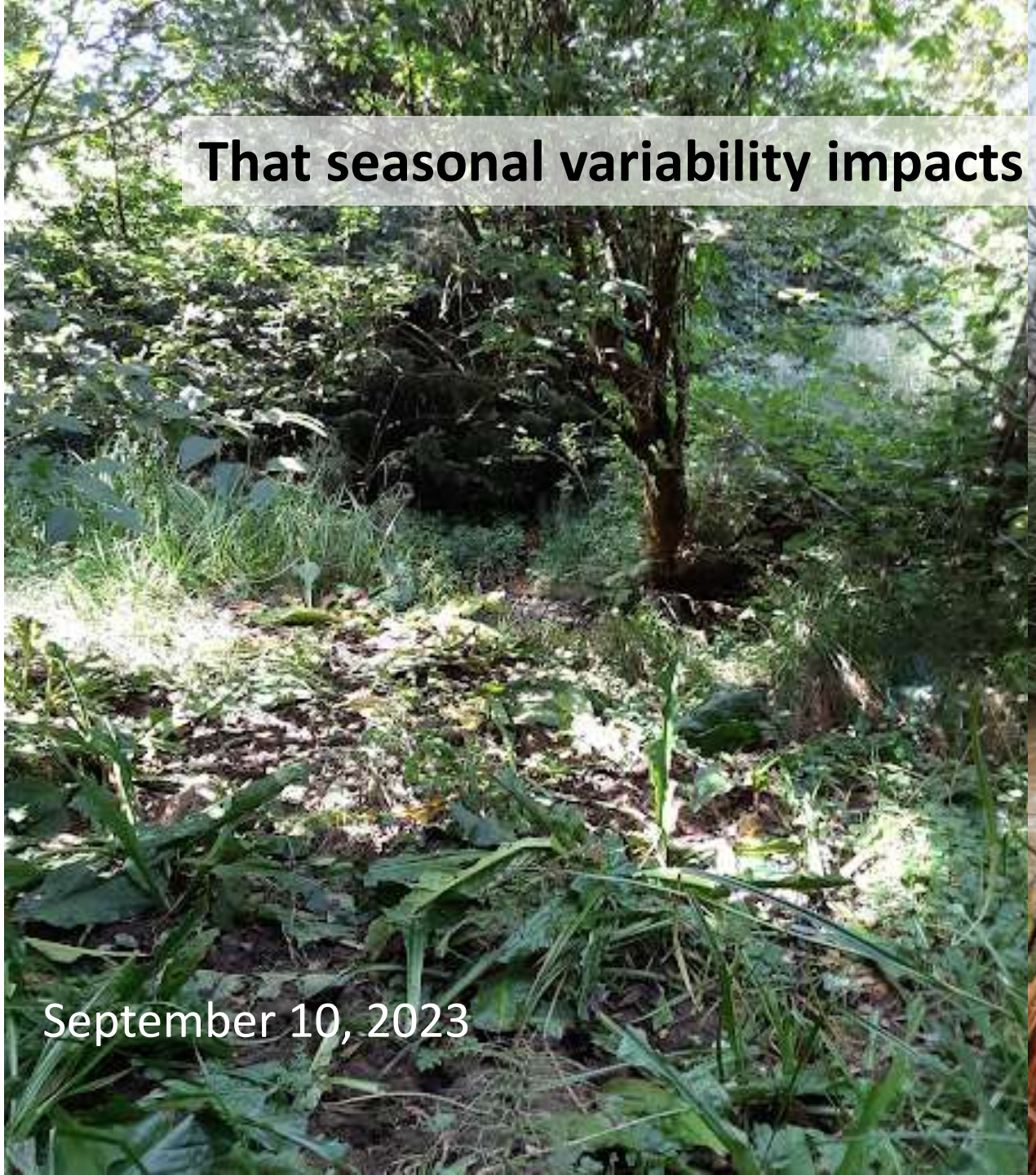
Cape Meares-Coleman Creek watershed would flow directly into Tillamook Bay were it not for the dike. The lake water levels are managed to some extent by the location of an overflow gate.

Coleman Creek is the source water for the community of Cape Meares. Flow from the spring-fed Coleman Creek is lowest in late summer and fall.



Ciel Downing

That seasonal variability impacts Cape Meares wetlands and lake.



September 10, 2023

December 10, 2023

Coleman Creek enters the south end of Cape Meares Wetland


November 2023


August 2020


June 2023

Ciel Downing

Cape Meares lake and wetlands resources support keystone and umbrella species, apex predators, large herbivores, and seasonal migrants.

CL Downing

Ebird lists 202 bird species at Cape Meares Lake

Ciel Downing: belted kingfisher, great-blue heron, bald eagle, great egret, and brown pelican

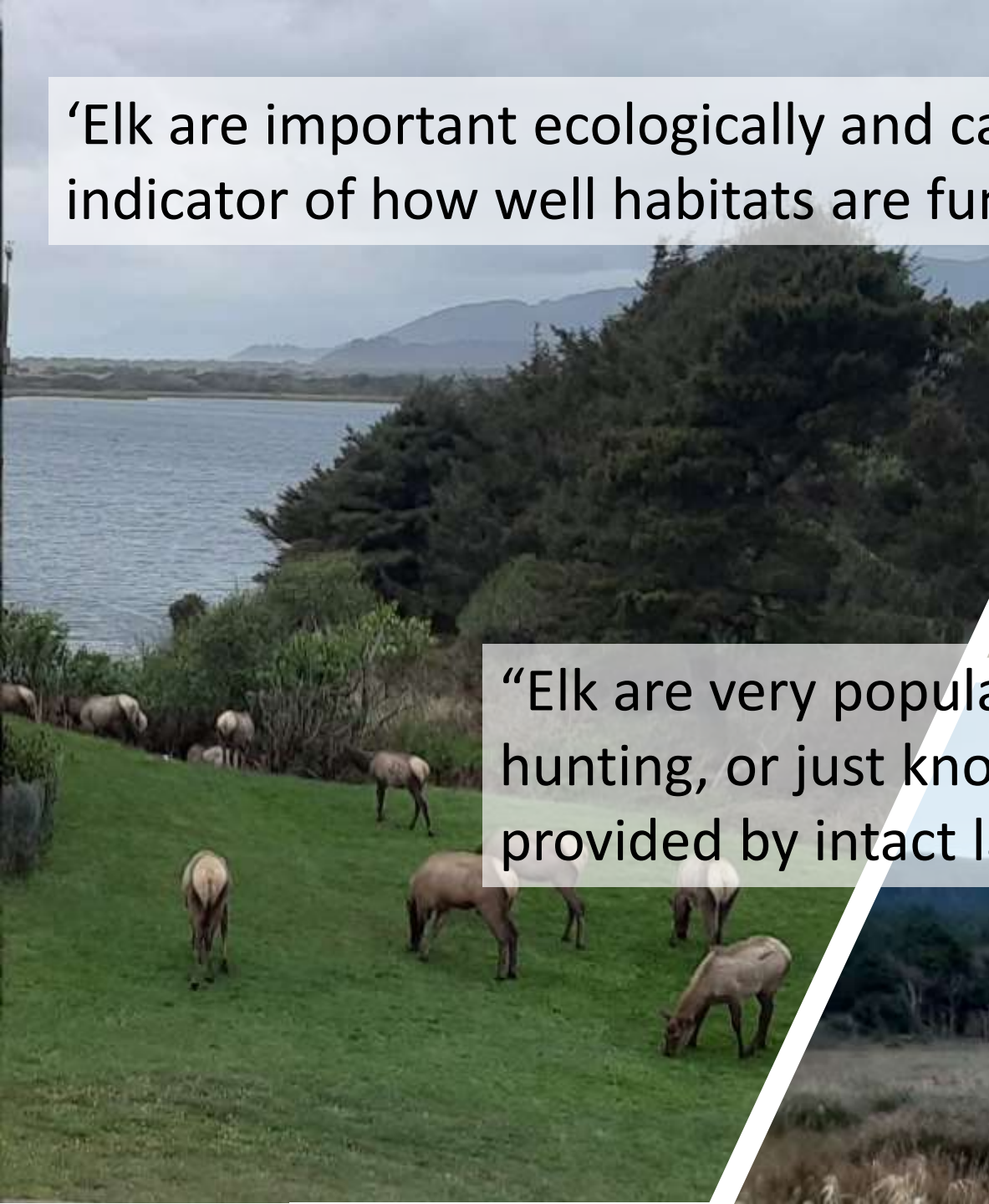

INaturalist has record of 106 animal and plant species in and around Cape Meares Lake
riam Fultz
Dan Kearl

Cape Meares is home to common and rare plants and animals

‘Elk are important ecologically and can provide an indicator of how well habitats are functioning.” USFS

Pam Robenolt

“Elk are very popular with the public, be it for wildlife watching, hunting, or just knowing they are roaming free on the wildlands provided by intact landscapes.” USFS



The lake provides enriching outdoor recreation opportunities.

Kayak Tillamook.com

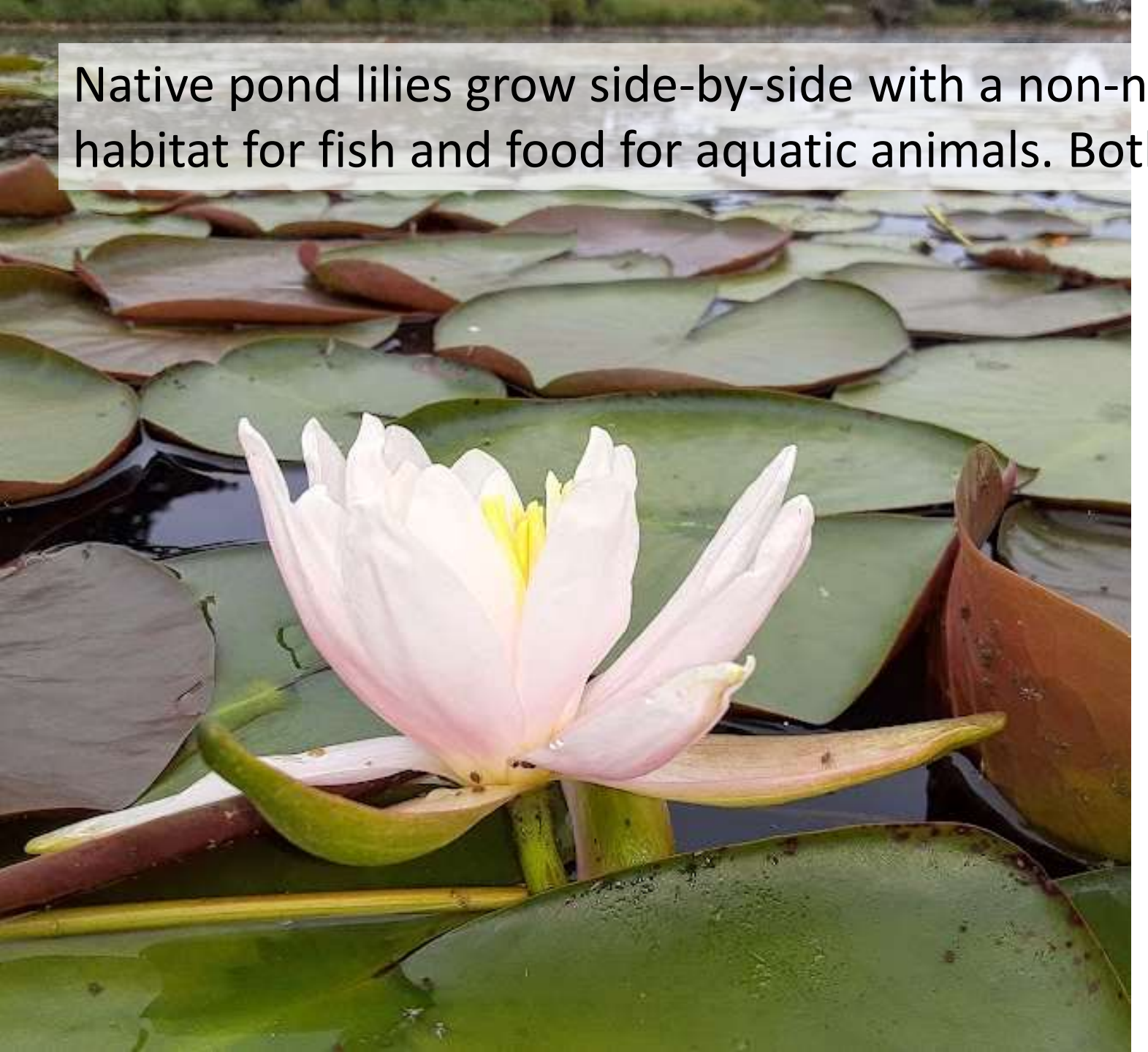
Lake water levels and water quality impact people and wildlife

Broadleaf Cattail
Oregonhikers.org

The rich mix of wetland plants is an indicator of a healthy ecosystem.

Common Sedge

Native pond lilies grow side-by-side with a non-native variety. Both offer habitat for fish and food for aquatic animals. Both have invasive tendencies.



This pool of water is the result of wetland excavations by beaver, nutria, and muskrat. This muskrat spent many hours grazing on the aquatic plants that thrive on the open surface water.

Wetlands often are called the "kidneys of the landscape," as they act as a filtration system. United Nations World Wetlands Day 2024

Yellow flag iris is a non-native wetland invader.

- The plants are tolerant of seasonal flooding and drying.
- Native cattails occupy the same niche as the iris.
- Both plants provide food and shelter for wildlife.
- Wetland wildlife play a role in disbursing seed and root tubers.

Grutbo

A significant infestation of Eurasian milfoil in the lake developed over 4-6 years. OFW planned to control the milfoil with application of the herbicide *Procella*. The planned treatment was suspended in July 2023 when OFW observed that the Eurasian milfoil had all but vanished.

Is this an example of ecosystem resilience or perhaps just some of that Cape Meares magic?

August 2022 at the peak of the Eurasian Milfoil infestation


A channel carved into the mud extends far into the lake
Wetland plants that had grown up in the sediment at the road culvert outflow seemed to simply disappear.

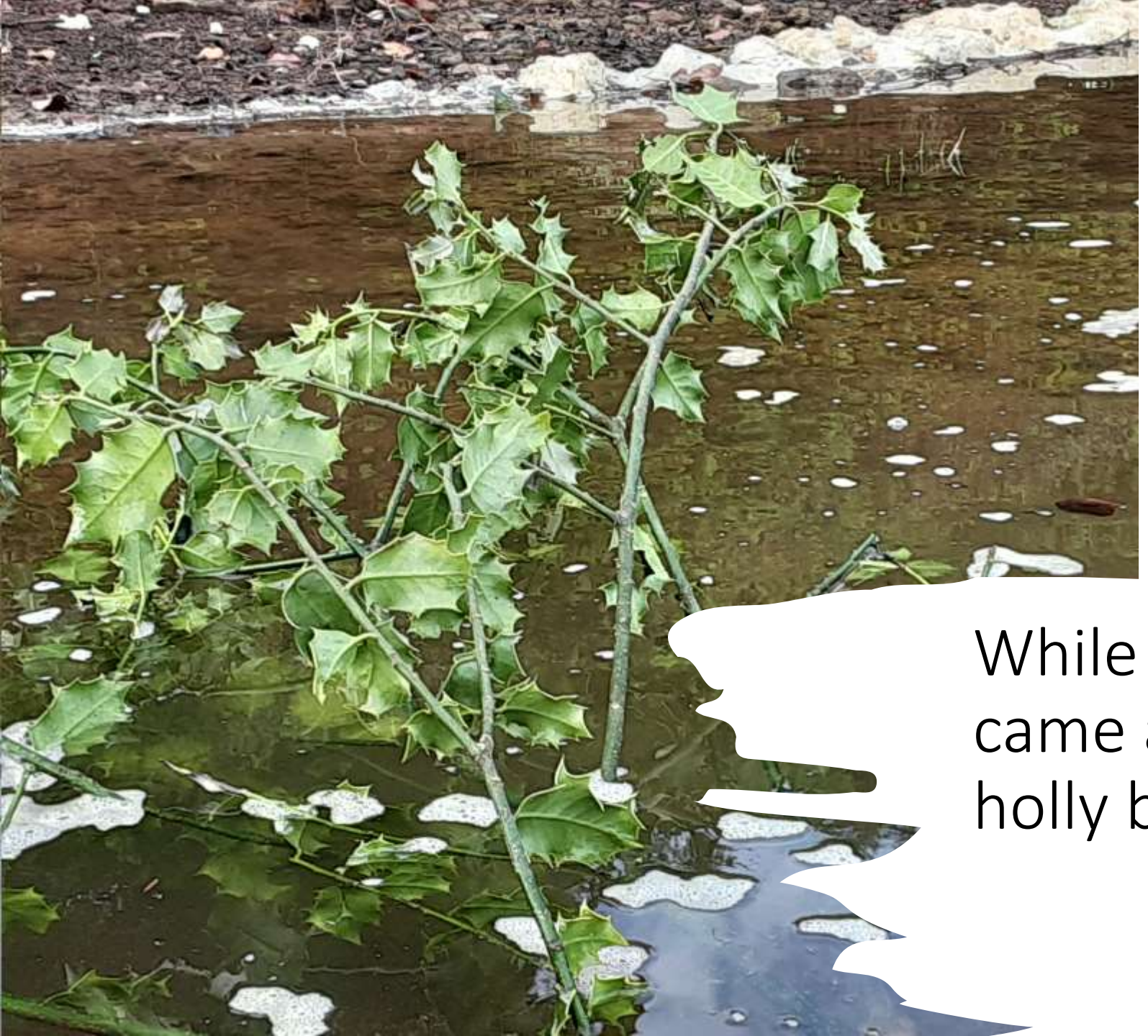
Wildlife activity is evident on both sides of the road. The most obvious impacts being a network of mud dams, more open water, and water-filled channels.

Our Ecosystem Engineers


Beaver, muskrat, nutria and river otters were seen here in 2023.

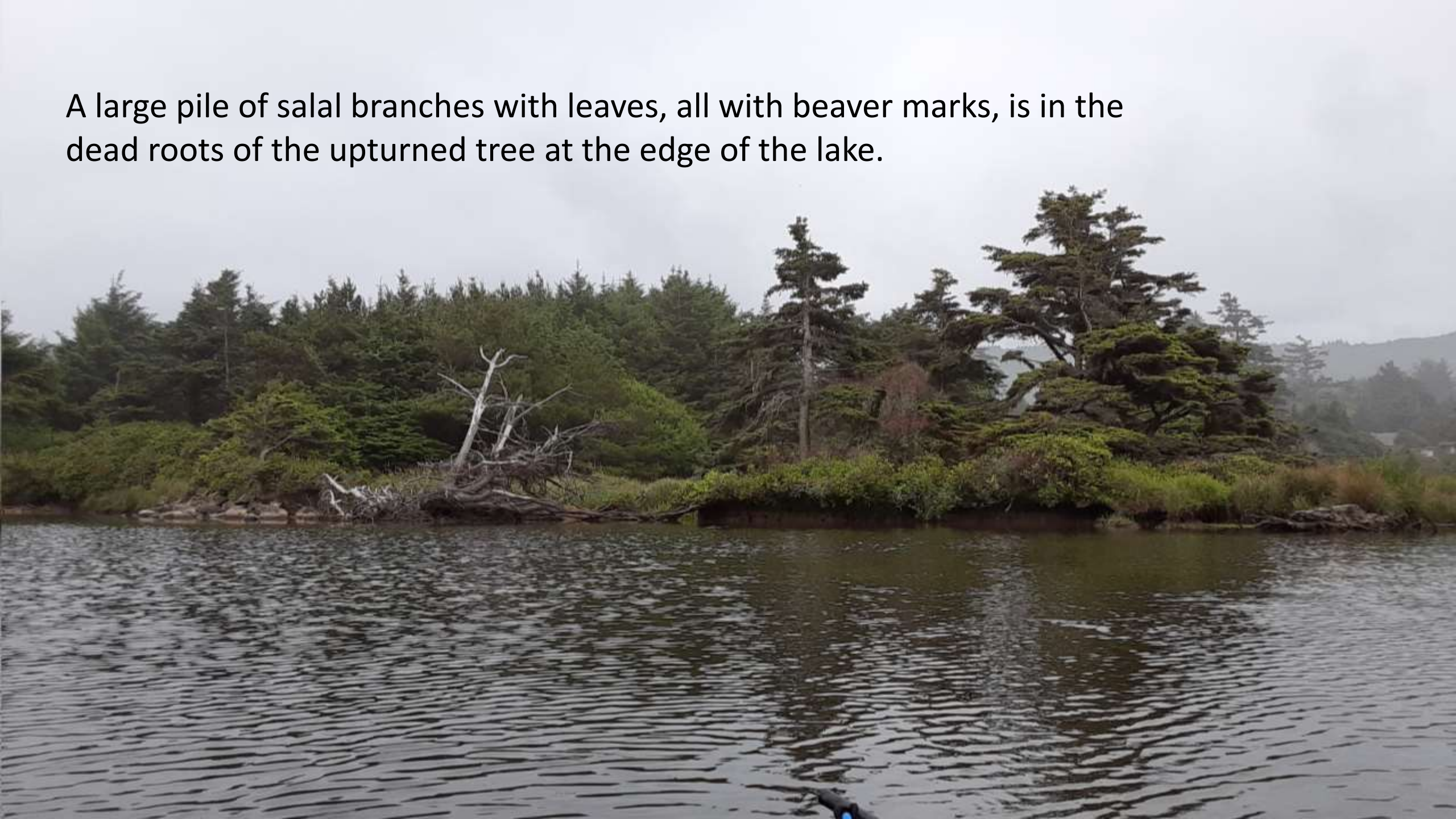
North American Beaver
Keystone Species

Every ecosystem has certain species that are critical to the survival of the other species in the system. The keystone species could be a huge predator or an unassuming plant, but without them the ecosystem may not survive. National Geographic



While kayaking on the lake I came across this floating holly branch.

A large pile of salal branches with leaves, all with beaver marks, is in the dead roots of the upturned tree at the edge of the lake.



“Old Beaver Lodge” Cape Meares Lake

Top July 2021

Bottom July 2023

Signs of Recent Beaver Activity

- Leaves on branches
- Fresh chew marks on branch ends
- Subsurface trench to underwater lodge entrance

“Old Beaver Lodge”
July 2021

“Old Beaver Lodge” Cape Meares Lake - July 2023

On this day I encountered three river otters.

River Otters

Robert Randall

Nutria have white whiskers, two large, orange front teeth and long, rounded tails.

Nutria- Photo credit: Life Science.com

Nutria live in burrows connected by tunnels that they dig near rivers, canals, lakes or in wetlands

I have observed a nutria grazing on this patch and in the cove pictured on the upper right. Today there are Nutria tracks.

Nutria at burrow
Ncwildlife.org

Nutria are a non-native invasive species that are naturalized (self-sustaining populations) in Oregon.

Yellow flag iris and Eurasian milfoil are invasive plants in Cape Meares Lake.

Nutrias can consume up to 25% of their body weight in a single day.

Nutria Photo Miriam Fultz

Common Muskrat - The tail is flattened laterally, scaly, keeled, and naked except for a few hairs on the keel

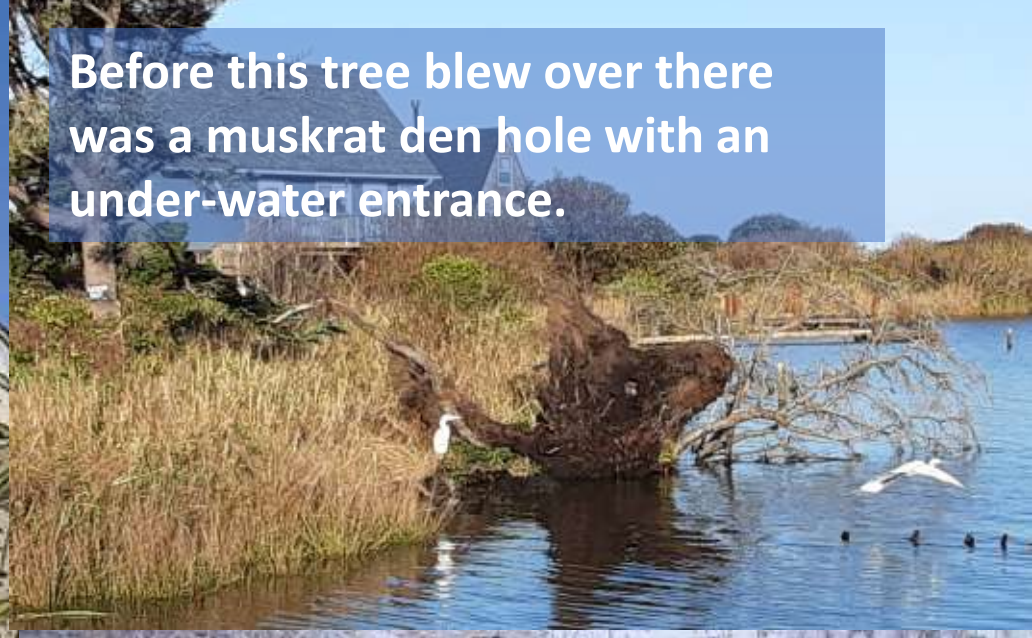
Photo ThinkWildco.org

Muskrat nests and burrows in the banks offer protection from predators and the elements.

eri Amsel

www.exploringnature.

Before this tree blew over there was a muskrat den hole with an under-water entrance.



Wd.fw.wa..gov

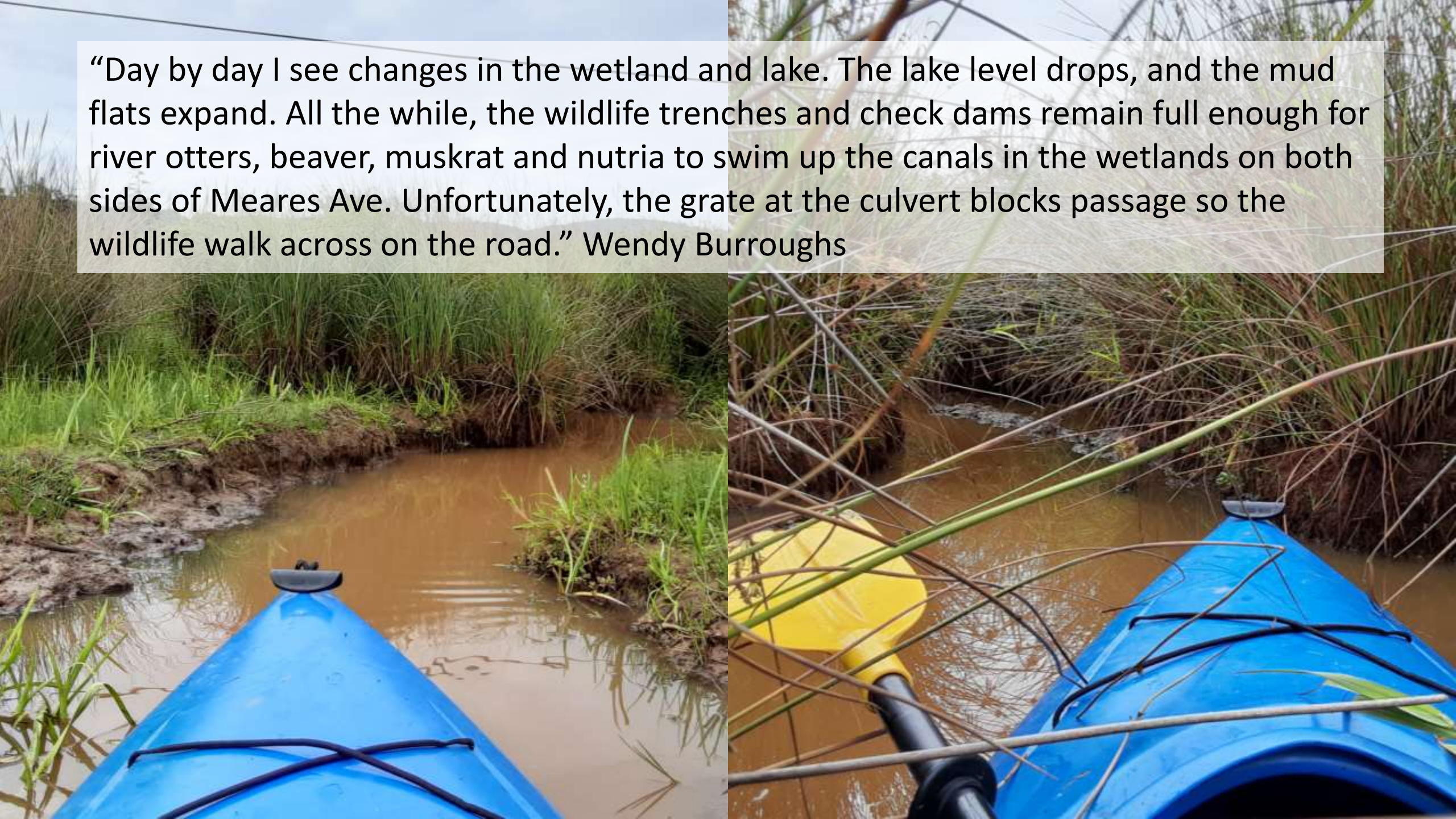

North American river otters are apex predators, meaning they’re at the top of the food chain.

The presence of river otters can be an indicator of good water quality and ecosystem stability.

Weebly.com

An example of *mutualism* is on display as three river otters find shelter in the "Old Beaver Lodge".

“Day by day I see changes in the wetland and lake. The lake level drops, and the mud flats expand. All the while, the wildlife trenches and check dams remain full enough for river otters, beaver, muskrat and nutria to swim up the canals in the wetlands on both sides of Meares Ave. Unfortunately, the grate at the culvert blocks passage so the wildlife walk across on the road.” Wendy Burroughs



Beaver, Muskrat, and Nutria eat aquatic and riparian plants.

Beavers and Nutria are known for digging channels that they can travel through.

Fish and fish-eating river otters benefit as they also find food and shelter in the constructed waterways.

Water management courtesy of our Ecosystem Engineers

View of pool and overflow to channel from utility pole at the road.

Headed up the channel towards the road and pole.


Submerged 18” blade on right
is touching bottom of channel


Nutria tracks


October 3, 2023
September 10, 2023


October 2023

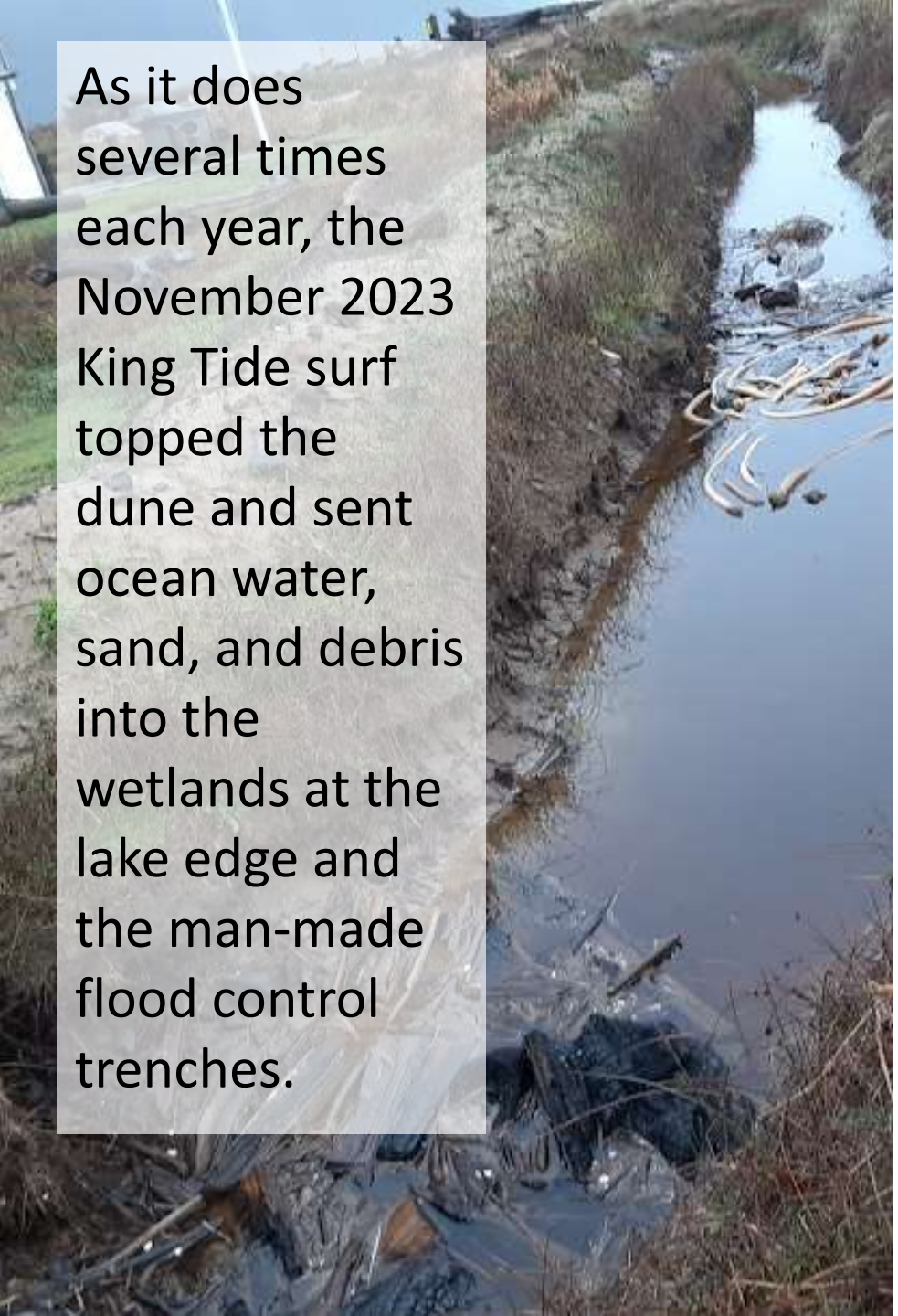

During this major flood event the wildlife constructed dams allow for water flow while the grasses and cattails filter sediment.


Water channels excavated by human ecosystem engineers

By design, floodwater flows over the road at concrete spillway

Drainage improvements made to the beach parking access 2022-2023. Photos illustrate the flow of water and sediment following the first major rain event for the season (Nov 2-5, 2023).


Trenches and culverts direct sand, debris and water away from the beach parking lot. The cattails and other plants trap and filter sediment.
November 2023
February 2024



As it does several times each year, the November 2023 King Tide surf topped the dune and sent ocean water, sand, and debris into the wetlands at the lake edge and the man-made flood control trenches.

These trenches are designed to maintain connectivity between the beach/ocean and the lake/wetland environments. There will be some modifications made to better accommodate flows.


November
2023


February
2024


January
2024

My experiences in this place prompt me to explore these questions:

- What are additional steps the community of Cape Meares can take to advance soil and water conservation and watershed protection?
- Can we, or should we, take action to control invasive species? If so, what species and types of control?
- What can be done to reduce risk to wildlife crossing over the road from wetland to lake?

What are your questions? Do you have observations and experiences to share?

CAPE MEARES
COMMUNITY ASSOCIATION

Join the Conversation

Cape Meares Lake and Wetlands Project Team

CapeMeares.org