

Miller Bay Guardian

This & previous issues are available, in color, on our website - www.friendsofmillerbay.

Fall 2022

Paul's perspective

New Project for FOMB?

Hundreds, if not thousands, of conifer seedlings are planted every day in Washington in hopes of restoring fish and wildlife habitat. FOMB volunteers have been doing this for decades around Miller Bay. These efforts require years of follow up; annual brush and invasive vegetation removal and protection from hungry herbivores, to ensure the plantings succeed.

Is there another approach to consider? Of course. Protect mature forests to make it unnecessary to “start over” with seedlings.

FOMB has identified a privately owned two-acre parcel with many of the largest trees in the Miller Bay watershed. Spires of Douglas fir, red cedar and hemlock tower 150 feet above their perch on a Miller Bay hillside. Their skyward growth is slowing as they significantly increase their trunk and branch density. They're consuming prodigious amounts of carbon dioxide to produce oxygen and abundant tree mass, and providing aerial habitat for specialized wildlife and plants, while their vast and complex root networks interact with their environment in ways that are not fully understood (see Suzanne Simard's book, *Finding the Mother Tree* for more on this).

Although two acres is a small forest, this land adjoins the 70-acre Indianola Forest Preserve. We are excited about the opportunity to preserve this unique parcel and will keep you informed when the project is officially launched. You can view a drone video of the site, made for us by Paul Dudley, on our website.

Again this year, FOMB volunteers are actively maintaining the Cowling Creek Forest Preserve and Miller Bay Preserve trees and trails, as well as removing invasives and planting native trees and shrubs. Our annual Miller Bay cleanup in July was another success.

Look on our website for volunteer opportunities in 2023 as we learn to live in a post Covid world.

Thank you one and all for your support,


FOMB President



FOMB Community Meeting

Suquamish House of Awakened Culture

Thursday November 10 at 7 pm

Olympia Oyster Restoration
In Miller Bay and Puget Sound
will be the Featured Presentation by

Brian Allen,

Puget Sound Restoration Fund's
Senior Research Scientist

Bring your family and friends to this free Program!

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Silt fence/amphibian barrier on NK Heritage Park border.

Unintended consequences

Amphibian Barrier not Anticipated

During the winter of 2021-22 the sudden appearance of significant amounts of silt in Beaver Creek (on the east side of North Kitsap Heritage Park – NKHP) was determined to have come from the deforestation phase of the Arborwood development.

A stop-work order was issued to allow for corrective measures to prevent further contamination of Beaver Creek. Already, over 1000 feet of plastic silt fence had been constructed between the sewer access road easement across NKHP and the Park wetlands to the west, effectively isolating those habitats.

Then, in early March 2022, citizens began to report finding stranded amphibians (frogs and salamanders) on the east side of the fence, in obvious distress (e.g. female frogs depositing eggs on dry ground that it took them a year to develop). Between March 1 and April 11, 362 live amphibians were lifted over the fence by concerned citizens. Body parts and other evidence suggest the toll may have been much higher; as many as 500 individuals representing five species.

One might be forgiven for believing this was a once-a-year, springtime reproductive event. Such is not the case. Rather, most amphibians demonstrate bi-modal migratory activity, involving both spring and fall movements.

Consider the typical amphibian life cycle. Following late winter/early spring opportunities to migrate to breeding ponds (rainy February weather), adult amphibians deposit fertilized eggs which soon hatch into tiny larval forms. Following a variable larval period, dependent upon food and oxygen availability in the small fishless ponds in which they breed, aquatic larvae metamorphose into terrestrial juveniles. During the subsequent dispersal from the natal pond, juveniles are attempting to reach the adjacent uplands

in which they will spend the next year or two maturing into adults. However, the same dry, hot weather that prompted metamorphosis limits their ability to move far from the wetlands that ameliorate its effects.

As the first fall rains arrive, September/November, frustrated juveniles, trapped close to wetlands all summer, are freed to complete their journey into the uplands that will sustain them until adulthood. Meanwhile, last year's adults from the local uplands begin to feel the need to relocate the natal pond, in anticipation of an upcoming spring migration and so there is movement of adults from uplands back toward wetlands. The result, a fall movement of amphibians in both directions (underway as of this writing) both obstructed by the omnipresent silt fence.

This is consequential for these globally threatened species. The ultimate result of isolating small populations is subsequent declining fitness, leading to extinction. The Public Works silt fence is now poised to obstruct/kill these second-phase fall migrant amphibians and complete the isolation of Park amphibians. - Tom Doty, Ph.D.

Tom Doty is a Miller Bay resident and an emeritus professor of biology. He is a park steward for North Kitsap Heritage Park and is very passionate about the plight of amphibians. For the third year in a row, Tom graciously offered to write an article for the Miller Bay Guardian.

See last year's MBG (on our website) to read Tom's discussion about how migration affects amphibian genetic diversity.



Red-legged frog on the move.

Testing hot-spots

Water Quality in Miller Bay

For many years Miller Bay has been closed to shellfish harvesting because of high bacteria counts. More recently, the word was that the water quality was improving. The good news is that Miller Bay is open to shellfish harvesting now.

The following information came to us from Ross Lytle, senior environmental health specialist with Kitsap Public Health District (KPHD):

“As part of our regular rotation of shoreline surveys throughout the county, we conducted our Miller Bay dry-weather shoreline survey in the summer of 2020. We are scheduled for both wet weather and dry weather surveys of Miller Bay in 2026.”

“Our shoreline surveys involve walking the entire shoreline of the survey area. We collect water samples of any water discharge onto the beach – pipes, culverts, beach seeps, small streams, etc. If any sample comes up with a high E. coli count (320 E. coli per 100 ml), we try to collect two follow-up samples at that site. If the geometric mean of the three samples exceeds the 320 E. coli/100 ml figure, it is designated as a “hot-spot”, and KPHD staff will begin an investigation of possible sources which may be causing the high bacteria counts. The investigation may reveal that the bacteria source(s) can include failing septic systems, a high concentration of wildlife, road drainage, etc. If the investigation should lead to a possible

failing septic system, KPHD staff may ask the homeowner to allow a dye test of the system.”

“Our 2020 dry-weather survey did not confirm any hot-spots within Miller Bay. However, the Washington Department of Health (DOH) conducts ongoing marine water sampling in all Kitsap County approved shellfish growing areas, including Miller Bay. In 2021, they have found some elevated bacteria counts at one of the monitoring locations near the north end of the bay and we have elected to re-examine some of our sites with higher bacteria counts in the area. I am currently conducting this review into the autumn months.”

“Areas approved for shellfish harvesting can be viewed here: fortress.wa.gov/doh/biotoxin/biotoxin.html. As this monitoring work moves forward they will work with property owners who may be involved, but they don't necessarily “publish” those investigations and any bacteria sources they find, they move to correct. You can monitor the health of the bay through the WA DOH shellfish growing area reports which you can find here: doh.wa.gov/community-and-environment/shellfish/growing-areas/annual-reports.”

“More information about KPHD programs and to receive notifications about water quality advisories throughout Kitsap is available here: kitsappublichealth.org/environm`ent/sls.php.”



Upper bay - peaceful and wild.

Port Gamble Heritage Park **Donate & Save Trees**

As Paul mentions in his page one article, protecting trees which are reaching maturity can have a big impact towards reducing the effects of climate change. The older and larger the trees, the more carbon is stored.

An effort to save an existing forest is going on in the Port Gamble Forest Heritage Park. Although Kitsap County own the land, Rayonier owns timber rights on 756 acres of forest until 2042 and those acres will most certainly be logged before those rights expire.

A local group has formed the organization, *Our Forest Fund* to raise the money to buy the timber rights and save hundreds of acres of trees, which will become an old growth forest much sooner than a newly planted one!

All donations made by October 31st will be matched eight times by an anonymous donor. Visit ourforestfund.org and make your tax deductible donation. Increase the health and resilience of these lands for future generations!

Urban/wild interface

Coyotes on the Move

FOMB webmaster, Michelle Amicucci submitted the following article to us from the Edmonds News. Recently one of her chickens had flown out of its coop onto her driveway and was happily pecking around. In less than 5 minutes, in broad daylight, a coyote dashed out of the brush to chase it around before capturing the unlucky hen and carting her off. It was a sad event caught on Michelle's driveway camera.

This Edmonds News article contains a few tips to keep your pets safe:

You may have seen more coyotes out and about in recent weeks. As young coyotes leave their birth families in fall to find territories of their own, the number of coyote sightings in our community goes up — and the City of Edmonds offers some tips for co-existing with them.

Like other wildlife that live in cities, coyotes are very shy and work hard to avoid people, the city said. They are highly adaptable and are found in nearly every type of habitat from dense forests to residential and commercial centers, where they live side-by-side with people — virtually undetected.

Coyotes can make excellent neighbors by keeping populations of pests like rats, mice and rabbits in check within the urban landscape. However, people may unintentionally invite coyotes into their yards by leaving unsecured pet food, garbage or compost outside. This can make unattended pets vulnerable to attack.

You can keep a healthy separation between humans and coyotes by following a few simple steps:

- Never feed coyotes.*
- Keep cats and dogs in a secured area or on a leash.*
- Do not leave pet food (or any food) outside.*
- Make sure your garbage cans and compost bins have tight-fitting lids.*
- Keep the area under and around bird feeders clean and free of food to avoid attracting rodents to your yard.*

If you encounter a coyote, keep pets and children under close supervision and do not turn your back or run away. Chances are the coyote will leave the area once it sees you. If you want to scare the coyote away, make loud noises by shouting or clapping. If the coyote is acting aggressively towards you, call 911. If the coyote looks weak or sick, call Animal Control - Kitsap Humane Society at 360 692-6977.



Upper Miller Bay night time trail cam shot of coyote by Paul Dorn

For more information on how to co-exist with coyotes and other wildlife, visit the Washington State Department of Fish and Wildlife Living with Wildlife web page at wdfw.wa.gov/living.

Meet Jeremy Hewett

MB Marine

Jeremy is the new owner/manager of Miller Bay Marine, formerly Mattson's. Jeremy lives in Kingston, and formerly worked at the Kingston Marina. He was acquainted with Matt, just from being in the business. He has brought some friends in from Kingston to help him run his new endeavor.

Jeremy plans to run the marina in the same vein as Matt, but will be making some upgrades and improvements in the coming months. He intends to be supportive of FOMB activities in the future, and we welcome him as a new neighbor!





Sunny at age six with stingray. Photo - Aimee Anderson Svarthumle

Fond Memories

By Sunny Anderson Morris

Once the outside temperature rose above 55 degrees, Miller Bay and our dock became a playground for my barely older brother and me. One of our favorite things to do was to spend hours at the end of the dock fishing for bullheads. You didn't even need a fishing pole, just a small stick with a fishing line wrapped around it and a hook at the end with a chunk of hot dog. Once your line was down, the fish would swarm around your hook and with a quick jerk, you could catch one. In a large bucket, we collected as many as we thought was exciting. We watched them squirm and fight as it became more crowded. After sacrificing one or two for more bait, we then dumped the bucket of fish back in the bay. We could do this all day.

When we weren't fishing for bullheads we were playing in the mud. When the tide was low the entire bay became a large mud flat with a small stream flowing all the way to the hatchery. At high tide the deepest point of the bay was only 25 feet. At low tide the deepest point was a mere 10 feet. If you start from the right area of the bay you can walk the entire way across it. If you walked far enough toward the end of the bay to where the small stream flows, you could see salmon struggling in the shallow waters. I once found a stingray. It was as big as my 8 year old body. It wasn't alive and most likely got stuck in the shallow waters unable to swim out to deeper parts of the bay. Octopus have also been found suffering the same fate. Although sometimes fatal for wildlife, these low tides and warm days were our favorite kind of days. The sun would warm

the mud and the shallow waters and to us the bay became our swimming pool.

If we wanted to make "mud soup", all we had to do was stand in one spot in the mud and walk in place for about a minute. Deeper and deeper our legs would sink into the soup until it was big enough and deep enough for us to sit down and submerge ourselves. We called this playing in the "pig pen". We would roll around acting like filthy pigs oinking and grunting. As we played in our pigpen, small creatures would emerge to the surface. Baby shrimp, crabs, mud worms and clams. It was like discovering treasures in our bathtub. As each animal emerged, we would carefully put our creature friends to the side and keep playing. The baby shrimp and crabs would eventually crawl away and the clams and worms would slowly submerge themselves back into the mud. Once we had enough of this we would pull ourselves out of our mud pits, run into the warm shallow water and wash all the mud off our bodies. After we were all clean, more often than not, we would go back for a second round of "pig pen".

On other days, we would go to "the junkyard." We discovered this place one day while wandering along the bay's edge. It appeared to be a garbage dump from long before we had lived here. We found old glass bottles and vases, old machinery and auto parts. As the tides came in and out new junk was continually being exposed. We became mini archaeologists, unearthing "treasures" with each visit. Our favorite discoveries were old glass medicine bottles because even mom was excited about that junk. She would always try to guess how old the bottle might be and what kind of medicine it might have held.

Not too far from the junkyard was the "clay wall". Here, the mud on the bank was a thick and dry consistency. We would get a large broken clam shell off the beach and use it like a knife to carve away a large chunk of clay. We would carry it home and sit on the dock spending hours carving and designing our chunks of clay. Mine usually resembled a simple heart with my initials on it, my brother would try for a more complex car or a boat. Our sculptures would eventually dry out and crumble, and a few days later we would do it all over again.

When I wasn't fishing for bullhead or making pig pens or discovering junk or carving clay, I was collecting rocks. I would spend hours and hours scouring the beach, looking for rocks special enough to make me want to pick them up and add them to my enormous rock collection. For the most part, rock collecting became my favorite solitary activity. I enjoyed thinking about how far the rock had traveled to come to my beach. What was it made of? Why did it have its particular shape and color? How old must it be? It was as if each rock had a story to tell and I wanted to discover it. This favorite quiet solitary activity is one that would stay with me my entire life.

This place, Miller Bay, was my childhood paradise and it is where most of my favorite memories were made.



PO Box 37
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Mark your calendar for 7pm on Nov.10 for our presentation about Olympia oyster restoration at the

www.friendsofmillerbay.org

Our oysters are doing well

An Update on Oysters

By Paul Dorn

The Olympia oyster restoration project permitting is taking longer to finalize as we work through the process of contacting tideland property owners to secure their permission signatures. Some property owners live far away and have been difficult to contact. The Olympia oysters purchased for this project are thriving in their temporary home in Clam Bay.

FOMB volunteers continue to monitor and maintain the earlier 2018 Olympia oyster garden project in Miller Bay. We are happy to report that this small project was unharmed by the June 2021 heat wave that decimated shellfish populations around Puget Sound. This bodes extremely well for the success of our much larger new project in 2023.

To learn much more about oysters and our oyster project, please join us at the FOMB Community Meeting at 7 PM on November 10 at the Suquamish House of Awakened Culture. The featured speaker will be Brian Allen, Puget Sound Restoration Fund's Senior Research Scientist who will give an overview on our local Olympia oyster restoration effort in context with Puget Sound wide Olympia oyster restoration projects.



FOMB board sorts Olympia oysters from our Miller Bay oyster garden.