2026 Newsletter 4

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Hello everyone,

What an evening we had on March 30! Our speakers—once again— were incredibly engaging, and shared so much fascinating information. The chat was very lively throughout the evening, and we learned that many of you are divers, snorkelers, ocean swimmers, tidepoolers, waders, and one participant represented the freediving community. **Thank you all for your participation**.

REMINDER - No Wonders of Salish Sea on April 6. **See you all on April 13**.

You can find WSS information, including newsletters, Zoom link, and recordings HERE.

Questions? Contact us at salish.wonders@gmail.com or gsa@georgistrait.org.

1. Recording Link

If you weren't available to attend the live Zoom on Monday, or you would like to see the presentations again, here is the RECORDING LINK.

Many thanks to Georgia Strait Alliance for hosting WSS 2026, in partnership with the Salish Sea Institute at Western Washington University.

Georgia Strait Alliance

SALISH SEA INSTITUTE | WESTERN WASHINGTON UNIVERSITY

2. Summaries of March 30 presentations

Dive into the Shallows: Fishes You Might See in Shallower Salish Sea Waters

Janna Nichols

Who knew that fish living in shallow waters could be so fascinating? Janna, our shallow-water fish guide, is a long-time scuba diver in the Pacific Northwest and Citizen Science Program Manager for REEF (Reef Environmental Education Foundation). REEF has worked with over 18,000 volunteer surveyors since 1993. They document the fish, invertebrates and algae they observe, which gets entered into a publicly accessible database available at REEF.org. Janna herself has completed approximately 1,700 surveys. For more information about being a surveyor, see information from Janna below.

Janna opened our eyes to the remarkable adaptations of 12 fish species that call shallow waters home. These species live in a variety of habitats, such as rocky reefs (sculpins, rockfish, ling cod); kelp forest (juvenile rock fish); sandy bottoms (a "desert" that flatfish enjoy); eelgrass beds (frequented by Pacific staghorn sculpins and shiner perch), and artificial structures including wharfs and pilings (pile perch love it here).

What special adaptations and superpowers help these fish survive and thrive in waters with changing temperatures and turbidity, tides that sometimes expose them to air, and predators from sea, land and sky? Many species are masters of camouflage, blending into the surroundings with their black and white markings, such as the tidepool sculpin, great sculpin and the starry flounder. The high cockscomb lives in as little as 2 feet of water—fortunately, it can survive out of water for up to 20 hours! The northern clingfish uses modified pelvic fins as suction cups, allowing it to hide by clinging to structures upside down; it can also breathe air.

Photo: Janna Nichols

Do you remember which fish this is? *answer on next page*

Creativity is especially seen in mating behaviours. The male tubesnout attracts females by turning its snout blue and its anal fin a fluorescent orange—described as "spectacular" by one participant. Get the full report on tubesnout mating, as well as where the females ingeniously lay their eggs, on the Marine Detective FB page.

The male plainfin midshipman, on the other hand, travels from deeper waters to the shallows to make a nest, and attract females—by singing! Moving air through its swim bladder past its vocal cords produces a humming sound that can even be heard by humans. One participant commented, "they sound like monks chanting." After the females lay their eggs, they return to their deep water home, leaving the males to take care of the nest—a very interesting adaptation!

Here are some of Janna's favourite fish resources:

- Coastal Fishes of the Pacific Northwest, Lamb & Edgell
- Coastal Fish Identification. California to Alaska. Humann & Deloach
- A Field Guide to Coastal Fishes: From Alaska to California, Kells, Rocha, Allen

Janna also mentioned Free e-books by Greg Jensen (Flatfish Made Easy, Pacific Northwest Sculpins). Greg presented for WSS in 2024 on "Crabs and Shrimps:

Their unsung roles in Salish Sea ecosystems." A recording of that talk is available here.

Janna also gave us the opportunity to get our very own fish name. See photo. This is also found about midway through the presentation.

The review questions were really fun too! A note in the chat reminded us that a free membership to REEF gives you access to many presentations and quizzes, just like Monday night.

Personally, I can't wait to explore the shallows and look for fish, now that I have a few clues to help me find them. I might see some of you there!

~Brave Anglerfish

PS. *It's a High Cockscomb!*

The Secret Lives of Harbor Porpoises

Cindy Elliser

The second talk for the night was a deep dive into the secret lives of harbor porpoises by Dr. Cindy Elliser. Dr. Elliser's passion and endearment for the species shone throughout the presentation, leaving the attendees in awe and newfound love for this quirky and vital species that call the Salish Sea home.

The talk explored the key differences between dolphins and porpoises highlighting that dolphins typically have curved dorsal fins, beaked faces, and cone-shaped teeth, while porpoises have more triangular dorsal fins, rounded faces, and spade-shaped teeth. Socially, dolphins often travel in large groups (somewhere between a couple of hundred to thousand individuals), whereas harbor porpoises would be that one person in the corner at a party—seen alone or in small groups (though there are no fixed rules, and exceptions exist).

In the Salish Sea, two porpoise species are present: Dall's porpoises, which are larger at around 450lbs and 8 ft, black-and-white, and less abundant,

REEF

From Janna:

Want to get involved tracking fish and invertebrate populations in the Salish Sea on your dives or snorkels? Head on over to www.REEF.org and check out our Volunteer Fish Survey Project (under the Programs tab). A Quickstart video and info sheet is located here: www.REEF.org/events/intro-reefs-volunteer-fish-survey-project

If you're interested in accessing past data, check out the Explore Database and Reports under that same Programs tab.

REEF also has hundreds of free fish and Invertebrate ID webinars (called Fishinars) for the Pacific Northwest and other regions worldwide here: www.REEF.org/fishinararchives

And of course, you're welcome to send any questions to Janna Nichols (aka Cheerful Lumpsucker), janna@REEF.org. Be sure to use your fish name!

and harbor porpoises, which are smaller at about 150lbs and 5.5ft, grey-brown, and highly abundant. Despite their prevalence, harbor porpoises have historically been understudied, and their population trends and ecology remain relatively unknown. Harbor porpoises have short lifespans (typically 8–24 years), reach sexual maturity at 3–4 years, and reproduce frequently, with calves typically born annually or every other year. They rely on high-frequency echolocation and are well adapted to cold waters, requiring constant feeding due to their high metabolism. As local, nearshore top predators, they are considered important indicators of Salish Sea ecosystem health and also serve as prey for Bigg's killer whales.

Research by Pacific Mammal Research (PacMam), based at Burrows Pass in Washington, has been instrumental in advancing knowledge of harbor porpoises. Using land-based observations, photo-identification, and behavioral data, PacMam has identified over 200 individuals—pioneering the use of pigmentation patterns, scars, and dorsal fin shapes for tracking this species. Findings show that harbor porpoise movements are closely tied to prey availability and tidal conditions, with a preference for productive tidal stream habitats. Their diet includes herring, anchovy, hake, and pollock, though some individuals have been observed targeting larger fish—sometimes resulting in fatal choking, particularly among reproductive females. Although often thought to be solitary, harbor porpoises display a range of social behaviors, including cooperative hunting,


Photo: Cindy Elliser

social rubbing, and even large aggregations of over 100 individuals, likely linked to feeding and social activity.

Play behaviors have also been observed, such as interacting with prey and surface "logging." Reproductive behavior is brief and difficult to observe, occurring year-round, with calves typically seen in late summer. Long-term observations suggest small group sizes (usually three or fewer) and seasonal shifts in presence, with fewer sightings in summer. Through incredible drone footage and photography, we also got to meet identified individuals like Pointer and Comet among the others which was a treat!

Overall, the research highlights both how much has been learned about harbor porpoises in recent years and how much remains unknown about their behavior, ecology, and role in the Salish Sea ecosystem.

Thanks to Maithili for this summary!


Photo: Trevor Derie

Photo: Philip Lambert

3. April 13 presentations

7:00 - 7:55 PM

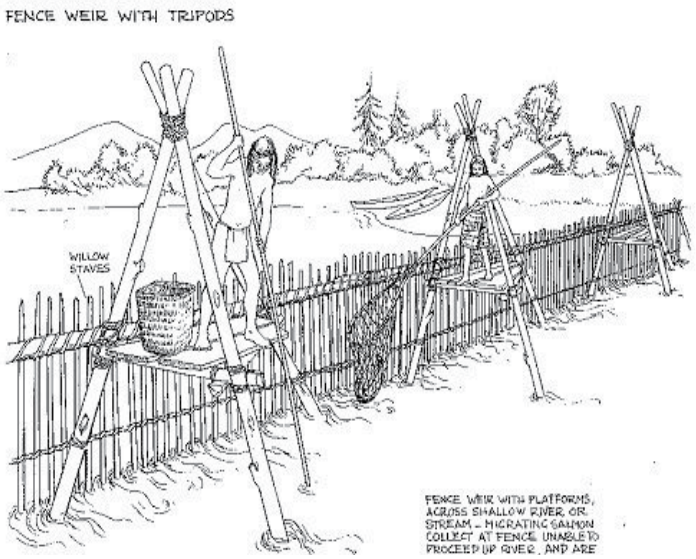
Sea Stars of the Salish Sea

Philip Lambert

What animal has no brain and no blood, digests food outside of its body, and is able to regenerate its own arms? Sea stars! This presentation will describe various aspects of the lives of sea stars common to the Salish Sea, including their internal anatomy, behaviour, predators, reproduction, prey, and ecology of west coast sea stars. We will also learn about sea star wasting disease and recent research on this ongoing issue.

About the Speaker

Phil Lambert is a retired Curator of Marine Invertebrates at the Royal BC Museum, where he worked from 1973 to 2007. He is the author of three identification handbooks: 1. Sea Stars; 2. Sea Cucumbers; and 3. Brittle Stars, Urchins, and Crinoids. From 1996 to 2025, Phil coordinated the Marine Night speaker series for the Victoria Natural History Society (VNHS), and he also served on the VNHS board from 2008 to 2025.



8:05 - 9:00 PM

Feeding the People, Caring for the Land: Indigenous Food Systems of the Salish Sea

Jared Qwustenuxun Williams

This talk shares how Indigenous peoples of the Salish Sea built food systems that supported strong communities, healthy ecosystems, and long-term abundance. Practices such as fish weirs and clam gardens were grounded in responsibility, careful

observation, and care for future generations. These systems fed families, supported trade and ceremony, and strengthened relationships between people, land, and water. By revisiting these teachings, the presentation invites listeners to understand Indigenous food production as living knowledge that continues to guide community wellbeing today.

About the Speaker

Jared Qwustenuxun Williams is a Hul'q'umi'num speaker, educator, and cultural knowledge holder from Cowichan Tribes. Their work focuses on Indigenous food systems, language revitalization, and the ways traditional land- and sea-based practices created abundance and ecological balance in the Salish Sea. Qwustenuxun shares these teachings through public talks, community education, and hands-on learning. They are committed to strengthening Indigenous food sovereignty by reconnecting people to place, responsibility, and ancestral knowledge.

4. Prompts and Quizzes

The Chat discussion prompt was, "Share a special moment or memory related to the Salish Sea" Responses included: "One of my favourite Salish Sea moments is the herring spawn, because it feels like such a powerful seasonal return—a reminder of cyclical time, ecological abundance, and how deeply life here is connected;" "The glorious views from Sidney B.C. across Haro Strait, Gulf Islands and San Juan Islands;" and "Snorkeling in cold water! It's such a direct way to experience the life of the Salish Sea."

The Quiz question was:

"What fish uses its swim bladder to attract females by making loud noises?" **Answer:** Plainfin Midshipmen.

Congratulations to our winner! The prize this week is a choice between Marine Mammals of British Columbia, John Ford, and Coastal Fishes of the Pacific Northwest, Andy Lamb, Phil Edgell. Thanks also to guest host, Sheila Byers, for the question.

The April 13th quiz prize is Luschiim's Plants: Traditional Indigenous Foods, Materials and Medicines, Luschiim Arvid Charlie, Nancy J. Turner.

5. Did you know?

Sea cucumbers are “remarkable animals that spend winter in deeper waters and essentially ‘power down.’ They go through a process called visceral atrophy, where their internal organs shrink—reducing body mass and energy needs when food is scarce. Their movements slow dramatically during this time. With the arrival of spring, they regenerate those organs and return to shallower waters to eat and spawn.”

Thanks to Saturna Island Marine Research and Education Society’s SIMRES seacam observers for this week’s fascinating Salish Sea facts.

See their video of the first Giant California Sea Cucumber of the season—showing some spawning behaviour—caught in the seacam HERE.

Photo: David Cowles

6. Field trips

Field trip in Anacortes with Cindy Elliser Friday April 10, from 10 am–12:30 pm

Join Cindy from Pacific Mammal Research, (PacMam) for a field trip in Anacortes, WA. The trip will start with a 10 min easy/moderate hike on a primitive trail to the field site, where we will sit for 2 hours. We then hike back out on the same path. Please wear layers; you will need good hiking shoes. Binoculars can be helpful but not necessary. Email cindy.elliser@pacmam.org to save a spot and she will send you more information, including directions.

Intertidal Exploration at Vancouver’s Stanley Park. Saturday, April 18 | 12:30–2:30 pm

The intertidal area off Figurehead Point in Stanley Park is submerged for part of the day, but as the tide recedes, surprising species are revealed. The exposed intertidal area becomes a stressful environment where only well-adapted species can survive. Who are these species, and what environmental conditions support their unique adaptations?

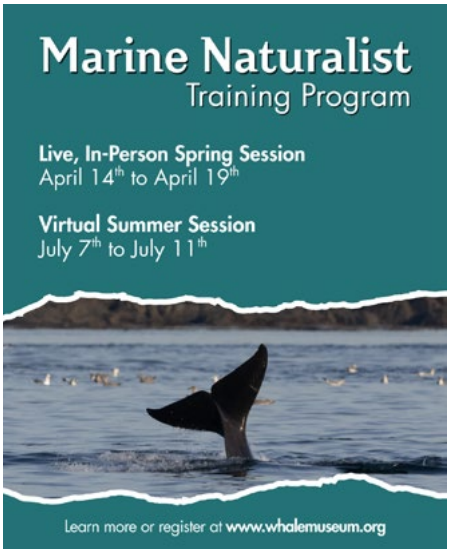
Join us as we unravel these mysteries while searching for sea stars, snails, crabs, clams, worms, seaweeds, and

whatever else catches our eye! This is the 10th year that WSS has offered this intertidal excursion to Stanley Park. In that time, some species have thrived while others have struggled to survive. What will we see this year? **Register here**.

Our guides for this field trip are Sheila Byers, Reg. Prof. Biologist and author of The Rocky Shore at Stanley Park field guide; Sharon Adelman and Leesa Watt, both long-time volunteers with the Vancouver Aquarium; and Rebecca Hansen, a marine biologist, ecologist, and researcher at the University of British Columbia. Rebecca was also a WSS speaker in 2025 on Intertidal Ecology. You can watch that presentation here, beginning at the 40:45 minute mark. A great way to prepare for this field trip.

7. UPCOMING EVENTS

- **Tuesday, April 14, 12:30 - 1:30.** 36 years of photo-monitoring after the Exxon Valdez oil spill. Join Gary Shigenaka and Alan Mearns (NOAA, retired) to explore more than three decades of shoreline photo-monitoring after the Exxon Valdez oil spill in Prince William Sound. Puget Sound Institute. Salish Sea Science Roundtable. Free. Registration required.
- Marine Naturalist Training Program. Whale Museum. Friday Harbor, WA.
  - **April 14-19, 2026, 9:00-4:30**. In person. Wait list.
  - **July 7-11, 2026.** Hybrid, virtual presentations and fieldtrips. 9-4. Some spots available.
- **Thursday, April 16, 2026 - Sunday, April 19, 2026.** Olympic BirdFest 2026. Set on Washington State's North Olympic Peninsula, between the million-acre Olympic National Park and the Strait of Juan de Fuca, this region is renowned for its rich birdlife and diverse habitats, making it one of the Pacific Northwest's premier birding destinations.
- **April 17, 6:30 PM**. Snorkelling against climate change. Snorkellers of BC Monthly Meet-up. COAST Ocean Innovation, Hub. 517 Herald St. Victoria, BC. Registration required.
- **Saturday, April 18, 10 AM - 2 PM**. Earth Day on Whidbey Island! Join in on the activities, immersive experiences, volunteer opportunities, and other ways to get involved in your island home. Free, family friendly, and open to all! Camp Casey, 1276 Engle Rd., Coupeville, WA.



Do you have an upcoming education event to share? Send the information to salish.wonders@gmail.com and we can add it to the next newsletter.

8. IN THE NEWS/READ/LISTEN

- ‘Good day to be a polar bear’: Carney unveils nature strategy, new conservation areas. Canadian Press. The Liberal government’s new $3.8 billion nature protection strategy will put Canada’s 2030 nature conservation goals within reach.” March 31, 2026.
- Dredging up risk: what’s at stake in Burrard Inlet. Commentary: A proposal to dredge the Second Narrows channel in Burrard Inlet could intensify the pressures of climate change. russ elliott, Anna Barford and Lovel Pratt. Salish Current. March 27, 2026.
- How an Indigenous conservation group is bringing the ‘excitement’ of the herring spawn to Vancouver Islanders. Your guide to herring spawning etiquette and where to see it on the Salish Sea. Mick Sweetman, The Discourse, Nanaimo. March 5, 2026.
- Sunshine Coast Underwater Listening Station. The Sunshine Coast (Mary Gordon) Underwater Listening Station is situated near Secret Cove, BC. It is the first of its kind in this area, allowing us to collect vital data on the presence of marine life and vessel traffic in the Malaspina Strait. Raincoast Conservation Foundation. No date.

Read

- If you’d like to learn more about Harbor Porpoises, check out this Oceans 2025 article, Resident Harbor Porpoises (Phocoena phocoena vomerina) in the Salish Sea: Photo-Identification Shows Long-Term Site Fidelity, Natal Philopatry, and Provides Insights into Longevity and Behavior, by Cindy R. Elliser, Katrina H. White, Maia C. Hansen.

Listen

- Avian Flu In Washington State: The Connection With Caspian Terns & Harbor Seals with Dr. Katherine Haman. Dr. Katherine Haman, a wildlife veterinarian with the Washington Department of Fish and Wildlife (WDFW) tells us all about Avian Flu and the impact it has on our local seabird populations and marine mammals.

Looking forward to seeing you all on April 13!

Deborah (Brave Anglerfish), on behalf of Maithili (Plucky Prickleback), Cindy (Fearless Ratfish), Liz (Flirtatious Eelpout), Joan (Cheerful Sculpin), Rebecca (Alluring Toadfish) and, guest host this week, Sheila (Charming Sandlance).