



IX

Science & Education Report

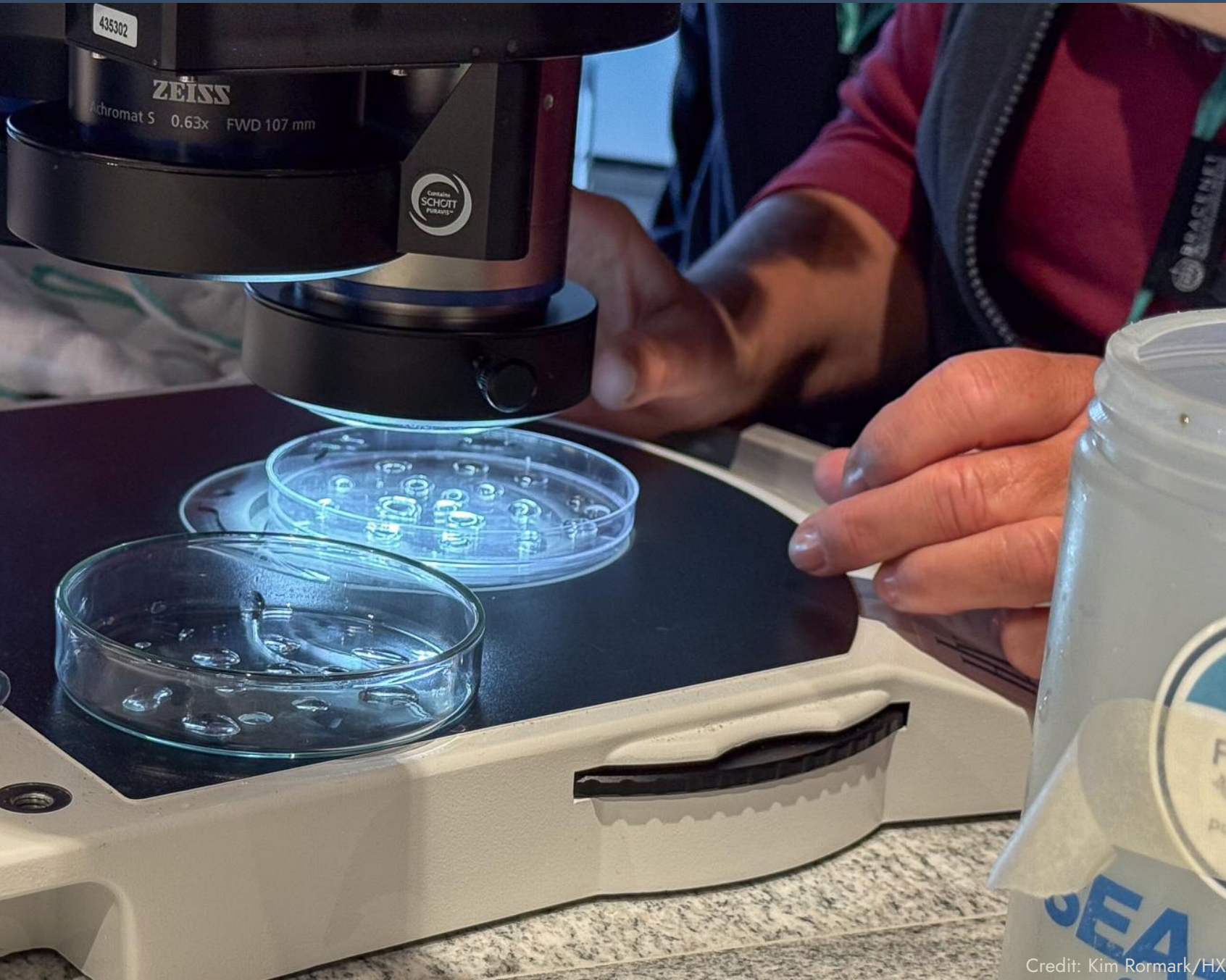
MS Fridtjof Nansen 2025

MS Fridtjof Nansen

Alaska and British Columbia
(Southbound)

09 Sept 2025 – 25 Sept 2025





Science & Education Program

From the remote Pribilof and Aleutian Islands to Kodiak's sheltered bays and the forested fjords of Southeast Alaska, the Science and Education Team journeyed with you down the North Pacific coast, sharing the wonders of this remarkable region.

Through lectures, hands-on workshops, and cultural experiences ashore, we explored wildlife, local traditions, and the natural forces that continue to shape these landscapes.

We hope that shared moments, such as seeing seabirds at St. Paul, spotting whales along the Alaska Peninsula, or sailing quietly through Misty Fjords, have deepened your appreciation for this coast and sparked a lasting curiosity about the natural world.



Science & Education Program

Aboard HX vessels, we are guests in Alaska's wild and ever-changing landscapes, but through citizen science, you have become part of something bigger. Science is for everyone, happening everywhere, every day, and your participation makes a difference.

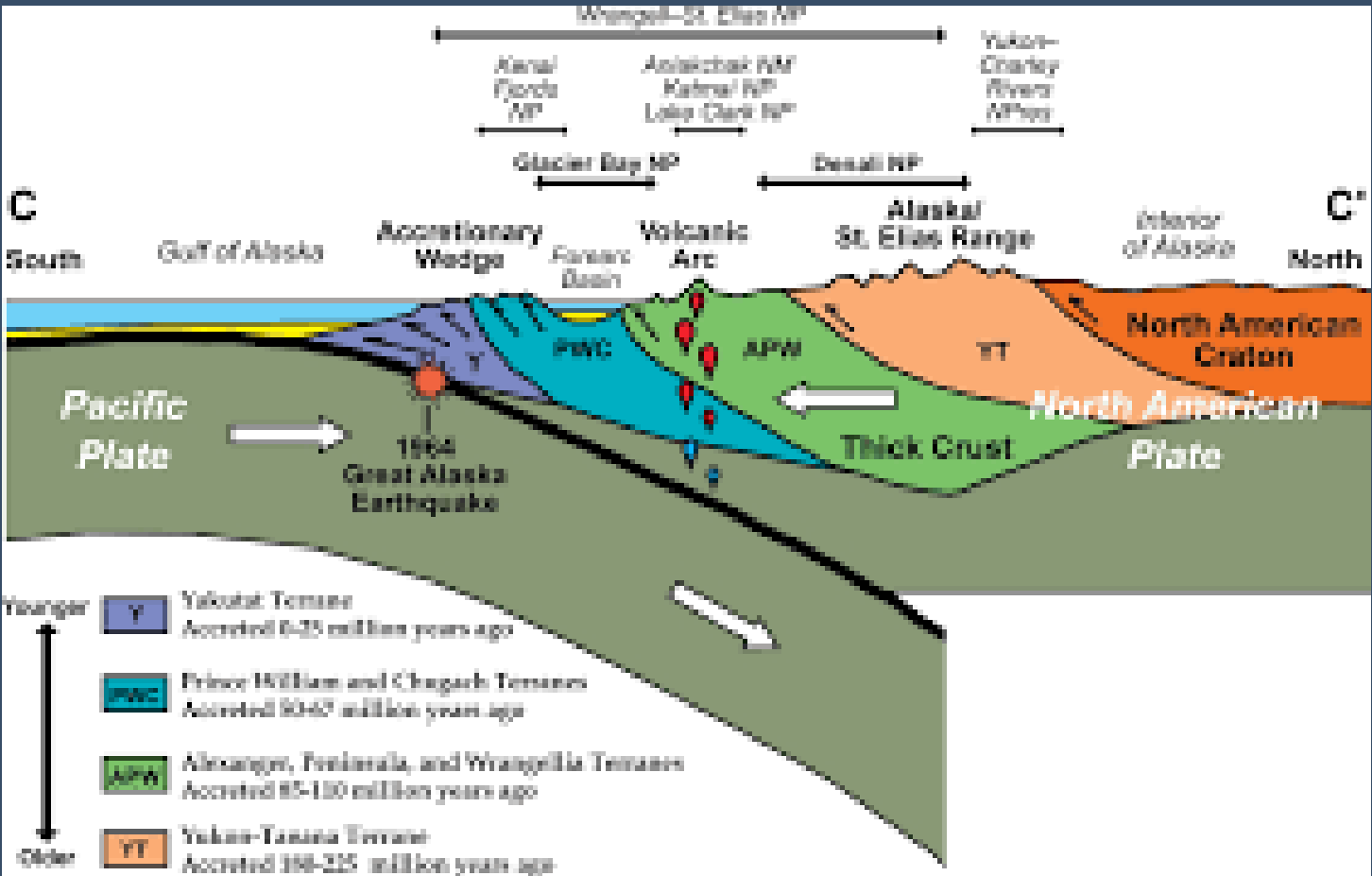
By observing wildlife, collecting data, and contributing to global research projects, you have forged a deeper connection with the ecosystems of the North Pacific coast.

This journey doesn't end here. You have the tools to keep exploring, documenting, and protecting nature wherever you go. Together, we can turn curiosity into action, fostering a future where people and the planet thrive.

Geology

Southeast Alaska is one of the most geologically complex regions in North America, shaped by the interplay of accreted terranes, plutonic intrusions, and active tectonics. Much of its foundation is built from a collage of terranes, distinct fragments of crust that were transported by plate motion and sutured onto the margin of North America over hundreds of millions of years.

Among these, the Alexander terrane, Wrangellia, and the Chugach terrane are particularly prominent. These terranes contain a mixture of volcanic, sedimentary, and metamorphic rocks that formed in environments ranging from volcanic island arcs to oceanic crustal fragments.



Credit: USGS

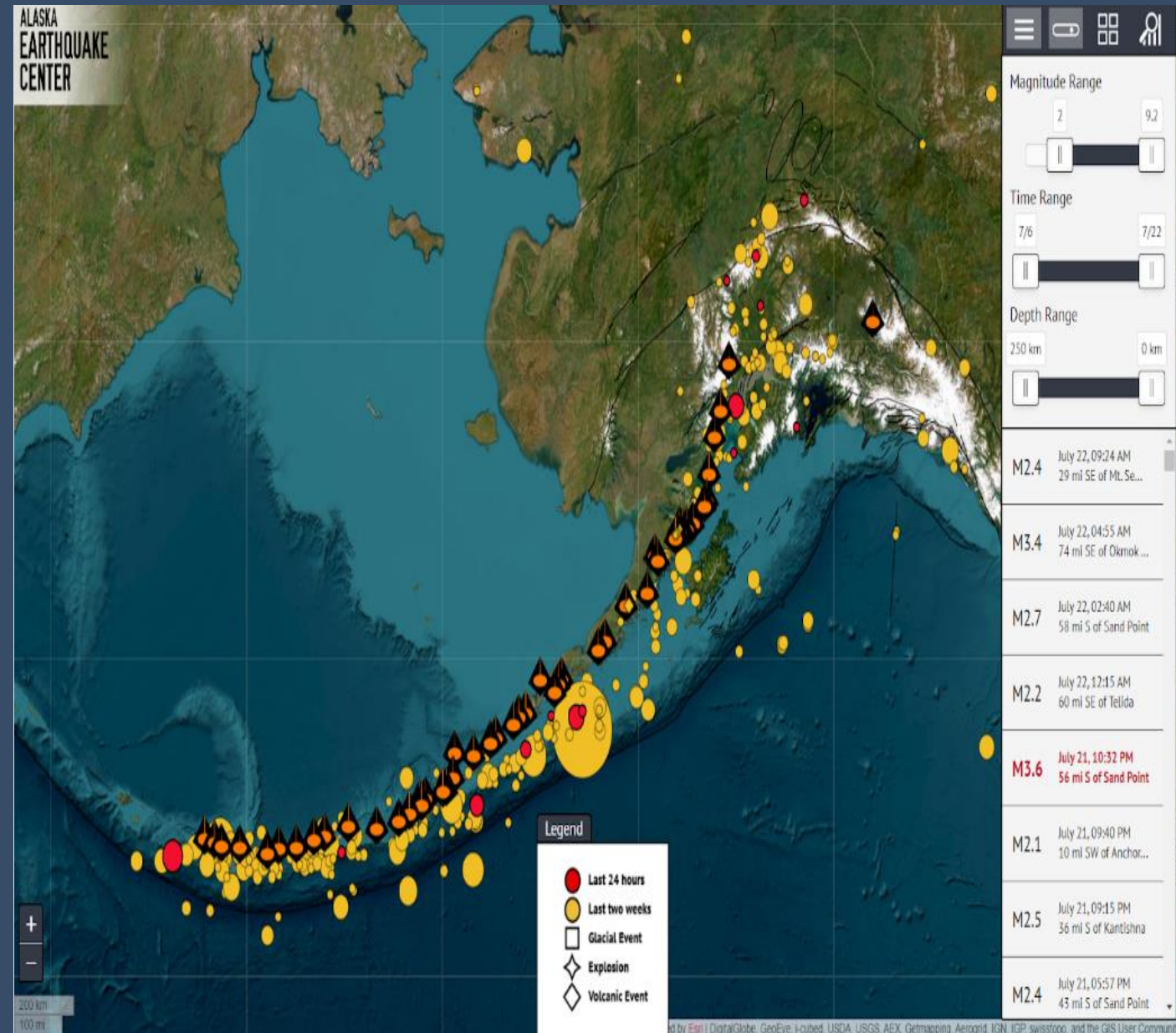
Geology

The Aleutian arc spans approximately 2,500 kilometres from mainland Alaska to Russia, forming a classic volcanic island arc above a subduction zone. Here, the Pacific Plate subducts beneath the North American Plate at the Aleutian Trench.

The Aleutians are one of the most active tectonic regions in the world. Volcanism defines the geology of the Aleutian arc. The islands are composed mainly of Quaternary volcanic rocks, including basalt, andesite, and dacite, reflecting partial melting of the subducted slab and overlying mantle wedge.

More than 40 active volcanoes line the arc, including Mount Shishaldin, Pavlof, and Cleveland, which regularly erupt and pose hazards to air traffic. Stratovolcanoes dominate, though some shield volcanoes and caldera complexes also occur.

The islands themselves are built from stacked volcanic sequences interbedded with marine sediments. These strata are uplifted and deformed by ongoing tectonics, while frequent earthquakes—many exceeding magnitude 7—illustrate the immense energy released by the subduction system. The Aleutian subduction zone is also capable of generating large tsunamis, as evidenced by those recorded in 1946 and 1957.



Credit Alaska Earthquake centre

Cryosphere

Icy Bay, situated on the southeast coast of the Gulf of Alaska, is a dramatic landscape shaped almost entirely by ice. It was once filled by three large tidewater glaciers—the Guyot, Yahtse, and Tyndall—descending from the St. Elias Mountains. These glaciers carved a deep fjord system, grinding the bedrock and transporting vast amounts of sediment to the bay.

Over the past century, rapid retreat has transformed Icy Bay: where ice once filled the valley, open water now dominates, with towering ice cliffs at the glacier termini. Today, the bay remains dotted with icebergs calved from the glaciers, while floating sea ice, seasonal snow, and persistent glacial ice continue to define the environment.

The ongoing retreat serves as a living laboratory for studying climate change, glacial dynamics, and their impact on marine ecosystems.

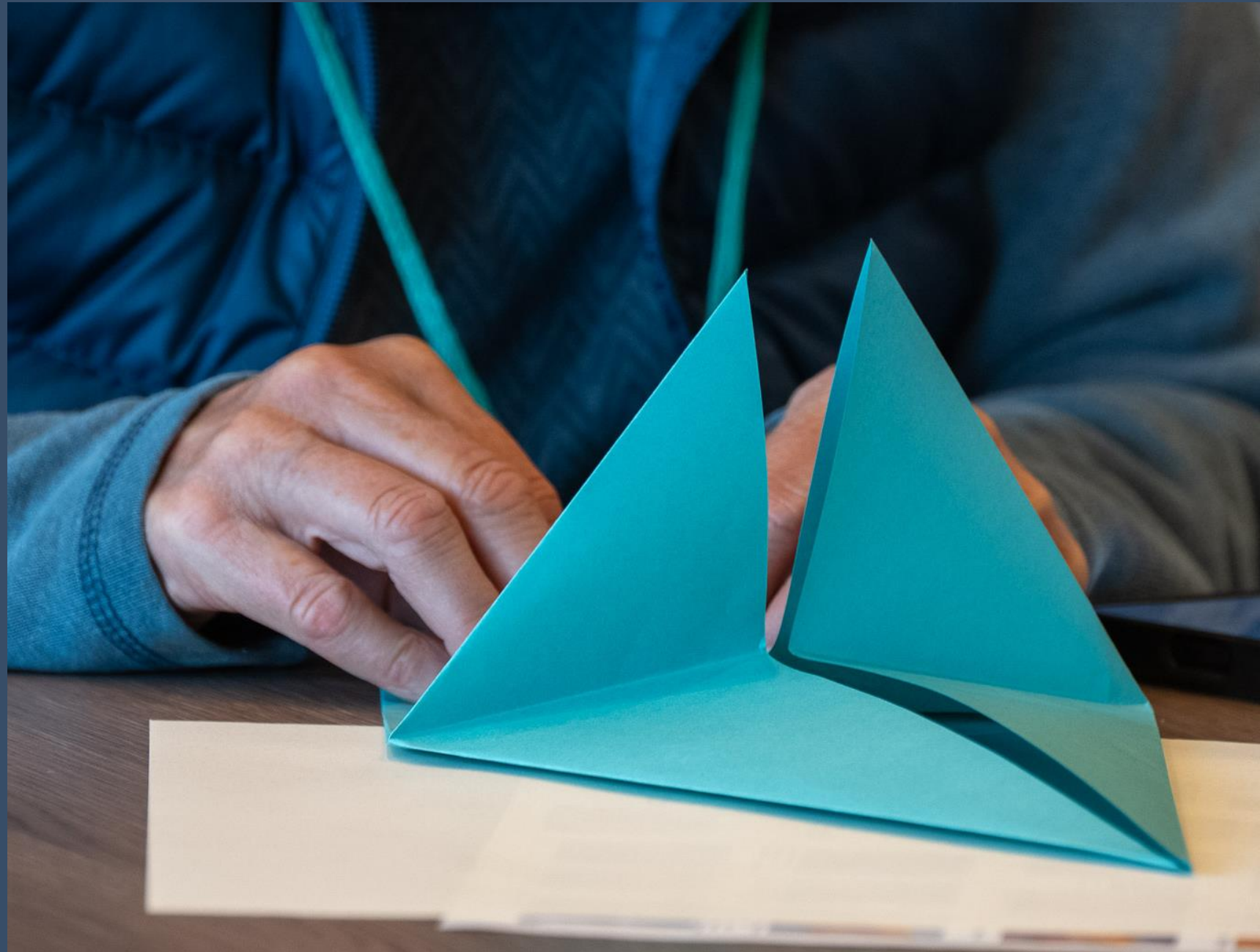


Arts, Crafts & Creativity

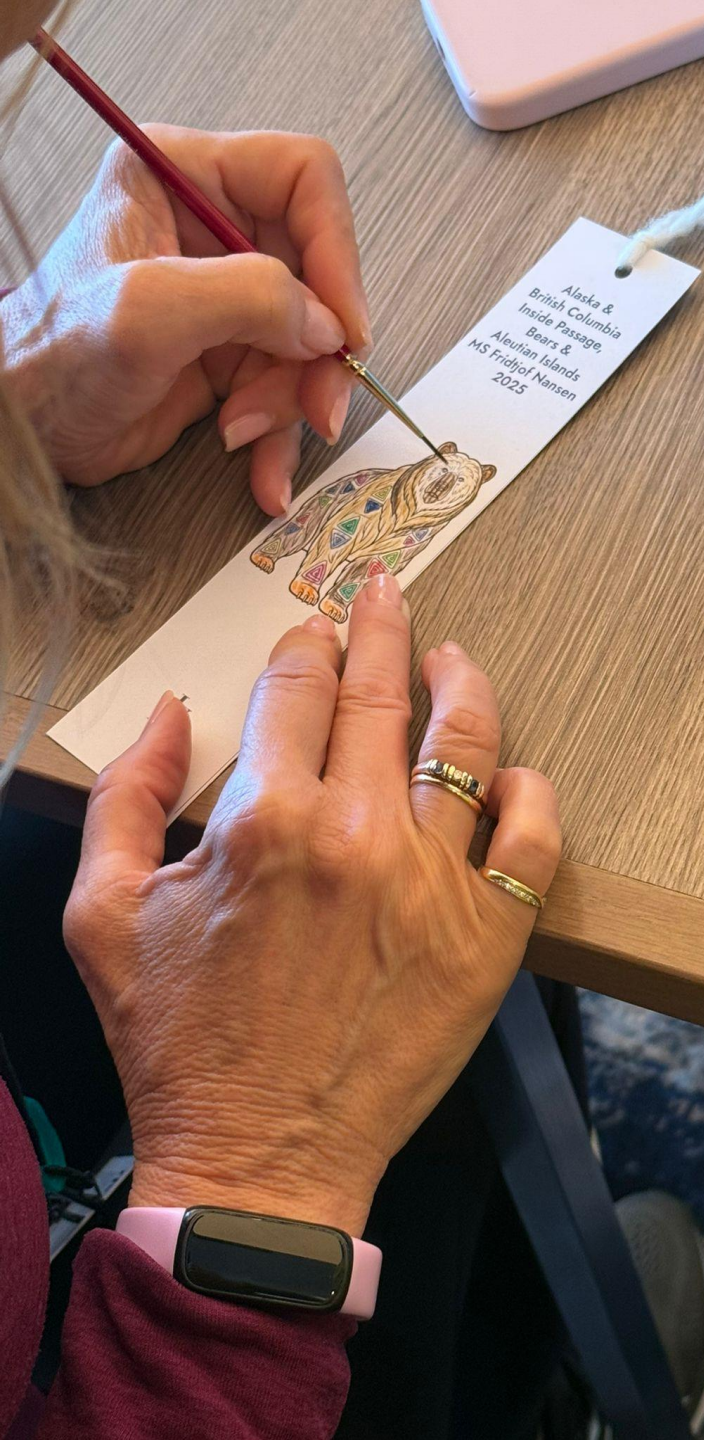
Alaska's beauty is more than something to be seen—it's something to be felt, interpreted, and expressed. Through watercolour painting, wildlife origami, and clay modelling, you transformed inspiration into art, capturing the essence of this remote and breathtaking world.

No prior experience was needed—just an open mind and a willingness to explore creativity in new ways. From delicate brushstrokes to carefully folded paper, each creation became a personal tribute to the landscapes and wildlife that surrounded us.

More than just an artistic escape, these sessions provided a space to connect, sharing stories, laughter, and quiet moments of reflection as the icy world drifted by. May these creations serve as reminders of this journey, sparking inspiration long after you've returned home.









Wildlife Watch

As we journeyed from the remote islands of the Bering Sea along the Alaska Peninsula and south toward Vancouver, you were invited to step out on deck and take in the shifting seascape, with rugged coastlines, wide bays, and skies alive with birdlife. Yet the most memorable moments often came in stillness, as we scanned the horizon together in quiet anticipation.

Along the way, we encountered an incredible range of birds: tufted puffins nesting on the cliffs, bald eagles soaring above the forest, red-legged kittiwakes, black-footed albatrosses gliding far offshore, and many others. Each sighting brought the North Pacific coast to life, reminding us that even the most remote stretches of ocean and shoreline pulse with energy, pattern, and purpose.

These encounters were more than fleeting impressions. They were invitations to look closer, to stay curious, and to care for the fragile web of life that depends on these northern waters.

Credit: Kim Rormark/HX



Science Boat

Over eight science boat sessions in Unga Village, Kodiak Island, and Icy Bay, we moved beyond observation into hands-on exploration of Alaska's coastal waters. With each drop of the net, each cast of the CTD, and each reading of the Secchi disk, guests became part of the scientific process.

Through the plankton net, we revealed the tiny organisms that sustain marine life. The CTD device revealed the ocean's hidden structure, including its temperature, salinity, and depth. At the same time, the Secchi disk provided a simple yet powerful measure of water clarity, linked to the abundance of phytoplankton at the base of the food web.

These sessions weren't just about data collection; they were about curiosity, discovery, and connection. Science isn't something distant; it is a way of seeing, questioning, and understanding the world around us. As you return home, may this journey inspire you to keep exploring, keep asking questions, and never stop being amazed by the natural world.

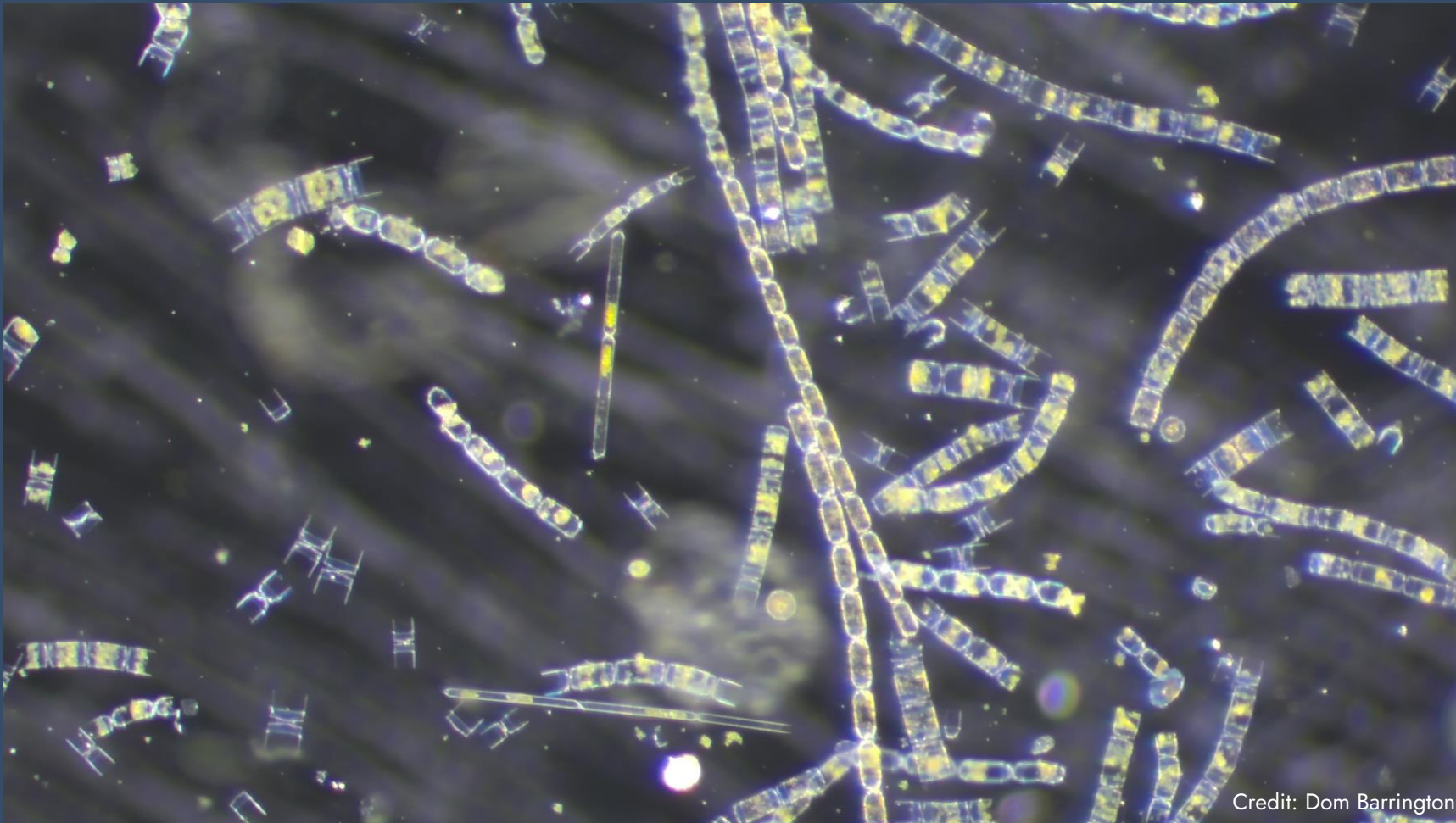


Plankton Samples

Back in the science centre, we brought the ocean into focus examining our water samples under the microscope to uncover the hidden world of **phytoplankton** and **zooplankton**.

Using microscopes, we projected magnified images onto the screen, allowing everyone to see the intricate details of these tiny organisms. Smaller binocular microscopes offered a hands-on experience, inviting you to search for life in each drop of water.

The samples revealed a world dominated by phytoplankton and zooplankton, forming the foundation of the marine food web. What seemed invisible to the eye became a vivid reminder that even the smallest life forms shape this vast and wild ecosystem.



Credit: Dom Barrington



CTD

Beneath the surface, the ocean holds stories of change, stories revealed through science. With the CTD device, you helped uncover key details about Alaskan waters, measuring **salinity, temperature, and depth** to paint a picture of ocean conditions.

Lowered on a tethered line, the CTD captured water column profiles, offering insights into how glacial melt shapes fjords, how currents mix the sea, and where phytoplankton thrive. These data are not just numbers—they are puzzle pieces in understanding a changing climate. Each measurement taken adds to a growing body of research, helping scientists track long-term shifts in Alaskan ecosystems. By participating, you've played a role in unravelling the mysteries of these remote waters, one drop at a time.

Depth Profile: Icy Bay

Depth Profile: Unga Village

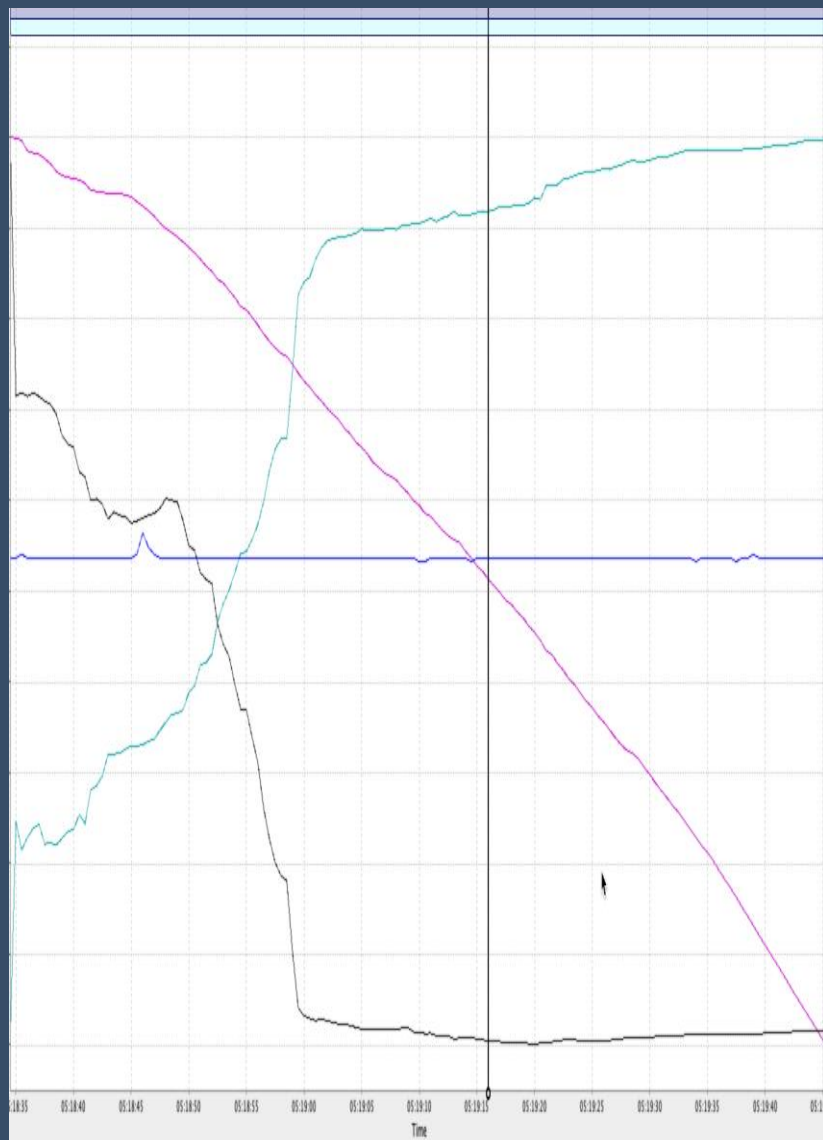
Our CTD data from this voyage highlights the importance of the local environment on the conditions of the ocean.

Icy Bay shows a very low level of salinity, as a result of the relative closed system with significant fresh water influx from the melting glaciers in the area. The CTD data also confirms the physical samples taken during the plankton tows that there was very little if any plankton in the samples.

The Unga sample, by way of contrast, was a more open environment and subjected to strong tidal flows, which has provided for a fairly uniformly mixed profile.

Temperature (°C)
Salinity (PSU)

Depth (m)



NASA Cloud Observer

During our voyage, we contributed to NASA's **GLOBE Cloud Observations**, collecting data on:

- **September 10th** (At-sea)
- **September 12th** (St Paul)
- **September 17th** (Kinak & Kunak)
- **September 18th** (Uyak Bay, Kodiak Island)

By comparing your ground-based observations with satellite measurements, scientists can refine cloud classifications, enhance climate models, and improve weather predictions, advancing our understanding of Earth's atmosphere and climate.

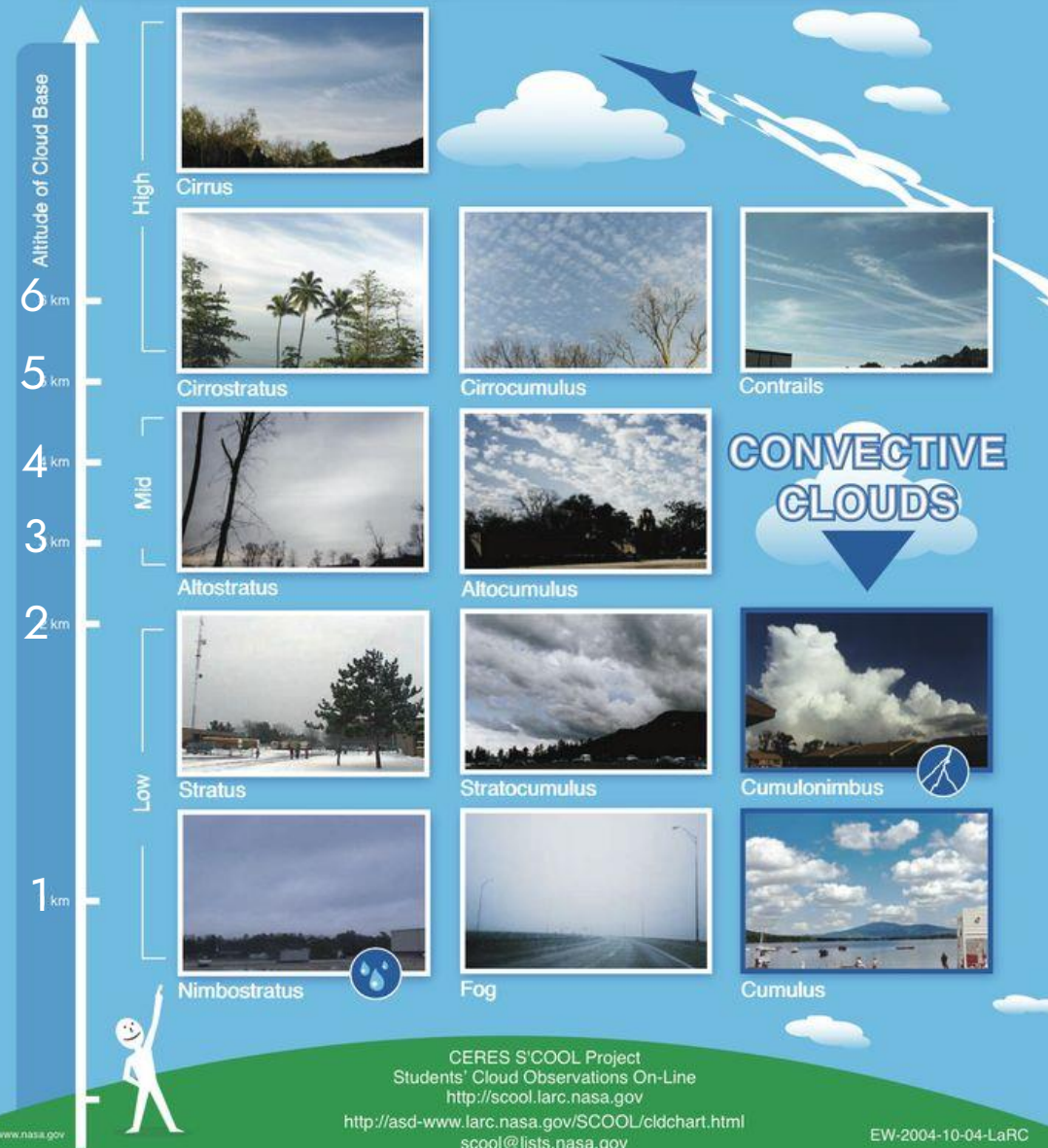
Curious to continue? You can observe and submit data from home using the GLOBE Observer app, transforming everyday cloud-watching into real scientific impact.

[View our data on the global map](#)





S'COOL Cloud Identification Chart



NASA Cloud Observer

High Clouds (Base above 6,000 meters):

Cirrus: Thin, wispy clouds composed of ice crystals. They often appear as delicate streaks or feathery wisps high in the sky.

Cirrostratus: Thin, sheet-like clouds that cover large portions of the sky. They can create a halo around the sun or moon.

Cirrocumulus: Small, fluffy clouds in a regular pattern, resembling fish scales or ripples.

Medium Clouds (Base between 2,000 and 6,000 meters):

Altostratus: Puffy, grayish-white clouds with rounded edges. They often form parallel rows or patches.

Altostratus: Thick, grayish clouds that partially obscure the sun or moon. They lack the distinct features of cirrostratus.

Low Clouds (Base below 2,000 meters):

Stratus: Uniform, grayish clouds that cover the sky like a blanket. They can bring drizzle or light rain.

Stratocumulus: Low, lumpy clouds with defined edges. They often appear in rows or patches.

Nimbostratus: Thick, dark gray clouds associated with steady rain or snow.

Remember that these cloud types can vary in appearance and behaviour, but this basic classification helps meteorologists understand weather patterns and atmospheric conditions. If you'd like to explore more examples, you can check out NASA's [On-Line Cloud Chart](#).

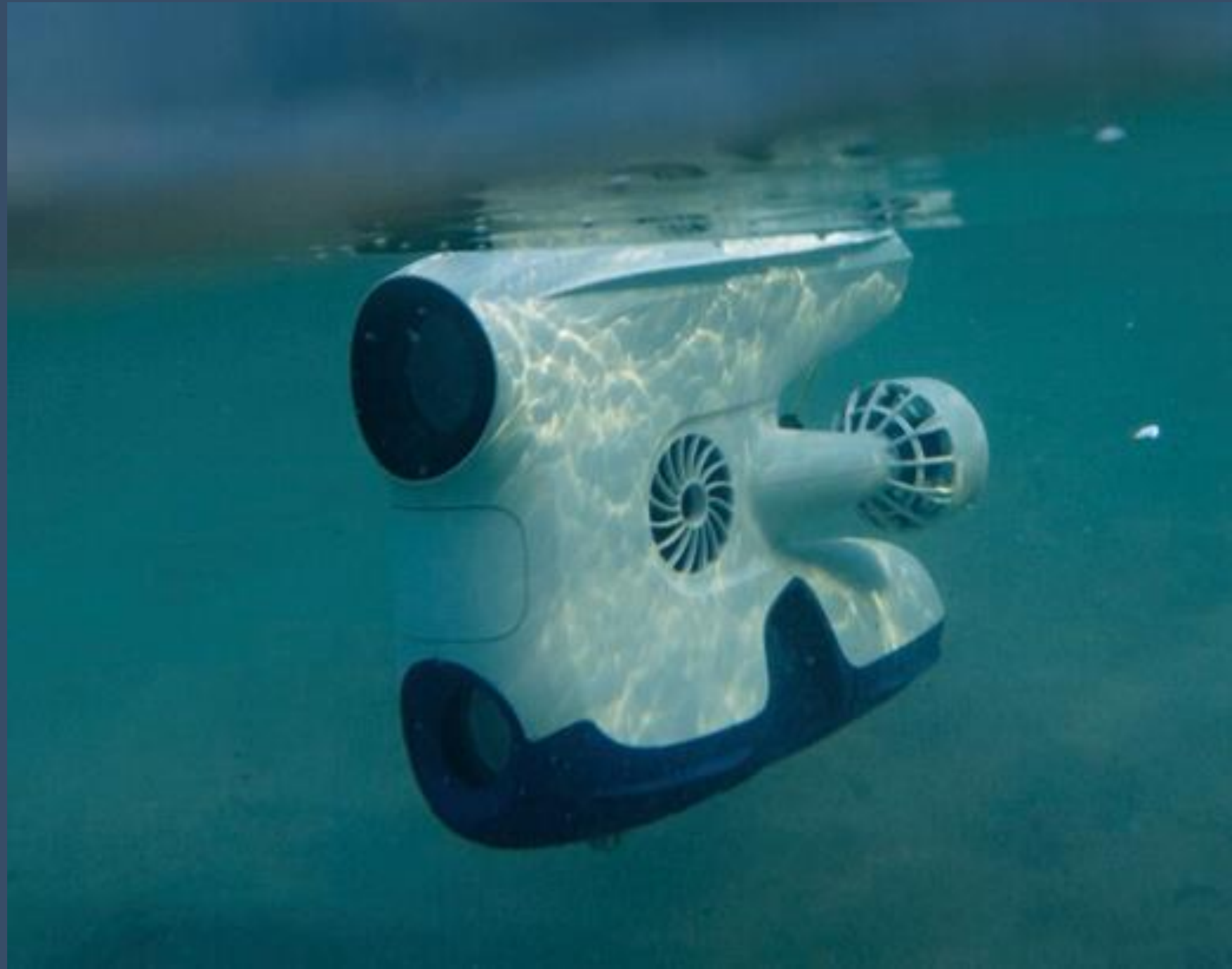
[View our data](#) on the global map

Underwater Drone

While exploring Geographic Harbour and Kukak Bay, we deployed our underwater drone, opening a window into the hidden world beneath Alaska's coastal waters. This technology allowed us to observe marine life, seafloor habitats, and submerged landscapes in ways impossible from above.

Each dive revealed new perspectives. We saw carpets of rockweed and acorn barnacles covering the seafloor, clusters of Alaska blue mussels, and drifting jellyfish such as the Aequorea and the crystal jelly. These glimpses remind us how vibrant and dynamic these ecosystems are, even in waters that may appear still and empty from the ship.

View the highlights from our underwater drone footage on HX Underwater Drone Footage [YouTube Channel](#)



iNaturalist

Throughout this voyage, you played a vital role in documenting the incredible biodiversity of Alaska.

By capturing and submitting images of wildlife and plants, you contributed to a global effort to track species distribution and monitor ecosystems along some of the North Pacific's most remote and ecologically rich coastlines.

Together, we gathered:

208 Observations

91 Species Identified

9 Observers Participating

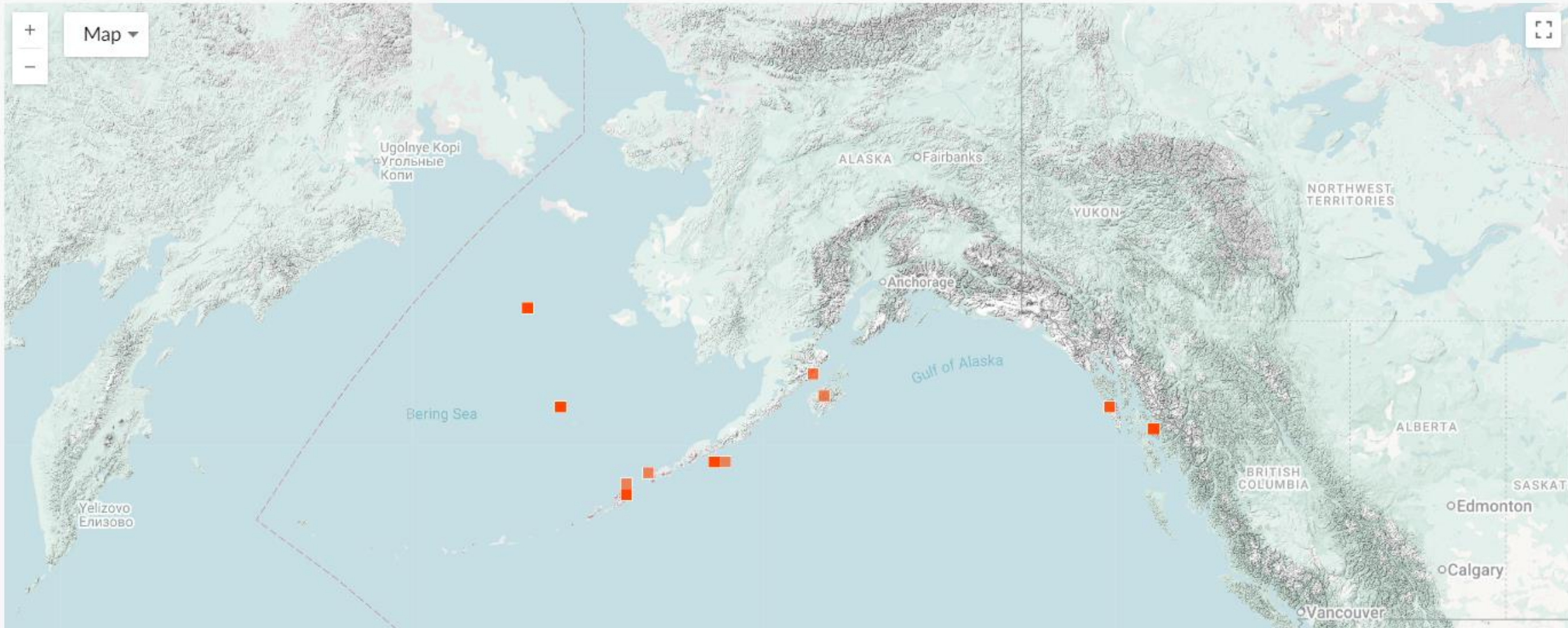
Click on the **link** to view our collective data and see the impact of your contributions:

View our [data](#) on the iNaturalist website



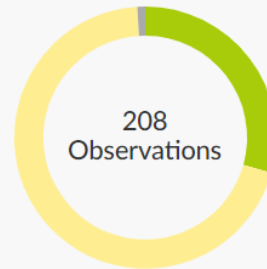
FNALA2510 – MS Fridtjof Nansen 9-25.9.2025

Map of Observations

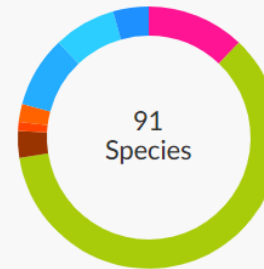


FNALA2510 – MS Fridtjof Nansen 09-25.9.2025

Stats



● Research Grade
● Needs ID
● Casual



● Unknown
● Protozoans
● Fungi
● Plants
● Chromista
● Mollusks
● Insects
● Arachnids
● Ray-Finned F...
● Amphibians
● Reptiles
● Birds
● Mammals
● Other Animals

Recent Observations →

[View All](#)

Devil's Club
Oplopanax horridus

1 1d



Stink Currant
Ribes bracteosum

1 1d



Hogweeds · Bärenklau
Genus *Heracleum*

1 1d



Mountain Pine ·
Bergkiefer
Pinus mugo

1 1d



eBird

Bird-watching isn't just a hobby, it's a powerful tool for science. eBird, a global citizen science platform, allows bird enthusiasts to record and share sightings, contributing valuable data for research and conservation.

During our voyage, our onboard ornithologists conducted wildlife watches, completing 19 checklists and recording 37 bird species along the way.

Every entry adds to a growing database that helps scientists track migration patterns, monitor populations, and understand bird behaviour in different regions, including Alaska & British Columbia.

View our [data](#) on the eBird website

FNALA2510 - Alaska and British Columbia (Southbound)

9 – 25 Sep 2025 (17 days)

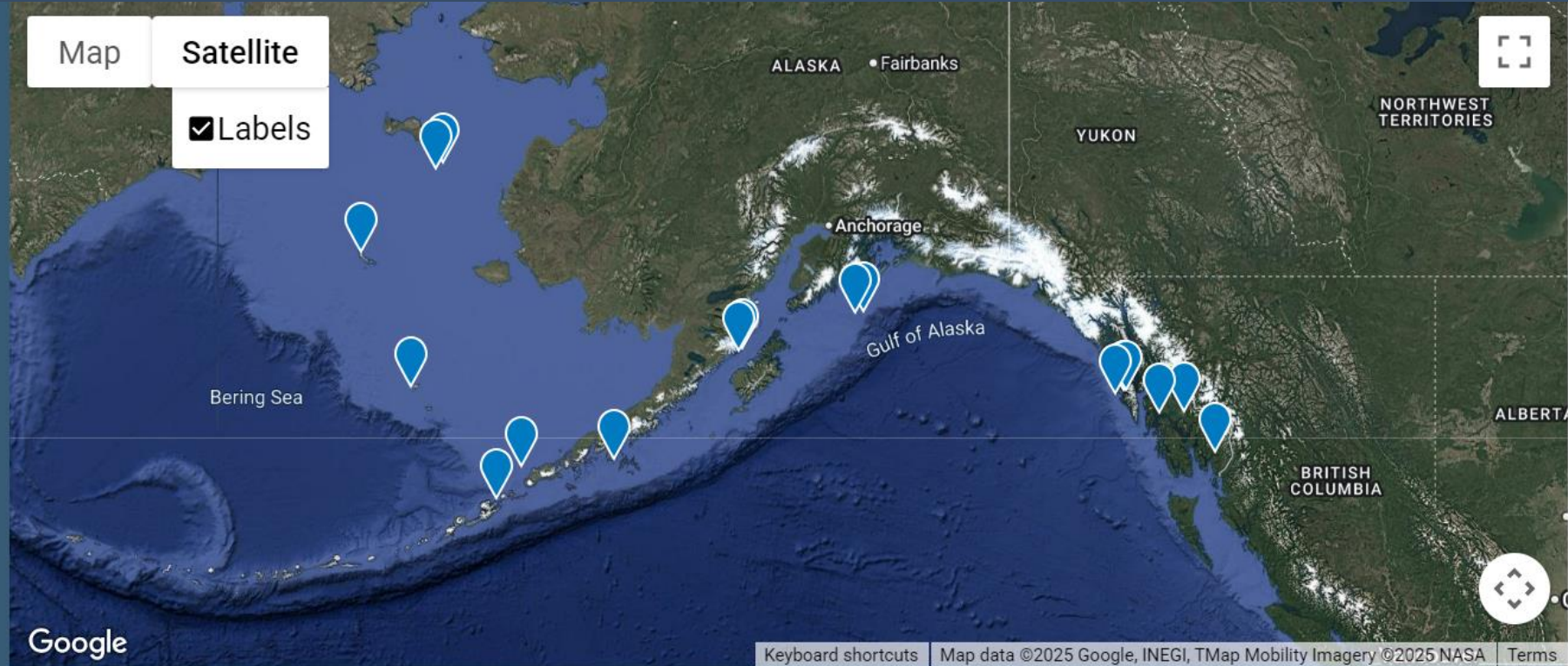
Public

🌐 Alaska, United States

Aleutians East Borough |

Aleutians West Census Area |

Bethel Census Area |



Happywhale

5 species of whales, dolphins and porpoises were encountered during this voyage. The Expedition Team uploaded a total of 20 ID pictures of humpback whale flukes and killer whale dorsal fins to Happywhale, out of which 1 has already been identified as a known individual in the Happywhale catalogue.

These findings are a valuable contribution to science, helping to enhance our understanding of whale populations on a global scale.

Guests from this trip were also encouraged to submit their own photos of individual whales to Happywhale, contributing to their worldwide catalogue of identified whales.

**View the MS Fridtjof Nansen's
submissions to Happywhale during our
voyage:**

[https://happywhale.com/user/11891;svy=1
32813](https://happywhale.com/user/11891;svy=132813)





ORCA

Daniela Tamayo, ORCA Ocean Conservationist, recorded sightings of marine mammals during this voyage.

Using ORCA's OceanWatchers App, multiple sightings were registered all across Alaska and British Columbia:

- 168 individuals including humpback whales, fin whales, killer whales, Northern fur seals, Steller's sea lions, Dall's porpoise and harbour porpoise.
- 17 survey sessions.
- 1682 minutes of active surveying.
- 583.20 kilometers surveyed.

ORCA surveys

[< Back](#) ORCA Survey [Upload](#)

[Timeline](#) [Map](#) [Summary](#)

Please do not forget to upload this survey!

11:14

🚩

Finish

10:50

🕒

30 Minutes

10:30

👁️

Sighting

10:09

🕒

30 Minutes

10:06

👁️

Sighting

09:24

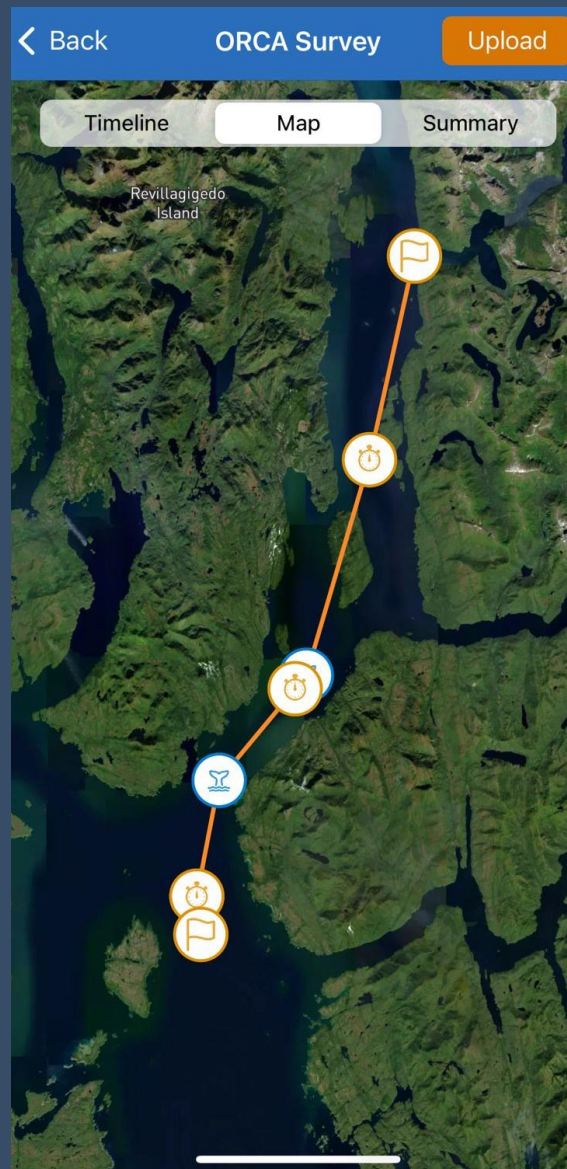
🕒

30 Minutes

08:46

🚩

Start



[< Back](#) ORCA Survey [Upload](#)

[Timeline](#) [Map](#) [Summary](#)

2:28 hrs

🕒 Time spent

53.4 km

📍 Distance travelled

Species seen

 5

Dall's porpoise

 3

Orca

Guest Scientist Report

Plankton analysis with the PlanktoScope

As part of the SOOP project, which aims to improve data collection across broader spatial and temporal scales, plankton samples and CTD measurements were collected aboard the Science Boat in remote and rarely studied regions of Alaska.

To assess plankton diversity, the PlanktoScope was used, a tool that provides rapid insights into the different plankton species present in the samples. Salinity and temperature data were then used to explore how changing environmental conditions affect the composition of both phytoplankton and zooplankton communities



Credit: Katharina Kordubel/SOOP



Credit: Katharina Kordubel/SOOP

Unga, U.S.

56°09'54"N 160°58'43"W

15.09.2025

Salinity 32.8 PSU

Temperature 10.6°C

At Unga, results from the PlanktoScope analysis showed that the phytoplankton community was dominated by various types of diatom chains, mainly *Chaetoceros* spp., with a few rare dinoflagellates also present.

The zooplankton community was abundant and primarily composed of different copepod species.

These findings suggest stable marine conditions, with warm, saline, and clear waters that favor the growth of diatoms, thriving in well-lit, nutrient-rich conditions. The abundance of copepods can be linked to the availability of diatoms as food source, supporting a diverse and productive planktonic food web.

Kodiak, U.S.

57°55'42"N 153°85'57"W

18.09.2025

Salinity 31 PSU
Temperature 11.4°C

In Kodiak waters, the phytoplankton community was primarily dominated by *Thalassiosira* spp., observed under environmental conditions typical for September.

The smaller zooplankton appeared sparse, with few organisms detected in the sample, indicating a low abundance in this in this sampling location.

This likely points to a recent phytoplankton bloom. *Thalassiosira* species are known to grow quickly when sunlight and nutrients are available. However, zooplankton populations often take more time to respond and grow, so their numbers may still be catching up.



Credit: Katharina Kordubel/SOOP

Icy Bay, U.S.

60°07'96"N 141°39'59"W

20.09.2025

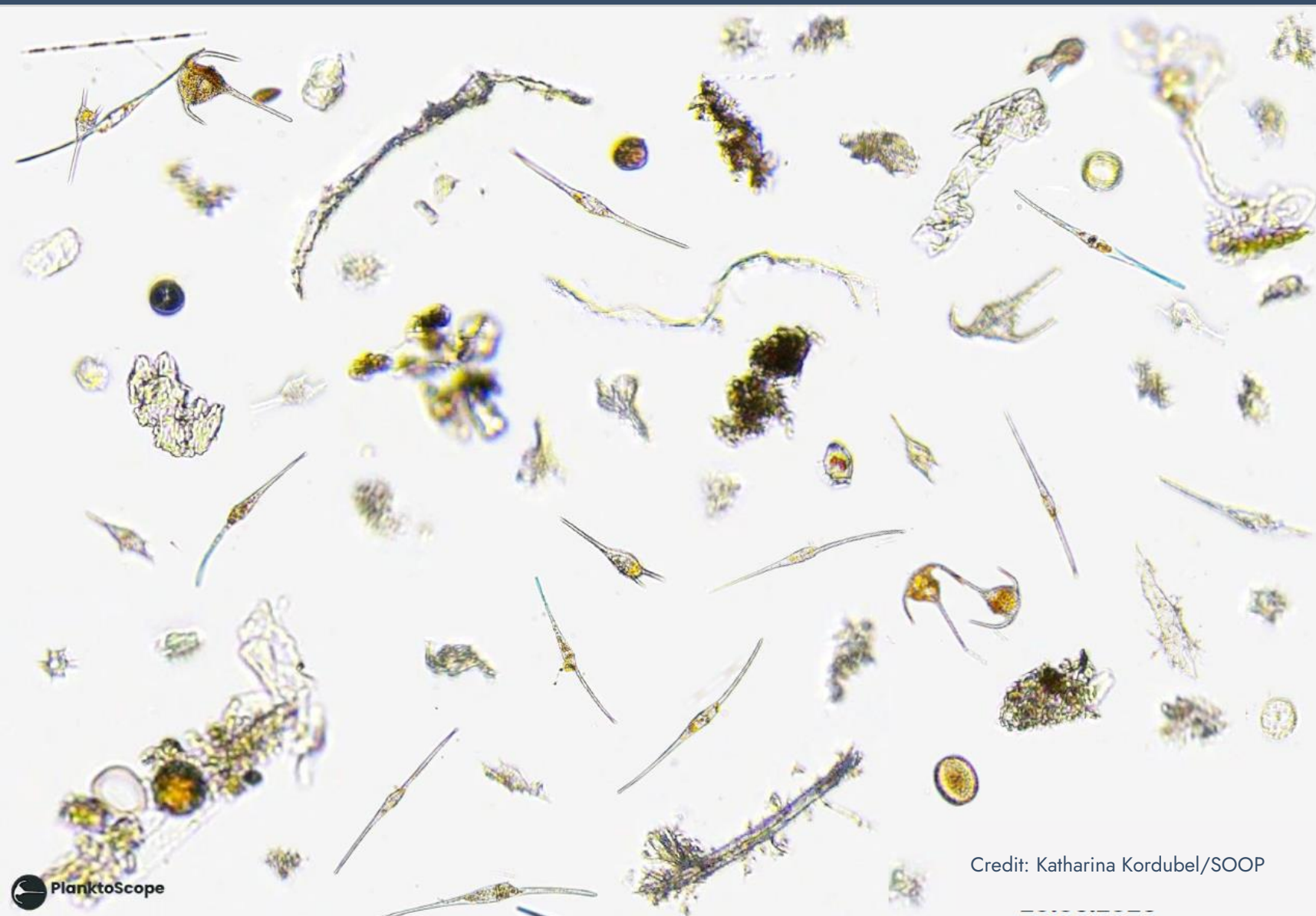
Salinity 26 PSU

Temperature 3.6°C

The vicinity of the glaciers in Icy Bay had a significant impact on water salinity and temperature. The influx of cold freshwater resulted in low salinity and cool temperatures. Additionally, the glacial melt contributed to high amounts of sediments in the water.

Our samples showed high levels of particles and very low plankton density, with the community dominated by a few dinoflagellates.

This reflects the physical and ecological influence of glacial meltwater, diluting seawater, reducing light penetration due to turbidity, and limiting nutrient availability. Such conditions are generally unfavorable for diverse plankton, allowing only a few tolerant species to persist.



Credit: Katharina Kordubel/SOOP

A) *Chaetoceros* spp. - Diatom



B) Copepod - Zooplankton



C) *Thalassiosira* spp.- Diatom



D) *Ceratium* spp. - Dinoflagellate





Wildlife List — Land Mammals

Wildlife List – Land Mammals

<i>Scientific Name</i>	English	Deutsch	Français
<i>Ovibos moschatus</i>	Muskox	Moschusochse	Boeuf musqué
<i>Alopex lagopus</i>	Arctic Fox	Polarfuchs	Renard arctique
<i>Vulpes vulpes</i>	Red Fox	Rotfuchs	Renard roux
<i>Ursus arctos</i>	Brown bear	Braunbär	Ours brun
<i>Mustela erminea</i>	Ermine/Stoat	Hermelin	Hermine
<i>Microtus abbreviatus</i>	Insular Vole	Inselwühlmaus	Campagnol de St. Matthews
<i>Spermophilus parryii</i>	Arctic Ground Squirrel	Arktische Ziesel	Écureuil terrestre arctique
<i>Odocoileus hemionus sitkensis</i>	Sitka Deer	Sikta-Hirsch	Cerf de Sitka

Wildlife List - Marine Mammals



Wildlife List – Marine Mammals



Scientific Name	English	Deutsch	Français
<i>Megaptera novaeangliae</i>	Humpback whale	Buckelwal	Baleine à bosse
<i>Balaenoptera physalus</i>	Fin whale	Finnwal	Rorqual commun
<i>Orcinus orca</i>	Killer whale, orca	Schwertwal, Orka	Orque
<i>Phocoena phocoena</i>	Harbor porpoise	Schweinswal	Marsouin commun
<i>Delphinapterus leucas</i>	Beluga, white whale	Beluga, Weißwal	Béluga
<i>Eumetopias jubatus</i>	Steller Sea Lion	Stellerscher Seelöwe	Lion de mer de Steller
<i>Callorhinus ursinus</i>	Northern Fur Seal	Nördliche Seebär	Otarie à fourrure du Nord
<i>Phoca vitulina</i>	Harbour Seal	Seehund	Phoque commun
<i>Enhydra lutris</i>	Sea Otter	Meerotter	Loutre de mer

Wildlife List — Birds



Wildlife List — Seabirds

Scientific Name	English	Deutsch	Français
<i>Stercorarius parasiticus</i>	Parasitic Jaeger	Schmarotzerraubmöwe	Labbe parasite
<i>Fratercula cirrhata</i>	Tufted Puffin	Gelbschopflund	Macareux huppé
<i>Fratercula corniculata</i>	Horned Puffin	Hornlund	Macareux cornu
<i>Aethia pusilla</i>	Least Auklet	Zwergalk	Starique minuscule
<i>Aethia cristatella</i>	Crested Auklet	Schopfalk	Starique cristatelle
<i>Aethia psittacula</i>	Parakeet Auklet	Rotschnabelalk	Starique perroquet
<i>Cephus columba</i>	Pigeon Guillemot	Taubenteiste	Guillemot colombin
<i>Uria lomvia</i>	Thick-billed Murre	Dickschnabellumme	Guillemot de Brünnich
<i>Uria aalge</i>	Common Murre	Trottellumme	Guillemot marmette
<i>Rissa tridactyla</i>	Black-legged Kittiwake	Dreizehenmöwe	Mouette tridactyle
<i>Rissa brevirostris</i>	Red-legged Kittiwake	Klippenmöwe	Mouette des brumes
<i>Larus smithsonianus</i>	Herring Gull	Kanadamöwe	Goéland hudsonien
<i>Larus hyperboreus</i>	Glaucous Gull	Eismöwe	Goéland bourgmestre
<i>Larus glaucescens</i>	Glaucous-winged Gull	Beringmöwe	Goéland à ailes grises
<i>Phoebastria immutabilis</i>	Laysan Albatross	Laysanalbatros	Albatros de Laysan
<i>Phoebastria nigripes</i>	Black-footed Albatross	Schwarzfußalbatros	Albatros à pieds noirs
<i>Fulmarus glacialis</i>	Northern Fulmar	Eissturmvogel	Fulmar boréal
<i>Ardenna grisea</i>	Sooty Shearwater	Dunkler Sturmtaucher	Puffin fuligineux

Wildlife List – Seabirds

[illegible]

Wildlife List – Waterbirds

Scientific Name	English	Deutsch	Français
<i>Bucephala islandica</i>	Barrow's Goldeneye	Spatelente	Garrot d'Islande
<i>Melanitta americana</i>	Black Scoter	Pazifiktrauerente	Macreuse à bec jaune
<i>Melanitta deglandi</i>	White-winged Scoter	Höckersamtente	Macreuse à ailes blanches
<i>Melanitta perspicillata</i>	Surf Scoter	Brillenente	Macreuse à front blanc
<i>Phalaropus lobatus</i>	Red-necked Phalarope	Odinshühnchen	Phalarope à bec étroit
<i>Histrionicus histrionicus</i>	Harlequin Duck	Kragenente	Arlequin plongeur
<i>Mergus merganser</i>	Common Merganser	Gänsesäger	Grand Harle
<i>Mergus serrator</i>	Red-breasted Merganser	Mittelsäger	Harle huppé
<i>Podiceps grisegena</i>	Red-necked Grebe	Rothalstaucher	Grèbe jougris
<i>Gavia pacifica</i>	Pacific Loon	Pazifiktaucher	Plongeon du Pacifique
<i>Gavia immer</i>	Common Loon	Eistaucher	Plongeon huard
<i>Ardea herodias</i>	Great Blue Heron	Kanadareiher	Grand Héron
<i>Limosa lapponica</i>	Bar-tailed Godwit	Pfuhschnepfe	Barge rousse
<i>Phalaropus lobatus</i>	Red-necked Phalarope	Odinshühnchen	Phalarope à bec étroit
<i>Calidris ptilocnemis</i>	Rock Sandpiper	Beringstrandläufer	Bécasseau des Aléoutiennes

Wildlife List – Landbirds

Scientific Name	English	Deutsch	Français
<i>Falco peregrinus</i>	Peregrine Falcon	Wanderfalke	Faucon pèlerin
<i>Calcarius lapponicus</i>	Lapland Bunting / Longspur	Spornammer	Plectrophane lapon
<i>Plectrophenax nivalis</i>	Snow Bunting	Schneeammer	Plectrophane des neiges
<i>Corvus corax</i>	Common Raven	Kolkrabe	Grand Corbeau
<i>Columba livia</i>	Rock Pigeon	Felsentaube	Pigeon biset
<i>Lagopus muta</i>	Rock Ptarmigan	Alpenschneehuhn	Lagopède alpin
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Weißkopf-Seeadler	Pygargue à tête blanche
<i>Falco columbarius</i>	Merlin	Merlin	Faucon émerillon
<i>Megaceryle alcyon</i>	Belted Kingfisher	Gürtelfischer	Martin-pêcheur d'Amérique
<i>Colaptes auratus</i>	Northern Flicker	Ostgoldspecht	Pic doré
<i>Cyanocitta stelleri</i>	Steller's Jay	Diademhäher	Geai de Steller
<i>Pica hudsonia</i>	Black-billed Magpie	Hudsonelster	Pie d'Amérique
<i>Corvus brachyrhynchos</i>	American Crow	Amerikakrähe	Corneille d'Amérique
<i>Corvus corax</i>	Common Raven	Kolkrabe	Grand Corbeau
<i>Poecile rufescens</i>	Chestnut-backed Chickadee	Rotrückenmeise	Mésange à dos marron
<i>Antigone canadensis</i>	Sandhill crane	Kanadakranich	Grue du Canada

Wildlife List – Landbirds

Scientific Name	English	Deutsch	Français
<i>Regulus satrapa</i>	Golden-crowned Kinglet	Indianergoldhähnchen	Roitelet à couronne dorée
<i>Troglodytes pacificus</i>	Pacific Wren	Pazifikzaunkönig	Troglodyte de Baird
<i>Cinclus mexicanus</i>	American Dipper	Grauwasseramsel	Cincla d'Amérique
<i>Sturnus vulgaris</i>	European Starling	Star	Étourneau sansonnet
<i>Ixoreus naevius</i>	Varied Thrush	Halsbanddrossel	Grive à collier
<i>Turdus migratorius</i>	American Robin	Wanderdrossel	Merle d'Amérique
<i>Leucosticte tephrocotis</i>	Grey-crowned Rosy Finch	Schwarzstirn-Schneegimpel	Roselin à tête grise
<i>Calcarius lapponicus</i>	Lapland Longspur	Spornammer	Plectrophane lapon
<i>Plectrophenax nivalis</i>	Snow Bunting	Schneeammer	Plectrophane des neiges
<i>Plectrophenax hyperboreus</i>	McKay's Bunting	Beringschneeammer	Plectrophane blanc
<i>Junco hyemalis</i>	Dark-eyed Junco	Winterammer	Junco ardoisé
<i>Melospiza melodia</i>	Song Sparrow	Singammer	Bruant chanteur

A photograph of two whales swimming in deep blue water. A large, semi-transparent watermark 'IX' is overlaid on the image. The text 'Connect With Your Inner Scientist' is centered in white.

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