

National Park Service U.S. Department of the Interior

Ocean Alaska Science and Learning Center

Ocean Alaska Science and Learning Center 2024 Annual Report

About Us

The Ocean Alaska Science and Learning Center (OASLC) is one of 18 Research Learning Centers established by the National Park Service to increase the communication, use, and effectiveness of scientific research in national parks.

We support Alaska's 11 coastal parks, which comprise over 3,600 miles of coastline and one-third of the coastline in the entire National Park System.

Our mission is to promote stewardship of the marine-influenced ecosystems of Alaska's coastal national parks through learning, education, and research. Please learn more by visiting our <u>website</u>.



Cover: Orcas in Winter, Kenai Fjords National Park, NPS Photo/K. Griffin Above: Teacher workshop participants paddle the coastline of Kenai Fjords National Park, NPS Photo/F. North



Kelsey Griffin Director



Fiona North Education Coordinator



Anne Lattka Science Communicator

From The Team

Hello and thank you for taking time to read about the work, initiatives, and collaborations of the Ocean Alaska Science and Learning Center.

In 2024, we finalized our new strategic plan for 2024-2030 (find it on our website <u>here</u>). We supported coastal projects in 8 park units encompassing a wide variety of disciplines from coastal archeology and Traditional Ecologcical Knowledge (TEK), to puffin and coastal moose surveys, and more. Our staff visited Sitka National Historical Park (SITK) and Kenai Fjords National Park (KEFJ) to assist with Inventory and Monitoring intertidal sampling and coastal waterbird surveys, and we led teacher workshops in the field and in the classroom at Kenai Fjords National Park.

It is an honor to work with many dedicated partners and collaborators to accomplish work supporting Alaska's coastal national parks and its stewards. We are looking forward to another great year!

All our best, Kelsey, Fiona & Anne

Ocean Alaska Science and Learning Center We are privileged to live and work on Sugpiaq Homelands

Alaska's Coastal Parks

Aniakchak National Monument and Preserve

Bering Land Bridge National Preserve

Cape Krusenstern National Monument

Glacier Bay National Park and Preserve

Katmai National Park and Preserve

Kenai Fjords National Park

Klondike Gold Rush National Historical Park

Lake Clark National Park and Preserve

Noatak National Preserve

Sitka National Historical Park

Wrangell-St Elias National Park and Preserve

Education

At the OASLC, we seek to facilitate and expand opportunities to increase awareness of Alaska's marine and coastal environments through education and outreach products. With a focus on culturally relevant, place-based education, we provided a variety of programs to 780 participants during a total of 322 direct contact hours this year.



In-person Teacher Workshops

We partnered with Alaska Geographic to offer a 7-day Floating Teacher Workshop in Kenai Fjords National Park (KEFJ). Teachers earned credit through University of Alaska, Anchorage by participating in nearshore monitoring research and creating their own culturally responsive, hands-on lesson plans.

We also provided a 3-day workshop for elementary school educators from around the state in collaboration with the Alaska SeaLife Center (ASLC). This year's theme was Together at the Table – Bringing Indigenous Knowledge, Science, and Stewardship of Our Food Web into the Classroom. Numerous partners participated, including Chugach Regional Resources Commission (CRRC) and Chugachmiut, and Lydia Agnus, the NPS Alaska Tribal Liaison.



Left: Teachers paddle in Northwestern Fjord in Kenai Fjords National Park, seeking inspiration from fjord ecosystems and ocean resources to bring back into their classrooms. NPS Photo/A.Lattka

Above: Youth tidepooling during USAID marine debris clean up in Kenai Fjords. Photo Courtesy Bobby Neptune

Classroom Programming

We fostered new partnerships with schools and homeschool groups, including ocean issues programming for the Alaska LEGO League Team and collaborating with Alaska Pacific University's Expedition in Teaching Science Culture and Community Course.

We presented to UAF oceanography course students and provided direct plankton programming to 75 students in Anchorage schools and participated as NPS Science Fair judge and STEM night.

Our team helped plan the Seward Science Symposium Education Day – providing a field trip experience for Seward 11th & 12th grade students where they engaged with OASLC, ASLC, CRRC and a local artist.



Teachers measure mussel beds to help researchers with intertidal monitoring in Kenai Fjords National Park. NPS Photo/A. Lattka

Education Continued

Coastal Connections Camps

In collaboration with Kenai Mountains-Turnagain Arm National Heritage Area, we supported Coastal Connections Camps for 11–14-year-olds this summer in Seward, as well as a training session for educators around the state to bring the camp to their coastal communities. The OASLC Education and Media SCA intern, Kennedy Allen, participated in the training and led camp sessions. The 2nd year of this program was highly successful with extensive positive feedback from the community of Seward.

More 2024 Highlights

-Hosted the One Ocean Art Show for the Alaska Tsunami Ocean Sciences Bowl in Collaboration with the University of Fairbanks (UAF).

-Hosted the 2nd annual Seward Science Symposium and associated Stewards by the Bay Community Conversations monthly presentations in partnership with UAF, CRRC, and the ASLC.

-Partnered with USAID on a marine debris short film project for international audiences.



Photos Above: Students gather together on the beach during a Coastal Connections camp session in Seward. Photos Courtesy Sarah Schuh.





Students in UAF's Subarctic Oceanography field course collaborate on field techniques. Photo Courtesy Seth Danielson.

Updates from the Field

Tuxedni Bay Communication Tools - Lake Clark National Park and Preserve (LACL)

LACL used OASLC funding for two projects that will expand the park's ability to communicate resources in Tuxedni Bay. The first project was to contract with an Alaska-based anthropologist with specific expertise in Tikatnu (Cook Inlet) to synthesize information the park currently has on Indigenous Knowledge of the Dena'ina people in the Tuxedni Bay area. The report will help ensure Indigenous Knowledge that the park currently has is used to help make management decisions affecting this part of the coast and communicate that knowledge to the public. The report will also help staff identify gaps and develop strategies to work with Indigenous Knowledge holders and Tribes to fill those gaps.

The second communications tool is a professional video and still photos of the Tuxedni Bay area. As visitation, development projects, and resource concerns in the Tuxedni Bay area have increased, the park needed better footage of the area to communicate to the public about its special cultural and natural resources. The video and still photos will be used on our website, social media, and publications.

Collaborative Puffin Pilot Project on the Kenai Fjords Coast

The OASLC in collaboration with the Alaska Sealife Center, Fish and Wildlife Service, and other NPS staff began a puffin pilot project on the Kenai Fjords Coast. Researchers scouted known horned and tufted puffin breeding areas in the Chiswell Islands (National Maritime Refuge). The team conducted boat-based bird counts in the Chiswell Islands. Researchers deployed one camera and three acoustic recorders. These acoustic recordings will help determine timing and level of bird activity at breeding areas and may reveal occupancy of species with nocturnal activity.

Updates from the Field Continued

Integrating Oceanographic Research and Monitoring Efforts in the NE Gulf of Alaska

The College of Fisheries and Ocean Science (CFOS) Subarctic Oceanography field course with University of Alaska Fairbanks (UAF) was held in August 2024 in Seward, Alaska. This course trained students in oceanographic field techniques and introduced them to the geology, physics, chemistry and biology of subarctic fjord systems. One of the major goals of the course is to expose students to a range of career opportunities in science, oceanography, natural resource management and education.

As their major class project, students designed and executed oceanographic field research in KEFJ. Most at-sea work was performed on R/V Nanuq (a UAF 41' coastal research vessel) and utilized the UAF Seward Marine Center Facilities. Students carried out all data collections and analyses within a span of four days and presented their findings to classmates and community members. Presentations spanned a full range of oceanographic disciplines including physics, chemistry, biology and geology. Many students designed their projects around collecting data that would continue time series begun during the first field course offering in 2023. The hope is to build an ongoing time series and collection of studies that each new cohort of students in the Subarctic Oceanography field course will be able to build upon.



College of Fisheries and Ocean Science (CFOS) Subartctic Oceanography field course in Aialik Bay, Kenai Fjords National Park. Photos Courtesy Seth Danielson

Verifications of Significant Coastal Liverworts from Glacier Bay National Park and Preserve

Most of coastal Alaska is so difficult and expensive to access that many portions have remained poorly botanized. This includes the rugged outer coast of Glacier Bay National Park. Despite the obvious prominence and diversity of bryophytes, it has been more than 50 years since the first (and last) bryological project in the park. Most of GLBA's outer coast has never been visited by botanists. With funding from OASLC, select liverwort specimens, previously collected and provisionally identified by Martin Hutten, were sent to liverwort taxonomist Dr. Steven Jessup. The specimens selected were primarily those that were new to the floristic region (the Southeast Alaska panhandle).

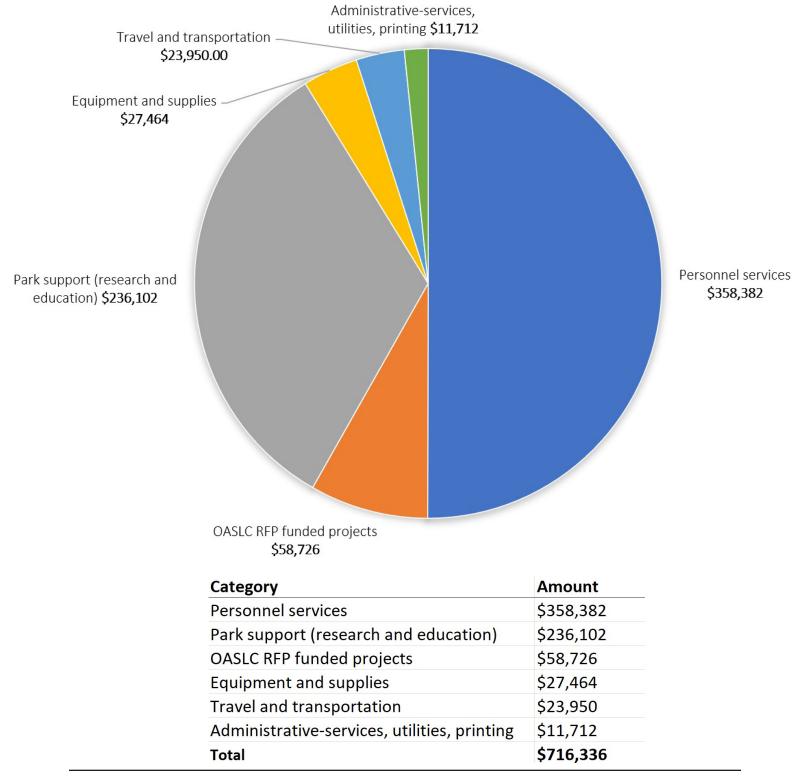


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2024 Partners

Alaska Geographic Alaska Pacific University (APU) Alaska SeaLife Center (ASLC) Chugachmiut Chugach Regional Resources Commission (CRRC) Gulf Watch Alaska Kenai Mountains-Turnagain Arm National Heritage Area (KMTA) Knik Tribal Council Oregon State University (OSU) Student Conservation Association (SCA) Univeristy of Alaska Anchorage (UAA) University of Alaska Fairbanks (UAF) U.S. Fish and Wildlife Service (FWS) U.S. Geological Survey (USGS)

FY24 By the Numbers



Ocean Alaska Science Learning Center Kenai Fjords National Park Seward, Alaska



October 2024

FY24 Projects Receiving Direct OASLC Support

Project	Benefiting Park(s)/communities*	Amount
Targeted archaeological survey of topographical anomalies in		
Chinitna Bay and Shelter Creek**	LACL	\$20,827
Indigenous voices and traditional ecological knowledge**	KEFJ	\$21,649
Threatened coastal archeological sites**	BELA	\$16,250
UAF oceanography course support	KEFJ; coastal communities	\$20,000
Teacher workshop (Alaska Sealife Center/OASLC)	KEFJ; coastal communities	\$20,000
Floating teacher workshop (Alaska Geographic/OASLC)	KEFJ; coastal communities	\$58,874
Coastal connections camp in Seward	KEFJ	\$25,000
Coastal moose surveys in Katmai	KATM	\$3,000
WRST coastal scat collection and shorebird project scouting	WRST	\$9,500
BELA land to sea education curriculum	BELA	\$13,230
KEFJ puffin pilot project	KEFJ	\$38,479
KATM coastal marine debris and seabird mortality surveys	KATM	\$4,000
LACL tuxedni bay education pieces	LACL	\$4,000
GLBA outer coast plant identification	GLBA	\$2,500
AKRO radio carbon analyses, marine mammal data repository	multi-park	\$5,000
KATM/ANIA New Kukak Village sample processing	KATM; ANIA	\$4,700
WRST coastal boat and gear support	WRST	\$13,828
WRST salmon stream and bald eagles in Copper River system	WRST	\$9,950
Plankton programming education grants	coastal communities	\$2,582
National Ocean Sciences Bowl: Tsunami Bowl	coastal communities	\$1,500
TOTAL		\$294,869

*ANIA: Aniakchak National Monument & Preserve; BELA: Bering Land Bridge National Preserve; GLBA: Glacier Bay National Park & Preserve; KATM: Katmai National Park & Preserve; KEFJ: Kenai Fjords National Park; LACL: Lake Clark National Park & Preserve; WRST: Wrangell-St. Elias National Park & Preserve.

**Projects funded through biennial OASLC Request for Proposals (RFP)

Ocean Alaska Science Learning Center Kenai Fjords National Park Seward, Alaska



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