

ANNUAL REPORT



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THANK YOU TO ALL OUR PHOTOGRAPHERS

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WHO WE ARE

Alaska Sea Grant is one of 34 Sea Grant programs supported by the National Oceanic and Atmospheric Administration in coastal and Great Lakes states that encourage the wise stewardship of our marine resources through research, education, outreach and technology transfer.

Alaska Sea Grant is a collaboration between NOAA and the University of Alaska Fairbanks and has been supporting healthy coastal resources, economies, and communities in Alaska for over 50 years. Our staff and Marine Advisory Program agents and specialists who live and work in Alaska's coastal communities carry out this mission through research, education, and outreach.

LETTER FROM THE DIRECTOR

Dear friends and partners,

Looking back over the past year, my heart is warmed by all that Alaska Sea Grant accomplished. I am pleased to share a few of the highlights here and in the pages that follow.

Alaska Sea Grant is a statewide leader serving a variety of audiences, and we've organized the report to highlight our diverse "brands." We support seafood industries through FishBiz, the Alaska Seafood School and the Alaska Mariculture Research and Training Center. We support coastal

communities through Adapt Alaska, Alaska Waters, and the Alaska Center for Marine Debris. These programs complement our place-based education, outreach, and research happening throughout the state.

We are excited that, for the first time since 2012, we now have an Alaska Sea Grant specialist based in Bethel. Katie Baldwin Basile brings experience working with Alaska communities affected by coastal changes such as flooding and erosion. Her vita also includes producing impactful and award-winning visual storytelling projects. This new position is jointly funded with the Alaska Ocean Observing System, and helps our team support the priorities of a region facing urgent coastal challenges.

A huge accomplishment this April was a successful review and evaluation of our program led by an external team of experts and the National Sea Grant College Program, who met over four days with UAF leadership, Alaska Sea Grant staff, faculty, and partners. The review team evaluated Alaska Sea Grant's accomplishments over the six year period from 2018–2023 and determined that our program met the Standards of Excellence. We earned a designation of "accomplishment of special merit," and the review team commented how impactful and trusted Alaska Sea Grant is in coastal communities around the state.

It is an honor to lead this program.

Sung R. Enl

Sincerely,

Ginny L. Eckert, Director Alaska Sea Grant



ALASKA SEA GRANT ADVISORY COMMITTEE

Jodie Anderson, Director
UAF Institute of Agriculture, Natural Resources and Extension

Kaja Brix, Arctic Program Director NOAA Fisheries Alaska Region

Leann Cyr, Director Alaska Marine Safety Education Association

Diana Evans, Deputy Director North Pacific Fishery Management Council

Nicole Kimball, Vice President Pacific Seafood Processors Association

Michael Kohan *(chair)*, Science and Policy Director Sitka Salmon Shares

Jon Kurland, Alaska Regional Administrator NOAA National Marine Fisheries Service

Sharon Lechner, President Commercial Fishing and Agriculture Bank

Michael LeVine, Senior Director, Alaska Programs Ocean Conservancy

Angela Lunda, Assistant Professor of Education University of Alaska Southeast

Vera Metcalf, Director
Eskimo Walrus Commission at Kawerak, Inc.

Hazel Nelson, Board of Directors Bristol Bay Native Corporation

Theresa Peterson, Kodiak

Aaron Poe, Network Program Officer Alaska Conservation Foundation

Dave Reggiani, Aquaculture Expert
Prince William Sound Aquaculture Corporation

Chris Siddon, Marine Fisheries Scientist Alaska Department of Fish and Game

Katherine Schake, Manager Kachemak Bay National Estuarine Research Reserve

Wanda Wahl, Director UAF Bristol Bay Campus

Sheyna Wisdom (vice chair), Executive Director Alaska Ocean Observing System



Skipper Apprentice Program

From greenhorn to captain, Sea Grant's *Skipper Apprenticeship Program* provides a foundation for those who don't know a bowline from a bow cleat, and more for those with years of fishing experience. Advanced classes can lead to marine occupations beyond what's needed to catch salmon in Bristol Bay.

Business of Fishing

Business of Fishing is designed for boat owners, permit holders, and fishermen looking to improve business management skills. Topics include tax strategy and organization, business and financial planning, and risk management. The course also includes an introduction to direct marketing and direct marketing regulations.

Introduction to Starting and Operating a Seafood Direct

Marketing Business

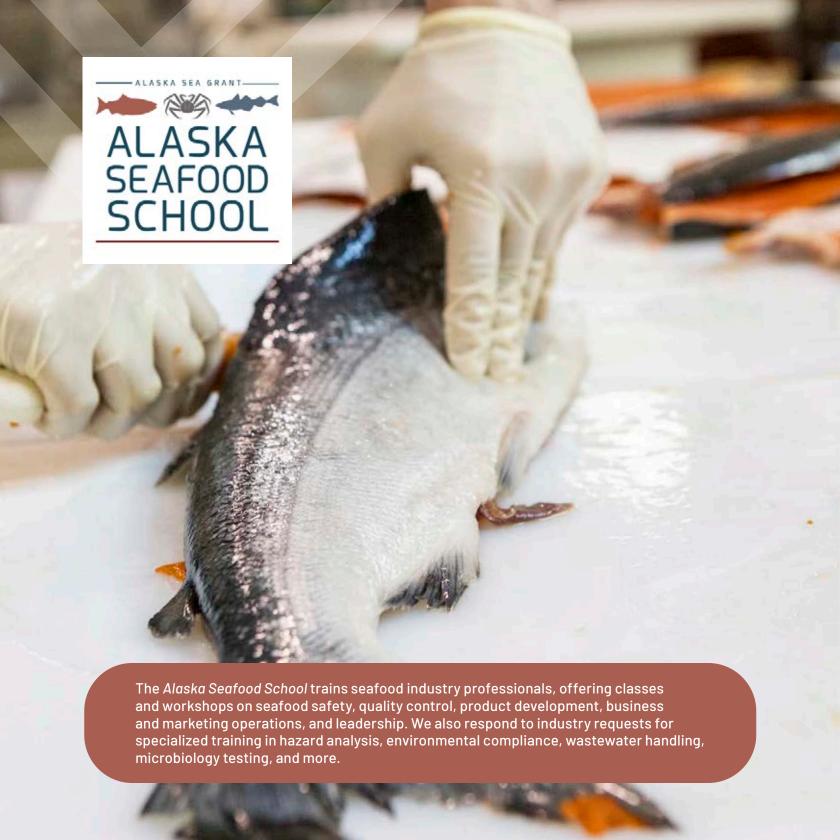
This popular online workshop is for those considering direct marketing seafood in Alaska, and covers regulations, marketing, business planning, and product quality. Participants learn how to start or improve an Alaska direct marketing operation from seafood marketing and quality specialists, regulatory officials, and experienced direct marketers.

"Commercial fishing is 20% fishing and 80% everything else. Our classes focus on the 80% of everything else; marine safety, diesel mechanics, welding, refrigerated sea water systems, business management, etc." – TAV AMMU









In-state training for seafood industry technicians and leaders

Over a dozen seafood professionals graduated from this year's *Alaska Seafood Processing Leadership Institute*, gaining the tools for becoming leaders in their field. As a key part of the training, they worked with mentors over several months to develop and implement strategies for improving their facility's operations. Over two decades, ASPLI has trained more than 130 emerging industry leaders from 27 companies and 22 communities across Alaska.

Professional Ammonia Refrigeration Operator Education and BAADER Basic and Advanced Technician training are more recent Alaska Seafood School offerings, in partnership with the Alaska Research Consortium, meeting the demand for in-state training for skilled and certified technicians in the seafood industry.

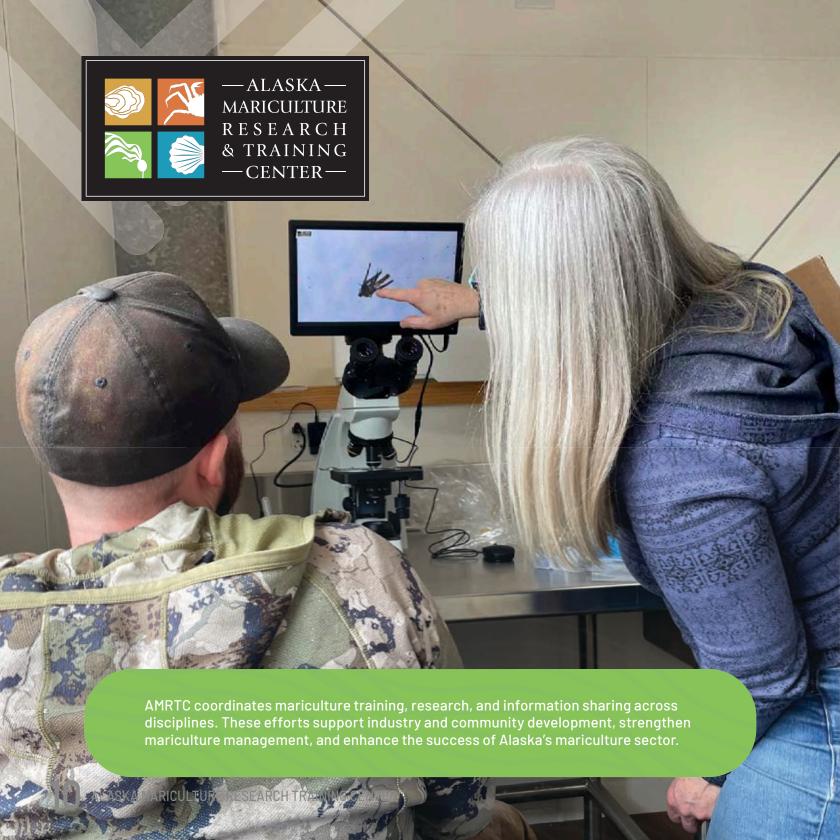
Professional Ammonia Refrigeration Operator Education trains experienced, mechanically skilled employees to become certified ammonia refrigeration operators, with a focus on seafood processing in Alaska. BAADER training focuses on high-speed filleting and skinner machines, including basic assembly, wear and tear, electrical schematics, fault analysis, and production adjustments.

"One of the most satisfying aspects of the long-running ASPLI program is being able to follow the career paths of former students who eventually become industry leaders." – CHRIS SANNITO









Alaskans trained in oyster cultivation

Alaska oyster farmers are dependent on out-of-state hatcheries for high-quality seed, a vulnerability to the state's industry. In response, Alaska Sea Grant and partners are providing hatchery workshops for Alaska farmers, researchers, and industry professionals. This spring, an introductory workshop and an advanced "train-the-trainer" workshop was offered. These workshops strengthen the support network for mariculture in the state. According to Alaska Sea Grant's Arron Jones, "as these statewide partnerships, collaborations, and connections continue to grow, so will the Alaska mariculture industry."

Meet your farmer

Alaska Sea Grant's <u>Meet Your Alaskan Farmer video</u> series recently documented an exciting development in Alaska mariculture—the expansion of oyster cooperatives. This model has a long history in Alaska, especially in rural areas with limited access to products and services.

The video looks at the Alaska Oyster Cooperative on Prince of Wales Island, where farmers share a dock in Naukati Bay and are in the process of leasing an adjacent plot of land. The co-op is building infrastructure for oyster processing, cold storage, and packaging, helping to grow oyster farming, create jobs, and increase food security.

"The experience [hatchery workshops] really helped me to understand the process for oyster seed production before it reaches my farm."

— MARICULTURE FARMER









Collaboration on oil spill resilience

We recently participated in a workshop to facilitate dialogue between Alaska and the Gulf of Mexico on the experiences, strategies, and best practices for preparing for and recovering from future oil spills. Helping to lead the workshop was Alaska Sea Grant's Davin Holen. "We must remember these events deeply affect individuals, families, and entire communities," Holen said. "It's crucial to recognize the lasting impacts on society, culture, and ways of life."

Getting data to community planners

Environmental data can inform resilience planning efforts, but the information often is not accessible to rural communities. In response, Alaska Sea Grant's Sean Kelly created the ArcGIS StoryMap website <u>Data for resilience</u> planners in rural Alaska.

Funded by AOOS, the site helps regional and community planners tackle environmental challenges. "This project is about more than just providing data," Kelly explained. "It's about creating a dialogue and building the capacity of rural communities to use existing data effectively, and figuring out what new information is needed."

Adaptation strategies for coastal villages

At the Adapt in Place workshop, communities explored alternative ways to prepare for the changing environment. Participants explored approaches to slower migration away from the coast that are less disruptive to communities and families.

Colleen Timmer, a tribal administrator, said it provided a space "to have important conversations on how we can move forward with the issues we are dealing with as Indigenous peoples. I look forward to potentially having other gatherings hosted by Alaska Sea Grant."









Bringing knowledge bearers, scientists, and educators together

Alaska Sea Grant, together with the Community Organized Restoration and Learning network (CORaL), started the *Alaska Knowledge, Science, and Education Alliance* (AKSEA) this year. AKSEA aims to foster connections across the region and share community knowledge by bringing together traditional knowledge experts, scientists, and school educators to co-create lessons. These lessons focus on marine-related anchoring phenomenon—a fascinating real-world event or a meaningful design problem for students to investigate. Teams create and pilot lessons over the course of six months with the support of CORaL educators.

New website unveiled

Alaska Waters is an online resource for educators, offering place-based lessons and activities to engage students in science related to Alaska's oceans, coasts, and waterways. Alaska's diverse, remote, and expansive geography makes online educational resources critical to supporting teachers and students across the state.

Formerly known as *Alaska Seas and Watersheds*, the upgraded site includes a searchable database for lessons by topic, location, activity type, grade level, and technology needs.

"I used the Alaska Waters curriculum to teach a modified version of their Oceans in Motion unit. ROVs fit perfectly with this unit because it is a real-life application of the technology scientists are using to explore the ocean."

- HANNAH SMITH, SCIENCE TEACHER









Taking action for cleaner coasts

In Alaska, we're partnering with leaders in coastal communities to reduce discarded plastics and other marine debris from our shorelines through our Community-Led Marine Debris Removal program.

In Sitka, commercial fishermen Jacquie and Zach Foss are leading a project aboard their fishing vessel *Axel*, conducting multi-day trips to remove debris from island coastlines, and getting fellow commercial fishermen involved. They have cleared over 10,000 pounds of debris from southern Baranof Island.

"As commercial fishermen, we depend on these waters, and it's on us to help take care of them," said Jacquie Foss.

In Cordova, Nelly and Michael Hand of Drifters Fish are leading a project in Prince William Sound. In May, they removed 5,500 pounds of debris from Egg Island.

"As fishermen building our life out on this coast, we are committed to being good stewards of this wild place," said Nelly Hand.

These are two of the projects selected through the 2024 Community Marine Debris Removal Grant program, supported by the NOAA Marine Debris Program and Alaska Sea Grant. With each cleaned beach and each boatload of waste, Alaskans are showing what it means to care for the places they live and work.

"As fishermen building our life out on this coast, we are committed to being good stewards of this wild place." – NELLY HAND









Partnerships

Alaska Sea Grant brings people together for important and productive conversations. Our professionals live and work in coastal communities, are tuned into local needs and issues, and get to know the people who also work on these issues. They foster partnerships and connect people on topics that matter to Alaska's coastal communities.

One such effort is the *Mariculture Conference of Alaska*, a gathering of farmers, researchers, and industry professionals exploring opportunities in research, innovation, education, and industry growth.

"The conference creates an opportunity for exchange in order to help the industry thrive, and brings many talented people and organizations together," said Alaska Sea Grant's Melissa Good.

Another group effort is the Western Alaska Interdisciplinary Science Conference, which brings together people invested in sharing information important to rural communities in Western Alaska, integrating academic science and local knowledge.

Similar regional partnerships include the *Alaska Young Fishermen's Summit*, the *Wakefield Fisheries Symposium*, and the *Kodiak Area Marine Science Symposium*.

"Alaska Sea Grant is a key partner to many vital initiatives in Alaska. They help educate, train, and connect people to valuable information, extending the impact of science throughout communities." – COMMUNITY PARTNER













ALASKA SEA GRANT RESEARCH TRAINEES

Claudia Berry MS environmental and marine sciences Development of a non-lethal genetic-based method for aging Pacific halibut

Dana Bloch MS oceanography Southeast Alaska trolling vessel ocean measurement program

Maeghan Connor MS wildlife biology and conservation Integrating emerging technologies with community-based observations to assess spotted seal ecology at terrestrial haul-outs in Arctic Alaska

Muriel Dittrich MS marine biology Development of cultivation protocols for the red seaweed, dulse, to support traditional food systems in Southeast Alaska

Elena Eberhardt MS fisheries

Quantifying the influence of environmental conditions on potential trophic interactions and growth of juvenile sockeye salmon and threespine stickleback within Iliamna Lake

Sof Fox MS fisheries Evolutionary underpinnings of stress response in Pacific oysters Elizabeth Mik'aq Lindley PhD fisheries Pink Arctic: Patterns, processes, and consequences of increasing Pacific salmon in the high north

Riley O'Neil MS marine biology
Do mariculture farms improve habitat for sea otter prey?

George Payne MS civil engineering Nature-based and community-engaged Arctic coastal protection

Ben Peterson MS biology

Too big to ignore: Foraging strategies and competition between marine top predators in a rapidly changing Bering Sea

Emily Reynolds MS marine biology The relationship between oyster farms and their environment, a sea otter's perspective

Zach Stamplis MS fisheries
A transformative approach to rapidly assess critical life history and energetic responses of fish to environmental change

RESEARCHERS GAIN INSIGHTS ON ILIAMNA LAKE SALMON POPULATIONS

The Bristol Bay commercial fishery is the world's largest producer of wild sockeye salmon. Alaska Sea Grant-supported researchers are working to provide new information for the region's fisheries managers to understand trends and anticipate changes to the sockeye salmon fish populations.

"Shifting environmental conditions could affect the growth of juvenile sockeye and competition with other dominant species, like sticklebacks," explained Elena Eberhardt, a UAF graduate student working on the project. "Understanding how ice cover and temperature are influencing sockeye population dynamics is critical."

"Understanding changes in Bristol
Bay's lake ecosystems and how
different species have responded to
these changes in the past can help us
better understand and predict how
commercially important species like
sockeye salmon might respond to
future changes in these critical nursery
habitats."

- CURRY CUNNINGHAM, PRINCIPAL INVESTIGATOR







ALASKA'S SEA GRANT KNAUSS FELLOW

Connie Vo, a University of Alaska Fairbanks master's student, is a 2025-2026 Knauss Marine Policy Fellow in Washington, D.C. Vo works in Senator Sullivan's office, where she is learning about issues in ocean and coastal management while working with legislators and other Fellows.

Before the fellowship, Vo worked as the Tribal Fisheries Liaison for the Aleut Community of St. Paul Island, her hometown and the largest of five Pribilof Islands located in the central Bering Sea. She collaborated with community organizations to track and engage with federal fisheries management and marine ecosystem conservation initiatives in the Bering Sea.

"Growing up near the ocean, I was raised to practice a traditional Unangan way of life, and in a family that has strong halibut fishing ties. Naturally, I was driven to pursue a career in fisheries, given my love for the ocean," said Vo.

ALASKA SEA GRANT COMMUNITY-ENGAGED **FELLOWS**

Undergraduate students spend the summer working in coastal communities through the Alaska Sea Grant Community-Engaged Fellowship. Each fellow receives mentorship from a host organization or an Alaska Sea Grant faculty member, and is part of a national cohort of fellows working with Sea Grant programs across the country.

"We have long offered programs for graduate students and postgraduates to develop careers in marine and coastal sciences," explained Alaska Sea Grant's Davin Holen, who helped develop the fellowship at the national level. "This program adds new opportunities for undergraduate students to develop skills, conduct valuable work in communities, and explore potential careers."

This year's Alaska group includes six fellows—the most since the program began in 2021.

"This program adds new opportunities for undergraduate students to develop skills, conduct valuable work in communities, and explore potential careers." - DAVIN HOLEN





ALASKA SEA GRANT STATE FELLOWSHIP PROGRAM

Class of 2025



Sydney Almgren

Alaska Fisheries

Development Foundation



Erica Ebert

Alaska Sea Grant,
Coastal Community Resilience



Rachel French

Alaska Sea Grant,

Mariculture Program



Kyle Kolda Alaska Sea Grant, Communications



Jonathon Kuntz

Alaska Department of Fish and
Game, Commercial Fisheries



Alaska Sea Grant, Marine Debris



Emily Reynolds

NOAA Fisheries, Alaska
Aquaculture Program



Emma Luck

Alaska Mariculture Alliance



Pax Templeton

Alaska Sea Grant,
Alaska Clean Harbors



Leah Valdes

NOAA Alaska Fisheries Science
Center, Auke Bay Laboratories



Ana Velasquez

Central Council Tlingit and
Haida Indian Tribes of Alaska



FELLOWSHIP LAUNCHES CAREER IN FISHERIES SOCIAL SCIENCE

Cordova's fishing community recently gathered for a workshop addressing the challenges facing fishing economies in a rapidly changing climate. Among the key contributors to this conversation was Marysia Szymkowiak, a former Alaska Sea Grant State Fellow, whose work continues to help shape fisheries adaptation in the Gulf of Alaska region.

For her Alaska Sea Grant State Fellowship in 2015—the first year of the program—Szymkowiak worked with NOAA. This led to her current work as a research social scientist at NOAA Fisheries Alaska Fisheries Science Center, where she ensures community voices are heard in the development of policy.

Szymkowiak has made contributions to understanding the vital role of women in supporting fishing family adaptive capacity, as well as their unique vulnerabilities when fisheries systems experience shocks or disruption.

Her work reflects the commitment of Alaska Sea Grant State Fellows, past and present, to make lasting, positive change in the state's fisheries and beyond.

"Resilience for our fishermen and fishing communities has to be driven by these types of local knowledge exchanges to develop communitydriven solutions." – MARYSIA SZYMKOWIAK













ALASKA SEA GRANT TEAM

Ginny Eckert Director, Juneau

Tav Ammu Marine Advisory Agent, Dillingham

Katie Basile Coastal Resilience Specialist, Bethel

Molly Cain Associate Director for Research, Fairbanks

James Crimp Shellfish Mariculture Specialist, Juneau

Gabe Dunham MAP Leader and Fisheries Specialist, Juneau

Ashley Dunker Program and Event Coordinator, Kodiak

Quentin Fong Seafood Marketing Specialist, Kodiak

Melissa Good Mariculture Specialist, KSMSC coordinator, Kodiak

Davin Holen Coastal Community Resilience Specialist, Anchorage

Arron Jones Mariculture Trainer and Technician, Kodiak

Sean Kelly Climate Adaptation Specialist, Anchorage

Leigh Lubin Marine Education Specialist, Valdez

Shelley Masten Administrative Assistant, Anchorage

Julie Matweyou Marine Advisory Agent, Kodiak

Dawn Montano Communications Manager, Fairbanks

Julie Parshall Program Administrator, Fairbanks

Dave Partee Technology and Communications, Fairbanks

Sunny Rice Marine Advisory Agent, Petersburg

Chris Sannito Seafood Technology Specialist, Kodiak

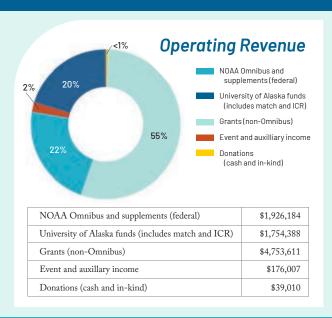
Marc Solano Seafood Processing Workforce Development Coordinator, Kodiak

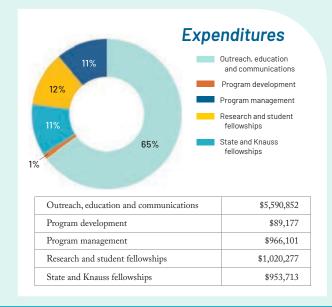
Gay Sheffield Marine Advisory Agent, Nome

John Williams Fisheries Workforce Specialist, Cordova

ALASKA SEA GRANT BY THE NUMBERS

Reporting data represents activities Feb. 1, 2024, to Jan. 31, 2025, which aligns with the National Sea Grant College Program's reporting cycle.





\$17,019,192 ECONOMIC BENEFIT

1,058
K-12 STUDENTS EDUCATED
IN MARINE SCIENCE

13 K-12 EDUCATORS TRAINED

5,360
PUBS DISTRIBUTED

GRADUATE STUDENTS WHO GOT JOBS

GRADUATE STUDENTS WORKED ON SEA GRANT-FUNDED RESEARCH BUSINESSES RETAINED OR SUPPORTED

311
JOBS SUSTAINED
OR CREATED

106
FISHERMEN/
PROCESSORS TRAINED

177
EVENTS HELD

11,075
EVENT PARTICIPANTS



DOAR

Alaska Sea Grant completed a successful six-year program review led by the National Sea Grant College Program and an external team of experts. Our program met the Standards of Excellence and earned a designation of "accomplishment of special merit," recognizing our trusted, impactful work in Alaska's coastal communities.

Pictured (LtoR): Alaska Sea Grant management team— Gabe Dunham, Brooke Carney, UAF Provost Anupma Prakash, Julie Parshall, Ginny Eckert, Dawn Montano and Molly Cain