Alaska Marine Science and Fisheries Career Coalition

Help rural Alaskans and Alaska Natives pursue education towards professional careers in fisheries and ocean sciences, and employment in these fields in Alaska.

September 2013

What is the Coalition?

The Alaska Marine Science and Fisheries Career Coalition (AMSFCC) is a network of schools, management agencies, tribal, non-profit and fishing associations working together to support Alaskans, particularly rural Alaskans and Alaska Natives, who seek careers in fisheries and marine science.

Why Have the Alaska Marine Science and Fisheries Career Coalition?

To rural Alaskans and Alaska Natives, subsistence and commercial fisheries are very important to their lifestyle, livelihood and cultural heritage. Their local knowledge in the biology, ecology and sustainability of Alaska’s flora and fauna is substantial. However Alaska Natives and rural Alaskans are highly underrepresented in the fields of fisheries science, marine science, and fisheries management, policy and enforcement in our state. There are many statewide groups who are engaged directly or indirectly in efforts to support the mission of getting rural and Alaska Natives into marine science and fisheries careers. We feel that progress toward our identified mission will greatly increase with these many independent efforts sharing ideas and collaborating as one force.

Coalition Vision:

Alaska Natives and rural Alaskans will pursue education toward professional careers in fisheries, marine and ocean sciences, and will be employed in these fields in Alaska at levels equal to their demographic representation in the state.
The Main Roadblocks for Rural and Native Alaskans:

- Little or no exposure to the fisheries and other marine science fields while in middle and high school;
- Limited or lack of rigorous science and math classes in high school leaving students unprepared once they get to college;
- Lack of a dedicated fishery/marine science educational pathway to the University of Alaska and other colleges;
- Lack of retention programs to help those entering college in fisheries/marine science and biology succeed;
- Poor linkage between education, funding, internships and employers;
- Different cultural learning styles by Native students than found in schools and universities.

AMSFCC Partners:

- Alaska Department of Education, Career and Technical Education
- Alaska Department of Fish and Game
- Alaska Native Science and Engineering Program
- Alaska Sea Grant Marine Advisory Program
- Alaska SeaLife Center
- Bristol Bay Campus, UAF
- Bristol Bay Economic Development Corporation
- Bristol Bay High School, Naknek
- Chugach Regional Resources Commission
- College of Rural and Community Development, UAF
- Cooperative Extension Service, UAF
- COSEE Alaska
- Gulf of Alaska Coastal Communities Coalition
- Icicle Seafoods
- Interior Aleutian Campus, UAF
- Kawerak, Inc.
- Ketchikan Fisheries Technology Program, UAS
- Kuskokwim Native Association
- Lower Kuskokwim School District
- NOAA Fisheries Alaska Region
- NOAA National Centers for Coastal Ocean Science
- Northwest Campus, UAF
- North Pacific Fishery Management Council
- OceansAlaska
- The Rasmuson Foundation
- School of Fisheries and Ocean Science, UAF
- Sitka Sound Science Center
- STEM AK
- Tanana Chiefs Conference
- Tribal Management Program, UAF
- US Fish and Wildlife Service
- Yukon River Drainage Fishermen’s Association
AMSFCC Steering Committee

Paula Cullenberg, co-chair
Director, Alaska Sea Grant,
University of Alaska Fairbanks
Anchorage, Alaska
Paula.cullenberg@alaska.edu

Lisa Busch, co-chair
Executive Director,
Sitka Sound Science Center
Sitka, Alaska
lbusch@sitkascience.org

Sheila Cameron
Program Coordinator
Alaska Department of Fish and Game
Juneau, Alaska
Sheila.cameron@alaska.gov

Trent Sutton
Chair of the Undergrad Fisheries Program &
Program Head for SFOS Retention
and Student Success
School of Fisheries and Ocean Sciences
University of Alaska Fairbanks
Fairbanks, Alaska
tmsutton@alaska.edu

Ginny Eckert
Associate Professor of Fisheries
School of Fisheries and Ocean Sciences
University of Alaska Fairbanks
Juneau, Alaska
gleckert@alaska.edu

David Tallmon
Associate Professor
Biology and Marine Biology Program
University of Alaska Southeast
Juneau, Alaska
David.tallmon@uas.alaska.edu

Todd Radenbaugh
Associate Professor Environmental Science
UAF Bristol Bay Campus
Bristol Bay Environmental Science Lab
Dillingham, Alaska
taradenbaugh@alaska.edu

Kara Johnson
Science Education Director
Prince William Sound Science Center
Cordova, Alaska
kjohnson@pwssc.org

Robin Dublin
Executive Director,
Alaska Center for Ocean Sciences
Education Excellence (COSEE- Alaska)
Anchorage, Alaska
robindublin@coseealaska.net

Barbara Morgan
Research and Training Specialist
OceansAlaska, Marine Science Center
Ketchikan, Alaska
barbaramorgan@oceansalaska.org

Beth Spangler
National Partnership Director
Indigenous Alliance for Engineering
& Science Education
Anchorage, Alaska
bspangler@usgs.gov

John Whissel
Department of Environmental and
Natural Resources Director,
Native Village of Eyak
Cordova, Alaska
john@eyak-nsn.gov

Mike Miller
Council Member,
Sitka Tribe of Alaska
Sitka, Alaska
Go2tbird@hotmail.com

Rose Fosdick
Vice President Natural Resources
Division Director,
Kawerak, Inc.
Nome, Alaska
RFosdick@kawerak.org

Bonita Nelson
Research Fish Biologist,
Auke Bay Laboratory, NOAA
Juneau, Alaska
Bonita.nelson@noaa.gov

Ida Hilderbrand
Tribal Natural Resource Program Director
Chugach Regional Resources Commission
Seward, Alaska
idah@crrcalaska.org
Origins of the AMSFC Coalition

What was the catalyst that initiated the formation of the Coalition?

In Alaska, there are many professional career opportunities managing our fisheries and researching and working in the fields of marine science. Despite the high number of employment opportunities, and the high dependence of Alaska Natives and rural coastal Alaskan residents on the marine fisheries and resources of the state, these groups of state residents are significantly underrepresented in these fields. Increasing employment of Alaska Natives and coastal Alaskans in marine science and fisheries would help our state since they likely would be familiar with and have a high stake in seeing marine and fisheries resources remain strong. In 2006, a white paper was drafted by Dolly Garza and Paula Cullenberg, faculty members in the Alaska Sea Grant Marine Advisory Program, titled “Increasing the Numbers of Alaska Natives and Rural Alaskans Working in Fisheries and Marine Sciences: Review and Recommendations” (http://seagrant.uaf.edu/map/initiatives/marinescience/RuralAKReportFinal.pdf).

At the same time, a workshop, attended by educators, employers and various community groups recognized that a number of groups were trying to encourage these career choices. However, we were engaged in efforts independent from each other, often working in isolation. At the 2006 workshop, the group decided to band together to share resources and make the pathways for Alaskans easier and more streamlined. At that meeting, the Alaska Marine Science and Fisheries Career Coalition (the Coalition”) was formed. It was decided to: form a Steering Committee, build a comprehensive website, maintain a database of scholarships and internships, and begin tracking students to identify and address roadblocks.

Our goals include:
* Increase awareness of fisheries and marine science careers by students,
* Increase access by teachers across the state to resources that would encourage students,
* Encourage recruitment and employment by employers across the state,
* See an increase in the number of Alaska Natives and rural coastal Alaskans pursuing these careers.
Coalition Accomplishments to date:

• Created and maintain the website “Future Alaskans in Fisheries and Marine Science” - the only comprehensive site available in the state outlining education, internships, careers. See http://www.sfos.uaf.edu/future/

• Created an electronic job board for fisheries and marine science jobs and internships. This is now co-managed with the UAF School of Fisheries and Ocean Sciences http://www.sfos.uaf.edu/jobs/

• Hosted a 2-day workshop funded by NMFS to develop funding recommendations for the agency in meeting the intent of the Magnuson Stevens Act related to employment. Final report is here http://seagrant.uaf.edu/map/initiatives/marinescience/ One outcome of the workshop was a recommendation for a statewide workforce development plan for fisheries and seafood, currently a major initiative at UA – see www.alaska.edu/fsmi

• Supported AmeriCorps VISTA volunteers for three years. The VISTA volunteers has been engaged in: supporting the website, developing the job board, developing social media, recruiting students, staffing science aspects of summer camps, supporting the National Ocean Science Bowl, connecting statewide teachers with marine and fisheries instructional resources, creating and disseminating the Coalition’s newsletter, hosting statewide informational webinars, developing and carrying out a new Coalition internship program, holding the Steering Committee together through networking.

• Funded, with NOAA funds through partner Bristol Bay campus, 8 AMSFCC summer college interns. Interns have worked for the Sitka Sound Science Center, ADF&G, UAF research labs, and Alutiiq Pride Shellfish hatchery over the past three summers.

Since 2006, a number of our Coalition partners have expanded their role in meeting the Coalition’s vision and goals. They include:

• Increased undergraduate fisheries program offered in Juneau and Fairbanks and other sites in Alaska through the UAF School of Fisheries and Ocean Science funded in part by Rasmuson Foundation;

• A biology (fish and wildlife) strand in the UA Alaska Native Science and Engineering Program;

• Career pathways developed at the UAF Bristol Bay Campus;

• Creation of the Sitka Sound Science Center;

• Fisheries curriculum development by Chugach Regional Resources Commission;

• Expanded and improved internship program developed by the Alaska Department of Fish and Game.
AMSFCC’s AmeriCorps Vista Volunteers

Asia Beder: I started my service in January 2011 and at the time I started, the Coalition wasn’t very active. I was excited to hear that a group of many different entities was working together towards the same goal and was very impressed at their different ideas. During my service I got the Coalition more active and helped spread the word of what the group wanted to do through newsletters, the website and visiting different parts of the state. The biggest challenge was figuring out how best to reach out to the different communities. Alaska is very diverse and every area has different preferences when it comes to the way they share information and what catches their attention. People are very excited about the topic of getting rural and Alaska Natives into marine science and fisheries and they are grateful there is a group who is working on the issue. However, even though most people support the issue the general opinion is that it is difficult to find specific ways to accomplish the goal. I felt like the biggest success during my services was when we were able to help get rural and Alaska Natives into the marine science and fisheries through internships created by the Coalition. Asia is currently pursuing a MS in Fisheries, studying under UAF Professor Ginny Eckert.

Madison Kosma: I started my service in August 2012 and was very excited about the opportunity to work with the Coalition. I believe the AMSFCC is a valuable force with a crucial purpose and was enthusiastic about providing guidance to others who share a passion for the field. The individuals in the steering committee are incredibly prestigious, well-established and accomplished individuals in the state of Alaska. Each member adds his or her own perspective and ideas that progresses the mission of getting rural and Alaska Natives into marine science and fisheries careers. There is no doubt that this is a very difficult task to accomplished and progress can be perceived as slow. Right now are the crucial stages of creating the foundation. We have established the website and social media for connecting through the state with students (high school and college) and educators and we network with one another to understand what is happening and how things are being done in different facilities and programs. During my service I have started a database of what Alaska high schools offer marine, ocean, and/or fisheries related classes. Also, we have created statewide webinars that allow educators, managers, directors, etc. to listen in on important topics for accomplishing the mission. Madison is currently working at the Sitka Sound Science Center as the Outreach and Sitka WhaleFest Coordinator.

Interns and Their Experience

Maggie Garrison: My experience in 2012 at the Sitka Sound Science Center (SSSC) gave me the opportunity to work with kids during our summer science camps and solidified my decision to become a teacher. Working with kids from our community was a wonderful experience, and our staff was able to offer all kinds of educational opportunities for them. Apart from the summer camps, working with visitors on a daily basis improved my public speaking skills and I was able to extend my educational efforts from kids to adults. Being able to teach our visitors about Sitka, the marine sciences, and our working salmon hatchery was great instructional practice, and gave me a solid foundation for my studies at Western Washington University. I am currently going into my third year at Western Washington University in Bellingham, Washington. I am getting a BS in Geology, as well as a General Science endorsement. I plan on going into education after my undergraduate degree and using my BS in Geology and endorsement to get my master's in Secondary Education--I plan on being a high school science teacher. However, if the opportunity arises, my BS in geology would potentially allow room for a research position if I decided I didn't want to go back to school for education right away.
Sydney Pace: I had an internship with Alaska Department of Fish and Game, Fairbanks. During my experience I worked on variety of projects essential to the management of the salmon fisheries in Region III. These included: sockeye and King Salmon in the Chitina dipnet personal use fishery, working on the Chena River counting tower, access projects, and other projects as available. My career goals are to continue being a hard worker and succeed in obtaining a college degree and this internship has helped me obtain skills so I can accomplish my goals.

Paige Papineau: I worked on marine mammal research with UAF researchers, Kate Wynne and Bree Witteveen, in Kodiak. During my internship my primary responsibilities at Fish Tech were photo identification, preparing lab samples, entering data and helping with fluke and dorsal photography. Currently, I am pursuing my bachelors’ degree in Marine Biology at Hawaii Pacific University. After obtaining my bachelors degree, I hope to return back to Alaska to work in the fishing and marine field while later on obtaining my Master’s and further down the line my PH.D.

Taylor White: I grew up in beautiful Sitka, Alaska and through Alaska Marine Science and Fisheries Career Coalition I got an internship at the Sitka Sound Science Center. During my time I was an instructor at the SSSC Summer Camp, helped with aquarium maintenance, gave interpretive tours, assisted with a killer whale bone articulation project and helped with social media outreach. Since my internship in 2011 I have finished my Biology – Environmental Studies undergraduate degree at Whitman College and now work at the SSSC as the Aquarium Manager.

Jaspri Sylvan: I worked with Dr. Ginny Eckert (AMSFCC steering committee member) from the School of Fisheries and Ocean Sciences in her lab in Juneau. Primarily, I was the caretaker of the wet lab that contained all the live specimens. I fed crabs, cleaned tanks, and other lab maintenance. There were a couple of on-going studies in the lab that I record data for and sampled phytoplankton samples in Auke Bay. I plan on earning a bachelor’s degree and master’s degree in Marine Biology. From there I will pursue a career in which I can conduct research and seek ways in which we can live on this earth without decimating natural resources. My advice to other young Alaskans who are interested in marine science and fisheries careers is to volunteer and seek out opportunities like the ones provided by the Alaska Marine Science and Fisheries Career Coalition.
Perspectives on the AMSFC Coalition

Bonita Nelson: Research Fish Biologist with Auke Bay Laboratory in Juneau

The Coalition has a mission that we (I) support. Each year we hire many “interns” (using short term contracts) students (college summer or students right out of college) and have them assist us with bioenergetics work. These jobs are geared toward helping students understand fisheries research careers. Also, it is very difficult for me to network with the outreach people who live in the main part of Alaska, so working on coalitions or committees is one of the only means I have with working with other professional outreach people in other parts of the state. The AMSFC Coalition is a valuable gathering for outreach professionals as well as a tool for helping students learning about career choices. The career choice topic is harder for me to tell if it is working or not because of the location issue between SE and upstate. Down here, Juneau is the hub for jobs and educations, so it is easier to introduce students to these topics in more face to face ways but the website is very valuable for connecting people all over the state with available opportunities.

The ability for outreach people all over the state (including education people) to have a forum where they can share ideas/resources is truly invaluable. The expertise and enthusiasm that is generated from the Coalition and the contacts made between participants are invaluable. The only other time outreach/education/science people get together in mass is the few hours on Monday mornings at the AMSS are workshop and that really is not enough exposure or time to get to know others and their programs. I feel that my outreach program was significantly enhanced because of my time with the Coalition members in person or on the phone.

Sheila Cameron, Program Coordinator with The Alaska Department of Fish and Game in Juneau

The Alaska Department of Fish & Game has been part of the Coalition since inception. The Coalition’s mission fits with our Fish and Wildlife Careers for Alaskans goals and was a natural extension. It is a great way to network and get to know educators across the state. For ADF&G to continue its high level of management of the resources, it is critical that we employ knowledgeable individuals – and we recognize that engaging those that know the resources most is the best way to do this. Getting coastal residents excited about science and fisheries is an ideal way to accomplish this goal. I believe the Coalition can have a very positive mark – but I think it is challenging when each member is so busy and has so many individual goals.

The connections we have made with students and jobs are very important, I have seen students hired through grant funding for internships come back and work for us at ADF&G as enthusiastic employees. This is a VERY good thing.

Todd Radenbaugh: Dillingham Asst. Professor with Environmental Studies, UA in Bristol Bay

I was invited to be at the fisheries education meeting in 2007 where the concept of the coalition was developed. We saw the need for more fisheries related careers and workforce development in western Alaska. Also, the goals of the coalition were related to the Environmental Studies program we were developing. These formed a good partnership. The Coalition helps us network with other organizations and share ideas – the coalition also helps us see what else is being done across the state. I would like to see the Coalition work with more local and tribal organizations to promote the importance of science/fisheries education and help students build careers in fisheries across the state. I believe that the Alaska Marine Science and Fisheries Career Coalition could host an annual meeting for members, perhaps as part of a larger meeting such as the Alaska Forum for the Environment, this will allow more information flow and let others know of the work the coalition is doing.
If your organization would like to be listed as a partner or if you would like to be apart of the steering committee, please contact any member and join us!

Alaska Marine Science and Fisheries Career Coalition

A network of schools, management agencies, tribal, non-profit and fishing associations working together to support Alaskans, particularly rural Alaskans and Alaska Natives, who seek careers in fisheries and marine science.

Alaska Marine Science and Fisheries Career Coalition

Website: www.sfos.uaf.edu/future
Facebook: https://www.facebook.com/FutureAlaskans
Job Board: http://www.sfos.uaf.edu/jobs/
Blog: http://future-alaskans.blogspot.com
Phone number: (907) 274-9692