Program Objectives

- Support efforts that ensure safe, quality Alaska seafood products reach the consumer.
- Position program as the lead technical and scientific information source for seafood quality, safety, nutrition and health benefits, and sustainability.
- Encourage projects that incorporate innovative approaches to developing seafood products from Alaska.
- Provide outreach to educate and inform the market, trade, and consumers on the technical aspects of Alaska seafood.
- Promote the developing seafood technical field and promote studies with Alaska seafood.

Background

The goal for the program is to connect with the industry and provide resources to industry, trade and consumers in multiple technical categories including: seafood safety, seafood quality, nutrition, utilization, traceability, sustainability, and promoting innovative opportunities for Alaska seafood. An important component of the technical program is to provide support for the marketing programs on technical matters and to aid in developing technical materials for all of the programs.
Seafood Technical Program Overview

**Applied Investigations**
*Research opportunities related to the quality and value of Alaska seafood*
- seafood safety, nutrition, and quality
- quality processing, utilization

**Supplied Materials**
*Outreach and educational material related to Alaska seafood*
- develop content, materials and provide guidance for technical topics to industry, trade, and consumers
- develop materials for industry on quality and processing techniques

**Trade Education**
*Outreach and educational opportunities in seafood technical issues for the industry*
- support educational opportunities to promote the seafood technical field
Projects

Projects of interest for the technical program were determined by direction from the seafood technical committee and other ASMI committee requests.

Applied Investigations

- Oregon State University- PCCRC Pollock and Yellowfin Sole Milt Utilization Grant
  
  The technical program collaborated with research staff from Oregon State University (OSU) and University of Alaska Fairbanks (UAF) and was awarded a $107,000 Pollock Conservation Cooperative Research Center (PCCRC) grant to fulfill objectives from the research proposal, ‘Development of Value-added Market Opportunities for Pollock and Yellowfin Sole Co-products.’ This multi-year project will employ one graduate student to extract nucleotides from milt samples and analyze nutrient information and an undergraduate student to identify market opportunities for nucleotide content. This project will be a continuation of the nutritional work of the previous student on roe/milt, but looking at nucleotide content for supplement creation rather than general nutrient content. **The study will be seeking to understand which types of nucleotides are present, and how processing impacts the nucleotide content, by comparing nucleotides present in unprocessed roe/milt with roe/milt which has been processed in various ways.** The study will also connect to other research staff at OSU to look for bioactive peptides in roe/milt in order to test for anti-inflammatory affects and looking into nucleotide degradation through processing in drum drying.

- University of Connecticut/Seafood Industry Research Fund – Alaska salmon consumption and reduced inflammation for breast cancer survivors
  
  Through the Seafood Industry Research Fund (National Fisheries Institute) we supported a study by the University of Connecticut to gather key information regarding dietary fish consumption patterns in breast cancer survivors experiencing symptoms of persistent pain and fatigue. The 2-year investigation uses the USDA dietary guidelines as a basis to assess the consumption of more fish consumption for improved dietary intake patterns for breast cancer survivors. Consumption of omega-3 fatty acid in fish, and not in supplements, is encouraged as a component of the Nutrition and Physical Activity Guidelines for cancer survivors. **A specific aim of the project will be to look at the effects of high and low DHA diets on inflammatory load and persistent pain and fatigue severity for breast cancer survivors.** There are 150 participants in the study who will have personalized meal plans of frozen Alaska salmon fillets
2-3 times a week for a period of 6 weeks. Due to the pandemic, the research team has asked for an extension with a completion date in 2021.

- Oregon State University Food Innovation Center – sensory research of frozen Alaska seafood
  - ASMI is partnering with the Food Innovation Center at Oregon State University to conduct sensory research of frozen Alaska seafood. Test data will be collected using the Qualtrics and/or Compusense data acquisition systems. Sensory test results will be analyzed at the 95% confidence level and raw and summarized data will be presented in a summary report. Event timing is to be determined.

- Alaska Department of Environmental Conservation (ADEC)/USDA Agricultural Research Services – Developing a contaminant and nutrient database for Alaska seafood
  - ASMI and ADEC are working together to develop a database for Alaska seafood nutrient and contaminant data to improve value and marketability of Alaska fish, shellfish and kelp products. Currently, the Alaska seafood industry offers disparate data from independent nutrient analyses specific to processors and marketing companies and their product and not representative of a comprehensive approach to a robust study collecting nutrient and contaminant data on Alaska seafood species. We will also work collaboratively with USDA on establishing Alaska seafood in the Foundation Foods database, a federal nutrient database that isolates nutrient information of our foods to specific season (commercial harvest) and geographic locations (Alaska).

Supplied Materials

- ASMI Species Fact Sheets
  - The technical program is producing a new suite of Alaska seafood species fact sheets for buyers of Alaska seafood. This All Hands cycle, we have completed Alaska rockfish, Atka mackerel, golden king crab, red king crab, birerdi snow crab, and Dungeness crab and will be moving forward with completing the remaining species and products. These are available in print to order as well as a download pdf on the .org website.

- ASMI Technical Fact Sheets
  - We are developing fact sheets on technical topics that relate to Alaska seafood. These are business-to-business and business-to-consumer fact sheets are for use by ASMI programs as well as industry and trade relations. We are working with Alaska Sea Grant to publish upcoming fact sheets on seafood freezing quality, traceability, utilization, environmental issues, and various other technical topics that the industry would like
outreach material on. Recently, we collaborated with the ASMI shellfish committee to develop a live crab shipping technical fact sheet (November 2020)

- **ASMI Quality Material**
  - We developed a quality processing video addressing added COVID safety precautions used by our industry (August 2020)
  - We developed a quality Alaska seafood processing video on general quality processing for use by industry and trade to promote the quality processing aspects of Alaska seafood processors (September 2019)
  - We worked with the ASMI communications team to develop short social video clips as outreach material for quality handling for salmon harvesters (July 2020)
  - We worked with the ASMI domestic team to develop a Seafood Take Out Guidance for Alaska seafood (July 2020)
  - Developed H&G salmon POS material (November 2020)
  - Collaborated with the Alaska Department of Environmental Conservation, Food Safety Division: Shellfish safe handling infographic (November 2020)
  - We are developing associated tutorials on aspects of quality handling for different gear types and species (i.e. how to bleed, how to ice, how to transport) at the harvester level.
  - We are working to update, organize and develop quality resources on the .org website.

- **ASMI Nutrition Material**
  - Updated the ASMI .org ‘Health and Nutrition’ page.
  - We developed Alaska seafood nutrition infographics to build on information for heart health, mental health and pregnant women and babies.

Development and updates for various publications/technical issues for staff and industry throughout the year.

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**Trade Education**
o Supported seafood science educational events including the Pacific Fisheries Technologist conference. The seafood coordinator spoke at the Pacific Fisheries Technologist on RFM certification with RFM program coordinator Susan Marks (February 2020)

o The technical director was recorded for a podcast by The Alaska Seafood Company to educate employees on Alaska seafood sustainable management (February 2020)

o The technical director presented to the Copper River fleet on quality salmon handling with the technical committee chair, Mr. Joe Logan from Trident Seafoods. (May 2020)

o The technical director wrote an editorial for National Fisherman on quality handling & seafood safety (September 2020)

o The technical director was a panel member on a webinar hosted by the International Corporate Chefs Assoc. to speak about frozen quality and sustainability (September 2020)

o The technical director was a panel member on a webinar hosted by James Beard Foundation’s Smart Catch on frozen quality (October 2019)

o Steering committee member for the Alaska Ocean Acidification Network (Current in 2020)

o Board member on the Alaska Research Consortium (KSMSC support) and National Fisheries Institute (Current in 2020)

**Other Activities**

o The technical committee met in Seattle, Washington in March 2020 to approve the budget and discuss projects for FY21.

o Submitted the ASMI federal comment for the 2020-2025 Dietary Guidelines for Americans

o ARC participation in the EDA grant, *Alaska’s Seafood Future* project, to develop the seafood workforce and applied research opportunities for Alaska seafood

o Collaborated with ADEC to apply for SK funding to establish an Alaska seafood contaminant database.