



Kodiak Seafood and Marine Science Center

University of Alaska Fairbanks

www.sfos.uaf.edu/kmsmc

Quarterly Update: February through April 2014

The Kodiak Seafood and Marine Science Center (KSMSC) faculty and staff provide this update on the teaching, research and public service activities at the Center. Please contact us with questions.

Coming Up at KSMSC:

May 28-29	Fishing Vessel Drill Conductor Training
May 30-21	Fishing Vessel Drill Conductor Training
Aug 27-29	Smoking Alaska Seafood for Fun and Profit , Kodiak

News:



Alaska Sea Grant Marine Advisory (MAP) agent Julie Matweyou and marine mammal specialist Kate Wynne organized the second [Kodiak Area Marine Science Symposium](#). About 90 people attended the 4-day regional science conference linking researchers with the Kodiak public. Among the speakers were KSMSC faculty Wynne, Matweyou, seafood specialist Brian Himelbloom, marine mammal specialist Bree Witteveen. KSMSC hosted an evening dinner reception, organized by Quentin Fong and put

on by UAF graduate students and KSMSC staff.

After many years of research, KSMSC seafood specialist Alex Oliveira developed a molecular distillation process to purify pollock liver oil, resulting in a **commercially produced diet supplement**. American Marine Ingredients, a subsidiary of American Seafoods in Seattle, adapted Oliveira's distillation process and recently released the product 54° North Omega-3 with Vitamin D3 in capsule form. The work was featured on local, statewide, and national news including ABC and Fox News. See <http://www.adn.com/2014/05/07/3459643/company-turns-pollock-research.html>

The UA Board of Regents met in Kodiak in April for the first time in close to 10 years. An evening reception at KSMSC welcomed the regents and executives and staff from all three UA campuses including UAF Chancellor Brian Rogers. Regents chair, Pat Jacobsen from Kodiak, welcomed the

group to the Center. Posters of research were posted by graduate students and tours of building were offered by KSMSC faculty members.

Seafood faculty member, Brennan Smith, has left KSMSC after two years. We wish him well with his new position in Idaho.

Teaching

KSMSC faculty Brian Himelbloom, Alex Oliveira and Brennan Smith taught FISH 261, ***Introduction to Fisheries Utilization*** via videoconference to UAF students based in Fairbanks and Unalaska.



The fourth [Alaska Seafood Processing Leadership Institute](#) taught by marketing specialist Quentin Fong, seafood specialist Alex Oliveira, and KSMSC contractor, Chris Sannito held its final week of instruction in Anchorage focusing on leadership and management issues. Fourteen students participated, all mid-level seafood processing managers. The group then flew to Boston, MA, to tour the Seafood Expo North America and visit a seafood plant in Gloucester. “After ASPLI, I feel that I am a different person in how I manage solving issues as a good leader,” commented one

participant. Another said “I will bring back some confidence and new understanding of our products and how to work effectively with both people and fish”.

Quentin Fong and Brennan Smith partnered with Kate Idzorek, UAF Cooperative Extension Service, to deliver a new distance class, ***Starting and Operating a Specialty Food Business***, via video conference to 36 people in seven communities. Topics included business planning, financing, accounting, permitting, feasibility analysis, marketing, and operations during the four weekend sessions. Fong also provided a workshop via videoconference on ***Niche Marketing*** to six students of Southwest Alaska Vocational Education Center in King Salmon.

Brennan Smith taught a 3-day ***Better Process Control School*** federal thermal processing certification course to 10 attendees. Brennan and seafood specialist Alex Oliveira, taught a 2-day ***HACCP*** class to 27 seafood processing employees in Anchorage.

At the request of Pacific Seafoods in Kodiak, Alex Oliveira **trained processing workers** for in quality control and handling for 50 participants.

Kodiak Seafood and Marine Science faculty



again played a role in the 16th annual high school marine science state-wide competition, the **National Ocean Science Bowl** in Seward. The Kodiak team, the Elusive Jellyfish, came in 3rd place overall, with 1st place in the research presentation category. Alex Oliveira helped the team with the product development, Bree Witteveen and Julie Matweyou helped the team with marine science quiz practice with additional support from Brian Himelbloom, Lei Guo and Tia Leber.

Julie Matweyou talked about invasive tunicate monitoring at the **Kodiak High School Career/College Fair** representing STEM careers, leading 13, 15-minute presentations over the course of the day, reaching about 105 students. Julie also led three 45-minute sessions on invasive tunicates with hands-on microscope activities for the Kodiak Girl Scout Women in Science Day event at Kodiak College for 29 girls grades K-2 and 5-6, and five adults. Julie participated in the Kodiak Rural Schools Virtual Science Fair as a science fair judge. The fair was videoconferenced through the ENLIVEN program for participating rural schools included Ouzinkie, Chiniak, Port Lions, Old Harbor and Larsen Bay with 13 discreet projects by 18 students.

Marine mammal specialist Kate Wynne presented a lecture, lab, and tour at the **Sitka Herring Camp**, on the role of marine mammals in the Sitka Sound food web, to 15 students in grades 5-8. In Kodiak, Kate presented an introduction to marine mammals as part of Ocean Science Discovery Lab on marine food webs to 22 Kodiak fourth graders. She also assisted with an introduction to deep ocean science and demonstration of submarine/ROV research to 65 Kodiak fifth graders.

Other local K-12 educational activities included Brian Himelbloom's participation in the 2nd Annual Family Science and Tech Night at the Kodiak High School with 18 students and parents.



Research

Seafood

Ongoing research funded by the Pollock Conservation Cooperative includes a focus on **pollock fish meal shelf life and using pollock as pet treats**. Alex Oliveira is the lead on these projects. Alex also worked with BluWrap, Inc on research on the **shelf-life extension** of refrigerated fish fillets. This is a new industry partnership for KSMSC.

KSMSC faculty member, Brian Himelbloom passed the Institute of Food Technologist's **Certified Food Scientist** exam by the National Registry of Food Safety Professionals allowing him to proctor food safety managers exams.

Marine Mammal

Marine mammal specialist Kate Wynne collected 253 Stellar sea lion scat samples during collection forays to three Kodiak area haul outs as part of long-term monitoring of diet composition and

trends for the **Gulf of Alaska Predator-Prey** project. Marine mammal research Bree Witteveen also conducted bimonthly aerial survey of marine mammals in the northern Kodiak waters.

Using **acoustic pingers to deter whales** was the subject of an Anchorage meeting convened by marine mammal specialists Kate Wynne and Bree Witteveen, and Petersburg MAP agent Sunny Rice, and attended by seven commercial fishermen. The fishermen, part of an industry-working group, were from Sand Point, Kodiak, and Southeast Alaska, representing setnet, driftnet, and seine gear groups. Alaska Sea Grant funds the project with the goal of reducing humpback interactions with Alaska salmon fisheries.

Bree Witteveen gave the presentation “**Whales as Sentinels in a Changing Marine Environment in the Gulf of Alaska**” at the workshop *Top Predators as Indicators of Climate Change: Statistical Techniques, Challenges and Opportunities*, to about 25 attendees. The workshop was part of the PICES FUTURE Open Science meeting.

Paralytic Shellfish Poisoning

Brian Himelbloom and Julie Matweyou continued work on the NPRB-funded project to evaluate **PSP toxins** as tested by the Abraxis ELISA kit and by HPLC. Preliminary results were presented at the Kodiak Area Marine Science Center. At the Kachemak Bay Phytoplankton and Harmful Algal Bloom (HAB) Workshop in Homer, Julie Matweyou gave an invited talk on paralytic shellfish poisoning projects in Kodiak to 25 Homer researchers, NOAA scientists, and other regional residents.

Julie Matweyou continues to oversee the **PSP beach monitoring project** coordinated through the Kodiak Island Borough School District and the Alaska Department of Environmental Conservation. Village residents collect butter clams monthly in the communities of Ouzinkie and Old Harbor, DEC tests them for PSP and toxin levels are shared with the community. Community participants provided feedback on the program and helped delivery of a presentation for the Kodiak Area Marine Science Symposium.

Other Research

Alex Oliveira supported three graduate students from the Marine Biology program in SFOS on work in her lab looking at lipid and other analyses. The students worked out of the Kodiak Center.

Ongoing research in seafood science, PSP and marine mammal work are summarized on the KSMSC website; see <http://sfos.uaf.edu/ksmc/research/>

Service

Seafood marketing specialist Quentin Fong worked **one-on-one with 7 business owners** ranging from oyster, sablefish and sea cucumber producers and entrepreneurs to determine business strategies and marketing.

Alex Oliveira **responded to industry requests for assistance** (freeze drying) from Bumble Bee Seafoods, Whole Foods Seafoods (thermal processing), Westward Seafoods (technical equipment recommendations), an aquaculture company (fishmeal feed) as well as two Alaska smoked salmon

companies (thermal processing) and a local ikura processor.

Kodiak Marine Advisory agent Julie Matweyou began monitoring local kelp beds in March in partnership with **KelpWatch 2014**, a project operated by a consortium of California academic institutions monitoring potential Fukushima radiation in kelp. The first round of samples showed no detectable signs of Fukushima radiation. Samples will be collected again in July and October. For more information on the project and to view sample results visit: <http://kelpwatch.berkeley.edu>

At the invitation of the **Aleutian Pribilof Island Community Development Association**, Kate Wynne gave a talk to 28 people at their annual meeting in Girdwood, “Whales, Whaling, and Changes in GOA Sea Lion Habitat.”

Kodiak ComFish 2014 was bustling, and UAF’s Kodiak Seafood and Marine Science Center of course was involved! Kodiak Marine Advisory agent Julie Matweyou worked on the ComFish planning committee in the months prior to the event. She also hosted a maritime insurance forum with 13 people in attendance at ComFish in Kodiak. Chris Trainer from Chinook Insurance presented on maritime risk management, and Julie delivered material provided Enroll Alaska, on the Affordable Care Act. Julie and Quentin Fong worked alongside the Latin Association of Women in Alaska (ALMA), to prepare and serve fish tacos at the Kodiak Island Brewery. The Fish Taco Night was hosted by the Alaska Marine Conservation Council featuring jig-caught cod from Kodiak Jig Seafoods. Alex Oliveira was invited to judge the first ever Processors’ Fillet Competition, organized by Ocean Beauty. Competitors filleted a basket of four different species and were judged on a number of criteria including, speed, recovery, appearance as well as other criteria. The Kodiak Seafood and Marine Science Center again organized a booth, which provided opportunity to interact with the public.

