

March and April 2013 Update

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

News:

Professional Achievement

Dr. Alex Oliveira successfully earned the designation of Certified Food Scientist (CFS). She is part of the historic inaugural CFS class that will be honored and recognized at the Institute of Food Technologist's Annual Meeting this summer in Chicago. The CFS was created to identify qualified personnel and increase the visibility of the profession. Through earning the CFS, Alex has demonstrated applied knowledge, skills, and commitment to lifelong learning required to earn this distinction. Join us in celebrating Alex's hard work and achievements!

Kodiak Center at ComFish and Whale Fest

For this year's Kodiak ComFish, the largest commercial fishing tradeshow in Alaska and now in its 33rd year, Julie Matweyou helped organize several events, moderated a well-attended panel discussion entitled, "Gulf of Alaska Trawl Bycatch Management and Catch Share" (50 attended), and demonstrated deployment of a life raft to a group of people outside the Convention Center. Quentin Fong gave a presentation on Hong Kong seafood markets. Kodiak Center staffed a public ComFish booth featuring projects and activities currently taking place at the UAF Kodiak Seafood and Marine Science Center. Alaska Sea Grant publications and literature were available at the booth.

At the 17th Whale Fest Kodiak event, an annual 10-day celebration of the return of eastern Pacific gray whales to Alaskan waters, Julie Matweyou helped plan several events and provided materials for children's activities. Whale Fest events include scientific lectures, marine mammal-inspired art, traditional Native Alaskan games, and environmental forums. Marine Mammal Specialist Bree Witteveen gave a talk entitled, "A Whale of a Journey" to 15 attendees.

Coming Up:

May 30-31	AMSEA Drill Conductor Class at KSMSC
June 4-6	HACCP at KSMSC
September	Smoking Fish for Fun and Profit at KSMSC
Sept 26-28	Fisheries and Watersheds: Food Security, Education and Sustainability; Arctic AAS Science Conference [Kodiak Convention Center]
Oct 28	Alaska Seafood Processing Leadership Institute begins, KSMSC
Dec 10-12	5 th Alaska Young Fishermen's Summit [Anchorage]
April 2014	2 nd Kodiak Area Marine Science Symposium

Teaching

KSMSC faculty remain active in both university and community education. Bree Witteveen and Alex Oliveira oversee UAF graduate students as either major advisor or committee member. FISH 261, a course delivered from Kodiak, wrapped up with the end of the semester and FISH 495 – Applied Marine Microbiology Lab, is being offered for the summer.

In addition to the Whale Fest talk mentioned earlier, Bree Witteveen gave a brown bag talk at the Kodiak National Wildlife Refuge in early March – “Prey Use by Fin and Humpback Whales: A Case for Niche Separation”; 15 people attended. Quentin Fong presented on the “Economic Feasibility of Oyster Farms in Alaska” to two separate meetings of the Kodiak Rotary.

Julie Matweyou presented a lesson on PSP sample handling and shipping to an Old Harbor high school teacher via Skype, for the joint Kodiak School District–Alaska Department of Environmental Conservation project to monitor shellfish in Kodiak Island communities. Shellfish are being collected in coastal communities and submitted for analysis. Julie acts as science advisor and trainer for the Kodiak project.

Julie also provided lecture and lab guidance during the second year collaboration with Dr. Cindy Trussell at the Kodiak College to include undergraduate students in research focusing on paralytic shellfish poisoning. The microbiology class at UAA’s Kodiak College (photo) learned shellfish toxin extraction and testing using the Abraxis ELISA test that is being evaluated at KSMSC. The student’s were involved in all aspects of analysis, including data interpretation.



Kodiak College students running the Abraxis ELISA

The Alaska Technical Vocational Education Program (TVEP), through the UA Workforce Programs, awarded funding for the Marine Advisory Program’s 2013-2014 **Alaska Seafood Processing Leadership Institute**. This three-week professional development course for seafood processing managers is being led by Kodiak MAP Marketing specialist Quentin Fong, Paula Cullenberg and Kodiak processor Chris Sannito. Preparations for the fall training are underway.

Research

Marine Mammal / Marine Science

In March, Bree Witteveen conducted a bi-monthly aerial survey for marine mammals in northern Kodiak waters and conducted scat collection with the assistance of other UAF faculty on Long Island, Sea Otter Island and Cape Ugat. A sea lion fetus was recovered from Sea Otter Island and was sent in for necropsy. Bree responded to a report of a dead fin whale in Uyak Bay but was not able to conduct necropsy due to poor weather.



Always the willing participant, Lei digs in!

In April, Bree joined for a leg of the GulfWatch Humpback Whale long term monitoring project in Prince William Sound, led by National Marine Fisheries Service scientist John Moran.

Alex Oliveira is collaborating with UAF Institute of Marine Science faculty and students to determine lipid extraction and/or fatty acid profiles of digestive tract contents of bowhead whales, sea cucumber gonad and tissue, arctic cod and benthic shellfish, and longnose and bignose skates. The two faculty and four students spent time here in Kodiak to work with Alex in her laboratory.

Seafood Research

Current research and ongoing projects are summarized on the KSMSC website; see <http://www.sfos.uaf.edu/ksmsc/research/> for an overview of our work.

Published during this reporting period:

Himelbloom, B.H., A.C.M. Oliveira, J. Chantarachoti, and C.A. Crapo. 2013. Ethanol development in tissues of spoiling whole pink salmon (*Oncorhynchus gorbuscha*). *J. Food Qual.* 36(3). doi:10.1111/jfq.12031

Montazeri, N., B.H. Himelbloom, A.C.M. Oliveira, M.B. Leigh, and C.A. Crapo. 2013. Refined liquid smoke: A potential antilisterial additive to cold-smoked sockeye salmon (*Oncorhynchus nerka*). *J. Food Protection* 76(5):812-819. doi:10.4315/0362-028X.JFP-12-368

Morey, A., A.C.M. Oliveira, and B.H. Himelbloom. 2013. Identification of seafood bacteria from cellular fatty acid analysis via the Sherlock® Microbial Identification System. *J. Biol. Life Sci.* 4(2):139-153. doi:10.5296/jbls.v4i2.3272

Oliveira, A.C.M., Himelbloom B.H., Montazeri N., Davenport M., Biceroglu H., Brenner K.A., Thomas S.R., and Crapo C.A. Development and characterization of fish sausages supplemented with salmon oil. *J. Food Processing and Preservation* (in press).

Service

Public Service:

Food safety and security

Brennan Smith fielded a number of questions from small business related to processing and product handling including: food regulations for pickled kelp, alcohol addition to chocolates, addition of pork products, water activity of multiple products, logistics and regulations of shelf stable birch sap, nutrition panels and salt measurement for smoked fish, and more. Quentin Fong assisted entrepreneurs in exploring markets for underutilized fish and developing niche international markets. Alex provided fatty acid profiles of five species of Alaska salmon and performed water phase salt analysis in smoked fish for statewide business development.

Marine education

KSMSC faculty looks for ways to support K-12 marine education in our community. Brian and Alex both served as science fair judges for the Kodiak Rural Schools and St. Marys, respectively. Bree supported the Ocean Science Discovery Lab with marine mammal materials including skulls, baleen, teeth etc. and Lei Guo volunteered time to teach with OSDL. Julie Matweyou included a local Cub Scouts chapter in her quarterly invasive tunicate monitoring program.

Professional Service:

Brian Himelbloom reviewed a number of peer manuscripts, sits on an ADEC Food Safety Advisory subcommittee, and is organizing the AAAS-Artic Division meeting in Kodiak this September.

University Service:

As current chair of the UAF Promotion and Tenure Review Committee, Alex took part in the UAF Emeriti Nominations. KSMSC is proud to announce that recently retired faculty, Chuck Crapo, was awarded emeritus status with UAF. Brian Himelbloom remains involved with the UAF Undergraduate Fisheries Program committee.

The KSMSC (former FITC) Policy Council met in Kodiak on March 28 and 29th. Faculty participated in the meeting to discuss the current and future direction of our facility.

Other Marine Advisory Program News relevant to Kodiak:

Izetta Chambers, the Dillingham agent, authored two new bulletins—*Working with the Alaska Board of Fisheries*, and *Labeling Requirements for Alaska Seafood Processors*, published by Alaska Sea Grant. The documents are free and available online for download at:

<http://seagrant.uaf.edu/bookstore/index.html>