

May and June 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:

Emeritus

Chuck Crapo, retired Marine Advisory seafood technology specialist, was honored with the title **Professor of Seafood Science Emeritus** at the University of Alaska Fairbanks commencement in May.

New and Returning Faces at KSMSC

The Gulf Apex Predator-Prey Project team geared up for the summer with the return of Marine Mammal specialist **Kate Wynne** after time away on sabbatical, return of graduate student **Dana Wright** from her studies in Fairbanks, and the new hire of a summer intern, **Shelby Dresdow**. Bree Witteveen and Lei Guo round out the team and they have been busy with near-shore humpback whale activity.



Laboratory technician **Tia Leber**, from Kodiak, was also recently hired to work on a project supported in part by the North Pacific Research Board (NPRB) to evaluate an emerging test for Paralytic Shellfish toxins. Brian Himelbloom and Julie Matweyou are co-PIs on the project.

Senator Murkowski visits KSMSC

KSMSC faculty and KSMSC Policy Council chair, Jay Stinson, had the pleasure of welcoming **Senator Lisa Murkowski** on May 28 for informal discussion and tour. Faculty greeted the Senator with an introduction to the facility and a short overview of our work. This led to a more developed discussion on emerging issues and how KSMSC faculty can contribute.



Coming Up:

- Sept. 4-6 [Smoking Fish for Fun and Profit](#), Kodiak
- Sept. 26-28 [Fisheries and Watersheds: Food Security, Education and Sustainability](#), Arctic AAAS, Kodiak

Oct. 29-Nov. 6 [Alaska Seafood Processing Leadership Institute](#) begins, Kodiak
Dec. 10-12 [Alaska Young Fishermen's Summit V](#), Anchorage
Feb. 3-7 [Better Process Control School](#) and HACCP, Anchorage
April Kodiak Area Marine Science Symposium, Kodiak
May 13-16 [Fisheries Bycatch: Global Issues and Creative Solutions](#), 29th Wakefield Fisheries Symposium, Anchorage

Teaching

Marine Safety

Marine Advisory agent Julie Matweyou taught a marine safety onboard drill conductor course to nine fishermen. It was the first class she taught as the solo instructor, although she had assistance from Art Schultz for discussion on EPIRBs, life rafts, and gear, and U.S. Coast Guard rescue swimmer Jason Bunch helped out on helicopter rescue, dewatering pumps, and in-pool training. Drill conductor courses are taught on demand. If you are interested in scheduling a class, contact MAP agent Julie Matweyou at 486.1514.

Seafood Quality, Business and Marketing

Marine Advisory Agent Izetta Chambers, KSMSC seafood faculty Brennan Smith and KSMSC contractor Chris Sannito taught **HACCP in Kodiak** to 17 participants from 6 seafood companies.

Seafood marketing specialist Quentin Fong and Cooperative Extension coordinator Kate Idzorek are revamping the "Introduction to Starting a Specialty Food Business" workshop for 2013, by incorporating BBQ food business data to illustrate break-even analysis and other modifications.

In response to a request from UAF Fisheries Division director Keith Criddle, Quentin Fong is putting together an Alaska regional economics course. In preparation, Quentin is consulting with fisheries economists and regional developmental economists who have worked with small communities.

Marine Science and Stewardship



Marine mammal specialist Kate Wynne led an interactive discussion via Skype, on humpback whales and their relationship to krill, with 18 students at the Akutan-False Pass Marine Science Camp led by Michelle Ridgway (photo). The class found a group of humpback whales feeding on euphausiids in front of the town of Akutan. During the session the students used Wynne's *Guide to Marine Mammals of Alaska* to identify the whales, described info that they collected on the krill, and asked questions about whale-prey interactions.

Marine Advisory agent Julie Matweyou gave a presentation on paralytic shellfish poisoning at the Kodiak National Wildlife Refuge visitor center to twelve summer volunteers and staff. This is the third season she has provided training to summer workers. Marine mammal specialist Bree Witteveen also presented a talk to the summer workers, on identification of Kodiak marine mammals.

Julie continued quarterly invasive tunicate plate monitoring at St. Paul harbor. Because the plate watch is conducted in such a public location, there is always opportunity to share the project with residents passing by.

Julie conducted a lesson and activities on scientific measurements for an Ouzinkie grade 2-4 class in Kodiak (photo below left). She had worked with this class while visiting Ouzinkie last October. Julie's continued assistance to Kodiak eighth graders on a paralytic shellfish poison (PSP) science project paid off—the students placed second in the U.S. Army eCybermission competition in the Alaska eighth grade division.

Julie also strengthened communication with villages and worked with volunteers to guarantee a June shellfish collection for **PSP testing, for the beach monitoring project** with Kodiak schools and Alaska Department of Environmental Conservation (ADEC). She created a picture-guide on how to handle samples for Ouzinkie, and trained citizens and assisted with sample collection in Old Harbor (photo below right).



Research

Marine Mammal

The GAP team, lead by Marine Mammal specialists Bree Witteveen and Kate Wynne has been busy with the onset of the summer field season that includes vessel-based whale surveys and continues with aerial marine mammal surveys. When they are not in the field there is ongoing data analysis, manuscript writing and proposal submittals. Bree Witteveen was successful in receiving grant funding from the Aleutians East Borough to continue fin and humpback whale research in the Shumagin Islands. Bree will be heading west in August for this work.

Kate Wynne returned after a winter on sabbatical writing a new field guide “Guide to Marine Mammals of U.S Pacific Waters”. The guide is almost complete. On her return to Kodiak, Kate made her way up the coast, stopping in Southeast Alaska to discuss whale avoidance updates, to work with colleagues on entanglement response, and to assess current pinger use among the fleet. Fishermen are testing whale deterrent pingers to determine if sound can decrease whale entanglement in fishing nets, in coordination with NMFS and NOAA National Marine Sanctuaries.

Additional information about the Gulf Apex Predator-Prey Project can be found at the project website <http://seagrant.uaf.edu/map/gap/>.

Seafood Research

Replacing Ethoxyquin in Fishmeal: Is it possible? Ethoxyquin is a common antioxidant used to stabilize fishmeal. While it has been used successfully for several decades, its safety has been called into question. Aquaculture users of fishmeal are often required to withdraw feeds two weeks before harvest to purge ethoxyquin from edible tissues. Dog foods virtually ban the use of ethoxyquin in their manufacture effectively excluding Alaska fishmeal with ethoxyquin added from being an ingredient source. The goal of this project is to compare the effectiveness of natural antioxidant blends against the industry’s standard use of ethoxyquin in Alaska whitefish meal produced at-sea. Oliveira, Brennan and Crapo will compare lipid and protein oxidation rates, over several months of storage, of commercial fishmeal (with ethoxyquin) and test fishmeal produced with natural antioxidants. This strategy will allow them to select an adequate natural blend of antioxidants for the targeted application and further determine its optimum application dosage

PSP research

Alternative testing: Kodiak has a serious public health problem caused by paralytic shellfish toxin in recreational and subsistence shellfish. Additionally, shellfish fisheries and aquaculture development in the Kodiak area have been adversely affected by the occurrence of PSTs. Testing for PSTs is difficult and expensive, so there is ongoing work to identify alternative testing that can be remotely located, require minimal training, and less expensive to conduct. The NPRB funded project to evaluate the Abraxis ELISA bench assay is ongoing at KSMSC. Brian Himelbloom and Julie Matweyou, and very recently Tia Leber, are conducting comparative testing of the Abraxis assay, which will be performed at KSMSC, and High Performance Liquid Chromatography (HPLC), performed at the ADEC Environmental Health lab in Anchorage. Because HPLC provides individual toxin profiles present in the sample, we will be better able to evaluate the Abraxis results and determine if the test is useful for Alaskan shellfish. Seafood faculty Brennan Smith is currently establishing HPLC capacity here at KSMSC, so faculty collaboration in the direction of future toxin work is anticipated.

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.

Service

Food safety and product development

Brennan Smith has been working with the Cooperative Extension Service to field some of the technical food questions. He is also working on fishmeal production and will be working on nutrient analysis of the product.

Community Development

Quentin Fong and Julie Matweyou helped the Marian Center board as they set new goals for the organization. Quentin will continue service on the board and assist with business decisions.

Bree Witteveen participated in a round table discussion at the 5th annual Emerging Leaders Dialogue that was held in Kodiak this year. The Institute of the North organizes the event annual dialogue.

Other Marine Advisory Program News relevant to Kodiak:

An educational project looking at **halibut “careful release”** project is being led by Terry Johnson, marine tourism and recreational specialist, and the Alaska Marine Conservation Council. Funded in part by the Fisheries Innovation Fund of the National Fish and Wildlife Foundation, the project’s goal is to increase the survival rate of Pacific halibut caught and released in Alaska sport fisheries. Terry is working with an advisory committee from the charter industry.