

Fishery Industrial Technology Center (FITC) Update
School of Fisheries and Ocean Sciences, University of Alaska Fairbanks
www.sfos.uaf.edu/fitc

Activities, December 2010

The FITC faculty and staff provide this monthly update for the SFOS Dean, FITC Policy Council members, UAF FITC task force and others interested in the teaching, research and public service provided at FITC.

News

Representative Alan Austerman invited a group of Kodiak community members to meet at FITC in mid December to discuss the upcoming UAF review of FITC. The group discussed the need for strong research and education related to seafood and other marine issues and made recommendations to the faculty for enhanced communication with the community and industry. The FITC faculty handed out an outline of ongoing research, teaching and service at FITC (see attached and on the FITC website).

Help wanted: research technician for the USDA funded seafood byproducts research initiative at FITC. Contact Peter Bechtel at bechtel@sfos.uaf.edu or by calling (907) 486-1531.

Upcoming

The class, ***“Introduction to Fisheries Utilization,”*** Fish 261 will be offered by FITC faculty members in January 2011. The class focuses on how Alaska’s fisheries resources are sustainably exploited, processed and sold in global markets. It is distance-delivered statewide via video conference and is open to the public. To register, contact Scott Smiley at 486-1513 or smiley@sfos.uaf.edu.

Better Process Control School will be taught by Chuck Crapo in Anchorage at the MAP office, Jan 31-Feb2, followed by a ***Hazard Analysis Critical Control Point Workshop (HACCP)***, Feb 3-4, and a ***Sanitation*** class on Feb 5. To register, go to www.marineadvisory.org/haccp

The ***Kodiak Marine Science Symposium***, KAMSS, the first integrated community-based science conference for Kodiak will run from April 9-12. KAMSS is being organized by Marine Advisory Program faculty member, Kate Wynne, and is sponsored by Alaska Sea Grant and many other organizations and agencies. <http://seagrant.uaf.edu/conferences/2011/kamss/index.php>

During KAMSS, a workshop titled ***“Marine Invasives Monitoring”*** will be offered taught by Ketchikan MAP agent Gary Freitag and Kodiak residents Jane Eisemann and Blythe Brown. A class for teachers about the ***Alaska Seas and Rivers curriculum*** in partnership with the Kodiak Island Borough School District will also be held during the conference.

Teaching (teaching and student support by FITC faculty)

Carey Vorholt graduated this semester (M.A. Seafood Science), Her thesis was titled "Injected or vacuum-tumbled marinade effects on the shelf life of once- and twice-frozen fresh Pacific chum salmon (*Oncorhynchus keta*) fillets". As a laboratory technician at FITC, Carey was involved in numerous projects, such as biochemical responses to stressed halibut, oyster quality and shelf life, and testing of commercial Alaska food products. Her major faculty advisor was Chuck Crapo. Alex Oliviera and Brian Himelbloom were also on her committee.



Graduate courses (FSN 661, 663, 692 and 697) concluded in December along with FSN 698 (Research Project credits) and FSN 699 (Thesis credits). Chuck Crapo and Brian Himelbloom taught FSN661 **Seafood Processing and Preservation** (3 credits); Chuck and Alex Oliviera taught FSN663 **Quality Control Systems and Sensory Evaluation** (3 credits) and Brian Himelbloom co-taught FSH 692 **Food Science Seminar** (1 credit) with Alexandra Oliviera.



The Kodiak Women in Need Coalition and the Marine Advisory Program/FITC (Quentin Fong) sponsored a training of trainers seminar on **“Household Budgeting”**, given by Roxie Dinstel from the Cooperative Extension Service, UAF. The seminar trained the staff of the Kodiak Women’s Resource and Crisis Center to be able to help their clients manage household finances. Ten participants attended the workshop, and Kathy Daquilanea, with the Marian Center will provide follow up.

Roxie Dinstel conducting “Household Budgeting” seminar to staff of KWRCC

Student Profile (there are 8 graduate students studying at FITC. We will profile 2 each month)

Katie Brenner - I received a B.S in Wildlife Management from the University of New Hampshire in 1991 and a year later found myself working at a remote salmon hatchery in Prince William Sound, Alaska. I fell in love with Alaska and decided I wanted to make it my home. My husband and I have lived in the Kodiak area for 16 years, 6 of which were spent living and working at Kitoi Bay Hatchery on Afognak Island before moving to town.



I have worked for Dr. Oliveira for 7 years as a research technician in her biochemistry lab at FITC doing analysis of marine tissues. With Dr. Oliveira’s support and encouragement, I added the role of graduate student to my duties in the fall of 2009. My research is assessing the quality differences in edible scallop meats. I hope this research will 1) help the Alaska scallop industry understand the issue of “weak meat” weathervane scallops and 2) help Alaska scallop growers determine potential market acceptance of purple hinge rock scallops. You can reach me at kabrenner@alaska.edu

Lale Gurur- I received my undergraduate and graduate degree in the area of Seafood Processing and Preservation in Turkey. I am currently pursuing my second masters at UAF/FITC in Seafood Business and Marketing and working under the guidance of Dr. Fong, Dr. Crapo and Ms. Torie Baker. I have been in Kodiak for 5 months even though my adventure at FITC began 2 years ago when I was a visiting scholar



to perform my previous thesis research. My project focuses on determining the market potential of new value added products from pink and chum salmon fillets and their profitability and feasibility for Alaska production. I hope that the results of my project will benefit the Alaska seafood industry and communities. My contact information is lgurur@alaska.edu.

Research



Kate Wynne conducted two shore-based **surveys of Steller sea lions** at the Long Island haulout, near Kodiak. She photo-documented the presence of 21 and 13 branded sea lions on December 9th and December 28th respectively. Based on their brands, all but three were branded as pups on nearby Marmot Island and their birth years were determined to be 2010(n=26), 2008 (n=3), 2004(3), 2002 (1) and 2000 (1). Two branded females (one 6 yrs old, one 8 yrs old) were observed, each nursing a pup. These data are shared with NMFS researchers at NMML to monitor natality,

mortality, and movements of the western stock of Steller sea lions.

Scott Smiley assisted Dr. Gustav Paulay from the Florida Museum of Natural History and the Aspidochirote Working Group with listing **characters for sea cucumber phylogenies**.

<http://www.guammarinelab.com/peetcukes/awg.html>

Faculty and students at FITC submitted the following **abstracts for upcoming conferences** (*Presenter):

Pacific Fisheries Technologists Conference (Vancouver, Feb 2011)

- Study of the Effects of Ozone on Odors of Salmon Decomposition. Jim Barnett, Eric Critchlow, Alexandra de Oliveira, Chuck Crapo *Bruce C. Odegaard
- Quality assessment of commercially harvested weathervane scallops (*Patinopecten caurinus*) from Alaska. *Kathryn Brenner, Alexandra Oliveira, Gregg Rosenkranz, Ryan Burt, Marsha Spafard, Peter J. Bechtel, Charles Crapo, and Raymond RaLonde
- Development and nutritional quality of wood-smoked fish sausage prepared from Alaska pink salmon. *Huseyin Biceroglu, Chuck Crapo, Naim Montazeri, Katie Brenner, Stuart Thomas, Brian Himelbloom, Mathew Davenport and Alexandra Oliveira
- Development of flavored freeze-dried cubes from wild-caught Pacific Pink Salmon (*Oncorhynchus gorbuscha*). *Lale Gurer, Duy Nguyen, Alexandra Oliveira, Quentin Fong, Brian Himelbloom, and Charles Crapo
- Compositional differences between Pacific cod (*Gadus macrocephalus*) livers from pre- and near-spawning fish. *Alexandra Oliveira, Peter Bechtel, Katie Brenner, and Darin Rhul¹, and Scott Smiley

Kodiak Area Marine Science Symposium (Kodiak, March 2011)

- Post-harvest quality of selected Pacific oysters (*Crassostrea gigas*) cultured in Kachemak Bay, Alaska, and Puget Sound, Washington. *Stuart R Thomas, Ray RaLonde, Chris Langdon and Alexandra Oliveira
- Chemical characteristics and antilisterial testing of low color and flavor liquid smokes. *Naim Montazeri, Brian Himelbloom, Alexandra Oliveira, Chuck Crapo
- Quality assessment of commercially harvested weathervane scallops (*Patinopecten caurinus*) from Alaska. *Kathryn Brenner, Alexandra Oliveira, Gregg Rosenkranz, Ryan Burt, Marsha Spafard, Peter J. Bechtel, Charles Crapo, and Raymond RaLonde

National Shellfisheries Association (Baltimore, March 2011)

- Post-harvest quality of selected Pacific oysters (*Crassostrea gigas*) cultured in Kachemak Bay, Alaska, and Puget Sound, Washington. Stuart R Thomas, *Ray RaLonde, Chris Langdon and Alexandra Oliveira

Institute of Food Technologists (New Orleans, July 2011)

- Development and nutritional quality of wood-smoked fish sausage prepared from Alaska pink salmon. *Naim Montazeri Huseyin Biceroglu, Chuck Crapo, , Katie Brenner, Stuart Thomas, Brian Himelbloom, Mathew Davenport and Alexandra Oliveira
- Chemical characteristics and antilisterial testing of low color and flavor liquid smokes. *Naim Montazeri, Brian Himelbloom, Alexandra Oliveira, Chuck Crapo

Public Service

Brian Himelbloom participated as a member of the **Kodiak Workforce Regional Advisory Council (KWRAC)**. The KWRAC is a 16-member group formed by the Kodiak Island Borough with the mission to "define regional priorities for workforce development, and show how they are linked to employer demand, economic development, and education or training strategies."

<http://www.kodiakschools.org/subsite/dist/page/kodiak-workforce-regional-advisory-council-3170>

Scott Smiley is working with FITC affiliate faculty member, Leo Pedersen, to **assist Trident Seafoods** with protein recovery from aqueous solutions.

Quentin Fong worked with a Klawock resident interested in starting a **processing operation in Klawock** and his needs for finding investors for his operation. He walked him through the steps of attracting investors, including putting together a prospectus/business plan.

Quentin consulted with staff to Rep. Peggy Wilson who inquired about the **feasibility of a seaweed value-added operation** on behalf of a constituent. Quentin conducted an inventory of seaweed product forms and prices currently in the market. He then discounted the prices to what the retailers or wholesalers would pay - that is the price that the Alaskan producer would expect to be paid. He recommended steps to be taken to assess the feasibility of commercializing the seaweed product operation including ADF&G harvest guidelines and DEC regulation for seaweed processing and how to go about a formal business/market analysis.

Professional Service

Alex served as reviewer for Journal of Aquatic Food Product Technology No. WAFP-2010-0086

Alex accepted an invitation from USDA's Small Business Innovation Research Program from the National Program Leader for Community Food and Nutrition, to serve as an ad hoc reviewer for the USDA's SBIR Phase I, Food Science and Nutrition Program proposals. Reviews are due on Feb 18th. She also accepted an invitation to review abstracts submitted to the Institute of Food Technologists for June meeting in New Orleans. There will be around 60 mini-proposals to review by Jan 18th.

University Service

Brian Himelbloom represented SFOS as a member of the UAF Faculty Senate teleconference.

Alex Oliviera participated, through conference call, in the first meeting of the UAF Pre-Tenure Review Committee.