

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

**Ongoing Activities, August 2011**

*The FITC faculty and staff provide this monthly update for those interested in the teaching, research and public service at FITC. Please contact us with questions.*

**Upcoming**

October 6	Brown Bag lecture series begins
October 17-20	<a href="#">HACCP</a> and Sanitation training, Anchorage
October 31-November 9	<a href="#">Alaska Seafood Processing Leadership Institute</a> (ASPLI), Kodiak
February 12-15	<a href="#">Pacific Fishery Technologists</a> meeting, Anchorage
February 16-18	Smoked Fish Workshop, Kodiak

**News**

FITC seafood science graduate student, Naim Montazeri, hosted a **community-wide smoked salmon sensory taste test** at the Kodiak Convention Center in August. The test was part of Montazeri's research and looked at preferences for smoked salmon with or without a liquid smoke application. The taste test was a community event and attracted 180 participants. It was great to interact with Kodiak residents and get their input in our research to determine if using liquid-smoked, added to prevent *Listeria monocytogenes*, could affect cold-smoked sockeye taste. The results were that participants could not differentiate between product treated with liquid smoke and untreated samples. This is a really good outcome because Naim and his advisors had determined that the liquid smoke significantly reduced *Listeria* counts in inoculated vacuum packaged cold-smoked sockeye samples, but were not sure if the level of application would influence the sensorial properties of the product. Hear more at [http://kmxt.org/images/stories/mp3/110829.cold\\_smoked\\_salmon.mp3](http://kmxt.org/images/stories/mp3/110829.cold_smoked_salmon.mp3)



## Research on freeze-dried salmon at FITC was highlighted in Food Production Daily.com

<http://www.foodproductiondaily.com/Processing/Freeze-dried-salmon-targets-applications-from-soups-to-space-food>

FITC has a **Facebook** page! Just search on UAF Fishery Industrial Technology Center and hit Like and you'll find photos and info from FITC.

Matt Davenport, who has been researching seafood byproduct use as a post-doctoral fellow for the last two years at FITC, recently took a position on the faculty of Framingham State College in Massachusetts. Jesse Stine, also working with Peter Bechtel on seafood byproduct research has taken a position teaching chemistry in Montana. **Best wishes to both Matt and Jesse!**

Keith Criddle, Fisheries Division director and Paula Cullenberg, Marine Advisory Program leader, travelled to Kodiak this month and discussing linking Kodiak faculty more strongly with these two units of the School of Fisheries and Ocean Sciences. The faculty also took the first steps in recruiting a new seafood science faculty member for Kodiak.

## Teaching (teaching and student support by FITC faculty)

Kate Wynne taught marine mammal identification to **NMFS groundfish observer trainees** in Anchorage at UAA's Observer Training Center. She also assisted with planning an upcoming observer training in Gabon, Africa.

**Katie Brenner's thesis was approved by the UAF Graduate School**, and she graduated the end of this summer. Congratulations Katie!

## Research

### Seafood product research



Chuck Crapo hosted Pam Tom, UC Davis seafood extension agent visiting FITC. Pam was here to learn procedures for smoked salmon and assisted in summer projects to **develop pet treats from salmon skins** and the use of natural nitrates to color pale meat salmon.

Summer intern, Kristina Miller concluded work on the salmon coloring project. The main take-home message is that **nitrate and nitrite does not significantly improve redness of salmon**, especially for pale-meat salmon (watermarked fish). It appears there isn't sufficient hemoglobin

content in fish muscle for interaction with nitrate or nitrite, as occurs in pork and beef products. The natural coloring product we tested increased yellowness and brown hues in pink salmon fillets and did not contribute to an increase in redness.

The Kodiak Regional Aquaculture Association, through Gary Byrne (Production/Operations Manager) **donated sockeye salmon for the Alaska Space Grant freeze-dried salmon project**. Drew Aro, Manager of the Kitoi hatchery shipped, on a float plane and on the same day of harvest day, 50 whole top-quality sockeye salmon from the cost-recovery fisheries in Kitoi Bay. Fish was immediately processed into head and gut and packaged. Freeze-dried production will begin in October. Torie Baker with the Marine Advisory Program procured 40 lbs of skinless boneless pink salmon fillets from Trident Seafoods, Cordova plant, for this project as well

### Marine Mammal Research

Kate Wynne responded to a report of a **dead, floating- then-beached, humpback whale carcass** on a southwest Kodiak beach. She reported and documented the stranding to NOAA but did not respond as the animal was too far decomposed and was actively being scavenged by bears.

Kate and Bree Witteveen attached an Acusounde tag to an adult humpback and played back several deterrent sounds to determine the whales' 3D response to the sounds at varying distances (testing the **potential for deterrence by commercial fishermen**). She tagged another humpback with a Vemco tag to determine the dive depth of this and an accompanying whale while simultaneously assessing the prey base available via hydroacoustics and bongo net sampling.

Kate also completed a bimonthly aerial survey designed to monitor the **regional and seasonal distribution of cetaceans around Kodiak** as well as harbor seals in cooperation with ADF&G.

### Seafood byproduct use research

Peter Bechtel began work on **processing cod liver oil samples** for characteristics to be analyzed for potential markets. Danial Barnes, UAF student, worked with him on the oil extraction.

## Public Service

**Chuck Crapo assisted processors** in Haines, Kodiak, Fairbanks, Klawock and Tampa, FL on salmon product development, safety of acidified foods preparation of BBQ sauces and smoked salmon safety.

Quentin Fong hosted 4 members of the **Hong Kong Aviation Club for a 7-day trip to Kodiak**. He has been working with this group for several months encouraging tourism.

Kate Wynne found two Kodiak setnet fishermen interested in testing the **effectiveness of Fumunda whale pingers on their gear**. Western Kodiak gillnetters reported a particularly high number of



whale interactions with their gear, particularly in July. Due to the statewide level of interest and apparent success of this device at deterring humpbacks in SE Alaska, she began planning a series of Spring 2012 workshops and demos to describe the research results, advise fleets on proper use, and incorporate further field testing with NMFS' 2012 gillnet observer effort in Southeast Alaska.

Alex procured the following **fish species for an activity with Kodiak High School**: pink salmon, sockeye salmon, chum salmon, pacific cod, arrow tooth flounder, northern rocksole. We'll be conducting a commercial fish species identification activity in fall at the FITC pilot plant. I still need to procure 1 pollock and perhaps 1 small halibut.

Julie Matweyou **led a tidepool session** with an ALMA youth group.

Brian Himelbloom reviewed a proposal submitted to the University of Hawai'i Sea Grant College Program and a manuscript submitted to the journal *Food Control*.



Quentin Fong along with Brian Himelbloom and Peter Bechtel gave a morning tour of FITC to 16 members of the Kodiak Morning Rotary Club.