



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**National Marine Fisheries Service**  
Alaska Fisheries Science Center  
7600 Sand Point Way N.E.  
Seattle, Washington 98115-6349

10 January 2020

Simon Kinneen, Chair  
North Pacific Fishery Management Council  
1007 W. 3<sup>rd</sup> Avenue  
Anchorage, AK 99501

Dear Mr. Kinneen:

The Alaska Fishery Science Center (AFSC) recommends the appointment of Ms. Erin Fedewa as a member of the Bering Sea / Aleutian Islands (BSAI) Crab Plan Team.

Ms. Fedewa has worked as a Research Fisheries Biologist with the AFSC Shellfish Assessment Program for the past two years. During this time, she has rapidly developed expertise on ecosystem effects on crab stocks and techniques for improving estimates of growth intervals in crabs, two important areas of research focus for BSAI crab management. She is a co-Principle Investigator on a current project, funded by the North Pacific Research Board, examining the factors regulating body condition in Bering Sea snow crab. In addition, Ms. Fedewa has an intimate knowledge of the BSAI crab assessment survey through participation in two survey legs per year, and has developed close collaborations with stakeholders through participation in industry-funded research projects and assessment surveys. Finally, Ms. Fedewa is an active participant in the development of Ecosystem and Socio-economic Profiles (ESPs) for BSAI crab stocks, which is an important step in advancing ecosystem-based management approaches for these fisheries.

Fedewa received her B.S. in Marine Science from the University of South Carolina in 2012, and her M.S. in Fisheries Science from Oregon State University in 2015. Her thesis research focused on the factors regulating pre- and post-settlement survival in Gulf of Alaska northern rock sole. Past experience with presentations to the Crab Plan Team have given Ms. Fedewa a familiarity with the Plan Team process, and she has demonstrated an aptitude for communicating effectively at Crab Plan Team meetings. Her most recent presentation to the Team, in January 2020, was on the status of ESP development for BSAI crab stocks.

We believe that her combination of research, management, and survey experience makes Ms. Fedewa eminently qualified to join the BSAI Crab Plan Team. We are confident that her background and expertise will enable Fedewa to make many valuable contributions to the Team now and in the years to come.

Sincerely,

A handwritten signature in black ink that reads "Robert J. Foy".

Dr. Robert J. Foy,  
Director for Science & Research

cc: Ms. Erin Fedewa, Shellfish Assessment Program  
Dr. Michael Litzow, Shellfish Assessment Program Manager  
Dr. Jeffrey Napp, RACE Division Director



## **EDUCATION**

- M.S. Fisheries Science, Oregon State University 2012-2015
- B.S. Marine Science, University of South Carolina 2008-2012

## **PROFESSIONAL EXPERIENCE**

Research Fisheries Biologist, NOAA, National Marine Fisheries Service *March 2018-Present*

- EBS crab body condition, energetics, growth and trophic dynamics in relation to environmental conditions
- Ecosystem indicator development for Bering Sea crab stocks

Research Associate, Auburn Marine Fish Lab *Jan 2017-Sept 2017*

- Effects of explosive rig removal on red snapper movement, behavior and site fidelity
- Timing of opaque band formation in otolith increments of OTC tagged red snapper

U.S. Fulbright Fellow, Institute of Marine Affairs, Trinidad *Feb 2016-Nov 2016*

Research project: Growth of larval and juvenile French grunt, *Haemulon flavolineatum*, in Trinidad nurseries

- Field collections for ichthyoplankton and juvenile fish in collaboration with the Institute of Marine Affairs
- Otolith structural analysis to determine early life history characteristics in relation to nursery habitat quality of juvenile French grunt

Fisheries Research Technician, Auburn Marine Fish Lab *June 2015-Dec 2015*

- Offshore research cruises for fishery-independent mark-recapture, tagging, diver surveys, hydroacoustic surveys, and construction and deployment of artificial reefs
- Age and growth of red snapper and rough tongue bass using otolith structural analysis

Graduate Research Assistant, Oregon State University *Aug 2012-May 2015*

Thesis: Interannual variation in pre- and post-settlement processes of the northern rock sole (*Lepidopsetta polyxystra*) in relation to temperature variability in the Gulf of Alaska

- Use of otolith increment analysis to determine variation in early life history traits
- Analysis of temperature records and satellite-derived chlorophyll-a data to relate environmental parameters to early life history traits

NOAA Hollings Summer Internship, Southwest Fisheries Science Center *June-July 2011*

Research project: Ecology of juvenile bluefin tuna in the Southern California Bight

- Growth and foraging ecology of juvenile bluefin tuna using otolith-based ageing and stomach content analysis
- Assisted in the NOAA pelagic shark long-lining survey in the Southern California Bight

## **PUBLICATIONS:**

- Fedewa, E.J.**, Richar, J., Litzow, M., Jackson, T., Garder, J. (*In prep*) Climate-driven patterns of eastern Bering Sea snow crab (*Chionoecetes opilio*) spatial distribution: implications of recent warm years on snow crab population structure in the northern Bering Sea. Deep Sea Research II: Ice-free Northern Bering Sea.
- Fedewa, E.J.**, Garber-Yonts, B., Shotwell, K., Palof, K. (2019) Ecosystem and Socioeconomic Profile of the St. Matthew blue king crab stock in the Bering Sea. Stock Assessment and Fishery Evaluation Report for BSAI crab stocks. 2019 Crab SAFE. North Pacific Fishery Management Council, Anchorage, AK
- Szedlmayer, S.T., **Fedewa, E.J.**, Paris, M.L. (2019) Timing of opaque band formation and validation of annular increments in otoliths of Red Snapper, *Lutjanus campechanus*. In *Red Snapper Biology in a Changing World*. CRC Press, FL.
- Fedewa, E.J.**, Miller, J.A., Hurst, T.P., and Jiang, D. (2017) The potential effects of pre-settlement processes on post-settlement growth and survival of juvenile northern rock sole (*Lepidopsetta polyxystra*) in Gulf of Alaska nursery habitats. *Estuarine, Coastal and Shelf Science*. 189, 46-57. doi:10.1016/j.ecss.2017.02.028
- Fedewa, E.J.**, Miller, J.A., and Hurst, T.P. (2016) Pre-settlement processes of northern rock sole (*Lepidopsetta polyxystra*) in relation to interannual variability in the Gulf of Alaska. *J. Sea. Res.* 111C, 25-36. doi:10.1016/j.seares.2015.11.008
- Lawrenz, E., **Fedewa, E.J.**, and Richardson, T.L. (2011) Extraction protocols for the quantification of phycobilins in aqueous phytoplankton extracts. *Journal of Applied Phycology* 23(5): 865-871.

## **COLLABORATORS:**

Robert Foy (AFSC), Leah Zacher (AFSC), Mike Litzow (AFSC), Tyler Jackson (ADF&G), Ron Heintz (AFSC), Louise Copeman (Oregon State University; OSU), Thomas Hurst (AFSC), Jessica Miller (OSU) Duo Jiang (OSU), Stephen Szedlmayer (Auburn University), Janet Duffy-Anderson (AFSC), Tammi Richardson (University of South Carolina), Evelyn Lawrenz (Czech Academy of Sciences), Rosemarie Kishore (Institute of Marine Affairs), David Wells (Texas A&M)

## **GRANTS:**

**Project:** Bering Sea snow crab (*Chionoecetes opilio*) lipid condition metrics in relation to temperature and recruitment dynamics

The North Pacific Research Board, \$174,369 funding

Duration: March 1, 2020 – August 30, 2023

**Project:** Interannual variation in pre- and post-settlement processes of the northern rock sole (*Lepidopsetta polyxystra*) in relation to temperature variability in the Gulf of Alaska

The North Pacific Research Board, \$130,432 funding

Duration: May 2013- May 2015

## **PRESENTATIONS** (sample of the past 2 years):

2020 “BSAI Crab Ecosystem Indicators”, Crab Plan Team, Kodiak, AK

- 2019 “Bering Sea Crab Ecosystem Report Cards”, Bering Sea Research Foundation Crab Science Symposium, Seattle, WA
- “Ecosystem and Socioeconomic Profile: St. Matthew Blue King Crab”, Crab Plan Team, Seattle, WA
- “Ecosystem and Socioeconomic Profile: St. Matthew Blue King Crab”, NOAA-AFSC Ecosystem and Socio-economic Profile Workshop, Seattle, WA
- “Shellfish Assessment Program”, NOAA-AFSC Ecosystem and Socio-economic Profile Workshop, Seattle, WA
- “Bering Sea Crab Ecosystem Indicators”, Crab Plan Team, Anchorage, AK