

**Project Title: Developing socio-economic indices of fishing community vulnerability and resilience for Alaska.**

**Associated NMFS Science Center(s)/Regional Office(s)**

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***PROGRESS REPORT***

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Fishing communities exist within a larger coastal economy. Therefore, the ability to understand the context of vulnerability to social factors is critical to understanding how regulatory change will be absorbed into these multifaceted communities. Creating social indicators of vulnerability for fishing communities provides a pragmatic approach toward standardization of data and analysis for assessment of some of the long term effects of management actions. Historically, the ability to conduct such analysis has been limited due to a lack of quantitative social data. Over the past two years, social scientists working in NOAA's Alaska, Northeast and Southeast regions have been engaged in the development of indices for evaluating aspects of fishing community vulnerability and resilience to be used in the assessment of the social impacts of proposed fishery management plans and actions (Jepson and Colburn, 2013). The Alaska Fisheries Science Center (AFSC) has developed indices for over 300 communities in Alaska. We compiled socio-economic and fisheries data from a number of sources to conduct a principal components analysis which allow us to identify the most important socio-economic and fisheries related factors associated with community vulnerability and resilience in Alaska in a statistically meaningful way.

Using funds awarded through a FY13 Cooperative Research grant, we are actively recruiting stakeholder feedback through a groundtruthing methodology to assess and refine our current suite of social indicators of community vulnerability and resilience. The new set of indices will be more accurate and also enable comparisons across regions and eventually, nationwide. This will allow cross regional analysis of fishing community vulnerability and resilience and testing of the validity of the results through in-community education and outreach. Modifications to the methodology will ultimately be made based on community feedback.

The following activities have been accomplished to date. A taxonomy of fishing communities in Alaska was completed by undertaking a cluster analysis of the vulnerability indices that the Principal Investigators previously developed. The cluster analysis results were then used to select communities to visit during our groundtruthing fieldwork. Communities were selected in the Kenai Peninsula, Kodiak Island and Bristol Bay regions. Regional fishing industry and community organizations, including the Alaska Native and municipal governance organizations in each community, were then contacted to provide guidance on planning fieldwork trips and identifying local community members that could assist with the organizing of community panels, one on one interviews and public meetings. A regional coordinator was also hired to organize fieldwork in each region. Regional coordinators have been trained and prepped for community panel and public meeting facilitation.

A survey instrument was developed for use in the community panels. OMB approval of the survey was requested and obtained under a generic clearance for customer feedback surveys. The first fieldwork trip that involved organizing a community panel happened in mid-June in

Kodiak. A local community liaison assisted the PIs and regional coordinators with identifying 10 people to participate in a community panel. The panel included representatives of the local Alaska Native tribe, recreational fishing, commercial fishing, the City, and social services. The approved survey questions were presented to panel members in a powerpoint presentation and panel members were able to respond anonymously via wireless signaling device. Once the survey responses were tallied, panel members were able to discuss the group's responses to the survey questions in the context of their viewpoints on community vulnerability and resilience. In September 2013, our team of researchers will be headed to the Bristol Bay area to do fieldwork and host community panels in additional communities in that region.

Once the community panels have all been completed, the PIs will then analyze all panel responses to the questionnaire and compare them to AFSC's current set of social indicators, a second meeting with panel participants will be planned and a final report will be drafted.

#### References:

Jepson, Michael and Lisa L. Colburn 2013. Development of Social Indicators of Fishing Community Vulnerability and Resilience in the U.S. Southeast and Northeast Regions. U.S. Dept. of Commerce., NOAA Technical Memorandum NMFS-F/SPO-129, 64 p.