NOAA FISHERIES Webinar Series

Sponsored by the

Quantitative Ecology and Socioeconomics Training (QUEST) Program

Webinar Details:

Date: Thursday, December 15, 2016

Time: 1-2pm Eastern Time

Space is limited. Reserve your seat at:

goo.gl/M8b0Q8

Topic: FishStats: A toolbox for combining stock assessment, habitat, ecosystem, and climate research

Presenter: James Thorson
Statistical Ecologist
NOAA Fisheries, Northwest Fisheries Science Center

Abstract: NOAA conducts a wide variety of research, ranging from global physical-ocean models to assessment models for small-scale fisheries. Researchers have developed different approaches and software tools to provide advice about climate impacts, essential fish habitat, and fish stock status (among others). However, recent developments in spatio-temporal modelling promise to provide a single framework for conducting climate, habitat, ecosystem, and fishery assessments. This framework could then improve development, review, and communication of NOAA's environmental forecasts involving harvest limits, essential fish habitat designation, and integrated ecosystem assessments. A new website called www.FishStats.org provides a toolbox of public software ranging from index standardization ("SpatialDeltaGLMM") used to generate stock abundance indices to multispecies models of environmental drivers and fish interactions. SpatialDeltaGLMM software has been used in stock assessments in the Pacific and North Pacific Fisheries Management Councils, and could be applied nationwide to generate a consistent picture of abundance trends and environmental impacts. However, nationwide use faces two major hurdles: (1) improved public access to regional survey and fishery data, and (2) regional testing and evaluation relative to existing methods. Dr. Thorson will review recent applications of FishStats in stock assessments, and discuss how FishStats could help rapidly adapt spatio-temporal models to habitat, ecosystem, and climate assessments.

Biography: James Thorson is a member of the Stock Assessment team at the NOAA Northwest Fisheries Science Center in Seattle, WA. He received a Master's degree studying with Jim Berkson at Virginia Tech, and a Ph.D. studying with André Punt at the University of Washington, where he was also a NOAA Fisheries/Sea Grant Fellow. His research interests include life history theory, meta-community models, biological variation across space and time, and meta-analysis.