**** Graduate position in quantitative approaches to living marine resource management ****

** Adviser: Gavin Fay, University of Massachusetts Dartmouth **

I am seeking an outstanding student (M.S. or Ph.D.) to begin graduate research in a new lab in the Department of Fisheries Oceanography at the University of Massachusetts Dartmouth's School for Marine Science and Technology (SMAST), possibly starting as early as September 2014.

Our research focuses on developing, testing, and applying a range of statistical and modeling methods for the assessment and management of living marine resources. We currently work on marine fisheries, marine mammal populations, and at whole-of-system scales to improve and evaluate the methods used to provide scientific advice to decision makers about the likely consequences of alternative management actions.

Potential projects could include (but are not limited to): 1) accounting for uncertainty in single- and multispecies population dynamics models, 2) quantifying risk associated with accounting for environmental change in fisheries assessments and control rules, 3) evaluating the performance of ecosystem-based management strategies, and 4) improving the use of tagging information in stock assessments.

Students should expect that their research will be highly quantitative, but there is considerable flexibility for applying a diversity of methods to a broad scope of research questions. There will be extensive and highly encouraged opportunities for active collaborations with scientists and managers at local federal and state agencies and other regional partner institutions (e.g., NOAA Fisheries' Northeast Fisheries Science Center, Cooperative Institute for the North Atlantic Region - CINAR).

** Qualifications **

Excellent written and oral communication abilities are required. Useful quantitative skills include mathematics, statistics, and computer programming. However, an enthusiasm for learning and communicating both independently and as part of a research community, and a passion for creative problem-solving are more important than a technical background.

Students will be enrolled through the University of Massachusetts Intercampus Marine Science Program (IMS). Successful applicants to the IMS program will generally have completed an undergraduate or graduate degree with a GPA of 3.00 or better. They will also have an undergraduate major in one of the basic scientific disciplines or engineering, or will have strong multidisciplinary training with completion of at least six semesters of coursework in the natural sciences, generally to include biology, chemistry, and/or physics. Preparation in mathematics at least through integral calculus is strongly encouraged.

** Application procedure **

Interested applicants should email Dr. Fay (gfay42@gmail.com) with a single pdf containing a cover letter describing their motivation and research interests, current CV, university transcripts (unofficial or official), GRE scores, and contact information for at least three professional references.

Qualified candidates will be contacted directly and encouraged to submit a full application to the IMS graduate program.

The position could start as early as September 2014 with guaranteed funding for two years. Position comes with an annual stipend of $20,500 with health insurance and tuition waiver.

For more information about the lab's research and SMAST see www.gavinfay.org and www.smast.umassd.edu.

** School for Marine Science and Technology **

The School for Marine Science and Technology (SMAST), the marine campus of the University of Massachusetts Dartmouth, is located in the state's largest fishing port of New Bedford. The city of New Bedford started as the world's preeminent whaling port in the 1800's, and today ranks second in the country in seafood catch value. Of interest to the marine science community are the nearby New Bedford Harbor and its fishing fleet, as well as close proximity to Buzzards Bay and Massachusetts and Cape Cod Bays, Georges Bank and the deep ocean, as well as Boston and Woods Hole areas.

SMAST offers advanced degree programs focused on interdisciplinary basic-to-applied marine sciences and the development of related innovative technologies. In addition to the scholarly marine science and technology communities, the SMAST mission also emphasizes interaction with regional industry, and government and non-governmental agencies on compelling regional marine-related issues and technological development.

Gavin Fay, Ph.D.
Postdoctoral Research Associate (current position)
National Marine Fisheries Service, Woods Hole MA

Assistant Professor (starting September 2014)
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