Postdoctoral Research in Marine Conservation Physiology at NOAA Southwest Fisheries Science Center, University of Massachusetts Amherst, and University of California, Davis

Summary: We are looking for a postdoctoral researcher to join our research team studying climate change impacts on California fishes. This project is specifically focused on examining the physiological mechanisms of smaller body sizes associated with ocean warming in a species of high value to California fisheries and ecosystems, the Pacific sardine. The postdoctoral researcher will lead experiments to (1) quantify the roles of oxygen limitation and gill surface area-body size relationships under variable temperatures; (2) examine relationships of energetic demands and life history trade-offs (3) compare the roles of phenotypic plasticity and local adaptation in shaping population level responses to ocean warming. Ultimately, this project aims to establish valid physiological mechanisms underlying *in situ* patterns that can be integrated into stock assessments and ecological models to predict climate change impacts on California fisheries yields and ecosystems under different management scenarios.

This is a 2yr funded position, supported by the California Sea Grant and the Ocean Protection Council. Specific start date is flexible, but preferably spring 2019 to coincide with planned experiments/Pacific sardine life cycle timing. This project is largely based out of the NOAA Southwest Fisheries Science Center in La Jolla, CA, with some likely travel to other collaborating laboratories. Opportunities to collaborate or lead on other ongoing projects in the labs such as transcriptomic responses to environmental stress or conservation genomics may be available depending on interests and skills.

Required Qualifications:

- A Ph.D. in Ecology, Conservation Physiology, Animal Biology, or a closely related field.
- Experience with animal husbandry, preferably working with fish or other aquatic ectotherms.
- Experience designing, planning, and conducting experimental procedures, including the ability to meet project goals in a timely manner, and follow through on project deliverables.
- Demonstrated capacity to communicate research findings both at professional meetings and in high quality peer-reviewed journals.
- Strong analytical skills including demonstrated proficiency with R and/or other statistical approaches/software programs.
- Excellent technical, analytical, organizational, and problem-solving skills.
- Strong attention to detail, and meticulous work style, as evidenced by previous research.
- Strong interpersonal and communication skills and the ability to work both independently and collaboratively with researchers from different scientific backgrounds, including federal agency partners and stakeholders.
- **Please Note:** The majority of this research will be conducted in a US Government NOAA Laboratory. Due to federal security restrictions and the nature of this work (e.g., needing access to aquaria for animal care on weekends), US citizenship or other approved US work status is required to be able to effectively conduct the research. Personnel must be able to pass a federal background check.

Preferred Qualifications:

- Research experience measuring metabolic rate, preferably in non-model fishes.
- Demonstrated experience performing morphometric analyses (gill surface area or other micro-morphological measurements) using dissection and compound light microscopes.
- Research experience studying functional morphology and/or fish life history traits
- Research experience integrating empirical datasets across biological levels and/or into statistical models.
- Previous experience managing, mentoring, or otherwise overseeing staff, graduate or undergraduate students.
- A demonstrated capability to think critically about the practical application of research outcomes.

Salary:

Salary and benefits are consistent with University of Massachusetts, Amherst policy and applicant experience. UMass Amherst is an Equal Opportunity Employer.

To Apply:
Please send 1) CV inclusive of publications, awards, and both laboratory and field experience, and 2) a cover letter discussing your key experimental qualifications, research interests and motivations for this position to lkomoroske@umass.edu, with the subject line: "Post Doc in Marine Conservation Physiology" so that it can be easily recognized. For full consideration, please apply by Jan. 15th 2019.

Principal Investigators:
Lisa Komoroske, *University of Massachusetts, Amherst*
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Nann A Fangue, *University of California, Davis*