

From: Roi Holzman
Subject: Postdoctoral position in Fish Functional Morphology/Feeding kinematics at the Red Sea, Eilat, Israel and UNC Chapel Hill

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Qualifications: The position, funded in part by the US-Israel Bi-national Science Foundation, represents a joint position in the labs of Roi Holzman (<http://iui-eilat.ac.il/People/AcademicStaffProfile.aspx?sid=106>) and Christopher Martin (<http://labs.bio.unc.edu/martin/>). The candidate will be positioned at least 9 months per year in the lab of Roi Holzman in Eilat, Israel (<http://iui-eilat.ac.il/>), and may spend up to 3 months at UNC.

The research will center on the evolution of suction feeding. The researcher will use in situ high-speed video cameras to capture feeding events by reef fishes in the Red Sea. They will then compare the kinematics of these natural capture events to kinematics predicted as optimized according to a hydrodynamic simulation (the SIFF model, Holzman et al 2012 JEB). Ultimately, these analyses will test the hypothesis that a complex performance landscape for suction-feeding may drive kinematic diversification within the Red Sea community.

For the successful candidate, there will be a relatively high degree of flexibility in terms of specific research questions and methods as long as they are within the overall framework of our grant. We aim to do fundamental research on fish ecology and diversity in order to better predict the evolution of phenotypic diversity in coral reef fishes.

The appointment is for one year, with possible extensions for two more years. Annual support will amount to 102,000NIS (~\$30,000 at current exchange rate). Traveling expenses to UNC will be covered by the grant. Applicants from under-represented and diverse backgrounds are especially encouraged to apply. We broadly define diversity to include race, gender identity, national origin, ethnicity, religion, social class, age, sexual orientation, political background, and physical ability.

The work place is at the Inter-University Institute for marine sciences in Eilat, Israel (<http://iui-eilat.ac.il/>). Research activities at the IUI span the whole spectrum of marine sciences, including ecology, chemical, physical and biological oceanography, ichthyology, Invertebrate and vertebrate biology, neurobiology, molecular biology and marine biogeochemistry. IUI is located on the shores of the Gulf of Aqaba, Red sea, next to a natural and flourishing coral reef. IUI is the home of seven resident faculty groups, with ~40 students and ~40 technical and administrative staff. Many of the students and staff in IUI are international, and virtually all the academic activity in IUI (seminars, lectures, discussion groups) is done in English.

UNC Chapel Hill supports a vibrant community of evolutionary biologists interested in speciation, adaptive radiation, and functional morphology, both within the department and the greater Triangle area through the Physical Biology of Organisms (PBO) group. The postdoc will be integrated into departmental activities and will receive

mentoring in professional skills. The quality of life in this area is consistently rated among the highest in the nation.

Basic qualifications:

Strong background in fish functional morphology, biomechanics, or evolutionary ecology. Applicants should have a PhD in a relevant field of biology, ecology, or environmental science and a strong interest in fish evolutionary ecology, functional morphology/ecology, biomechanics, and adaptive radiations. Statistical programming experience is also required. This position involves extensive underwater fieldwork using high-speed video cameras to film reef fishes in the Red Sea at Eilat, hence ability to work in the sea is needed.

Preferred qualifications:

Advanced statistical programming skills in R and background in fish functional morphology, particularly kinematics or PIV. Additional experience with morphometrics, Matlab or python, and marine fieldwork is also a plus. SCUBA certification is desired.

Applications must be submitted by 15th March 2018 by e-mail to Roi Holzman (holzman@post.tau.ac.il).

Applications should include an application letter describing your interests and their relevance to this position, a CV, and the names and contact information for three references. The starting date should optimally be around Sept 2018, but is very flexible. The position is for 12 months with the possibility of renewal dependent on performance. For further information, please contact Roi Holzman (holzman@post.tau.ac.il) or Christopher Martin (chmartin@unc.edu).

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