Modeling Regime Shifts in the Logone floodplain (MORSL)

The MORSL lab at the Ohio State University (OSU) invites applications for three 2-year post-doctoral fellow positions to study regime shifts in coupled human and natural systems in the Logone Floodplain in Cameroon. The post-docs will be integral members of a new, interdisciplinary, NSF-funded project focused on regime shifts in African floodplains, examining the impact of human activities and climate change. This is a unique opportunity for post-doctoral researchers to study the interaction among ecological, hydrological, hydraulic and social systems within the conceptual framework of coupled human and natural systems.

MORSL POSTDOCTORAL FELLOWSHIP PROGRAM

Application deadline: December 31, 2012

We invite applications for 2-year postdoctoral fellow positions that can begin anytime in 2013. Post-doctoral fellows will reside in Columbus, OH, and be members of the OSU community. They will receive a stipend, benefits, and a travel fund to attend meetings. Fellows will have an office space and computational support.

Fellows will be hosted in Geography, Anthropology, Earth Sciences, Evolution, Ecology and Organismal Biology, Mathematics, the Mathematical Biosciences Institute or the Byrd Polar Research Center at the Ohio State University but will interact with a number of interdisciplinary researchers across the university.

Duties involve a flexible combination of fieldwork, data collection and analyses, modeling and project coordination, in addition to helping to mentor graduate and undergraduate student researchers from the Ohio State University and the University of Maroua in Cameroon.

The successful applicants will be expected to explore new research directions of their choosing, assisted by a strong team of collaborators. Fellows will undertake a project that relates to one of the primary research areas below, focused on the Logone Floodplain of Cameroon:

1. Modeling human drivers of regime shifts
2. Ecological modeling of fish populations
3. Multi-scale modeling of climate, hydrology and hydraulics

While pursing independent research, Fellows will also be expected to contribute to the development of our collaborative research team and center of activities. This will involve some combination of web data sharing, video conferencing, organizing workshops, and maintaining regular contact with faculty and students at OSU and the University of Maroua in Cameroon.

ELIGIBILITY

The following criteria apply for all candidates:
1. Candidates must have a demonstrated interest in coupled human and natural systems (e.g., dissertation, publications, grants, training).
2. Candidates must be willing to spend time abroad in Cameroon.
3. Candidates must be fluent in written and spoken English.

Modeling human drivers of regime shifts. Please send inquiries to Dr. Mark Moritz (moritz.42@osu.edu).
1. Candidates must have completed or be near to completing a PhD in a social sciences, e.g., anthropology, geography, rural sociology, or other relevant disciplines.
2. Candidates must have experience with ethnographic research and collection and analysis of both quantitative and qualitative data. Experience with GIS, agent-based modeling, and/or systems modeling is desirable.
3. Candidates with prior field experience with fishery systems in Sub-Saharan Africa are preferred.

Ecological modeling of fish populations. Please send inquiries to Dr. Ian Hamilton (hamilton.598@osu.edu).
1. Candidates must have completed or be near to completing a PhD in a discipline such as ecology, fisheries biology, or applied mathematics.
2. Candidates must have experience with application of mathematical models to study fish populations. Experience in areas such as bioenergetic modeling, spatially-explicit models, agent-based modeling and/or state-dependent models is desirable.

Multi-scale modeling of climate, hydrology and hydraulics. Please send inquiries to Dr. Bryan Mark (mark.9@osu.edu) or Dr. Michael Durand (durand.8@osu.edu).
1. Candidates must have completed or be near to completing a PhD in a discipline such as hydrology, earth sciences, geology, or civil engineering.
2. Candidates must have quantitative skills in simulation, hydrological and hydraulic modeling on multiple scales, familiarity with hydrologic and hydroclimatic instrumentation, climate modeling and dynamic downscaling, facility with GIS and remote sensing.

APPLICATION PROCEDURES

Applicants should send a current CV, a statement of research interests and qualifications (be sure to address the criteria above), and how they fit in with larger MORSL research project, and contact information for three references. Materials and inquiries should be send to Dr. Mark Moritz (moritz.42@osu.edu). Please see the following website for more information (http://mlab.osu.edu/morsl). We will start reviewing application materials by December 31, 2012 and continue to review applications until the positions are filled. The start date for the position is flexible. To build a diverse workforce, Ohio State University encourages applications from individuals with disabilities, minorities, veterans, and women. EEO/AA employer.