

Date: September 4, 2014
To: Smithsonian Marine Science Distribution
From: Tennenbaum Marine Observatories Network Executive Committee
Subject: Call for FY15 MarineGEO Postdoctoral Fellowship Proposals

Submission Deadline: December 1, 2014

The Smithsonian's *Tennenbaum Marine Observatories Network* (TMON) invites proposals for Postdoctoral Fellowships that will advance goals of the Marine Global Earth Observatory. MarineGEO is a developing partnership among diverse organizations united by focus on global-scale, long-term study of coastal biodiversity and ecosystems using standardized approaches. MarineGEO is coordinated by TMON, which includes the Smithsonian Environmental Research Center on the Chesapeake Bay (SERC), the Smithsonian Marine Station on the Indian River Lagoon in Florida (SMSFP), the Carrie Bow Cay Marine Field Station in Belize (CCRE Program), and sites in Caribbean and Pacific Panama administered by the Smithsonian Tropical Research Institute (STRI). Additional partner sites are under development.

Eligibility and Award Amount. Postdoctoral scientists must collaborate directly with two or more Smithsonian scientists as named sponsors (see Smithsonian Marine Research Staff at <http://www.si.edu/marinescience/staff.htm>) and must select co-Advisors from more than one SI unit (NMNH, SMSFP, SERC, STRI, NZP). Stipend is \$48,000 per year with an allowance for health insurance, travel, and supplies up to a total \$60,000 maximum (including stipend) per year. Awards will be made for a maximum of two years, pending first-year performance review. Proposals must focus on comparative research related to MarineGEO goals (<http://www.si.edu/marinegeo>) and involve at least two TMON facilities. Applicants must have completed the Ph.D. before commencing the fellowship. Individuals who have been employees at the Smithsonian within the previous year are not eligible. Applicants are strongly encouraged to contact prospective sponsors in developing their proposals.

MarineGEO goals. MarineGEO and TMON are dedicated to understanding change in and relationships among the biodiversity, structure, and functioning of marine ecosystems at local through global scales. Our research aims to advance scientific capacity for forecasting change and informing policy. A cornerstone of MarineGEO is the use of standardized, repeated measurements and experiments, maintained over decades, conducted across the Smithsonian's facilities and an expanding global network of diverse partners. This approach is designed to achieve rigorous comparative understanding across space and time, to understand variation in coastal marine ecosystems, and to assess links between local and global environmental forcing, biodiversity, and functioning of ecosystems. We seek applications for Postdoctoral research projects that address at least one of TMON's overarching research themes:

1. *How does marine biodiversity vary through space and time across the globe?*
2. *How do natural and human forces (e.g. fishing, land-use, invasions, habitat loss) drive changes in marine biodiversity and ecosystem functioning and resilience?*
3. *What are the consequences for human well-being of these changes in marine ecosystems?*
4. *How does anthropogenic alteration of carbon cycles affect coastal marine systems and ecosystem service provision?*
5. *How are marine ecosystems connected via dispersal and metapopulation dynamics, and how do these connections affect responses to change and human well-being?*
6. *How do nearshore food webs change through space and time?*
7. *How can the past—ancient through historic—help us understand the consequences of local human activities and global change?*
8. *Where are the critical tipping points that lead to rapid and unwanted shifts in marine ecosystems, and how can these best be avoided?*

Proposal submission. Prospective applicants are strongly encouraged to consult with Smithsonian staff scientists prior to proposal submission. Proposals must be submitted electronically as a single PDF by midnight EST on December 1, 2014 to toscanom@si.edu. Two non-Smithsonian referees must be identified in the proposal and submit letters of support separately to the same email by this deadline.

Proposal Review and Award Notification. Proposals will be peer-reviewed by a panel of Smithsonian scientists for scientific merit, project feasibility and match with MarineGEO goals. Award notification will be forwarded electronically by 1 March 2015 to the applicants and their Smithsonian sponsors.

Smithsonian Scientific Diving Authorization. See www.si.edu/dive

Progress Reports and Publications. A progress report is required for all projects and must be submitted electronically no later than ten months after start of fellowship appointment. A final report is due upon completion of the fellowship appointment. All publications resulting from work supported by the Smithsonian Institution must include an acknowledgment of the appropriate Smithsonian Research Unit(s) and the Tennenbaum Marine Observatories Network.

Proposal parts. Proposals are submitted via e-mail as a single PDF to toscanom@si.edu, to whom questions can also be directed. The proposal must include the following elements:

I. Curriculum Vitae

II. Abstract (not to exceed 300 words)

III. Proposal Body (not to exceed 8 pages):

1. *Introduction:* Background, rationale, and support from published scientific literature.
2. *Goals and Objectives:* A clear statement of the central questions, problems, and/or hypotheses to be addressed, and the major objectives that will address the goals.
3. *Methods:* Brief summary of approach, procedures, experimental designs, technical methods, and/or statistical treatment. Summarize the types of equipment and technology required (boats, microscopes, scuba equipment, etc.) and the frequency of their need. Information on existing facilities can be found at the Smithsonian Marine Science website (www.si.edu/marinescience).
4. *Work plan and schedule:* Locations and preferred dates of field travel and schedule of work.
5. *Research facilities:* Description of which TMON facilities will be used, including SERC, SMSFP, Carrie Bow Cay, STRI's Caribbean and Pacific labs.
6. *Significance:* Anticipated contributions and significance of the project for MarineGEO.

IV. Literature Cited

V. Budget and Justification (max. \$12,000/year): Specify costs for 1) *Research Allowance* to include supplies, equipment needs, and travel for research purposes (including per diem and transportation); 2) *Relocation Travel Expenses* to include transportation from point of origin to Smithsonian, and return after appointment concludes (does not include moving expenses); 3) *Health Insurance*. Indicate source and amounts of matching funds from other sources, if available.

VI. Letters of Recommendation from 2 non-Smithsonian referees.

Contacts. TMON Executive committee contacts: Emmett Duffy (TMON Director, SERC), Nancy Knowlton (NMNH), Greg Ruiz (SERC), Valerie Paul (SMSFP, CBC), Andrew Altieri and Rachel Collin (STRI), Mary Hagedorn (NZP). For questions about application process and status, please contact Dr. Marguerite Toscano (toscanom@si.edu).