The **Leibniz Center for Tropical Marine Ecology (ZMT) GmbH** in Bremen is a member of the Leibniz Association, which is supported by the German Federal and State Governments. Through its research, Leibniz-ZMT GmbH contributes to developing science-based strategies for sustainable use of tropical coastal systems (www.zmt-bremen.de).

In the frame of the project 'Resilience of Pacific Island coral reef social-ecological systems in times of global change (REPICORE)'

3 PhD positions

(two in ecology, one in social sciences) are available as of September 15, 2013, subject to final granting of funds. The project is an interdisciplinary approach that includes collaboration with international experts and partners from the region. It combines social and natural sciences in the conception and implementation of the project to achieve a more holistic understanding of coupled social-ecological systems. It will examine marine resource use and coastal livelihoods across three Melanesian countries in conjunction with field assessments of reef fish and benthic communities. The overall aim is an improved understanding of social-ecological feedbacks that erode or strengthen coral reef resilience and identify potentials for including information on social-ecological resilience in coastal governance by drawing on formal and non-formal management institutions.

Position 1: Fish community assessments and fish-habitat associations

The first ecology PhD position focuses on an assessment of coral reef fish communities and associated habitat parameters. This study will assess the relative influences of habitat, geographic setting, fishing effort and gear use on fish community composition and functioning. Drawing on resilience theory, the use of different univariate and multivariate parameters (such as biomass, multivariate variability, community size structure and functional diversity) as resilience indicators will be studied. The position is in collaboration with Dr. Albert Norström of the Stockholm Resilience Center and is co-supervised at the ZMT by Prof. Dr. Christian Wild.

Requirements: Candidates must be willing and able to work extended periods of time at remote locations with limited infrastructure. SCUBA diving experience is a must, preferably with a European-level scientific diving certification. Previous experience with field work on coral reef fish ecology, particularly in the South Pacific, is desirable. Good communication skills, the proven ability of good scientific writing, and experience with multivariate statistical tools are additional assets.

Position 2: Coral reef benthic community function and dynamics

This position focuses on factors and processes relevant for ecosystem functioning and resilience. Working on the same areas used in the fish community assessment, the second ecology PhD student will address the question what are the relative influences of local and regional environmental and socio-economic factors on benthic community composition and functioning. The work will include an assessment of coral community size structure and taxonomic and

morphological diversity to examine functional diversity and population dynamics of the coral community. The position is offered in collaboration with Prof. Dr. Maggy Nugues of CRIOBE (France) and is co-supervised at the ZMT by Prof. Dr. Christian Wild.

Requirements: Candidates must be willing and able to work extended periods of time at remote locations with limited infrastructure. SCUBA diving experience is a must, preferably with a European-level scientific diving certification. Previous experience with field work on coral reef ecology, particularly in the South Pacific, is desirable. Good communication skills and the proven ability of good scientific writing are additional assets.

Position 3: Marine resource use and coastal livelihoods

Working at the same field sites as the two ecology PhD candidates, the social science PhD student will examine how socio-economic and environmental changes influence marine resource use and management. For example, do socio-economic changes lead to more, less, or a different use of marine resources, and do existing management structures function adequately under these changed circumstances? The general focus of the project will be on the influences and interactions of market structures, demographics, socio-economic development, fishing activity and environmental awareness. The position is offered in collaboration with Prof. Dr. Shankar Aswani of the University of California Santa Barbara and Prof. Dr. Joshua Cinner of the James Cook University and is co-supervised at the ZMT by PD Dr. Marion Glaser.

Requirements: Candidates must be willing and able to work extended periods of time at remote locations with limited infrastructure. Previous experience with socio-economic field work in tropical coastal areas, particularly in the South Pacific, is desirable. Good communication skills, knowledge of Tok Pisin/Pijin and/or Fijian and the proven ability of good scientific writing are additional assets.

Application for each of the above mentioned positions:
To apply, please send a motivation letter including research interests, a complete CV with list of publications and skills, copies of relevant certifications and names with email addresses and phone numbers of two referees in a single pdf-file to the address below. Only short-listed candidates will be notified.

Appointments are for a duration of three years, with an earliest starting date of September 15, 2013. The salaries for the positions are according to the German salary group TV-L 13 for half-time positions. Closing date for applications is **August 16, 2013** or until qualified candidates are identified. The Leibniz ZMT GmbH is an equal opportunity employer. Disabled persons with comparable qualification receive preferential status.

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