

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

The working groups 'Institutional and Behavioural Economics' and 'Resource Management' are currently looking for a

PhD Student

(Reference number: 101 – Humboldt Tipping)

to pursue a PhD degree within the BMBF-funded project Humboldt Tipping ("Social-Ecological Tipping Points of the Northern Humboldt Current Upwelling System, Economic Repercussions and Governance Strategies").

Description of project:

The project assesses the risk of decreases in marine ecosystem productivity as a tipping point for the interlinked ecological, economic and social systems of the Northern Humboldt Upwelling System (HUS). The extreme variability in climate-related productivity of this upwelling system impacts coastal ecosystem dynamics, fisheries-related activities and hence local human livelihoods. ZMT is one of five consortium members of the Humboldt Tipping project and responsible for the work package (WP) 5: "Social-ecological network modelling of coastal benthic habitats and their users". One focus lays on coastal (bay) systems, where artisanal fisheries, aquaculture and ecotourism are key maritime activities for provision of livelihoods. The aim of this WP is to understand ecosystem dynamics of coastal bay systems in the face of environmental disturbances, and to explore respective repercussions on the human dimension of the social-ecological system depending on natural resource exploitation. Several colleagues (PI, Post Doc, PhD, M.Sc. student) will complementarily work towards this goal.

Description of PhD position:

Jointly supervised by Prof. Matthias Wolff (WG Resource Management) and Prof. Achim Schlüter (WG Institutional and Behavioural Economics), the PhD thesis shall have a strong interdisciplinary focus. The candidate will contribute to the WP through by conducting a dynamic analysis of tipping points for two Peruvian bay ecosystems (Sechura Bay, Independence Bay) using the trophic modelling approach of Ecopath with Ecosim. Existing models for both case studies shall be updated with recent data and shall be exposed to different management and environmental scenarios as to explore the systems' response to external disturbances and to evaluate social-ecological tipping point configurations. Socio-economic information on small-scale fisheries and their respective value chains shall be collected during stakeholder workshops and complement the interdisciplinary analysis.

Requirements:

- Master or Diploma degree in marine ecology, fisheries science or environmental economics
- M.Sc. thesis should have been conducted in the context of social-ecological questions related to mariculture, (small-scale) fisheries, environmental economics and/or ecosystem modelling
- Basic training in ecosystem modelling (ideally Ecopath with Ecosim)
- Basic training in environmental economics and/or social science data collection
- Willingness to work in an interdisciplinary, international (German-Peruvian) scientific environment, e.g. during longer stays in Peru
- Willingness to collaborate in the conduction of transdisciplinary stakeholder workshops in the study regions
- Fluency in the English language and advanced Spanish language skills are mandatory.

For additional information, please **contact:**

Dr. Lotta Kluger, lotta.kluger@leibniz-zmt.de; or Prof. Matthias Wolf matthias.wolff@leibniz.zmt.de

We offer:

- An exciting working environment in an interdisciplinary and internationally oriented institute and research project
- Possibilities to build and extend an international professional network and participate in a research field of high public and scientific interest
- A family-friendly working environment

The candidate will be on a three years contract.

Salary will be paid according to the German TV-L EG 13.

The post will be filled as a PhD student position (66,6%).

ZMT is an equal opportunity employer. Applicants with a migration background are welcome.

Disabled persons with comparable qualification receive preferential status.

Please send your application (a motivation letter, a copy of the Master's (Diploma) certificate, a complete CV with a list of publications and skills, names with email addresses and telephone numbers of two referees) until January 15th 2019 **as a single pdf file** with the reference number "101 - Humboldt Tipping" to Ms. Lena Oehlmann, E-Mail: bewerbung@leibniz-zmt.de.

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