

The Leibniz Centre for Tropical Marine Research (ZMT) GmbH ([www.leibniz-zmt.de](http://www.leibniz-zmt.de)) is an independent research and teaching institute that provides scientific knowledge for the protection and sustainable use of tropical coastal ecosystems. To this end, we work in an inter- and transdisciplinary manner with our partners in the tropics. The ZMT is a member of the Leibniz Association.

A recent strategic extension of ZMT entitled 'Modeling Socio-Economic Dimensions in Tropical Coastal Ecosystems and the Earth system – **TropEcS**' aims to link the existing research capacities of ZMT in the fields of socioeconomics, marine ecology, physical oceanography and biogeochemistry with Earth system modeling.

The newly established Working Group *Future Oceans & Fisheries*, led by Dr. Camilla Novaglio, focuses on understanding and anticipating the impacts of climate change and human resource use on tropical marine ecosystems, fisheries, and coastal livelihoods. Using integrated socio-ecological modeling and scenario analysis, the group examines how physical, ecological, and human systems interact to shape future outcomes for tropical marine environments, and evaluates fisheries and market strategies to balance ecological sustainability with socio-economic outcomes. Through this work, the Working Group aims to provide robust scientific insights to support sustainable fisheries governance and long-term food security in tropical regions.

The working group is seeking a doctoral candidate (subject to release of funds) as part of the TropEcS extension, and embedded within the interdisciplinary ZMT Programme Area Coastal Resources.

## Doctoral candidate (gn) in natural sciences

(Reference: 8-STB-PB1-PhD2)

on the topic of **modelling climate-society interactions in tropical marine ecosystems**. Focus regions are the Eastern Tropical Pacific (Peru, Central America), Indonesia, and/or further locations, depending on the applicant's interests and experience. The specific PhD topic will be jointly developed.

### Your tasks:

- Analyze biological and fisheries data – including satellite observations, field surveys, stock assessments, catch and effort records – as well as outputs from climate and Earth system models.
- Work with size-spectrum models (e.g., the mizer R package) to represent tropical marine socio-ecological systems in core TropEcS research regions.
- Explore locally relevant climate and socio-economic scenarios to evaluate trade-offs across environmental and societal goals and to help inform policy. This may involve downscaling global scenarios developed by international modelling initiatives (e.g., Fisheries and Marine Ecosystems Model Intercomparison Project; FishMIP), following existing protocols.
- Engage with international modelling initiatives (e.g. FishMIP) and contribute to the development and application of the TropEcS integrated modelling framework.
- Present results at scientific conferences, and develop scientific publications based on the results.

**Requirements:**

- Master of Science in biology, ecology, modelling, mathematics, statistics, data science, or a related field.
- Intermediate to advanced written and oral command of English.
- Some familiarity with scientific data analysis and programming (e.g., in R, Python).
- Ability to collaborate effectively in interdisciplinary research teams, apply critical thinking, and deliver outputs on time.
- Prior experience in ecological modeling, fisheries and human dynamics, and/or climate change biology is advantageous.

**Further information:**

For questions, please contact Dr. Camilla Novaglio, email: [camilla.novaglio@leibniz-zmt.de](mailto:camilla.novaglio@leibniz-zmt.de)

**Details of position:**

Salary will be paid according to the German TV-L (EG 13). The position is available for part-time (2/3 of a full-time position) employment starting as soon as possible for 36 months. The fixed term is for academic qualification according to § 2 (1) WissZeitVG (Wissenschaftszeitvertragsgesetz). Accordingly, only applicants who still have the relevant qualification periods according to § 2 (1) WissZeitVG can be considered. The position is intended to provide further academic qualification with the aim of obtaining a doctorate.

ZMT is an equal opportunity employer. Applicants with a migration background are welcome. Persons with severe disabilities are given special consideration if they have the same professional and personal qualifications. The ZMT values its diverse workforce and pursues the goal of providing equal opportunity, which incorporates gender neutrality (gn). We will be happy to accept your documents without a photo.

**We offer:**

- A challenging and varied job in an international, dynamic and interdisciplinary research environment
- A motivated and committed team from different countries and cultures
- An open and cooperative working atmosphere
- Opportunities for personal and professional development
- Interesting, varied and challenging tasks and family-friendly working conditions
- Company pension plan (VBL)
- Company health promotion and the opportunity to participate in company fitness with EGYM Wellpass

**Submission of application:**

Please submit your CV, your university transcripts and a letter of motivation **by 08.03.2026** as a single pdf file with the reference number "8-STB-PB1-PhD2" to Ms. Lena de Carné-Oehlmann, email: [bewerbung@leibniz-zmt.de](mailto:bewerbung@leibniz-zmt.de).

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