

The Leibniz Centre for Tropical Marine Research ([www.leibniz-zmt.de](http://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.

ZMT offers a

## PhD Student Position

(Reference number: 107 – REEF FUTURES)

to work on the roles of coral reef fish in carbon cycling of tropical oceans within the BiodivScen-84/DFG-funded project REEF FUTURES. We are seeking a highly motivated student to pursue a PhD degree at ZMT. The offered position will be supervised by Dr. Sonia Bejarano (Head of the Reef Systems Research Group, ZMT), Dr. Valeriano Parravicini (Associate Professor at the École Pratique des Hautes Études (EPHE), CRIOBE - Perpignan), and Dr. Sebastian Ferse (Executive Director of the Future Earth Coasts International Project Office, ZMT) to commence on **April 1, 2019**.

### Project Description:

Tropical coral reefs harbour a quarter of marine biodiversity on Earth. Coral reef biodiversity levels are linked to their capacity to sustain goods and services of vital importance for humanity. Reefs are among the most vulnerable social-ecological systems on Earth, and are severely threatened by global climate change and local pressures. Avoiding or escaping reef degradation and identifying the most vulnerable sites are among the major issues that scientists and managers face today. REEF FUTURES will uncover new solutions to confront the coral reef crisis based on an integrated modelling approach aimed at a) quantifying five key services provided by reef fishes including their contribution to the carbon cycle via egestion of carbonated material, b) determining the socioeconomic and environmental conditions under which these services are currently maintained or threatened, and c) predicting the potential futures of these services and coral reef social-ecological systems under various global change scenarios.

### Duties and responsibilities:

- Quantifying the rate of egestion of carbonated material for a number of coral reef fish species from several trophic groups and biogeographic marine realms in mesocosm facilities.
- Conduct field surveys to quantify biomass and community structure of fish assemblages.
- Couple carbonate production rates (via egestion) with *in situ* estimates of fish size and abundance to scale-up carbonate production rates to the fish community level.
- Contribute to the development of predictive models working in collaboration with international project partners.
- Present research results at conferences and scientific meetings.
- Publish research results in peer-reviewed scientific journals.

### Requirements:

- A background on fish physiology and good knowledge of fish biology and ecology
- Practical experience managing water quality and fish husbandry and maintenance in aquaria.
- Diving qualifications and experience: as a minimum the candidate must hold a valid recreational dive certificate at the level of Rescue Diver, CMAS\*\*/VDST T2 (Silver) or equivalent. Certification as Research diver/European Scientific diver (equivalent to the German GUV-R 2112) is desirable.
- Strong skills and motivation to conduct long field research stays
- Fluency in written and spoken English and potential for high proficiency in scientific writing.
- Demonstrated familiarity with statistical analysis and numerical ecology (Experience in R is highly desirable)

For additional information, please contact: Dr. Sonia Bejarano ([sonia.bejarano@leibniz-zmt.de](mailto:sonia.bejarano@leibniz-zmt.de)).

**We offer:**

- An exciting and international research environment in an interdisciplinary and internationally oriented institute, with opportunities to conduct highly relevant research in coral reef ecology
- The position will be housed at the Reef Systems Research Group, a young and dynamic team of researchers dedicated to scientific research that confronts the most pressing threats faced by tropical coral reefs and strives to understand the intricate reef-human-climate links through a transdisciplinary lens.
- As part of the REEF-FUTURES project funded by the joint Belmont Forum-BiodivERsA Call for Proposals on Biodiversity Scenarios the candidate will have the opportunity to interact with 15 international research partners from around the globe.
- A family-friendly working environment

The candidate will be on a three-year contract. Salary will be paid according to the German TV-L EG 13 (if the personnel requirements are fulfilled). The post will be filled as 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.

**Application Instructions:**

- Letter of motivation summarising your background and expertise, explaining your interest in the topic of the project, briefly stating your research experience and interests and career goals (max 1,500 words).
- Curriculum vitae including work experience, list of degrees and technical (e.g. diving) qualifications, projects/theses, completed courses, and publications.
- Degree certificates (Master's or German Diplom) and course records/grades (unofficial transcripts or records of coursework completed for Bachelor and Master) confirming that you meet the general and specific requirements.
- Complete contact information for two professional references.

Please send your complete application by March 15, 2019 **as a single PDF file** quoting the reference number "107-REEF FUTURES" and your surname (e.g. 107-REEFFUTURES\_Surname.pdf) to Ms. Lena Oehlmann, e-mail: [bewerbung@leibniz-zmt.de](mailto:bewerbung@leibniz-zmt.de).

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