



# POSTDOC POSITION

At the Marine Biology Lab, Université Libre de Bruxelles

## Contact/Enquiries:

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## Background

Based at the Université Libre de Bruxelles (ULB), the [BIOMAR marine biology lab](#) carries out its research on the bioecology of marine benthic invertebrates, with a special focus on echinoderms.

Our lab will be coordinating the new [VERSO research project](#) which aims to assess the impact of the main stressors driven by **global change on benthic Antarctic ecosystems** using representative taxa from different size classes of the benthos.

We will assess the simultaneous effects of **temperature, acidification, sedimentation and food quality and quantity** on

nutrient fluxes and metabolism of sediment communities, providing insights in both **sensitivity** and **resilience** of these ecosystems. It is intended to integrate these aspects to develop dynamic species distribution models (SDMs), under non-equilibrium conditions. These models can help reveal tipping points leading to irreversible changes in ecosystems functioning.

*We are looking for a postdoctoral scientist, for a period of 2 years*

## Topic

Global change affects Antarctic communities through numerous interacting stressors, the most important ones being temperature increase, acidification, increase in sedimentation rate and

change in nutrients and food supply linked to glacier melting, reduced seasonal ice cover and ice shelf collapses. For the Antarctic the **impact of stressors** such as temperature rise and acidification have so far mainly been considered at the individual or species level and, in most cases, only a single impact factor was studied and occasionally two. These studies provided evidence that numerous taxa as well as global diversity will be affected. However, no community-level studies addressed the combined effects of the aforementioned stressors on Antarctic benthos.

Furthermore, it is obvious that stressors will act synergistically and that their combined effects should be determined. Emphasis will be put on *in situ* experiments during **polar expeditions**, in two contrasting areas of the Southern Ocean. In parallel,

**dynamic SDMs** will be developed to gain **insights** on the potential future distributions of models organisms under various **Global Change** scenarios.

## Profile

- ▶ **PhD** in Marine Biology
- ▶ Spent over **24 months abroad** (not in Belgium) during the last 3 years
- ▶ Interest in **polar ecosystems** and **biodiversity informatics**
- ▶ Ready to participate in long sampling **campaigns** at sea or station-based
- ▶ Experience in **project coordination** and interest in **modelling** is an asset

## Deadline

If you are interested, please send a brief CV, and a letter of motivation to the project coordinator (Bruno Danis, [bdanis@ulb.ac.be](mailto:bdanis@ulb.ac.be)), no later than April 30th, 2014.