



The Institute for Coastal Research at the Helmholtz Centre Geesthacht (near Hamburg, Germany), invites applications for **two 3-year positions**:

## 1) Biogeochemical Modelling (PostDoc)

## 2) Ecological Modelling (PhD)

**1) Biogeochemical Modelling (PostDoc):** We seek a person with strong background in biogeochemistry or ecology and in modelling techniques. The major task will be to simulate coupled pelagic and benthic biogeochemistry in coastal seas, with special emphasis on relating ecosystem dynamics with carbon and nutrient cycling. The work will require the integration and application of existing models and the use of data from different sources, including long-term time-series, remote-sensing and FerryBox for the Southern North Sea region. Major research questions will concern (1) the effect of carbon chemistry and water pH on the planktonic food-web under increased ocean acidification, (2) the control of pelagic nutrient concentrations by benthic remineralisation, and (3) stoichiometry of phytoplankton together with the production of dissolved organic matter. The research activity will be strongly embedded into two projects (EU-FP7: EPOCA; DFG-research group BioGeoChemistry of the Wadden Sea)

**2) Ecological Modelling (PhD):** A PhD studentship is available for candidates with background in biology and mathematical modelling. The main objective of this PhD study is to understand the adaptive response of aquatic food-webs to climate change, particularly in relation to spring bloom phenomena. The PhD student will use a model which integrates primary production, adaptation in cell size and algal stoichiometry and zooplankton grazing. The model will be applied to recent mesocosm experiments investigating the impact of climate variability (temperature, light) on aquatic ecosystems. The topic is part of the DFG-funded AQUASHIFT project.

The department of ecosystem modelling, at the Institute for Coastal Research, hosts an interdisciplinary and highly motivated group of researchers, comprising 6 scientists and 7 PhD students ([coast.gkss.de/ecomod](http://coast.gkss.de/ecomod)). The group is actively involved in a number of national and international projects.

*Requirements:* Applicants with experience in environmental sciences, oceanography, biology, physics or in other related fields are encouraged to apply. A strong background in modelling and programming, as well as working knowledge in marine ecology and biogeochemistry are also desirable.

Physically handicapped persons will be favoured if they are equally qualified. The GKSS strongly supports equal opportunities.

A Curriculum Vitae (CV) together with a statement of research and two references (address) should be sent by **April 30, 2008** (late applicants will be considered until the positions are filled) using the code "KO5" (postdoc) and "KO4" (PhD) to GKSS-Research Centre, Personalabteilung, Max-Planck-Str.1, 21502 Geesthacht, Germany. Or via email to [personal@gkss.de](mailto:personal@gkss.de).

For further details, please **contact**:

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