



18-month PostDoc “End-to-end Marine Ecosystem Modelling”

JOB DESCRIPTION

Title : Impact of climate change and ocean acidification on end-to-end marine ecosystems

Location: LSCE, Gif sur Yvette, France.

Team: Marine biogeochemistry and climate team

Type of contract: 18 months post-doctoral position funded by French National Research Agency

Compensation: Annual salary from 28k to 42 k euros depending on past experience

Start date: When position filled

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Dead line for application: send CV and letter of motivation before 15 February 2011.

PROJECT DESCRIPTION

The main objective of MACROES is to better understand and predict the end-to-end dynamics of marine ecosystems in a context of generalized overfishing and planetary environmental changes (climate change, acidification, ...) by integrating the complex synergies and feedbacks (« top-down » and « bottom-up ») which propagate through the oceanic earth system. The project gives particular emphasis to tuna and the associated fisheries, as they represent the dominant exploited species in the global open ocean both in terms of the volume and the spatial coverage of the catch.

TASKS

The post-doctoral research fellow will be using the newly developed coupled model of marine ecosystems (NEMO-PISCES-APECOSM) in the IPSL-Earth-System Model. He/She will be in charge of carrying out and analysing a suite of simulations over the historical period and the 21st century, in which anthropogenic climate change, ocean acidification and overfishing will be considered. He/She will evaluate how changes in ocean physics and chemistry propagate through trophic food web up to specific focus species and marine resources. The role of the top-down control from higher to lower trophic levels in the context of a changing environment will also be investigated. The successful candidate is expected to interact with several research groups in France (LPO-Brest, EME-Sète) but also in South Africa (Cape Town University).

REQUIREMENTS

Level: PhD in climate sciences, biogeochemistry or marine biology.

Necessary skills: data analysis

Desired skills: climate, biochemistry or marine ecosystem modelling

WORKING ENVIRONMENT

Computing environment: local linux servers, computing centre, data in NetCDF format.

Programming: fortran 90, shell,...