Post-doctoral opportunity in Numerical Ecology

The University of Nantes and Ifremer seek highly motivated candidates for a postdoctoral fellowship in **numerical ecology** for twelve months.

The successful candidate will join the project COSELMAR (Understanding of coastal and marine socio-ecosystems to improve marine resources valorization, prevention and risk management) funded by the "Région Pays de la Loire".

In this project, we aim to investigate the role of microalgae in the functioning of intertidal mudflats, especially the spatial aspects of its distribution and its interaction with the local benthic biodiversity. Specific objectives are to (1) estimate the relative contribution of the structuring factors to the microphytobenthos-related assemblages in the Bay of Bourgneuf; (2) assess the spatial and trophic interactions between microphytobenthos and infauna associated with muddy habitat surrounding oyster reefs, and (3) study the multiscale spatial interactions among the different benthic compartments (microphytobenthos, macrofauna, meiofauna, foraminifera, shorebirds).

The study site is located in the Bay of Bourgneuf, a large bay located in the North-East Atlantic sea, where two main sources of nutrient inputs occur: mineral inputs from watershed and organic inputs from the wild and cultivated oysters and the various species of shorebirds. The types of spatialized quantitative data collected are (1) microphytobenthic signal intensity (field and remote sensing data), (2) abundance and biomass estimates of macrofauna, (3) isotopic composition (13C and 15N, %C, %N) in main structuring benthic compartments. All data are available on a BACI-approach timeline (i.e. seasonal variations before and after oyster reef removal).

The selected candidate will compile and analyze the various sets of data to highlight the spatial interactions between the different ecological compartments and produce maps of spatial and temporal distribution of the different ecological compartments.

Candidates must
- hold a PhD in ecology or in a relevant related field
- have strong skills in data analysis and R programming language
- be familiar with geostatistics or spatial analyses
- have proven experience publishing in peer-reviewed journals
- possess experience of research collaborations

The position will be based at the University of Nantes. The candidate will work directly with Dr. Bruno Cognie and in strong collaboration with Dr. Anik Brind'Amour

Starting date: January 2015 (negotiable)
Funding for this position is available for one year.

Applicants should submit a curriculum vitae, the names and contact information for 3 references and a brief statement of research interests and skills as a single pdf document to Dr. Anik Brind'Amour (Anik.Brindamour@ifremer.fr)
Deadline: opened until filled