Beaufort Senior Research Fellowship
Developing marine community models for sustainable management of marine fisheries in Western Europe.

Applications are invited for a three and a half year Senior Research Fellowship in mathematical / computational marine ecology in support of the Ecosystem Approach to Fisheries Management, funded by the Government of Ireland; based at **Queen's University Belfast**, School of Biological Sciences.

Background: The EU has called for an ecosystems approach to fisheries management. This requires new fisheries models to underpin management decisions, but sets substantial challenges for fisheries science. We are developing community size-spectrum methods (using size-abundance data) and complex system food-web models as well as community level indicators to help understand the effect of exploitation and environmental change on whole life-histories and whole communities of marine organisms. We now aim to build on these developments, taking account of spatial variation and practical contributions to understanding Good Environmental Status (e.g. for the EU Marine Strategy Framework).

Project: Based in Belfast, we will develop and apply multi-species size-structured models of Western European sea areas and evaluate them. These will be extended to include spatial elements and used to develop new indicators of ecological health and function in exploited marine systems and to develop ecosystem-based fisheries advice. Much of the planned work will be highly innovative and often mathematically or computationally challenging. The Senior Research Fellow will work closely with colleagues and research students in Queen's University Belfast, the Irish Marine Institute and CEFAS in England and DTU in Denmark (some time spent in other countries is possible), and be an important part of the Beaufort research team. They should also maintain and develop their own international collaborations and take opportunities to secure new research funding. They will have a rôle in supervising one or more PhD students. (*See http://www.beaufort-eafm.eu/ for further background*).

Candidate: Applicants should have a PhD degree or equivalent in a mathematical subject (physics, maths, mathematical biology or mathematical computation) and professional experience of research, with strong theoretical or mathematical modelling publications as well as an established interest in fisheries management. Experience of fisheries science or quantitative marine ecology will be an advantage as will experience of project and research student management. Expertise with at least one mathematical modelling language such as Matlab, Mathematica, or R is essential. Ability to communicate in English is essential.

Starting Salary: £ 37,990 per annum.

Closing Date: Monday 16th January 2012. It is anticipated that interviews for the position will be held week commencing 30th January 2012