

Coleg Gwyddorau Naturiol
Prifysgol Bangor
Adeilad Coffa
Bangor, Gwynedd
LL57 2UW, UK

Ffôn: +44 (0)1248 382603
Ffacs: +44 (0)1248 370731
<http://www.cns.bangor.ac.uk>

Athro S.J. Hawkins, D.Sc
Athro Gwyddorau Naturiol, Pennaeth yr Coleg
E-bost: s.hawkins@bangor.ac.uk



College of Natural Sciences
Bangor University
Memorial Building
Bangor, Gwynedd
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Tel: +44 (0)1248 382603
Fax: +44 (0) 1248 370731
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Professor S.J. Hawkins, D.Sc
Professor of Natural Sciences, Head of College
E-mail: s.hawkins@bangor.ac.uk

POGO Visiting Professorship 2009.

Climate Change and the Biodiversity and Functioning of Nearshore and Coastal Ecosystems **Professor S J Hawkins, Bangor University, School of Ocean Sciences**

An integrated combination of formal lectures, workshops, fieldwork and research activities provided training and helped establish observations and time series allowed students to explore field and theoretical techniques for the study of climate change separating it from local and regional processes.

During the course, several NF-POGO priorities were explored in the context of climate change and the relationship between biodiversity and ecosystem functioning: fixed point time-series observations, large-scale observations of biodiversity, emerging approaches for ocean observations, data management, coastal observations, coastal zone management and modelling future states in the coastal zone.

In the first week, 15th to 20th February, I gave the students formal lectures during the morning and finished each of the lectures with a discussion. In the afternoon, the students were asked to prepare presentations about the topic. They chose an article and they presented it to the rest of them. The examples were mainly marine but also terrestrial or freshwater. It is important to say that the presentations were very good quality.

During the second week, 23th to 25th the fieldwork was focused on training in monitoring techniques and establishing time-series studies. The fieldwork was done partially because of the harsh weather conditions with strong winds and swell. Between tides, students gave 20 minute seminars on their PhD research.

The course lasted in total 35 theory hours and 21 practical and seminars hours. 23 PhD candidates took the course. During all the course, Dr. Gabriela Palomo collaborated with the lectures and seminars. During the field work, Professor JJ Cruz Motta participated on the seminars and discussions.

During the third week, from 25th February to 3rd March, we did a field trip to Puerto Madryn (1000 km to the south). We met several researchers in the trip; we visit six rocky shores along the coast, collecting data on presence and abundance of species. We discuss about two main collaborations. One involves a biogeographical study of the rocky shores. The hypothesis to be tested is that there is an inverse latitudinal gradient on the coast of Argentina. For testing this hypothesis we plan to collect data from the collection of marine invertebrates of the Museo Argentino de Ciencias Naturales, Buenos Aires City and Museo de Ciencias Naturales de La Plata and from a field trip that involves the Argentinean coast (from Buenos Aires Province to Tierra del Fuego). This collaborative project will be coordinated by Dr. Gabriela Palomo, Dr. Gregorio Bigatti and Prof. Steve Hawkins. The second collaboration is to organize a workshop involving the experts on marine invertebrates and algae taxonomists of Argentina and other South American countries to generate a complete species list and a field guide from the Argentinian rocky intertidals. During the field trip that we did along 1700 km of coast we realized that there is an urgent need of meeting all the information that there is in each lab. A field guide about species in the coast, is essential for marine ecologists working in

assemblages. Most of the field guides are from mollusks or crustaceans. The workshop would produce a general field guide of the species that compose the rocky intertidal assemblages.

The three weeks experience in Argentina was very interesting for me, since I can also explore the Welsh speaking dimension in Patagonia and cultural links with Bangor University.

A handwritten signature in black ink, appearing to read 'S. Hawkins', written in a cursive style.

Professor Steve Hawkins