15 maggio ore 14:00, presso Scienze Ambientali sede ITAS, Via Dell'Agricoltura 5, Ravenna

Lecture: **Consequences of biodiversity changes for ecosystem functioning: combining long-term observations, experiments and modelling.**

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Abstract
S.J. Hawkins, N. Mieszkowska, P.J. Moore, E. Poloczanka, A.J. Southward, M.T. Burrows.
Marine ecosystems are responding to climate change. Major shifts in the distribution of plankton, fish and intertidal species have been recorded in recent years. Examples are given from work by The Sir Alistair Hardy Foundation for Ocean Science (CPR survey) in the N.E. Atlantic and The Marine Biological Association focussing on the English Channel. Integration of these long-term studies demonstrate the value of intertidal organisms cheaply surveyed indicators of changes offshore. On rocky shores the extent of poleward movement is idiosyncratic and dependant upon life history characteristics, dispersal capabilities and habitat requirements. Models have been developed to predicting likely assemblage composition based on future environmental scenarios. We take quantitative and qualitative forecasts to explore the functional consequences of changes in differences in identity and species richness of gastropod grazers and foundation species such as barnacles for ecosystem functioning. The balance of primary producers and secondary consumers and import and export of production from shores is predicted to change along wave action gradients and with latitude in a warming world.

CV
After obtaining his PhD in Rocky Shore Ecology (1979) at Port Erin Marine Laboratory, University of Liverpool, Steve Hawkins has worked for several years as Lecturer and Professor in various Universities and research centres in the UK. He was the director of the Marine Biological Association (MBA) of UK, in Plymouth from 1999 to 2007, and he is now Head of College of Natural Sciences at Bangor University, Bangor, UK. Steve has published 3 books, edited 1 book, and published > 200 peer reviewed papers, reports & conference proceedings and > 50 Contract Reports. His research interests include: Experimental coastal community ecology, behavioural ecology of grazers, taxonomy and phylogeography of patellids, cirripedes, trochids. Biodiversity and coastal ecosystem functioning; Long term studies of biodiversity in relation to climate using rocky-shore indicators; long-term time series on plankton and fish to separate the effects of climate and fishing; Comparing community processes on rocky shores throughout Europe using similar experimental designs; Ecology and design of sea defences; Restoration of degraded ecosystems, shellfisheries, impacts of scallop dredging on benthos, recovery of polluted shores and estuaries.