Risk, politics, and science: a new approach to UK marine biodiversity monitoring.

Karen E. Webb[1] & Hayley Hinchen[1]

[1]Joint Nature Conservation Committee, Peterborough, Cambridgeshire, U.K.

Corresponding Author: Karen E. Webb

Email address: karen.webb@jncc.gov.uk

Abstract

The UK recognises the importance of understanding marine ecosystems and biodiversity to achieve its ambition of 'clean, healthy, safe and biologically diverse seas'. Yet comprehensive UK marine monitoring presents a considerable challenge in terms of the resources required. The Joint Nature Conservation Committee has led the development of an ambitious framework for marine monitoring that will integrate the different components of biodiversity together, and with other marine monitoring. This has required a range of work from novel science to developing monitoring indicators and survey methods. It also seeks efficiency savings through, practical integration of survey time on vessels, and access to new data e.g., satellites.

Our approach uses risk to inform resource allocation by utilising human activities data and the interactions with biodiversity to create risk models and determine survey priorities. This is achieved by engaging scientists and policy makers to develop monitoring options for different biodiversity components (i.e., benthic habitats, cetaceans, seals, seabirds, fish, cephalopods and plankton). This process will allow policy makers to successfully conclude on the level of resourcing required for marine monitoring, that reflects the risk to biodiversity and the public's concerns for the marine environment, and fulfils our national and international legislative obligations.

Key Words: Marine Monitoring, Policy, Management, Risk