



Integrating marine biogeochemistry models with socio-economic information: bridging research and human needs for effective ocean prediction systems

Models of marine biogeochemistry and plankton dynamics have been evolving since Mike Fasham's pioneering work in the 1990s and are an important part of present-day global ocean prediction systems. With high enough spatial resolution, these models offer significant regional realism, often eliminating the need for resource-intensive creation of dedicated regional models. And this success extends to coupling with fisheries models. However, the evolving climate challenges and diverse human interactions with the marine environment call for greater efforts to expand their use into the human dimensions of coupled socio-oceanographic systems. This presentation explores approaches to impact modelling. This includes integrating traditional global ocean dynamics and biogeochemistry models together with societal aspects, and building linkages that improve the usability of these models across these diverse human activities. The discussion encompasses various strategies for coupling models to human aspects and aims to bridge the gap between marine science and societal needs. Ultimately, so that our models can provide critical information for effective risk management in the face of evolving global challenges.

E.Popova, Z.Jacobs, A.Loveridge, A.Yool (National Oceanography Centre, UK)