THE UNIVERSITY of York

Degree Examination 2005

ENVIRONMENT DEPARTMENT

MSc in Environmental Economics
MSc in Environmental Economics and Environmental Management
MRes in Environmental Economics

MARINE ECOSYSTEM MANAGEMENT

Time allowed: **two hours**

Answer **ANY TWO** questions
All questions are equally weighted

Pay adequate attention to spelling, punctuation and grammar, so that your answers can be readily understood

1. Why is connectivity, that is the dispersal and transport of eggs and larvae of marine organisms from place to place by ocean currents, important to the function and design of marine reserves?

2. Models used in the management of marine fish stocks rarely include parameters describing fish behaviour, nor are they usually spatially explicit, and nor do they typically include parameters such as habitat availability or condition, or the abundance of predators or competitors of the species under consideration. Discuss how these simplifying assumptions can affect the ability of these models to provide reliable management advice.

3. Marine reserves – that is places that are off limits to all fishing – are predicted to benefit fisheries. Discuss the evidence for their effects on fisheries and explore reasons why marine reserves are controversial with the fishing industry?

4. At the world summit on sustainable development in 2002, coastal nations of the world agreed to establish national networks of marine protected areas by 2012. A year later, the World Parks Congress recommended that such networks should protect 20-30% of the sea from all fishing. Are such extensive networks really necessary?