

2580017

THE UNIVERSITY *of York*

Degree Examination 2004

**ENVIRONMENT DEPARTMENT**

**MSc in Environmental Economics**

**MSc in Environmental Economics and Environmental Management**

**MRes in Ecology and Environmental Management**

**MARINE ECOSYSTEM MANAGEMENT**

Time allowed: **two hours**

Answer **TWO** questions out of **FOUR**

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

- 1 Discuss why catch quotas have failed to achieve sustainability in most European fisheries.
- 2 You are appointed as advisor on fisheries management to the President of Wongelau, a small island nation in the Pacific Ocean. The country has very limited resources for fishery management. The population relies heavily on marine resources for food and income. For the last ten years, catches have been in decline. Explain and justify the advice you would give to the President on how to improve management of the coral reef associated fishery.
- 3 Describe, using examples, the effects of fishing on marine habitats, including in your answer reference to a variety of fishing methods and habitats. Discuss factors affecting the resilience of habitats to fishing disturbance.
- 4 Explain why the size and spacing of marine reserves (areas that are permanently off limits to all fishing) are important to the performance of both individual reserves and reserve networks. In your answer, discuss factors that affect how large individual reserves should be and what the overall coverage of reserves should be within a network (i.e. the fraction of the management area included in marine reserves).