

Title: **Evaluation of Recovery Plans Based on A Rational Expectation Model:  
An Application to the Southern Hake Fishery**

Authors: José-María Da-Rocha, University of Vigo (Spain)  
Angel Calvo (Belgium)

Abstract: Bio-economic models are increasingly used to provide scientific advice in fisheries management integrating both biological and socio-economic considerations. In this context it becomes important to evaluate how different recovery scenarios will influence the future situation for the fishing fleets, particularly through the investment/disinvestment decisions of fishing capacity.

In this paper, we build a rational expectation model to evaluate a recovery plan. To illustrate the model an example has been constructed for the Southern Hake fishery. Optimal control techniques are used to estimate fishing mortality paths in order to reach the recovery plan goals. We compare two different performance measures which correspond to: i) the current recovery plan with ; ii) maximizing the net present profits subject to economic and social constraints