Managing ecosystems of the high seas of the Southern Ocean practicing consensus-based decision-making

Jessica Nilsson, Marcus Haward, Elizabeth Fulton & Craig Johnson

Jessica Nilsson: University of Tasmania, Institute for Marine & Antarctic Studies, Private Bag 49, Hobart, TAS, 7001, Australia and CSIRO Marin Research, GPO Box 1538, Hobart, Tasmania, 7001, Australia, jessica.nilsson@csiro.au. Marcus Haward and Craig Johnson: University of Tasmania, Marine, Institute for Marine & Antarctic Studies. Elizabeth Fulton: CSIRO Marine Research.

Summary

Managing marine ecosystems involves considering a large number of variables. CCAMLR is globally acknowledged as successfully executing ecosystem-based management in the high seas surrounding Antarctica and for practicing rational use of the living marine resources. The Commission for the Conservation of Antarctic Marine Living Resources has addressed the problems of IUU fishing and of sea bird by-catch by adopting a range of conservation measures. The implementation of these measures have resulted in a significant decrease in IUU fishing and a close to zero seabird by-catch rate. In each of these examples CCAMLR's consensus-based decision-making process has been a central element in shaping outcomes.

Introduction

For over 30 years the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), an intergovernmental organization, has been managing the marine living resources in the Southern Ocean (excepting whales and seals). CCAMLR was the first fishery organisation to address IUU fishing; the term was developed from within CCAMLR (Haward, Jabour, & Press, 2012), with CCAMLR Members moving the item to the FAO and to wider attention. In the 1990s (based on IUU vessel sightings by legal fishing vessels) it was estimated that the actual catch was six times bigger than what was reported by authorized vessels (CCAMLR, 2013a). CCAMLR responded by adopting specific Conservation Measures to manage IUU fishing. Similarly, CCAMLR also adopted a range of conservation measures in 1991 in response to the increasingly documented seabird by-catch. For the Commission to adopt measures, all its 25 Members have to agree, as it practices consensus-based management.

We argue that notwithstanding these challenges CCAMLR provides a model governance regime for contemporary marine resources management and the lessons learned in the development of this regime have broad application for other fisheries and regions (Willock & Lack, 2006). This presentation reviews some of CCAMLR's achievements in addressing its core objectives around sustainable marine ecological systems in the Antarctic, using publically available data.

Results and discussion

Although still a concern, the IUU challenge appears to have been largely managed (fig. 1), due to a number of implemented conservation measures: IUU sighting reports; IUU vessel lists; recovery of IUU fishing gear; port and at sea inspections; a Catch Documentation Scheme for toothfish, which tracks catches from landing throughout the whole trade cycle; a compulsory Vessel Monitoring System on all

vessels fishing in the CCAMLR-managed area, and support for Member states surveillance and prosecution of IUU activities (CCAMLR, 2013a).

After adopting a range of conservation measures to combat seabird by-catch the recorded seabird by-catch dropped from some 6,600 birds in 1997 to close to zero in 2012 (fig. 2) (SC-CAMLR, 1997, 2012).

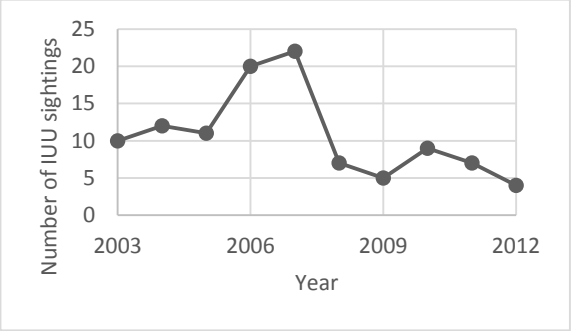

Figure 1: Number of IUU vessel Sightings Reported to CCAMLR (CCAMLR, 2013b).

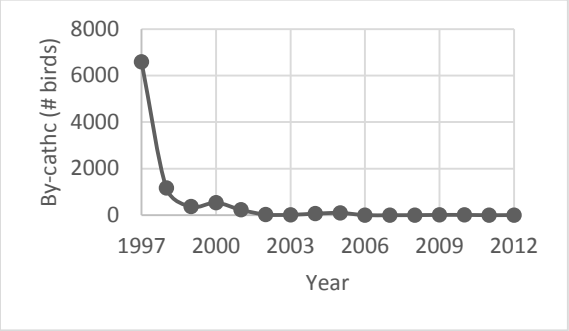

Figure 2: Incidental seabird by-catch mortality in the CCAMLR Area (CCAMLR, 2012).

Managing marine ecosystems involves considering a large number of variables. CCAMLR is globally acknowledged as successfully executing ecosystem-based management in the high seas surrounding Antarctica and for practicing rational use of the living marine resources (Willock & Lack, 2006). Praise is however tempered by the fear that should the Commission fail to continue its commitment to ecosystem based management, it will be yet another Regional Fisheries Management Organisation, more focused on fishing than on ecosystem health. An EBM approach needs sufficient supporting data. It is likely that the effect of fishing pressure on seabirds may not have been detected were it not for several seabirds being indicator species in CCAMLR's Ecosystem Monitoring Program (CEMP).

CCAMLR and the world is changing. Whether CCAMLR continues to be a successful organisation committed to science and implementing conservation measures remains to be seen. Its failure to agree on the implementation of Marine Protected Areas during three Commission meetings could be seen as a warning sign that the organisation's overall commitment to marine conservation is fading, or it could just be a manifestation of the time consuming processes that are a part of international politics. Either way it holds many lessons for those looking to implement EBM on global scales.

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