Comparisons of Ecological Knowledge About Fish Stocks Among Fishermen, Fishery Managers, and Biologists in the South Atlantic

Author
Hamilton, Melanie

Abstract
The world's fishery resources are becoming depleted, threatening some commercial species with extinction. The Magnuson-Stevens Conservation and Management Act has been controversial with fishermen because of disagreements over stock assessments of fish. Fishermen argue that some fish stocks are still plentiful, and that the fishing regulations are too inflexible. Through interviews and surveys, I assess the perceptions of stock assessments of fishermen in North Carolina, and compare their Traditional Ecological Knowledge (TEK) with the Scientific Ecological Knowledge (SEK) of biologists. The knowledge gained from this study could help resolve this conflict between fishermen and biologists.

URI
http://hdl.handle.net/10342/3741

Subject
Cultural anthropology; Environmental management; Anthropology; Fishery management; South Atlantic; Traditional ecological knowledge

Date
2011

Citation:
APA:
Failure to integrate fishermen's knowledge about ecological processes into management decisions has, in some cases, meant that key insights about fishery resources were missed, resulting in unwanted management outcomes (Finlayson 1994, Johannes et al. 2000). For example, work by Ames (2004) used data gathered through interviews with retired groundfish fishermen to identify discrete subpopulations of cod in the Gulf of Maine with distinct migration corridors and spawning grounds. We use a multilevel network approach to explore the heterogeneity in LEK among fishermen in the eastern Gulf of Maine. Specifically, we analyze cognitive maps of the ecosystem structure and dynamics described by fishermen during in-depth, open-ended interviews. European sardines are an important fishing resource in the North Atlantic. Recognized for its great commercial and economic value in southern Europe, this resource currently has low stock indices. From this perspective, fishers' local ecological knowledge (LEK) is appreciated as an auxiliary tool in the management of sardines in this region. Our goal is to evaluate the LEK and attitudes towards the conservation of Sardina pilchardus in the typical fishing village of Peniche, Portugal. From June to September 2016, we carried out 87 semi-structured interviews. The fishermen of Peniche in Portugal present moderate informal knowledge about the biology and ecology of sardines. Attitudes towards conservation were predominantly positive.