

Searching down the fisheries information web: An initial reflection

Janet Webster

Hatfield Marine Science Center, Oregon State University, United States

Patricia Merrikin and Jean Collins

Food and Agriculture Organization of the United Nations, Italy

Abstract

The complex web of information ranges from pure science to applied techniques to management policies. All are important, yet have varying levels of accessibility and authority. Often the apex of the peer-reviewed journal article is considered the most important level discouraging scientists and managers, especially those in developing countries, from populating the other layers of the web that may be considered grey. We are particularly interested in how information produced in developing countries fits into this information web. To do so, we focused on one topic, mangroves, using it as a means to exemplify the complexity of the web of information and reveal publication patterns. Using search tools, we identified 2000-2005 mangrove-related publications regarding Africa and India, analyzed them by author's location and affiliation, publication format and availability. Our preliminary analysis suggests that grey literature remains difficult to discover, the peer-reviewed journal is the most popular means of scientific communication, and open archives are just starting to have an impact on scholarly communication. The web of information would be strengthened by improving the discovery of the grey literature through greater visibility and accessibility

Introduction

Fishing down the marine food web is an influential concept proposed by Pauly et al. (Pauly and others 1998) to describe the pattern where high trophic level fish species are over-exploited thus disturbing the ecology and economics of the system. Essington et al. (Essington and others 2006) suggests that fishing *through* the food web may better describe the situation as more trophic levels are exploited leading to a greater complexity in fisheries management than simply over-fishing. We contend that the two concepts have analogies in the complex web of information that ranges from pure science to applied techniques to management policies. All are important, yet have varying levels of accessibility and authority. Often the apex of the peer-reviewed journal article is considered the most important level discouraging scientists and managers, especially those in developing countries, from populating the other layers of the web that may be considered grey.

Grey literature tends to be at the bottom of the information web in part because it is hard to identify and access, particularly in the increasingly digital environment. It also sinks because it is not recognized as valuable given peer pressure on people to publish in the commercial journals. Consequently, relevant information is easily overlooked and underutilized especially if it originates in a developing country. This phenomenon may devalue the work of scientists and managers in developing countries, slowing responsible management of the natural environment and its valuable resources. If information is difficult for the end user to find or access, it tends not to be used as readily (Jansen and others 2000). For those involved with collecting or monitoring grey literature, this issue is familiar. Even so, increased documentation is useful for building the case for better indexing and improved discovery tools.

We initiated the following study to test our thesis that the grey literature of fisheries needs to be more visible so it can be more viable in the information web. Researchers and managers use discovery tools that are familiar and readily available. Some of these tools are well established with sophisticated indexing and defined sources (e.g. *CAB* and *Biosis*). Others are emerging as useful tools (e.g. *GoogleScholar*). Comparing results produced using a range of current tools is one way to document what information is visible and accessible, who creates it and where it is published. It also allows some consideration of trends in coverage, although this would take more longitudinal work. This progress report on our study suggests ways to improve visibility and accessibility of the fisheries grey literature.

Approach and Methodology

In the study, we focused on information produced on mangroves in Africa and India. Mangroves are productive ecosystems for a variety of natural resources including fisheries. We originally thought to narrow our topic further by limiting mangrove information to that addressing fisheries or aquaculture, but this resulted in very small or null sets in most of the indexes used. Africa and India were chosen as geographic limiters for several reasons: they differ in their development of a scientific community; they are working on developing responsible fisheries management; and mangroves are significant habitats in each area. We also limited our searches to the time period of 2000-2005 in part to keep the results manageable, but also to see if the open access movement was having an impact on access to the literature.