

The series consists of ten modules covering the background, current status, causes for decline, management approaches and anticipated future of this vital resource. Below are the titles and descriptions of the modules included in the *NCSR Marine Fisheries Series*. All modules include a *PowerPoint* presentation as well as extensive instructor notes. The marine fisheries modules are most appropriate for inclusion in undergraduate courses such as *Environmental Science, Introduction to Natural Resources, Marine Biology, Introduction to Fisheries and Fisheries Management*. Parts of the modules also have application in courses with a broader scope such as *General Ecology and General Biology*. See inside panel for information about accessing these modules.

### **MARINE FISHERIES OVERVIEW**

A lecture-based module presenting an overview of issues related to marine fisheries resources. It covers the state of marine fisheries, causes for declines of marine fish stocks, the implications of fishery declines for marine communities and ecosystems and fishery management practices. 73 pages.

### **MARINE FISHERIES – INTRODUCTION AND STATUS**

A lecture-based module presenting a detailed examination of the nature of marine fisheries and their status as natural resources. 76 pages.

### **MARINE FISHERIES – CAUSES FOR DECLINE AND IMPACTS**

A lecture-based module presenting a detailed examination of the causes for the decline of marine fisheries and the community- and ecosystem-level impacts of these declines. 84 pages.

### **MARINE FISHERIES – MANAGEMENT AND PROPOSED SOLUTIONS**

A lecture-based module presenting a detailed examination of traditional, market-based and ecosystem-based approaches to marine fisheries management. 105 pages.

### **DECLINING EXPECTATIONS – THE PHENOMENON OF SHIFTING BASELINES**

An instructional guide designed to provide instructors with lecture support on the concept of shifting baselines and its application to marine fisheries. Shifting baselines are defined and their contribution to fishery declines discussed. Various methods that are used to establish historical baselines are described and illustrated with case studies. 38 pages.

### **SHRIMP FARMING – ENVIRONMENTAL AND SOCIAL IMPACTS**

An evaluation of the environmental and social impacts of shrimp aquaculture. 20 pages.

### **WHERE DOES YOUR SEAFOOD COME FROM?**

An activity designed to evaluate the sustainability of locally available seafood. 42 pages

### **THE ROLE OF MARINE RESERVES IN ECOSYSTEM-BASED FISHERIES MANAGEMENT**

A lecture-based module presenting the role of marine reserves including the implementation of marine reserve networks in ecosystem-based fishery management. 59 pages.

### **COMPREHENSIVE RESOURCES FOR NCSR MARINE FISHERIES SERIES**

This document provides detailed summaries for six videos that examine various aspects of the marine fisheries issue, a comprehensive glossary of terms commonly used in marine fisheries and a complete set of citations of web, print and additional video resources. 77 pages.

### **THE DECLINE OF ATLANTIC COD – A CASE STUDY**

This module provides materials for a comprehensive examination of the decline of the Atlantic cod and brief descriptions of other fisheries for developing case studies. 87 pages.



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## Accessing our Products

These modules are available free-of-charge from our website. To access these modules or any other NCSR products for use in your courses, please go to our website at:

[www.ncsr.org/regsurvey.html](http://www.ncsr.org/regsurvey.html)

Complete the registration form and check the appropriate boxes for downloading or ordering printed copies. If you are downloading the modules, be sure to check both the box for the module and the *PowerPoint* to get the complete product.

## About NCSR

NCSR is a National Resource Center focused on creating, disseminating, and supporting adaptation of natural resource curriculum materials. These materials feature topics including environmental monitoring, habitat preservation and restoration, and other related skills woven within the context of managing complex ecosystems.

**Curriculum development:** With support from its partners, NCSR develops state of the art educational materials to support teaching. Our curriculum emphasizes:

- Scientific principles of ecosystem management
- Managing ecosystems over appropriate temporal and spatial scales
- Higher levels of math, science, and technology
- Secondary education programs using a community-based approach to science and natural resources.

**Professional development institutes:** Field and lab-based experiences covering environmental and natural resource topics are offered for high-school and college educators.

**Dissemination:** NCSR educational materials are available for order or download through the Center's website.

### About the Author

Wynn Cudmore has been a member of Chemeketa Community College's Life Science faculty since 1985. Wynn has a

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# Marine Fisheries Curriculum

**Marine Fisheries Overview**

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