

Category: Geographic Information Systems/Oceanography



CD-ROM included

# UNDERSEA WITH GIS

The oceans of earth—71 percent of its surface—are in many ways still *terra incognita*, as mysterious as they were five hundred years ago, when it was thought ships heading too far into the Atlantic would plunge over a great cataract into blackness. But modern technology is illuminating the unknown oceans as never before, making possible detailed mapping of undersea mountains and valleys, and even the constantly moving water itself. Geographic information systems (GIS) technology is the engine at the heart of this digital revelation.

*Undersea with GIS* explores three broad aspects of new marine and oceanographic studies now possible: mapping and visualization, charting, and Internet access. Topics included in this collection include real-time interpretation of seafloor survey data; the use of GIS in managing protected underwater sanctuaries; tracking tuna and whale migration; recent advances in the development of a 3-D electronic navigational chart; and submarine cable data management.

The companion CD brings the underwater world to life for both the undersea practitioner and student. Included are 3-D underwater flythroughs, ArcView® GIS extensions for marine applications, a K–12 lesson plan, and other supplemental material.

With a foreword by the National Geographic Society's Explorer-in-Residence, Sylvia Earle, and featuring the work of pioneering Ocean GIS researchers from around the world, *Undersea with GIS* is a comprehensive and detailed introduction to a new era in the exploration of earth's final frontier.



The bonus CD included with this book runs on both Apple® Macintosh® and Microsoft® Windows® platforms. It contains additional resources for marine GIS applications, including third-party ArcView GIS extensions, academic papers, video presentations, and a copy of the latest version of ArcExplorer™ software, the most widely used geographic data viewer.

Dawn J. Wright is associate professor of geography in the Department of Geosciences at Oregon State University.

Royalties from *Undersea with GIS* will be donated to the Surfrider Foundation and to the Oregon State University Diversity Internship Program in Marine Sciences.

Dawn J. Wright

\$24.95 Printed in the USA  
87484-87481 DOME5M2/02ai



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Foreword by Sylvia Earle