GIS/Spatial Analyses in Fishery and Aquatic Sciences
Appendix F. Book Reviews (733-735)

Appendix F. Book Reviews

MICHAEL D. PORTER, CERTIFIED FISHERIES PROFESSIONAL, US BUREAU OF RECLAMATION (USA)

This symposium provides a foundation for the innovative application of spatial analysis to fisheries research and management. The chapters illustrate the use of GIS for complex habitat modeling in freshwater and marine ecosystems. This is an essential book for fisheries practitioners.

LISA HENDRICKSON, RESEARCH FISHERY BIOLOGIST, NATIONAL MARINE FISHERIES SERVICE (USA)

I frequently use GIS as an analytical tool to produce maps and to conduct quantitative spatial analyses of marine populations and fisheries data. This book is a compilation of papers describing the latest developments in GIS software applications and spatial analytical methods for world fisheries and aquatic research. This book shows how geo-referenced marine fisheries and aquatic data can be used in various types of GIS software to map habitats, assess population dynamics, track fishing fleet behavior, utilize oceanographic satellite imagery, and more. I highly recommend this book as a hands-on resource for anyone involved in the fields of fisheries and aquatic sciences.

SANJEEV KUMAR SRIVASTAVA, PHD SCHOLAR, AUSTRALIAN NATIONAL UNIVERSITY (AUSTRALIA)

While researching the distribution of fish at both macro and micro levels, I have needed a book containing illustrations of different work carried out by applying spatial techniques to fish. Such application has always been a challenging task, particularly for freshwater fish where geographical information science is still evolving. The publication of this book provides insights into several approaches that could be used to overcome such constraints. One of the main aims of this book is to bring together all of the recent innovations in the field of fishery GIS in one place. The book is therefore a good starting point for all those attempting to use spatial techniques in fisheries. Similarly, this compilation provides different things for different people as it covers such diverse topics as the numerical analysis of fish data, methodological problems, use of marine-aquatic specialized GIS software, and simple mapping of data. Thus, under present circumstances in which more and more free data is becoming

available on fish occurrence, fish distribution, environmental variables, and habitat requirement of fish, this book will fill a long-felt gap and will be extremely useful for all fishery scientists, planners, and entrepreneurs.

UPALI AMARASINGHE, PROFESSOR,
UNIVERSITY OF KELANIYA (SRI LANKA)

In fisheries science, important parameters such as fish growth, survival and stock abundance – which are used to define management strategies – show spatial variations. GIS provides a powerful tool for analysing spatial data. This book, the proceedings of the Second Symposium on GIS/Spatial Analysis in Fisheries and Aquatic Sciences, covers a wide range of habitats including small water bodies such as river basins and reservoirs, and large aquatic habitats. Most of the case studies described in this book provide quantitative applications of GIS and spatial analyses in fisheries and aquatic sciences. As such, this book is useful to students and professionals in fisheries science.

TERUHISA KOMATSU, PROFESSOR,
UNIVERSITY OF TOKYO (JAPAN)

This book contains internationally refereed articles on GIS applications in fisheries research and management from the point of view of education, latest information and usefulness for beginners and experts. It provides both scientists and engineers with an in-depth understanding of fundamental concepts for planning use of GIS/Spatial Analyses in Fishery and Aquatic Sciences. It also presents future methods and developments, and each chapter includes concrete application examples.

RICHARD TAYLOR, SCALLOP FISHERMAN AND GIS USER,
SEA SCALLOP WORKING GROUP (USA)

The participants of this meeting presented a wide variety of approaches to ongoing fisheries-related research from many geographic areas. The diversity of these investigations reinforces the concept that these developing GIS tools are both picks and shovels, useful for mining information, and microscopes needed to resolve and analyze what we see. It is amazing what people from many nations and disciplines can accomplish when they meet in the spirit of learning and respect. I believe that the papers presented here further emphasize the necessity of open access to software, data, and perhaps most importantly, to basic scientific

and mathematical education. All of these are needed if we are going to be able to describe and address the problems that are created by the effect of our increasing numbers on the world around us.

CHRIS MATHEWS, CONSULTANT, EU/TACIS PROJECT FOR SUSTAINABLE MANAGEMENT OF CASPIAN FISHERIES (UK)

This book provides many excellent case studies that will stimulate the reader to apply new methods to studying spatial variations in key population and environmental parameters used by fishery managers. It also shows new methods that are readily applicable in data rich environments where large unused or under-utilsed data sets are available, e.g. Bangladesh and the Indian subcontinent, South East Asia and many West Asian and Caspian countries. Coastal Zone managers will find many stimulating ideas that will suggest new cost effective techniques that will be of great help. This book is a sine qua non for any with it fishery manager, and will be of great interest to a much wider audience of biologists who will pick up neat and useful ideas for carrying out their own work.

WILLIAM SEAMAN, PROFESSOR, UNIVERSITY OF FLORIDA (USA)

This volume provides an important compendium of the latest Fishery and Aquatic Science-related applications of Geographic Information Systems practices, and thus meets a variety of advanced technical needs. It also will be valuable in the classroom. The rich diversity of topics covered by the expert authors is especially useful as it relates to the worldwide movement to large-scale Ecosystem Management.