## **BOOK REVIEW**

Fisheries Techniques, third edition. Edited by A. V. Zale, D. L. Parrish, and T. M. Sutton. American Fisheries Society, Bethesda, Maryland. 2012. 1,009 pages. \$104.00 (\$72.80 for American Fisheries Society members).

The new edition of *Fisheries Techniques* has finally arrived. For 30 years, previous versions of this text have functioned as the essential, go-to reference on basic questions regarding fisheries sampling and analysis. Furthermore, the book is frequently deployed as the principal textbook for introductory fisheries courses at universities offering a fisheries science curriculum. Sixteen years have elapsed since the publication of the previous edition, and many chapters were in great need of updating due to technological and conceptual advancements.

Owners of all three editions will immediately notice the growth in the size of the book over time (from 467 pages in 1983 to 732 pages in 1996 and 1,009 pages now). While all of the chapters were completely rewritten, the arrangement of the book is very similar to that of the previous editions, which should provide a level of familiarity for long-time users. Only two chapters were removed ("Sampling with Toxicants" and "Field Examination of Fishes"), and one chapter was added ("Fish Kill Investigation Procedures"). Thus, the type of information in this text has not changed dramatically, but the depth of coverage has.

Readers will probably find the updated and expanded information to be highly useful and timely. Noteworthy changes include the integration of zooplankton into the chapter on fish eggs and larvae and the addition of *plants* to the chapter on invertebrates (this being the oddest marriage of topics in the book). There also appears to be increased emphasis on ecological principles in fisheries (e.g., the chapter on diets is now titled "Diets and Energy Flow"). Freshwater mussel sampling is a welcome addition to this text, as is the inclusion of stable isotope approaches. Cutting-edge underwater imaging technologies. such as ultrasound imaging and dual-frequency imaging sonar are discussed. A list of standard weight equations is included for calculating relative weight data; however, equations published after 2004 were not included. Throughout the book, there appears to be a coordinated increase in the use of photographs and sidebar examples, which are especially welcome changes for teaching purposes.

I had informal conversations with four fisheries scientists regarding the new edition of this book. All remarked that it is an excellent contribution and will be especially valuable for advanced students and younger fisheries professionals. One had already used the book to teach an introductory fisheries course for undergraduates and, not surprisingly, noted the usefulness of the examples for pedagogy. It was also appreciated that the chapter on data management was updated, especially given that the previous edition discussed data storage on outdated technologies like floppy disks. An international scientist suggested that the book is biased toward North American fisheries and ecosystems but that it is still widely applicable. Two scientists commented that marine fisheries, especially coastal marine fisheries, are underrepresented. However, one noted that this is not necessarily a bad thing, as a comprehensive book covering all environments and fishery types would probably be too large and unwieldy to be accessible. All remarked about the length of time that it took for this edition to become available, as many had apparently been waiting for the new edition for years.

Ultimately, this book is simply an outstanding contribution to the fisheries literature, and the editors and chapter authors should be commended for their efforts. The book will probably be owned by almost every serious scientist in the field for years to come. It will also be wonderful to have an updated textbook for introductory fisheries coursework... at least for the next 7–10 years, until the need for a fourth edition arises.

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