



invent a can - opener, until then instructions on the can were to use a hammer and chisel! The development of other kitchen utensils and culinary skills is all well documented in the chapter Fish in the Kitchen.'

The book praises the value of fish as a food supply - the Dutch in particular were well aware that their economic welfare relied on the herring; their paintings clearly illustrate the respect that they held for this fish. The Cornish relied heavily on the mackerel and sardine and in the 19th century British painters produced many significant works of fish markets and boats at sea - a departure from the more numerous still lives.

With the increasing ease of transport, enabling more people to fish further afield and the rising popularity of angling and fishing as a sport, the styles of painting evolved. Freshwater species became more popular as canals, lochs, lakes, rivers and ponds were becoming stocked with game and coarse fish. The author catalogues these developments clearly in the chapters 'Fish in Still Waters' and 'Fish in the River'. Paintings featuring fish were in demand, and they were often depicted laid on a riverbank amongst a pastoral landscape setting with the landowner and family and occasionally fishing tackle. Some of the artists were themselves keen fishermen, a real advantage for the close observation and representation of their subjects.

The book outlines how art has been influenced in modern times by the rapid advances in underwater photography and film-making. Amazing underwater life could be viewed easily, peoples' interest and curiosity were enhanced, and artists had a whole new world opened up to them.

A minor criticism would be that more care and consideration could have been taken with the reproduction of some of the original oil paintings that are somewhat dark and lose some of the impact - this to a degree is understandable and possibly beyond the control of the author.

As an artist printmaker of marine life, myself, I found the book to be a wonderful journey through the ages. I have always felt that you could draw a fish in any shape or colour and you would surely find one somewhere in the oceans.... Fish in Art' does indeed provide a unique perspective on the impact of fishes and the fishing industry on art and will capture the interest of fishermen, natural historians and artists alike.

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Scientific Communication for Natural Resource Professionals

Edited by Cecil A. Jennings, Thomas E. Lauer and Bruce Vondracek, American Fisheries Society, Bethesda, Maryland, USA, 2012.

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Paperback USD 35.00, no UK price. Graphs and figures, 180 pp.

Scientific Communication for Natural Resource Professionals is aimed at improving researchers' scientific writing and overall presentation skills, regardless of the reader's experience. The intention of the editors was to create a replacement to *Writing for Fishery Journals* (Hunter 1990), which has become progressively dated with broadening publishing options, updated presentation technologies and increasing resources available to researchers. Jennings, Lauer and Vondracek include similar, although updated, chapters that focus on topics such as style, figure design and statistical analyses; but also provide a framework for writing manuscripts, as well as guidance on topics such as oral presentations and informal communication. Most of the chapter authors are fisheries professionals, and although the examples provided often incorporate fisheries-derived information, they are presented in a manner that is accessible and relevant to any researcher including students and professionals from many scientific disciplines. Our review of this book was a collaborative effort, by a class of graduate students, to gauge *Scientific Communication's* effectiveness in achieving these goals and its suitability as a graduate or upper-level undergraduate text. We are confident that *Scientific Communication* would be an asset to young researchers eager to improve their writing, as well as a useful refresher for experienced professionals interested in becoming attuned to new techniques.

Chapters 1–5 provided information useful to researchers prior to the writing process. The history of scientific communication is summarized and is followed by a detailed examination of authorship issues; a topic that can be unexpectedly difficult for first-time authors and rarely addressed by courses

or supervisors directly. Chapter 3 provided a guide to the submission process and is one of only a few sections that we found to be overly detailed. Although a list of the author's responsibilities was helpful, the chapter was unnecessarily focused on specific manuscript content, and the relevance of the advice would vary based on individual journal requirements. In the following chapter, the authors provide an exhaustive list on how best to streamline manuscripts to improve clarity. The fifth chapter expanded on a grey literature section from Hunter's volume by providing an in-depth review of the resources available to authors and techniques to evaluate the credibility of the research.

The next five chapters deal with the manuscript writing process. Chapter 6 covered methodology and results writing, a topic we found particularly useful given the tendency for researchers to consider these sections of a manuscript to be the least difficult. Chapter 7 outlined Table and Figure design. The author provided several useful tips, but we felt too much time was spent analysing trends in figure use at the expense of presenting more productive advice, resulting in an unnecessarily long chapter. The eighth chapter aimed to assist the student in transforming a completed dissertation to a publishable form. This information represents another hurdle for students that is rarely discussed, but extremely important to their professional growth and a valuable addition to the book. Chapter 9 was somewhat redundant, guiding readers through the manuscript submission process similar to Chapter 3, but it did provide a detailed description of proper journal selection that we found helpful. The final chapter of this set outlined how to respond to manuscript acceptance or rejection and illuminated what is often a poorly understood process for first-time authors.

Chapters 11–14 contained a medley of topics that shifted from basic manuscript development and submission to presentation and review. Chapter 11 focused on writing review papers, a pertinent topic considering their increasing prevalence in the literature, but one that may be beyond the scope of the book's intended audience. Chapters 12 and 14 targeted communication skills other than published work, including advice on oral presentations, as well as informal interactions such as

emails and phone calls. Clearly, learning how to actively engage audiences outside of peer-reviewed articles is a valuable skill. However, a large proportion of the suggestions in Chapter 14 were self-evident and probably unnecessary. In Chapter 13, the editors included an amusing and beneficial outline of the publication process from a reviewer's perspective. The author clearly explains the reviewers' responsibilities and provides several tips for authors on how best to please them.

Overall, *Scientific Communication* does an excellent job introducing and addressing issues that are commonly faced by natural resource professionals intending to publish their research. Many focal topics are issues that are rarely addressed in courses or by supervisors and graduate committees, but are critically important. We were impressed by the editors' ability to maintain a cohesive flow between often disparate sections (e.g. in-text citations referring to relevant material in other chapters). Our principal criticism was the redundancy in submission and structural advice, but we recognize that controlling overlap is difficult with so many authors and chapters. There were also occasional instances of chapters being burdened with minute details that will only rarely be relevant. Nonetheless, as an introduction to writing and presenting research, *Scientific Communication* is of appropriate length and covered each subject in adequate detail. The book fills a unique niche by introducing and addressing commonly faced issues, while simultaneously guiding readers through the entire manuscript development process. We feel it would serve admirably as a text for upper-level undergraduate or new graduate students.

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Reference

- Hunter, J. (1990) *Writing for Fishery Journals*. American Fisheries Society, Bethesda, MD.