

# Foreword

This book contains a selection of the papers that were presented at the 26<sup>th</sup> Annual Larval Fish Conference (LFC2002). Manuscripts were screened for scientific content by journal-style peer review, but only lightly edited for format, writing style and other technical aspects of presentation. Thus, any errors that remain are the responsibility of the authors.

*Technical note about colour plates and micrographs.* Some of the figures associated with the articles printed here are colour plates and/or micrographs. The cost of printing these – one page at a time – in the body of each paper was prohibitive. As a compromise, colour plates and micrographs were converted to black and white illustrations and appear as such in the body of the articles. However, all of them are reprinted – in the colours and qualities provided by the authors – in an Appendix at the end of the book. This is noted in the Legends of the relevant Figures.

*About the American Fisheries Society's Early Life History Section and the Larval Fish Conferences.* The Early Life History Section (ELHS) is an interest-discipline subunit of the American Fisheries Society (AFS – [www.fisheries.org](http://www.fisheries.org)) with an international membership of over 350 scientists. It is the only organisation of this kind devoted to interests in the early life history of freshwater, estuarine, and marine fishes, and related matters. Through its newsletter, *Stages*, and now its web page ([www2.ncsu.edu/elhs](http://www2.ncsu.edu/elhs)) the AFS's ELHS encourages and facilitates exchange of knowledge and ideas, updates members on current research, publications, meetings and other events, provides feature articles and reviews and communicates Section and pertinent AFS business and concerns.

The annual Larval Fish Conferences (LFC) that serve as the focal point of ELHS activities evolved from a series of informal, freshwater-oriented, symposia that began in 1977. The current LFCs, which are hosted and sponsored by various organisations throughout the world, cover the complete spectrum of research (from all habitats and geographic locations) related to fish early life history. A list of all the LFCs can be found on the ELHS web page ([www2.ncsu.edu/elhs/elhspubs.html](http://www2.ncsu.edu/elhs/elhspubs.html)). The dates, locations, host institutions and publications resulting from these meetings are all available. All LFCs are run under the auspices of the AFS's ELHS.

*About LFC2002.* LFC2002 marked the first time that the LFC was convened in Europe. The conference was hosted by the Norwegian Institute of Marine Research and the University of Bergen. The organizing committee consisted of Howard I. Browman and Anne Berit Skiftesvik. The meeting, which attracted 215 delegates from 27 countries, was convened at the Solstrand Fjord Hotel, Os, Norway, 22-26 July 2002. There were 120 oral and 53 poster presentations.

The objectives of the 26<sup>th</sup> Annual Larval Fish Conference were to bring together the research community actively working on, and/or interested in, all aspects of the early life history of fishes under intimate and highly interactive conditions and in pleasant surroundings. Anyone interested in the subject matter was free to attend the conference, and we made a particular effort to ensure and facilitate the participation of students.

The conference was organized around four special theme sessions and several contributed paper sessions. The theme sessions were: “Morphological development and physiological function in fishes: studies in larval fish adaptation”, organized by John Jeffrey Govoni; “Larval growth and survival in varying environments: implications for stock conservation and aquaculture”, organized by C. Tara Marshall; “Essential fatty acids and fish development”, organized by Reiji Masuda; “Developmental neurobiology and sensory biology of fishes”, organized by Howard I. Browman and Thomas Becker.

*LFC2002 web site* – [www.fishlarvae.com/lfc](http://www.fishlarvae.com/lfc). Organizing and managing a conference such as this one is an enormous task, particularly for amateur organizers with a full slate of other responsibilities. The job would have been impossible without the professionalism and dedication of Ken Elman, proprietor of SimboliQ Technologies Inc. ([www.simboliq.com](http://www.simboliq.com)), and web site designer extraordinaire. Ken contributed significantly of his company’s time, with far less than the industry-standard level of compensation (he heard, repeatedly, the standard refrain, “we are poor scientists”...). In addition to the clean and ergonomic public face of the web page, Ken provided us with a full slate of utilities so that the site’s content and databases could be managed easily, and from anywhere. The LFC2002 web site, which will remain online, contains complete details of the conference, including the titles and abstracts of the oral and poster presentations and the complete content of this book. All of this content is freely downloadable.

*Other books issuing from LFC2002.* In addition to the conference proceedings volume, several of the papers presented at the theme session “Development of Form and Function in Fishes, and the Question of Larval Adaptation” will be published as review-style chapters in a book edited by John Jeffrey Govoni. That book will be published by the American Fisheries Society, and should appear in print sometime in 2004.

*Acknowledgements.* For their assistance with the conference program, we thank the theme session organizers – Thomas Becker, John Jeffrey Govoni, C. Tara Marshall and Reiji Masuda. For their help as session moderators, thanks go to John Jeffrey Govoni, C. Tara Marshall, Don Hoss, Catriona Clemmesen, Reiji Masuda, Douglas Tocher, Thomas Becker, Jeff Isely, Perce Powles, Arild Folkvord, Art Kendall, Richard Cloutier, and Robert Batty. The following friends and colleagues helped with various aspects of organizing, preparing for, and running the conference: Helene Pedersen, Kirsten Aas, Emmanuelle Babatunde, Syed Yahiya Yacoob, Kirsten Poling, Dennis Higgs, all of the LFC2002 student delegates who operated the multimedia equipment, the staff of Austevoll Aquaculture Research Station (and especially Karin Boxaspen for her help in coordinating and implementing the delegates’ visit to the station), the staff of the Solstrand Fjord Hotel (but particularly the hotel’s owner, Børrea Schau-Larsen, and her daughter). All LFC2002 delegates recognized the contributions and assistance of our son, Petter Skiftesvik, with all aspects of setting up and implementing the computer-based multimedia presentations. Our daughter, Line Skiftesvik, assisted with various organizational tasks. In addition to acknowledging their help, we must also thank our children for their patient acceptance of the unusual time commitment that we were required to make in preparing for the conference. A very special “tusen takk” to Reidun Bjelland, who was

always ready and willing to help, *with anything and everything*. We could not have made it without you Reidun! Penny Kuhn's patient, conscientious and professional assistance with preparing the conference program book and schedule, and with the technical editing of the manuscripts that appear here, is gratefully acknowledged. Special recognition is due John Jeffrey Govoni for his unfailing support and experience-laden advice, and for his long-term devotion and service to the AFS-ELHS.

The numerous financial sponsors of the conference, and of this book, are listed on the pages that follow.

Finally, we wish to thank the 215 LFC2002 delegates, whose participation in the conference was the main reason for its success.

Howard I. Browman and Anne Berit Skiftesvik  
*Storebø, Norway, 1 September 2003*