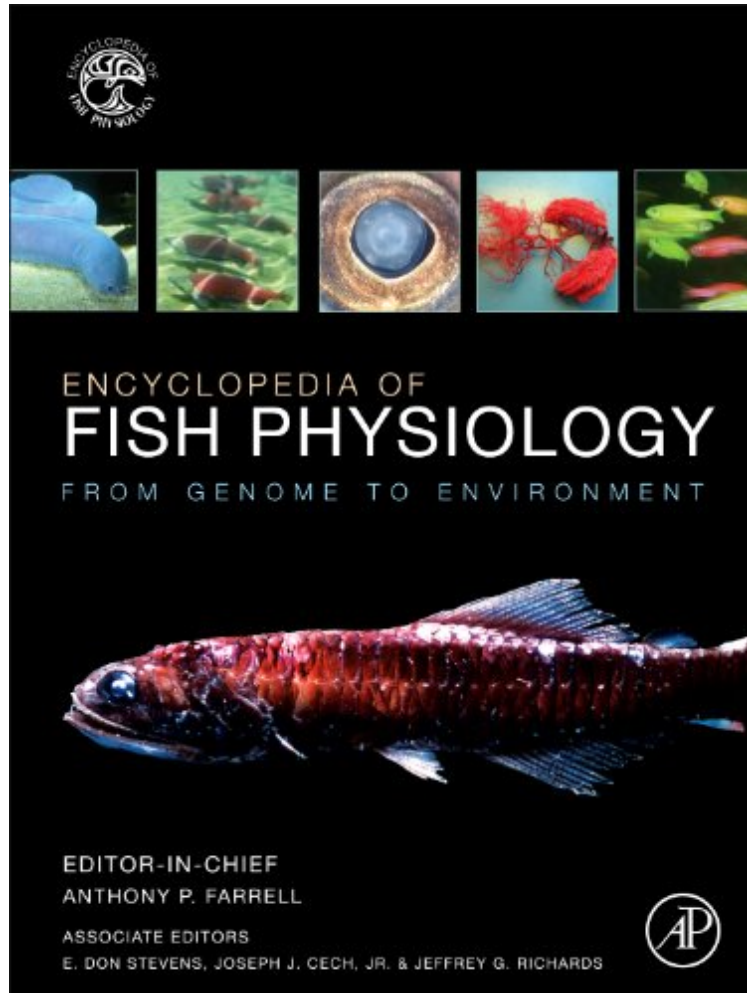


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Encyclopedia of Fish Physiology: From Genome to Environment

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From Academic Press : Encyclopedia of Fish Physiology: From Genome to Environment before purchasing it in order to gage whether or not it would be worth my time, and all praised Encyclopedia of Fish Physiology: From Genome to Environment:

Fish form an extremely diverse group of vertebrates. At a conservative estimate at least 40% of the world's vertebrates are fish. On the one hand they are united by their adaptations to an aquatic environment and on the other they show a variety of adaptations to differing environmental conditions - often to extremes of temperature, salinity, oxygen level and water chemistry. They exhibit an array of behavioural and reproductive systems. Interesting in their own right, this suite of adaptive physiologies provides many model systems for both comparative vertebrate and human

physiologists. This four volume encyclopedia covers the diversity of fish physiology in over 300 articles and provides entry level information for students and summary overviews for researchers alike. Broadly organised into four themes, articles cover Functional, Thematic, and Phylogenetic Physiology, and Fish Genomics. Functional articles address the traditional aspects of fish physiology that are common to all areas of vertebrate physiology including: Reproduction, Respiration, Neural (Sensory, Central, Effector), Endocrinology, Renal, Cardiovascular, Acid-base Balance, Osmoregulation, Ionoregulation, Digestion, Metabolism, Locomotion, and so on. Thematic Physiology articles are carefully selected and fewer in number. They provide a level of integration that goes beyond the coverage in the Functional Physiology topics and include discussions of Toxicology, Air-breathing, Migrations, Temperature, Endothermy, etc. Phylogenetic Physiology articles bring together information that bridges the physiology of certain groupings of fishes where the knowledge base has a sufficient depth and breadth and include articles on Ancient Fishes, Tunas, Sharks, etc. Genomics articles describe the underlying genetic component of fish physiology and highlight their suitability and use as model organisms for the study of disease, stress and physiological adaptations and reactions to external conditions. Winner of a 2011 PROSE Award Honorable Mention for Multivolume Science Reference from the Association of American Publishers. The definitive encyclopedia for the field of fish physiology. Three volumes which comprehensively cover the entire field in over 300 entries written by experts. Detailed coverage of basic functional physiology of fishes, physiological themes in fish biology and comparative physiology amongst taxonomic Groups. Describes the genomic bases of fish physiology and biology and the use of fish as model organisms in human physiological research. Includes a glossary of terms.

"2011 PROSE Award Winner for Multivolume Reference/Science" Academic Press/Elsevier Science and Technology Encyclopedia of Fish Physiology, Anthony P. Farrell "The individual articles in each volume are concise, authoritative, and beautifully illustrated with color photographs and drawings. A practical advantage of this encyclopedia is that it brings everything together into three volumes, providing a comprehensive reference work. Readers should note that this set is arranged thematically rather than alphabetically. This encyclopedia will be most suitable for graduate students and professionals. Summing Up: Recommended. Graduate students and above."-- CHOICE About the Author Tony Farrell is a graduate of Bath University, where he was fortunate to study with Peter Lutz. His fortunes grew further when he moved in 1974 to Canada and the Zoology Department at the University of British Columbia to complete his Ph.D. degree under the superb tutelage of Dave Randall. In 2004, Tony returned to UBC when he accepted an endowed research chair in Sustainable Aquaculture. In between these positions at UBC, Tony was employed at the University of Southern California (PDF), the University of New Brunswick (sessional lecturer), Mount Allison University (first real job) and Simon Fraser University (moving through the ranks to a full professor). In addition to highly controlled laboratory experiments on fish cardiorespiratory physiology, Tony is committed to working on animals in their own environment. Therefore, his research on fish physiology has taken him on an Alpha Helix expedition to the , the University of Gothenburg and the Kristineberg Marine Research Station in Sweden, the Portobello Marine Biological Station in New Zealand, the University of Christchurch and Massey University in New Zealand, the Bamfield Marine Science Station and the Huntsman Marine Station in Canada, the University of Aarhus in Denmark, the University of Adelaide Charles and Darwin University in Australia, and to the Danish Arctic Marine Station on Disco Island in Greenland. These travels have allowed him to work and with many superb collaborators world-wide, as well as study the physiology of over 70 different species of fish. Tony has received a number of awards for his scientific contributions: an honorary degree from the University of Gothenburg in Sweden; Awards of Excellence from the American Fisheries Society for Fish Physiology, Conservation and Management; the Fry Medal from the Canadian Society of Zoologists; and the Beverton Medal from the Fisheries Society of the British Isles.