2008–2009

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Series: **Biological Systems in Vertebrates**
Series editors: Hiran M. Dutt and *Douglas W. Kline:* Kent State University, Ohio, USA

FUNCTIONAL MORPHOLOGY OF THE VERTEBRATE RESPIRATORY SYSTEMS

J.N. Maina: University of Witwater and Johannesburg, South Africa

978-1-57808-252-0; 2002; 192 pages incl. 6 color plates, 210×300 mm, pb; $ 73.30

Accounts for the morphologies of vertebrate respiratory organs and attempts to explicate the basis of the common and different structural and functional designs and stratagems that have evolved for acquisition of molecular oxygen. The book has been written for a broad readership i.e. students of biology; as well as experts in the disciplines of zoology, physiology, morphology, biological microscopy, biomedical engineering, and ecology and those that work or may contemplate working on materials and aspects concerning respiration in whole organisms will find it useful.

RENAL STRUCTURE AND FUNCTION IN VERTEBRATES

Hans Ditrich: University of Vienna, Vienna, Austria

978-1-57808-305-3; 2005; 178 pages, 4 color plates, hc; $ 105.30

This book covers the structural and functional aspects of the excretory system in the vertebrate classes emphasising the evolutional premises and functional requirements that form the basis of special adaptations. It provides a synopsis of the complexity and variability of vertebrate kidneys from the perspective of recent research.

MUSCULAR SYSTEM OF VERTEBRATES

Seth M. Kisia and *Daniel W. Onyango*: University of Nairobi, Kenya

978-1-57808-306-0; 2005; 126 pages, hc; $ 61.60

It covers topics relevant to the understanding of vertebrate musculature including evolution and development of various muscles, the various types present and their morphological organization and physiology. A useful reference material for students of zoology besides veterinary and medical students as well as scientists who wish to know the different muscles of vertebrates and their origin.

THE DRIVING FORCES OF EVOLUTION

Genetic Processes in Populations

David Wool: Tel Aviv University, Israel

978-1-57808-445-6; 2006; 362 pages, hc; $ 66.60

Part I: MAINLY THEORY — The Beginning; Evolution as an On-going Process; Populations at Equilibrium: The Hardy-Weinberg Law; Deviation from Equilibrium: Genetic Drift—Random Changes in Small Populations; Deviations from Equilibrium: Mutations; Deviations from Equilibrium: Migration; Deviations from Equilibrium: Non-random Mating; Deviation from Equilibrium: Selection **Part II: SELECTION IN NATURE —** The Theory of Natural Selection: A Historical Outline; Genetic Variation in Natural Populations; Genetic Variation in Natural Populations (continued); Evolutionary Processes in Natural Populations; Natural Selection and Adaptation; Natural Selection and Polymorphism; Classification of Selection Processes; Evolution in Asexually-reproducing Populations; Laboratory Populations as Models for Natural Selection; The Neutralist-Selectionist Controversy: 'Non-Darwinian' Evolution?; The Neutrality Hypothesis: Molecular Support — and Evidence to the Contrary; Molecular Evolution **Part III: MACRO-EVOLUTION —** The Concepts of 'Species' in Evolution; Formation of New Species (Speciation); Speciation, Extinction of Species and Phylogeny; Evolutionary Processes in Human Populations; Strategies in Evolution

BIOLOGICAL ENVIRONMENTAL SCIENCE

NEW

William Dashek

978-1-57808-536-1; January 2009; 243 pages, pb; $ 46.00

Biological Environmental Science is an introductory textbook for undergraduate students who desire a one semester course or, alternatively, a 'springboard course' for advanced environmental offerings. This book features timely issues such as global warming, air, ground and water pollutions, population growth, species extinction and environmental policy. Unique features of this book include the use of research data and literature, copious illustrations and appendices for the scientific method.

ENVIRONMENTAL MICROBIOLOGY

Principles and Applications

Patrick K. Jjemba: University of Cincinnati, Ohio, USA

978-1-57808-348-0; 2004; 384 pages, pb; $ 53.80

This book was written for an audience that has a basic understanding of microbiology. Often microbiologists tend to overzealously focus on bacteria, inadvertently ignoring other microbes (i.e., algae, fungi, protozoa, and viruses). This discrepancy is redressed herein. The material presented here recognizes the basic foundations and importance of conventional microbiological techniques (which focused greatly on culture-based studies), linking them with information from more recent nonconventional techniques. Various principles are also applied which attest to the undisputable reality that microbes in pure culture may function somewhat differently than in complex multispecies environmental matrices.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF URODELA

David M. Sever (ed.): Saint Mary's College, Notre Dame, Indiana, USA

978-1-57808-285-8; 2003; 624 pages, hc; $ 141.10

A full panoply of topics is covered, from morphology of gametes and reproductive systems to considerations of behavior and life history, all placed in a phylogenetic context. The chapters not only synthesize past literature but also present new observations and indicate directions for future research. The is an essential text for anyone interested in the biology of urodele amphibians.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF CETACEA

Whales, Dolphins and Porpoises

Debra L. Miller (ed.): The University of Georgia, Tifton, Georgia, USA

978-1-57808-360-2; 2007; 450 pages, hc; $ 132.20 [eBook 978-1-57808-558-3]

There are over 80 species of cetaceans composed of porpoises, dolphins and whales. This volume represents the latest of published and previously unpublished information regarding cetacean reproductive biology and phylogeny.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF ANNELIDA

Editors:
Greg Rouse: South Australian Museum, Adelaide, Australia
Fredrik Pleijel: Museum National d' Historie Naturelle, Paris, Cedex, France

978-1-57808-313-8; 2006; 698 pages, incl. 12 color illustrations, hc; $ 151.20

This volume documents annelid reproduction in the context of their phylogenetic relationships. It presents an introduction and overview to the current systematics of annelids and provides reviews to broad aspects of reproduction across Annelida. The chapters cover oogenesis, sperm, mating, early development, larval development and larval ecology. The book also covers some of the major clades (or purported clades) of annelids and addresses similar issues. The final chapter covers some of the more problematic annelid groups in terms of their phylogenetic placement.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF GYMNOPHIONA (CAECILIANS)

Jean-Marie Exbrayat (ed.): Catholic University of Lyon, France

978-1-57808-312-1; 2006; 408 pages, hc; $ 121.00 [eBook 978-1-57808-551-4]

For many years, studies on the Gymnophiona were disparate and still only a few species have been deeply studied. Fortunately, in recent years, some new works have been published on their systematics, using both the classical methods as well as immunology and molecular biology. New data have also been obtained on the biology, life history, reproductive biology, endocrinology and embryonic development of several species. These fascinating aspects along with other important ones on gymnophionan studies are ably reviewed in this book.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF CHONDRICHTHYES

Sharks, Batoids, and Chimaeras

William C. Hamlett (ed.): Indiana University, Notre Dame, Indiana, USA

978-1-57808-314-5; 2005; 576 pages, hc; $ 133.80

Deals with ideas concerning the development, reproductive morphology, function and phylogeny of chondrichthyan fishes. This information is fundamental to our understanding of oogenesis, spermatogenesis, gestation, regulation of reproductive tract function, sperm storage, nutrient provision, placentation, phylogeny and are pertinent to our concepts of the origin of live bearing in general. New and exciting data is presented including the idea that yolk sac viviparity is the plesiomorphic state rather than oviparity.

"..this volume will be an indispensable reference to both general biologists and specialists."

— The Quarterly Review of Biology Vol. 82, No. 1, March 2007

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF ANURA

Barrie G.M. Jamieson (ed.): University of Queensland, Brisbane, Australia

978-1-57808-288-9; 2003; 462 pages, hc; $ 129.90

It covers major aspects of phylogeny and reproductive biology of frogs in chapters. Topics treated are: anuran phylogeny, classification and reproductive modes; gross anatomy of the reproductive system; oogenesis; endocrinology of reproduction; spermatogenesis and the mature spermatozoon; breeding glands; internal fertilization and sperm storage, parental care; general development; and molecular development.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF BIRDS

Barrie G.M. Jamieson (ed.): University of Queensland, St. Lucia, Queensland, Australia

Part A: Phylogeny, Morphology, Hormones and Fertilization

978-1-57808-386-2; 2006; 600 pages, hc; $ 133.80

Part B: Sexual Selection, Behavior, Conservation, Embryology and Genetics

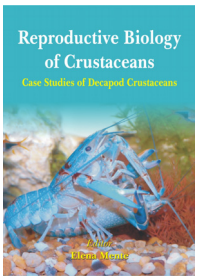
978-1-57808-444-9; 2007; 516 pages, hc; $ 117.60

"So comprehensive is the range of topics covered that any avian biologist interested in reproduction will find these reviews extremely useful. ... these two volumes should be on every ornithologist's bookshelves."

— IBIS, Vol. 150, Issue 1, January 2008

"... these two books will provied a useful summary of many aspects of avian reproduction ... These volumes deserve to become really useful textbooks for under-graduate and graduate students."

— The Quarterly Review of Biology, Vol. 82, December 2007



NEW

REPRODUCTIVE BIOLOGY OF CRUSTACEANS: Case Studies of Decapod Crustaceans

Elena Mente (ed.): University of Thessaly, Greece and University of Aberdeen, UK

978-1-57808-529-3; April 2008; 565 pages, hc; $ 125.00

Crustaceans adapt to a wide variety of habitats and ways of life. They have a complex physiological structure particularly with regard to the processes of growth (molting), metabolic regulation, and reproduction. Crustaceans are ideal as model organisms for the study of endocrine disruption and stress physiology in aquatic invertebrates. This book is an overview of the extensive research that has taken place over the recent years on issues of crustacean reproduction.

Series: **Reproductive Biology of Invertebrates**

PROGRESS IN VITELLOGENESIS

Volume editors
A.S. Raikhel: University of California, Riverside, USA
Thomas W. Sappington: USDA-ARS, Weslaco, TX, USA
(Earlier volumes published by John Wiley & Sons)

Volume XII, Part A

978-1-57808-226-1; 2002; 260 pages, hc; $ 132.20

CONTENTS: Introduction; Yolk Proteins and their Precursors in Non-Arthropod Protostomes, with Emphasis on Nematodes: *Carlos E. Winter;* Insect Yolk Proteins: A Progress Report: *William H. Telfer;* Structural Characteristics of Insect Vitellogenins: *Thomas W. Sappington* et al.; The Yolk Proteins of Higher Diptera: *Mary Bownes and Stephen Pathirana;* Yolk Proteins of Crustacea: *Marcy N. Wilder* et al.; Vitellogenesis in Ticks: *DeMar Taylor and Yasuo Chinzei;* Vitellogen and Vitellogenin in Echinoderms: *Yukio Yokota and Thomas W. Sappington*

Volume XII, Part B

978-1-57808-299-5; 2005; 426 pages, hc; $ 136.60

CONTENTS: Biosynthesis and Processing of Insect Vitellogenins: *M. Tufail* et al.; The Cell Biology of Yolk Protein Precursor Synthesis and Secretion: *Franco Giorgi* et al.; Regulation of Vitellogenin Gene Expression by Ecdysteroids: *Sheng-Fu Wang* et al.; The Regulation of Yolk Protein Gene Expression and Vitellogenesis in Higher Diptera: *Mary Bownes;* Vitellogenesis Directed by Juvenile Hormone: *Xavier Bellés;* Receptor-Mediated Endocytosis of Yolk Proteins in Insect Oocytes: *Ekaterina S. Snigirevskaya* and *Alexander S. Raikhel;* Insect Vitellogenin/Yolk Protein Receptors: *Thomas W. Sappington* and *Alexander S. Raikhel;* Accumulation of Lipids in Insect Oocytes: *Rik Van Antwerpen* et al.; Non-Vitellin Yolk Proteins: *Hatisaburo Masuda* et al.; Regulation of Yolk Protein Degradation during Insect Embryogenesis: *Yumi Yamahama* et al.; Biochemical and Ultrastructural Aspects of Vitellin Utilization During Embryogenesis: *Franco Giorgi* and *John H. Nordin;* Molecular Mechanisms of Tissue-Specific Gene Expression in Insects: *David Martin* et al.

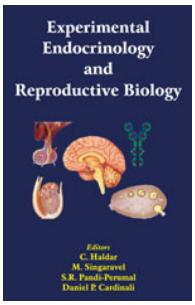
COMPARATIVE CELLULAR AND MOLECULAR BIOLOGY OF TESTIS IN VERTEBRATES

Trends in Endocrine, Paracrine, and Autocrine Regulation of Structure and Functions

S.S. Guraya: Punjab Agriculture University, Ludhiana, India

978-1-57808-165-3; 2001; 100 pages, hc; $ 55.40

This monograph provides an account of recent advances in normal and abnormal spermatogenesis, structrue, and function from comperative, interdisciplinary points of view: cellular, biochemical, molecular, immunological, and endocrinological. Includes diagrams and microscopic views of testicular cells from mammals and seasonal breeder vertebrates.



NEW

EXPERIMENTAL ENDOCRINOLOGY AND REPRODUCTIVE BIOLOGY

Editors:
C. Haldar and *M. Singaravel:* Banaras Hindu University, Varanasi, India
S.R. Pandi-Perumal: Mount Sinai School of Medicine, New York, USA
Daniel P. Cardinali: University of Buenos Aires, Argentina

978-1-57808-518-7; February 2008; 335 pages, hc; $ 94.10

This book covers various topics of endocrinology from comparative, experimental, developmental, reproductive and clinical endocrine aspects. Another important feature of this book is that more than half the chapters are described in relation to the function of melatonin and the structure of the pineal organ. These trials of this book are reasonable and timely. Melatonin physiology has been reviewed from several points of view such as antioxidant and scavenger of hydroxyl radical, circadian clock and photoperiodic gonadal response including photoreceptor system, and development of vertebrates.

Translated from German

Fauna and Flora of the Bay of Naples
THE CEPHALOPODA
Embryology, Part I, Volume II [Final Part of Management No. 35]
Adolf Naef

978-1-57808-143-1; 2000; 486 pages, 10"×13", 37 plates, hc; $ 155.70

This monumental volume contains systematic morphology of the external organization and of the mantle cavity, including consideration of the shell and its relationship with the soft body. It covers special descriptions of the *embryonic* forms, with particular regard to molluscan phylogeny and general principles of comparative ontogenetic studies. Includes 142 text figures and 37 plates.

AMPHIBIANS AND REPTILES OF NORTH-WEST EUROPE
Their Natural History, Ecology and Conservation
Ian F. Spellerberg: Lincoln University, New Zealand

978-1-57808-259-9; 2002; 216 pages, incl. 30 col. plates, 21 × 29 cm, pb; $ 43.70

This book provides brief account of the natural history, ecology, and conservation of amphibian and reptile species from western Europe.

"The book will be useful to conservationists; amateur herpetologists and others... this book is sufficiently detailed to be a valuable reference work for undergraduates and research students."

— **J.L. Cloudsley-Thompson,**
Past President and Hon. Member,
British Herpetological Society

PHYSIOLOGICAL AND ECOLOGICAL ADAPTATIONS TO FEEDING IN VERTEBRATES
J. Matthias Starck: Univ of Munich, Germany
Tobias Wang: University of Aarhus, Denmark

978-1-57808-246-9; 2005; 436 pages, hc; $ 127.70

A wide spectrum of evolutionary adaptations spans from grazers and browser to nectar-feeders and carnivores, some feeding only once or twice a year. In this book, a group of internationally recognized specialists cover physiological and evolutionary adaptations to different feeding strategies in vertebrates. The book is a state-of-the-art account of our mechanistic, comparative and evolutionary understanding of how vertebrates have evolved and adapted to feed on diverse food items. The reviews cover the fields of comparative morphology, nutritional physiology, ecological physiology and molecular mechanisms of food uptake. This book is meant for professionals and students of animal physiology, evolutionary biology, ecology, veterinary science, animal nutrition and animal production.

QUANTUM GENETICS
V.V. Stcherbic and *L.P. Buchatsky*

978-1-57808-508-8; 2007; 174 pages, hc; $ 76.20

The systemic review of quantum genetics based on the theory on non-Abelian gauge fields is represented in this book. The concept of fundamental conception of atom's protonic charge is also included. Description of the biological processes is conducted in a six-dimensional space with metric tensor $4^{+}\ 2^{-}$. The properties of main biological structures DNA, RNA and proteins are discussed on the basis of equivalent charge configuration of amino acids of the genetic code. It is proved that the conformal field of amino acids is equal to quantizied gravitational field with a spin of 5/2.

This book is intended for specialists in theoretical biology, quantum theory of field, molecular biology and genetics.

Mammals of Russia and Adjacent Regions: BALEEN WHALES
V.E. Sokolov and *V.A. Arsen'ev*

NEW

Mammals of Russia and Adjacent Regions: JERBOAS
G.I. Shenbrot, V.E. Sokolov, V.G. Heptner and *Yu.M. Koval'skaya*
Volume Scientific Editor:
Don E. Wilson: Smithsonian Institution, Washington, DC

978-1-57808-531-6; January 2008; 786 pages, hc; $ 156.20

Deals with the systematics and biology of forest mice and jerboas. It describes detailed morphological characteristics and includes keys for the identification of the families, genera and species. Detailed maps of distribution of species are compiled. Data on the biology is according to the set plan (population, habitat, feeding, daily and seasonal activity, behavior, reproduction, parasites and competitors, etc.). The book primarily focuses species found in Russia, Ukraine, Caucasus, Russian Central Asia and Transcaucasia. Brief coverage of species outside these regions is also included.

Mammals of Russia and Adjacent Regions LAGOMORPHS

NEW

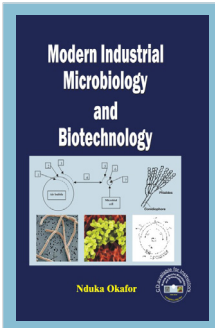
V.E. Sokolov et al.
Scientific Editors: *Robert S. Hoffmann & Andrew T. Smith*

978-1-57808-522-4; October 2008

This book is devoted to the description of the order Lagomorpha, which is represented by two extant families—Leporidae and Ochotonidae.

The book is aimed at mammalogists, ecologists, zoogeographers and game specialists.

Illustrations 58, table 57, bibliography of 13 papers.

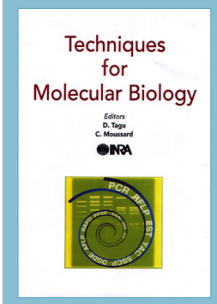


MODERN INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY

Nduka Okafor: Clemson University, South Carolina, USA

978-1-57808-513-2; 2007; 550 pages, pb; $ 66.60

This book is aimed at undergraduates and beginning graduate students in microbiology, food science and chemical engineering. Those studying pharmacy, biochemistry and general biology will also find it useful. The section on waste disposal will be of interest to civil engineering and public health students and practitioners. For the benefit of those students who may be unfamiliar with the basic biological assumptions underlying industrial microbiology, elements of biology and microbiology are introduced.



TECHNIQUES FOR MOLECULAR BIOLOGY

D. Tagu and *C. Moussard (ed.)*

978-1-57808-361-9; 2006; 230 pages, hc; $ 45.00

CONTENTS: Definition; Vectors and Cloning; Labelling of Nucleic Acids and Hybridization; DNA Libraries and Screening; Characterization of a Gene; Genetic Transformation of Euaryotes; Analysis of Gene Function; Polymorphism of a Genome

GENETICS

Principles, Concepts, and Implications

H.K. Jain

978-1-57808-054-0; 1999; 454 pages, hc; $ 44.20

This book attempts to trace the journey of genetics in the twentieth century. It recounts some landmark discoveries; and in doing so, draws attention to the basic concepts. The treatment has been kept simple so that, not only students of genetics and biology, but also all those who follow science, may find it of interest.

BIOPHYSICAL PROCESSES IN LIVING SYSTEMS

P.P. Saradhi (ed.)

978-1-57808-157-8; 2001; 380 pages, hc; $ 103.00

"Twenty independent research groups share their experience in unraveling various aspects of living system through a multidisciplinary approach using biophysics along with biochemistry and molecular biology..."

— **SciTech Book News,** September 2001

VERTEBRATE FUNCTIONAL MORPHOLOGY

Horizon of Research in the 21st Century

H.M. Dutta and *J.S. Datta Munshi (eds.)*

978-1-57808-098-4; 2001; 500 pages, hc; $ 154.60

Dealing with important systems starting from lower vertebrates to mammals, this book covers topics including morphological, biochemical and molecular aspects of cartilages of the skeleton of sea lamprey, and more.

Low stock availability

HELMINTHS OF WILDLIFE

N. Chowdhury: Punjab Agricultural University, Ludhiana, India
A. Alonso Aguirre: Tufts University, Massachusetts, USA

978-1-57808-092-2; 2001; 534 pages, hc; $ 132.20

This book describes the biology and evolution of endoparasitic helminths as well as medical aspects, control, and treatment both in land and marine mammals. It discusses elements of wildlife management and conservation as they relate to helminth diversity. And, based on the geopraphic distribution of mammals, it offers a global perspective on helminths and their diseases.

"It is certain to become an invaluable aid to all scholars of parasitology throughout the world."

— **WAAVP Newsletter** Vol. 4, No. 3, May 2001

PRINCIPLES AND PRACTICES OF ANIMAL TAXONOMY, 2/ed

V.C. Kapoor

978-1-57808-196-7; 2001; 246 pages, pb; $ 54.90

CONTENTS: Introduction; Rise of Taxonomy; Newer Trends in Taxonomy; Zoological Classification; Concepts of Species; Taxonomic Collection-Identification-Description and Publication; Reference Works in Taxonomy; Zoological Nomenclature

ECOLOGICAL IMPLICATIONS OF MINILIVESTOCK

Potential of Insects, Rodents, Frogs and Snails

Maurizio G. Paoletti (ed.): Università de Padova, Padova, Italy

978-1-57808-339-8; 2005; 662 pages, 10 color plates, hc; $ 132.20

The book describes the potential benefits of managing insects, small mammals, amphibians and snails for food. The 29 articles here describe ranching or farming of mini-livestock as sustainable and preserving of local custom, and examine the possibilities for rats and other rodents in Africa and the Amazon, snails in Europe and Africa, insects in the Middle East, Asia and South America, and earthworms just about everywhere. Includes color plates of the livestock in question and examples of current cultivation.

"This excellent book deserves a wide readership."

— **Experimental Agriculture,** Vol. 42, 2006

"This book is well written and informative, and takes an extra step to continue the interaction between the authors and their readers."

— **Megadrilogica,** Vol. 10(a), 2005

BIOCOMMUNICATION IN INSECTS

T.N. Ananthakrishnan and *A. Sen (eds.)*

978-1-57808-031-1; 1998; 112 pages, hc; $ 54.90

CONTENTS: Basics of Biocommunication in Insect-Plant Interactions: Role of Chemical Signals; Plant Volatiles in Relation to Biocommunication; Pheromone Technology: Problems and Opportunities in Exploring Biocommunication Systems in Insects; Chemistry, Technology and Application of Pheromones as Components of IPM; Modality and Relevance of Biocommunication in the Biological Control of Insects; Sensillar Diversity and Insect Biocommunication; Neuroethological Approaches in Insect–Plant Interactions; Pheromone Production in Moths: Control by Intrinsic and Extrinsic Factors; The Evolution of Communication as Exemplified by the Honey-bee Queen Pheromones; Cell-to-Cell Communication.

MICROBIALS IN INSECT PEST MANAGEMENT

S. Ignacimuthu and *Alok Sen (eds.)*

978-1-57808-171-4; 2001; 184 pages, hc; $ 72.80

In this volume, leading experts in the field discuss the success of different entomopathogens in various cropping systems, their effect on natural enemies, compatibility of different microbes as well as with pesticides, and their mass culture. Improvement in field performance through molecular techniques as well as the problems and suggestions for the adoption of IPM are also addressed.

"... This book will be a valuable reference work not only to the world-wide community of researchers in this field but also to any undergraduate or postgraduate students of agriculture and crop protection...."

— **Biological, Agriculture and Horticulture,** 2002, Vol. 20

BIOLOGY, ECOLOGY, AND EVOLUTION OF GALL-INDUCING ARTHROPODS

A. Raman: University of Sydney, Orange, Australia
Carl W. Schaefer: University of Connecticut, Storrs, USA
Toni M. Withers: Forest Research, Rotorua, New Zealand

978-1-57808-262-9; 2005; 779 pages (2 vols.), hc; $ 165.80

This work places emphasis on the biology, behavior, and evolution of the gall-inducing arthropod, principally Acarines, Hemipteroids, Coleopteroids and Hymenopteroids, and associated organisms; the dynamics of the host-plant response remain in the background. In addition to the biological and ecological information on these arthropods, each chapter also provides information on their evolution, in most instances, viewed against the evolution of their host plants.

"... this two-volume set is a great reference and portal into the world of galls."

— **Environmental Entomology,** 0046-225X, 2007

INSECTS

Their Spermatozoa and Phylogeny

Barrie G.M. Jamieson: University of Queensland, Brisbane, Australia
Romano Dallai: University of Siena, Italy
Bjørn A. Afzelius: Stockholm University, Stockholm, Sweden

978-1-57808-040-3; 1999; 564 pages, hc; $ 161.30

This volume is a compilation of critical resumé of all research reports on the ultrastructure of insect spermatozoa, the literature of which is large and scattered. There are more than one hundred works on the spematozoa of the Diptera alone.

CONTENTS: Development of the Insect Spermatozoon: Spermatogenesis; The Fertilizing Spermatozoon; Phylogeny of the Hexapod Orders; Superclass Hexapoda; Class Insecta (Ectognathous Hexapods) Subclass Apterygota; Subclass Pterygota (Introduction); Infraclass Palaeoptera; Infraclass Neoptera; Orthoptera and Phasmatodea; Orders Embioptera, Dermaptera, Plecoptera and Grylloblattodea; The Hemipteroid (Rhynchotoid) Orders; The Hemipteroid Orders: Hemiptera; Suborder Heteroptera; The Endopterygota (Holometabola); Order Coleoptera; Orders Mecoptera and Siphonaptera; Orders Diptera and Strepsiptera; Superorder Amphiesmenoptera; Order Hymenoptera; Taxonomic Summary and Phylogenetic Analysis; *References; Subject and Taxonomic Index*

MAINTENANCE OF HUMAN, ANIMAL, AND PLANT PATHOGEN VECTORS

Karl Maramorosch and *Farida Mahmood (eds.):* Rutgers—The State University of New Jersey, New Brunswick, NJ, USA

978-1-57808-049-6; 1999; 340 pages, hc; $ 95.20

"...it is a must for any institution dealing with or involved in research on vector-borne diseases of humans, animals, and plants."

— **The Quarterly Review of Biology,** Vol. 75

"This book contains a wealth of information, brought together for the first time in one volume, on the laboratory maintenance and handling of a wide range of vectors of animal and plant pathogens."

— **Parasitology** (2000), 121

PHENOTYPIC PLASTICITY OF INSECTS NEW

Mechanisms and Consequences

Editors:
Douglas Whitman: Illinois State University, Normal, IL, USA
T.N. Ananthakrishan: Formerly, Entomology Research Inst., Chennai, India

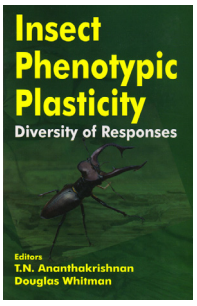
978-1-57808-423-4; October 2008; ca.900 pages, hc; $ 135.00

This book explores the profound importance of phenotypic plasticity as a central organizing theme for understanding biology. Chapters take a broad, integrative approach to explain how physical and biological environmental stimuli (temperature, photoperiod, nutrition, population density, predator presence, etc.), influence insect biochemical, physiological, learning, and developmental processes, altering phenotype, which then influences performance, ecology, life-history, survival, fitness, and subsequent evolution. Topics include endocrinology, development, body size, allometry, polyphenism, reproduction, reproductive and life-history tradeoffs, alternative mating and life-history strategies, density-dependent prophylaxis, physiological adaptation, acclimation, homeostasis, heat-shock proteins, learning, adaptive anti-predator behavior, and evolution of phenotypic plasticity.

INTEGRATED PEST MANAGEMENT OF TROPICAL PERENNIAL CROPS

Dominique Mariau (ed.)

. . . *see Plant Sciences*



INSECT PHENOTYPIC PLASTICITY: Diversity of Responses

T.N. Ananthakrishan: Formerly, Entomology Research Inst., Chennai, India
Douglas Whitman: Illinois State University, Normal, IL, USA

978-1-57808-322-0; 2005; 222 pages, hc; $ 72.80

Phenotypic plasticity theory may very well change the way biologists in a wide variety of discipline think and approach their research. In this collection of eight leading-edge papers, contributors describe their work is such topics as phenotypic plasticity in host selection on adult Tiger Swallowtail butterflies, plasticity in insect responses to the variable chemistry of host plants, behavioral determinants of Thysanoptera structural diversity, behavioral diversity and its apportionment in a primitively eusocial wasp, clutch size plasticity in the Lepidoptera, the importance of phenotypic plasticity in herbivorous insect specialization, and adaptive allometric responses to galling insects to the availability of oviposting sites.

Translated from French

MANAGEMENT OF FRESH WATER FISHERIES

Jacques Arrignon

978-1-57808-051-9; 1999; 598 pages, hc;
$ 106.40

The book is organised under the following three major headings: Ecological bases; Fish farming; and Managing aquatic mediums. The tested data is presented in a clear and well-balanced manner, often with the help of tables and illustrated with many sketches and photographs. Includes glossary and an index.

This book will be useful to professionals involved in the biology, management and protection of the aquatic medium: hydrobiologists, aquaculturists, fish farmers, technicians and fishing wardens.

Mammals of Russia and Adjacent Regions

BALEEN WHALES

V.E. Sokolov and *V.A. Arsen'ev*

978-1-57808-185-1; 2006; 332 pages, hc;
$ 109.80

This English translation is a contribution to the systematics of the baleen suborder (as vs. the toothed whales) of Cetaceans. Detailed descriptions of baleen suborders including gray whales, humpbacks, and right whales, are given.

PROCEEDINGS OF THE WORLD FISHERIES CONGRESS, ATHENS, GREECE

Assessment Methodologies and Management

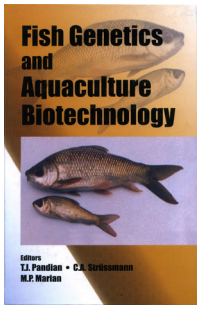
Gary T. Sakagawa (ed.)

978-1-886106-10-9; 1995; 210 pages, hc;
$ 88.50

MICROBIAL BIOTECHNOLOGY IN AGRICULTURE AND AQUACULTURE

R.C. Ray (ed.)

. . . see Plant Sciences



FISH GENETICS AND AQUACULTURE BIOTECHNOLOGY

Editors:
T.J. Pandian, C.A. Strüssmann & M.P. Marian

978-1-57808-372-5; 2005; 170 pages, hc;
$ 66.60

Half of the 12 papers are research reports selected from the presentations to an international conference. The others are reviews of literature on the same theme of advanced technologies in fisheries and marine sciences. Among the topics are gene transfer to germline and somatic tissues of zebrafish, methods of sex control in fishes, and the isolation of antibody-like substances from marine algae.

MORPHOLOGICAL EVOLUTION, APTATIONS, HOMOPLASIES, CONSTRAINTS AND EVOLUTIONARY TRENDS

Catfishes as a Case Study on General Phylogeny and Macroevolution

Rui Diogo: University of Liège, Belgium

978-1-57808-291-9; 2004; 502 pages, hc;
$ 136.60

The major aim of this work is, to help understand the interrelationships of catfishes, with major implications on the study of the general evolution of these fishes. A great part of this work therefore, deals with a cladistic analysis of catfish higher-level phylogeny based on extensive morphological data, in which are included some terminal taxa not included in previous analyses, but principally a large number of characters traditionally excluded from those analyses, with particular attention being given to catfish mycology. This analysis gives particular importance to complex, integrated structures. It will be of interest to students, ichthyologists and biologists working in evolution, taxonomy and phylogeny.

BIOREMEDIATION OF AQUATIC AND TERRESTRIAL ECOSYSTEMS

Editors:
Milton Fingerman and *R. Nagabhushanam:*
Tulane University, New Orleans, LA USA

978-1-57808-364-0; 2005; 622 pages, hc;
$ 109.80

Contributors describe their research in finding the most effective means of removing contaminants while maintaining control of the microorganisms intended to counter them.

BIOTECHNOLOGY OF AQUATIC ANIMALS

Editors:
R. Nagabhushanam, A.D. Diwan, B.J. Zahurnec and *R. Sarojini*

978-1-57808-321-3; 2004; 190 pages, hc;
$ 77.80

The book presents current developments in selected areas of the biotechnology of aquatic animals. The uses and applications of biotechnology in general are described, with emphasis on aquatic animals, and recent advances in aquaculture and marine biotechnology are outlined. The book describes techniques for reproductive manipulation of fin and shell fishes, and discusses vaccines for aquatic animals, environmental biotechnology, antifouling technology, and ethics.

SERIES: **RECENT ADVANCES IN MARINE BIOTECHNOLOGY**

Milton Fingerman and *R. Nagabhushnam (eds.):* Tulane University, New Orleans, LA, USA

Volume 1: **Endocrinology and Reproduction**

978-1-886106-53-6; 1997; 536 pages, hc; $ 140.00

This volume is a compilation of information that covers a wide range of animal groups. This book will be of interest not only to biotechnologist, but also to aquaculturists, comparative animal physiologists, comparative endocrinologists, and developmental biologists.

Volume 2: **Environmental Marine Biotechnology**

978-1-57808-012-0; 1998; 323 pages, hc; $ 95.20

CONTENTS: Protein Biomarkers for Paralytic Shellfish Toxins: *Donna S. Smith and David D. Kitts;* Characteristics of Deep-sea Microorganisms Adapted to Extreme Environments: *Chiaki Kato, AkiraInoue, and Koki Horikoshi;* Application of Chitosan in Separation and Purification of Metals: *Katsutoshi Inoue;* Glues from the Sea—Lessons at the Foot of a Bioadhesive Master, the Marine Mussel: *Leszek M. Rzepecki;* Bioremoval of Heavy Metals by Microalgae: *Edward W. Wilde, Joann C. Radway, and John R. Benemann;* Microbial Surfactants—Potential Applications in the Treatment of Hydrocarbon Marine Pollution: *Jean-Claude Bertrand, Michle Gilewicz, Patricia Bonin, and Michel Denis;* Enzymatic Membrane Bioreactors—Current State of the Art and Future Prospects: *Duarte M.F. Prazeres and Joaquim M.S. Cabral;* Heavy Metal Pollution—Use of Marine Crustaceans as Biological Indicators: *Rachakonda Nagabhushanam, Palla S. Reddy, and Milton Fingerman;* Enzyme Sensors for the Detection of Pesticides: *Jean-Louis Marty, Beatrice Leca, and Thierry Noguer;* Microbial Diversity as a Source of Potentially Useful Biopolymers: *Eugene Rosenberg;* Bioreactor Technology for Mass Cultivation of Photoautotrophic-microalgae: *Yuan K. Lee and Amos Richmond*

Volume 3: **Biofilms, Bioadhesion, Corrosion, and Biofouling**

978-1-57808-013-7; 1999; 320 pages, hc; $ 98.60

Provides reviews of the advances being made in our understanding of the formation and role of biofilms and how bioadhesion occurs, with the idea in mind that these presentations will provide insight into ways to reduce the impact of corrosion and biofouling on the marine environment.

Volume 4: **Aquaculture**

Part A: **Seaweeds and Invertebrates**

978-1-57808-082-3; 2000; 292 pages, hc; $ 98.60

Part B: **Fishes**

978-1-57808-083-0; 2000; 260 pages, hc; $ 89.60

Volume 5: **Immunobiology and Pathology**

978-1-57808-091-5; 2000; 392 pages, hc; $ 109.20

It describes of how the immune systems of fishes function, particularly now that molecular biology techniques are being applied in these studies. Improving the immunity of fishes would be a major step forward.

Volume 6: **Bio-organic Compounds: Chemistry and Biomedical Applications**

978-1-57808-135-6; 2002; 272 pages, hc; $ 95.20

Through new diving technologies, exploration at greater depths is now possible, thus aiding greater scope for research on the utilization of natural products. Studies of these marine natural products include investigations of neuronal membrane-active toxins, ion channel blockers, antitumor and antiviral agents, and anti-inflammatory molecules.

Volume 7: **Seafood Safety and Human Health**

978-1-57808-204-9; 2002; 328 pages, hc; $ 98.60

This volume examines the need to guard against naturally occurring toxins and pathogenic organisms that are capable of contaminating this food supply. It is imperative to detect the presence of these toxins and environmental conditions which favor the microorganisms that are the sources of these toxins in order to ensure food safety. Marine biotechnology has a major role at the forefront in assuring that our seafood is safe, and has begun to provide impressive successes in assuring that it will be so.

Volume 8: **Bioremediation**

978-1-57808-245-2; 2003; 352 pages, hc; $ 107.50

Bioremediation is a technology that utilizes the metabolic potential of microorganisms to clean up contaminated environments. In this volume, international scientists present the results of recent research in marine bioremediation. A sampling of topics includes the bioremediation of petroleum spills, the control of heavy metal contamination, and the use of molecular technologies for monitoring bacteria.

Volume 9: **Biomaterials and Bioprocessing**

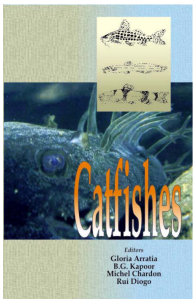
978-1-57808-284-1; 2003; 300 pages, hc; $ 108.60

The book deals with a range of topics, such as photobioreactors, industrial applications of chitosanases, carrageenans from red algae, anticoagulants from marine algae, anti-HIV compounds from red algae, and biomass production as a source of energy by pyrolysis.

Volume 10: **Molecular Genetics of Marine Organisms**

978-1-57808-297-1; 2003; 436 pages, hc; $ 132.20

In this volume, biologists, geneticists, and other scientists in related fields, explore how the basic aspects of molecular genetics can be applied to practical problems of increasing commercial production from the oceans.



CATFISHES

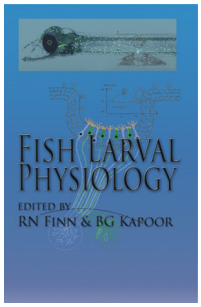
Editors:
Gloria Arratia: Humboldt University, Berlin, Germany
B.G. Kapoor: Jodhpur University, India
R. Diogo and *M. Chardon:* Université de Liège, Liège, Belgium

978-1-57808-261-2; 2003; 844 pages (2 vols.), hc; $ 159.00

The first volume addresses catfish anatomy; function and functional morphology; and phylogeny, systematics, and some problematic groups. The catfish fossil record, ecology and ethology, development, and sensory biology are covered in the second volume.

"....this book is an important one for all catfish researchers. It certainly deserves a place in reference libraries, and probably also on the shelf of the serious specialist."

— **African J of Aquatic Sc.** 2005, 30(1)



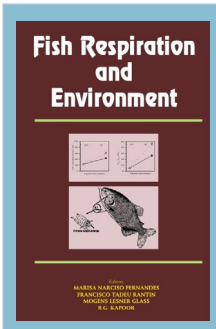
NEW

FISH LARVAL PHYSIOLOGY

Editors:
R. Nigel Finn: University of Bergen, Norway
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-388-6; May 2008; 742 pages including 26 color illustrations, hc; $ 139.00

This book is intended as a resource for students and researchers interested in developmental biology and physiology and specifically addresses the larval stages of fish. This book aims at providing a single-volume treatise that explains how fish larvae develop and differentiate, how they regulate salt, water and acid-base balance, how they transport and exchange gases, acquire and utilise energy, how they sense their environment, and move in their aquatic medium, how they control and defend themselves, and finally how they grow up.



FISH RESPIRATION AND ENVIRONMENT

Editors:
Marisa N. Fernandes and *Francisco T. Rantin:* Universidade Federal de São Carlos, São Carlos, Brazil
Mogens L. Glass: Universidade de São Paulo, Ribeirão Prêto, Brazil
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-357-2; 2007; 408 pages, hc; $ 122.60
[eBook 978-1-57808-553-8]

Gills of healthy fishes are their life-line to meet the challenges arising from their changing environment: oxygen gradient, alkalinity, temperature fluctuations and the added pollutants. The diverse and ever changing aquatic environment has a major impact on the organization of various organ-systems of fishes. This book contains seventeen chapters covering bony fishes. The chapters primarily cover fish respiration but also include osmoregulation, these being the two main functions of gills. Concurrently, cardiorespiratory synchronization has been well addressed.

This book has broad coverage, and is well-supported with illustrations.

PALAEMONID PRAWNS

Biodiversity, Taxonomy, Biology and Management
K.V. Jayachandran

978-1-57808-182-0; 2001; 640 pages, hc; $ 155.70

The author views prawns as having great potential as an environmentally sustainable food source that can counter act the socioeconomic effects of the decline in traditional fishing. The introduction provides aquaculture trend data on the commercially important Palaemonidae family, which thrives in habitats ranging from coastal marine waters to high altitude streams. This volume consolidates the extensive literature on prawn taxonomy, biogeography by world regions, biology, hatchery management, farming, diseases and their control. Includes several color plates and numerous diagrams. Indexed by species and subject.

Low stock availability

FISH ADAPTATIONS

Adalberto Luís Val: INPA, Laboratório de Ecofisiologia e Evolução Molecular, Manaus, Brazil
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-249-0; 2003; 432 pages, hc; $ 156.80

When water characteristics change, fishes have to adjust physiologically to these alternations in their habitat in order to survive as a biological identity. Physiological adaptation is a dynamic and never-ending process that has resulted in myriad fish groups adapting to the vast environmental diversity existing on the Earth. Moreover, adaptively modified organisms acquire greater ability to exploit the full range of natural environment, by adopting new modes of life in many situations. This book is a 'voyage' through Fish Adaptations, including new and not readily available information.

REPRODUCTIVE BIOLOGY AND PHYLOGENY OF CHONDRICHTHYES

Sharks, Batoids, and Chimaeras

William C. Hamlett (ed.): Indiana University, Notre Dame, Indiana, USA

978-1-57808-314-5; 2005; 576 pages, hc; $ 133.80

Deals with ideas concerning the development, reproductive morphology, function and phylogeny of chondrichthyan fishes. This information is fundamental to our understanding of oogenesis, spermatogenesis, gestation, regulation of reproductive tract function, sperm storage, nutrient provision, placentation, phylogeny and are pertinent to our concepts of the origin of live bearing in general. New and exciting data is presented including the idea that yolk sac viviparity is the plesiomorphic state rather than oviparity.

"..this volume will be an indispensable reference to both general biologists and specialists."

— **The Quarterly Review of Biology,** Vol. 82, No. 1, March 2007

FISH LIFE IN SPECIAL ENVIRONMENTS

NEW

Philippe Sébert: Unité Haute Pression et Métabolisme, Cedex, France
D.W. Onyango: University of Nairobi, Kenya
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-387-9; January 2008; 362 pages, hc; $109.80 [eBook 978-1-57808-560-6]

The book discusses fish in diverse environmental conditions such as alkaline environments, caves, Antarctic, ice cold lakes, tropical coral reefs, and deep waters. The chapters also discuss mitochondrial functions in the cold, circadian rhythms, endocrinology of migratory fish life cycle and fish muscle function.

The topics have been selected in order to present a window to an array of adaptations of aquatic inhabitants which enable them to subsist and survive in the uncommon, and often hostile, external environment. The book serves as both a general and a specific source of information for fish biologists as well as ecophysiologists.

ATLAS OF FISH HISTOLOGY

NEW

Franck Genten, Eddy Terwinghe and *André Danguy*: Free University of Brussels, Belgium

978-1-57808-544-6; January 2009

The Atlas of Histology presents more than 450 color micrographs of histological sections of more than 40 fish species. It offers comprehensive coverage of normal fish histology and is the most recent reference work to learn, know and recognize principal tissues of these vertebrates. Its 15 chapters are intended for biologists, veterinarians, researchers and everyone interested in fish.

FISH DEFENSES

Editors:
Giacomo Zaccone: Messina University, Italy
J. Meseguer and *A. Garcia-Ayala:* University of Murcia, Spain
B.G. Kapoor: Formerly, Jodhpur University, India

Volume 1: **Immunology**

NEW

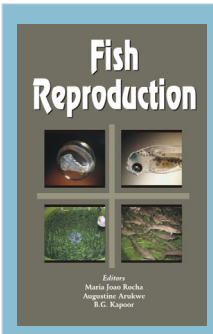
978-1-57808-327-5; September 2008; ca.400 pages, hc; $ 118.00

The greatest complexity of the immune response is shown by vertebrates which are endowed with innate and acquired immunity. Immunological studies performed mostly in mammals have been the reference for studies in other vertebrates. The study of immunological fish defenses has advanced considerably in recent decades. This has been due to the key status of fish in terms of the evolution of acquired immunity and due to the rapid expansion of aquaculture over this period, wherein disease control is of prime concern. Most of the chapters not only review the current advances on fish immune defenses, but also show perspective for future research. The book will be of interest to scientists involved in fish immunology, fisheries and aquaculture as well as for students of fish biology.

Volume 2: **Pathogens, Parasites and Predators**

NEW

978-1-57808-407-4; January 2009



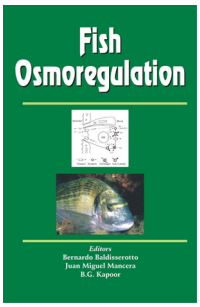
NEW

FISH REPRODUCTION

Editors:
Maria J. Rocha: Centre of Marine & Environmental Research, Porto, Portugal
Augustine Arukwe: Norwegian University of Science & Technology, Trondhein, Norway
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-331-2; January 2008; 632 pages, hc; $ 143.40 [eBook 978-1-57808-557-6]

The first chapters highlight important issues affecting fish normal ways of reproductive development; details would focus on species living in opposite environments, such as tropical and polar fishes; far related, as teleosts and cartilaginous fishes; and finally, fish having different reproductive strategies. Thereafter, since many fishes live in detrimental environments, mainly induced by the continuous input of xenobiotic substances into waterways, the authors found it highly pertinent to include this topic. Herein, the authors fix their attention on the factors and mechanisms that may well affect reproduction-related hormonal systems as also on known consequences for fish living in polluted environments. Finally, the interplay of modern concepts of fish reproduction in aquaculture is reviewed.

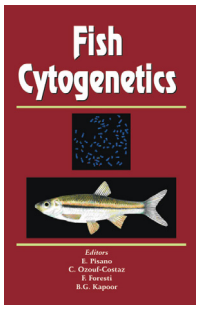


FISH OSMOREGULATION

Editors:
Bernardo Baldisserotto: Universidade Federal de Santa Maria, Santa Maria-RS, Brazil
J.M. Mancera Romero: Universidad de Cadiz, Spain

978-1-57808-447-0; 2007; 540 pages, hc; $ 143.40 [eBook 978-1-57808-555-2]

Several specialists have analyzed and reviewed the new data published regarding fish osmoregulation, in this volume. The chapters present an integrative synthesis of the different aspects of this field focusing on osmoregulation in specific environments or situations, function of osmoregulatory organs, general mechanisms and endocrine control. In addition, interactions of osmoregulatory mechanisms with the immune system, diet and metabolism were also reviewed. New emerging techniques to study osmoregulation has also been analysed.

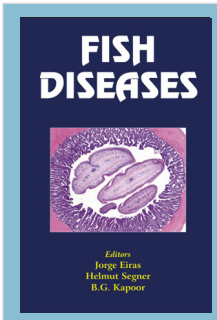


FISH CYTOGENETICS

Editors:
E. Pisano: Universita di Genova, Italy
C. Ozouf-Costaz: Museum National d'histoire Naturelle, Paris, Cedex, France
F. Foresti: Instituto de Biosciencias, UNESP, Brazil

978-1-57808-330-5; 2007; 518 pages, hc; $ 128.80 [eBook 978-1-57808-549-1]

This book is organized in four sections (systematics and evolution; biodiversity conservation; stock assessment and aquaculture; and genomics) covering the major fields of present fish cytogenetic research. The book provides a comprehensive picture of the ongoing research around the world. Due to the diversified arrays of themes approached, including speciation and evolution, biodiversity and conservation and genomics, the book is addressed not only to specialists in cytogenetics but to all scientists interested in fish biology.



NEW

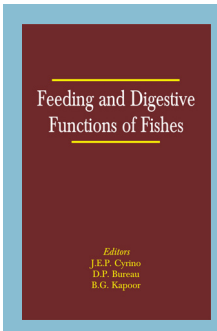
FISH DISEASES

Editors:
Jorge Eiras: Universidade do Porto, Portugal
Helmut Segner and *Thomas Wahli:* University of Bern, Switzerland
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-438-8; August 2008; ca.1300 pages (2 vols.), hc; $ 149.00

The purpose of this book is to provide a comprehensive overview of infectious as well as non-infectious diseases of fish, with emphasis on recent advancements in our understanding of fish disease processes.

The book is aimed at scientists involved in basic and applied fish research, aquaculture industry, and private and governmental fish health laboratories. It will also serve as a reference textbook for graduate courses on general parasitology, microbiology, aquaculture and environmental studies.



FEEDING AND DIGESTIVE FUNCTIONS IN FISHES

NEW

Editors:
J.E.P. Cyrino: Dept. of Animal Science (Zootecnia), Piracicaba, SP, Brazil
D. Bureau: University of Guelph, Ontario, Canada
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-375-6; September 2008; ca.580 pages, hc; $ 135.00

More than 250 aquatic species are cultivated on a commercial scale using a wide variety of production systems. This great diversity results in great opportunities and tremendous challenges. Topics covered in this book are as diverse as, feeding ecology of fish in their natural habitat, feeding behavior, digestive anatomy, biochemistry and physiology of different fish species at different life stages, the impact of diet on gastro-intestinal development and health, nutrition and disease resistance, and modeling conversion of food or feed inputs into biomass.

Available in e-book only

COMMUNICATION IN FISHES

Editors:
Friedrich Ladich: University of Vienna, Austria
Shaun Collin: The University of Queensland, Brisbane, Australia
Peter Moller: The City University of New York, NY, USA

978-1-57808-328-2; 2006; 870 pages (2 vols.), hc; $ 162.40
[eBook 978-1-57808-563-7]

This book describes how fish communicate with acoustic, chemical, visual, and electric signals.

"... valuabe as classroom and research resources for both graduate students and more established researchers in fish biology, sensory biology, and neuroethology."

— The Quarterly Review of Biology, Vol. 82, December 2007

OCEAN ENVIRONMENT AND FISHERIES

NEW

M.P.M. Reddy: Formerly, College of Fisheries, Mangalore, India

978-1-57808-519-4; September 2007; 560 pages, hc; $ 128.80
[eBook 978-1-57808-554-5]

Contains detailed information on the physical, chemical and biological oceanographic features at various depths for all the fifteen regions of the Atlantic, Pacific, Indian and Southern Oceans as categorized by the FAO, and on the commercially important marine fishes, and details of fish catches in all the major oceans since 1950. Aspects relating to fisheries forecasts are discussed. Several aspects relating to various Oceans environmental factors which influence fisheries in different regions of the major oceans are given as well. It is intended for scientists, teachers and students specializing in Fishery Oceanography, Physical Oceanography, Chemical Oceanography and Biological Oceanography.

NUTRITION, PHYSIOLOGY, AND METABOLISM IN CRUSTACEANS

Elena Mente: University of Thessaly, Greece and University of Aberdeen, UK

978-1-57808-220-9; 2003; 170 pages, hc; $ 66.60

It examines protein metabolism and growth in decapod crustaceans.

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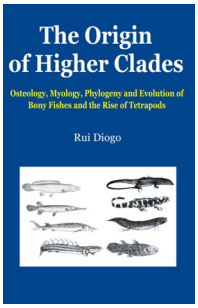


NEW

THE ORIGIN OF HIGHER CLADES

Osteology, Myology, Phylogeny and Evolution of Bony Fishes and the Rise of Tetrapods

Rui Diogo: George Washington University, Washington, DC, USA

978-1-57808-530-9; March 2008; 388 pages, incl. 7 color plates, pb; $ 55.00
[eBook 978-1-57808-559-0]

The Osteichthyes, including bony fishes and tetrapods, is a highly speciose group of animal comprising more than 42,000 living species. The extraordinary taxonomic diversity of osteichthyans is associated with a remarkable variety of morphological features and adaptations to very different habitats, from the deep sea to high mountains. This book provides a new insight on the osteology, myology, phylogeny and evolution of this fascinating group. The data presented in this book will stimulate, and pave the way for, future studies on the comparative anatomy, functional morphology, phylogeny and evolution of osteichthyans and of vertebrates in general.

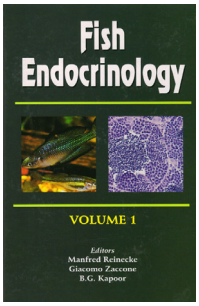
REPRODUCTIVE STRATEGY OF MARINE BIVALVES AND ECHINODERMS

V.L. Kasyanov: Institute of Marine Biology, Vladivostok, Russia

978-1-57808-136-3; 2001; 240 pages, hc; $ 100.20

This work analyzes the data on reproduction and growth that might be useful in practical aquaculture, and the industry. The scope of investigations on echinoderms has been confined to economically important species — sea cucumbers, sea urchins, and sea stars.

The book has been updated and revised by the author for the English edition in 2000.



FISH ENDOCRINOLOGY

Editors:
Manfred Reinecke: University of Zürich, Switzerland
Giacomo Zaccone: Messina University, Italy
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-318-3, 2006; 912 pages (2 vols.); 12 color figures, hc; $ 151.20
[eBook 978-1-57808-561-3]

With the recent advances in molecular biology, cell biology, physiology and behavior, the contributors of these 24 papers are making significant progress in understanding the endocrine functions of a number of species of fish.

"... a valuable contribution to general fish endocrinology literature."

— J of Experimental Marine Biology and Ecology, 351(2007)

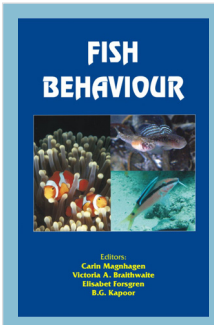
SENSORY BIOLOGY OF JAWED FISHES: New Insights

B.G. Kapoor and *T.J. Hara (eds.)*

978-1-57808-099-1; 2001; 404 pages, hc; $ 133.80

Ichthyologists specializing in morphology, ultrastructure, physiology, developmental biology, neurology, ecology, and behavior present 15 commissioned papers on the senses of the gnathostomes, or jawed fish, among which are the teleosts, which account for almost all living fish.

A PDF version of this catalog is also available on our website (www.scipub.net)



FISH BEHAVIOUR

NEW

Editors:
Carin Magnhagen: Swedish University of Agriculture Sciences, Umea, Sweden
Victoria A. Braithwaite: University of Edinburgh, UK
Elisabet Forsgren: Norwegian University of Science & Tech., Trondheim, Norway

978-1-57808-435-7; August 2008; ca.660 pages, hc; $ 137.50

Central questions addressed in this book include: How do sensory input, hormones, genetics and experience interact to shape individual behaviour? What should a fish do to be in the right place at the right time—and how should it behave to be an efficient predator yet not become the subject of predation itself? How to find a mate—or to find the best mate? Should all fish do the same, or is the optimal behaviour dependent on individual characteristics? How does reproductive behaviour affect what fish look like, in terms of colour, body form or body size? And how do fish cope with their complex social and biological environment, including parasites, competitors and collaborators?

The book provides new insights offered by recent research on fish behaviour. The chapters are written by prominent international scientists and are aimed not only at fish biology students and researchers but anyone interested in the interplay between behaviour, ecology and evolution.

FISH CHEMOSENSES

Editors:
Klaus Reutter: Anatomisches Institut Universität, Tübingen, Germany
B.G. Kapoor: Formerly, Jodhpur University, India

978-1-57808-319-0; 2005; 356 pages, hc; $ 106.40

Deals with the fishes chemosensory systems — the well known olfactory and the gustatory senses and the less popular solitary chemosensory cells. Chemosenses play an essential role in the survival of fishes. They help the fish to search for food, to consume it and to process it further, they help to find their conspecifics and to avoid enemies or predators. Fishes living in unusual extreme ecological niches, like caves and the deep sea, have highly developed and evolved chemosensory organs then the chemosenses of sight-hunting fish.