



2 0 0 7 – 2 0 0 8

# BIOLOGY

[www.scipub.net](http://www.scipub.net)

**Science Publishers**

Enfield, New Hampshire, USA

## AMPHIBIANS AND REPTILES OF NORTH-WEST EUROPE

### Their Natural History, Ecology and Conservation

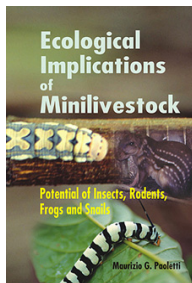
*Ian F. Spellerberg*: Lincoln University, New Zealand

978-1-57808-259-9; 2002; 216 pp, 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. Species accounts give details on taxonomy; distribution; reproduction, growth, and development; environmental adaptations; and aspects of the ecology of the various species discussed. Color illustrations and b&w distribution maps are included.

"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



## ECOLOGICAL IMPLICATIONS OF MINILIVESTOCK

### Potential of Insects, Rodents, Frogs and Snails

*Maurizio G. Paoletti (ed.)*: Dipartimento di Biologia, 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. The author's postal address and e-mail address are included at the beginning of each chapter so readers have easy access to them for continued dialogue."

— **Megadrillogica**, Vol. 10(a), 2005

## 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.

## 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-Vitellogenin 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.

Order through our convenient and secure online shopping cart

[www.scipub.net](http://www.scipub.net)

## 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. This is an essential text for anyone interested in the biology of urodele amphibians.

## 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 pp., hc; \$ 133.80

This volume correlates available data and ideas concerning the development, reproductive morphology, function and phylogeny of chondrichthyan fishes. The information presented and discussed 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."

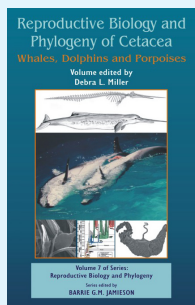
— *The Quarterly Review of Biology*, Vol. 82, No. 1, March 2007

## REPRODUCTIVE BIOLOGY AND PHYLOGENY OF GYMNOPHIONA (CAECILIANS)

*Jean-Marie Exbrayat (ed.):* Laboratoire de Biologie générale, Catholic University of Lyon, France

978-1-57808-312-1; 2006; 408 pages, hc; \$ 121.00

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.



NEW

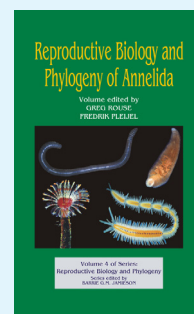
## REPRODUCTIVE BIOLOGY AND PHYLOGENY OF CETACEA

### Whales, Dolphins and Porpoises

*Debra L. Miller (ed.)*

978-1-57808-360-2; June 2007; 450 pages, hc; \$ 132.20

The order Cetacea comprises some amazing species, representing some of the most evolved creatures that inhabit this earth. Yet, they also represent a group of species for which much remains unknown. 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' Histoire 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 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.

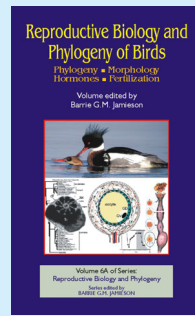
**REPRODUCTIVE BIOLOGY AND PHYLOGENY OF BIRDS**

Barrie G.M. Jamieson (ed.): School of Integrative Biology, 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

Aspects of reproduction covered in this volume include classification and phylogeny as revealed by molecular biology; anatomy of the male reproductive tract and organs; anatomy and evolution of copulatory structures; development and anatomy of the female reproductive tract; endocrinology of reproduction; ovarian dynamics and follicle development; spermatogenesis and testicular cycles; avian spermatozoa: structure and phylogeny; testis size, sperm size and sperm competition and lastly, fertilization.

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

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

The second part of volume 6 discusses sexual selection of ultraviolet and structural signals; melanins and carotenoids as feather colorants and signals; sexual selection and auditory signaling; odors and chemical signaling; sexual dimorphism; sexual selection, signal selection and the handicap principle; courtship and copulation; sexual conflict and its implications for fitness; intra- and extra-pair paternity; parental care (including cooperative breeding); brood parasitism in birds; applications of reproductive biology to bird conservation and population management; embryogenesis and development; molecular genetics of avian sex determination and gonadal development. Many new illustrations are provided throughout the volume.

*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.

**MAMMALS OF THE SOVIET UNION**

V.G. Heptner et al. (eds.): Curator, Zoological Museum, Moscow State University, Russia

For each species detailed information on diagnosis, description, taxonomy, geographic distribution, geographic variation, biology and economic importance is given. Volumes are richly illustrated and have exhaustive lists of literature cited.

**Sirenia and Carnivora (Sea Cows, Wolves and Bears): Volume II, Part 1a**

978-1-886106-81-9; 1998; 752 pages, hc; \$ 168.00

**Carnivora (Weasels; Additional Species): Volume II, Part 1b**

978-1-57808-170-7; 2002; 832 pages, hc; \$ 212.80

**Pinnipeds and Toothed Whales: Volume II, Part 3**

978-1-886106-67-3; 1996; 1025 pages, hc; \$ 252.00

**Mammals of Russia and Adjacent Regions: BALEEN WHALES**

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

... see *Fisheries*

**Mammals of Russia and Adjacent Regions: JERBOAS**

G.I. Shenbrot, V.E. Sokolov, V.G. Heptner, Yu.M. Koval'skaya

Volume Scientific Editor:

Don E. Wilson: Smithsonian Institution, Washington, DC

978-1-57808-531-6; January 2008; 786 pages, hc; \$ 139.50

This book is devoted to the description of 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.). This book primarily focuses species found in Russia, Ukraine, Caucasus, Russian Central Asia and Transcaucasia. Brief coverage of species outside these regions is also included. The book is intended for mammalogists, systematists, ecologists, and zoogeographers.

**Mammals of Russia and Adjacent Regions: LAGOMORPHS**

V.E. Sokolov et al.

Scientific Editors:

Robert S. Hoffmann & Andrew T. Smith

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

**PRINCIPLES AND PRACTICES OF ANIMAL TAXONOMY (2/e)**

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

**TEXTBOOK OF BIODIVERSITY**

K.V. Krishnamurthy

... see *Botany*

**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, structure, and function from comparative, interdisciplinary points of view: cellular, biochemical, molecular, immunological, and endocrinological. Includes diagrams and microscopic views of testicular cells from mammals and seasonal breeder vertebrates.

**THE LIVING SOIL**

**Fundamentals of Soil Science and Soil Biology**

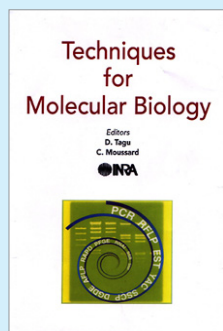
Jean-Michel Gobat, Michel Aragno, and Willy Matthey: l'Université de Neuchâtel, Switzerland

... see Agriculture

**SOIL MICROBIOLOGY**

N.S. Subbarao

... see Agriculture



**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 Eukaryotes; Analysis of Gene Function; Polymorphism of a Genome.

**INSECTS**

**Their Spermatozoa and Phylogeny**

Barrie G.M. Jamieson: University of Queensland, Brisbane, Australia  
Romano Dallai: University of Siena, Siena, Italy

Björn A. Afzelius: Stockholm University, Stockholm, Sweden

... see Entomology

**INVERTEBRATE CELL CULTURE**

**Novel Directions and Biotechnology Applications**

Editors:

Karl Maramorosch: Rutgers — The State University of NJ, Brunswick, USA

Jun Mitsuhashi: Tokyo University of Agriculture, Tokyo, Japan

978-1-57808-011-3; 1997; 308 pages, hc; \$ 122.10

CONTENTS: Novel Developments in Insect Cell Culture; Physiology of Cultured Insect Cells; Action of Physiologically Active Substances on Cultured Insect Cells; Advances in Culture Technologies; Replication of Insect Viruses in Insect Cell Cultures; Development of Biopesticides and Assessment of their Safety; Protein Production by Means of Baculovirus Expression Vectors; Marine Invertebrate Tissue Culture; Culture of Endoparasites *in vitro*

"...the information in this book will be of value for many years to those who desire an overview of the state of the art."

— Society of Invertebrate Pathology, Vol. 30, No. 3

**TREATISE ON PINEAL GLAND AND MELATONIN**

C. Haldar, M. Singaravel, and S.K. Maitra (eds.)

978-1-57808-225-4; 2002; 580 pages, hc; \$ 164.60

This volume is dedicated to professors Aaron Lerner and A.J. Kappers for their contributions a half century ago to basic and applied biology. It discusses the structure, functions, molecular mechanisms, and clinical aspects of the pineal gland and melatonin, the main neurohormone it secretes. The book describes the rising multidisciplinary interest in this endocrine gland, and examines the roles of melatonin and programmed cell death in immunity and cancer. Other contributors

review recent information on research related to the gland's role in reproduction, the daily melatonin rhythm, the gastrointestinal tract, sleep disorders, and winter depression; techniques for melatonin analysis; and melatonin as a chronobiotic drug.

**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.

## 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

## 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 geographic 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

## 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 pg. incl. 6 color plates, 210x300 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 strata-gems 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 pp, 4 color plates, hc; \$ 105.30

This book covers the structural and functional aspects of the excretory system in the vertebrate classes emphasising the evolutionary 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.

CONTENTS: Introduction; Renal Components; Elasmobranchs; Osteichthyans; Cyclostomes; Amphibians; Reptiles; Birds; and Mammals.

Cover  
Not  
Available

### MUSCULAR SYSTEM OF VERTEBRATES

*Seth M. Kisia and Daniel W. Onyango: Department of Veterinary Anatomy, University of Nairobi, 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.

CONTENTS: General Introduction to Vertebrate Muscular System; Muscle Types; Muscle Development; Muscle Contraction; Body Support in Vertebrates; Evolution of the Vertebrate Muscular System

Order through our convenient and secure online shopping cart

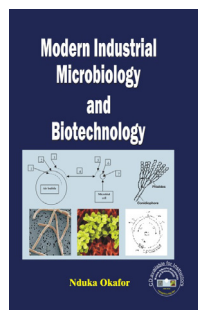
**www.scipub.net**

## ENVIRONMENTAL MICROBIOLOGY Principles and Applications

Patrick K. Jjemba: University of Cincinnati, 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.



NEW

## MODERN INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY

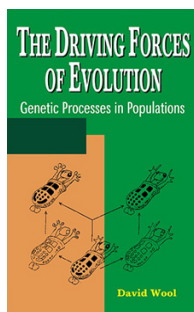
Nduka Okafor: Department of Biological Sciences, Clemson University, South Carolina, USA

978-1-57808-513-2; June 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.

\* Hardcover also available.



## 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

CONTENTS: **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.



NEW

## QUANTUM GENETICS

V.V. Stcherbic and L.P. Buchatsky

978-1-57808-508-8; March 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 quantized 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.

## New Book Proposals

Please send the details of your work at [editor@scipub.net](mailto:editor@scipub.net)

Or

You can visit the Book Proposal form at [www.scipub.net/publication-proposals.html](http://www.scipub.net/publication-proposals.html)

**SP**