

Biological Investigations Dolphin Form Function Diversity And Process

The highly specialized nature of marine mammals when compared with their terrestrial counterparts, the environment in which they live, and the impact of humans on them throughout history and at the present, have made of the scholarship on these creatures something unique in itself. Therefore, it is not surprising that many researchers have also taken a distinctive approach to their study. This volume is aimed at providing a glimpse at such diversity of views and approaches while delivering valuable information on marine mammalogy. Given the increasing concerns regarding issues of anthropogenic factors affecting these animals, it is not surprising that the majority of chapters in this book deal with this subject.

This brand new edition of Wolf ' s acclaimed work provides a self-contained, short course in essential library skills for patrons of college, high school and public libraries. The intent is to provide a quick and easy way to learn to do library research. The exercises contained herein give students hands-on experience by applying rules stated in the text to situations that approach real “ research problems. ” Subjects addressed include a brief tour of the library; card catalogs and cataloging systems; filing rules; online public access catalogs; subject searching; bibliographies; book reviews and parts of a book; dictionaries; encyclopedias; handbooks; atlases; gazetteers; periodicals; newspapers; online database searching and reference sources; literature and criticism; e-books; government information and government documents; biographies; business, career and consumer information; non-print materials and special services; online computer use in libraries and schools; and hints for writing term papers. Instructors considering this book for use in a course may request an examination copy here.

The lead author of eight successful previous editions has brought together a team that combined, has well over 60 years experience in offering beginning biology labs to several thousand students each year at Iowa State University. Their experience and diverse backgrounds ensure that this extensively revised edition will meet the needs of a new generation of students. Designed to be used with all majors-level general biology textbooks, the included labs are investigative, using both discovery- and hypothesis-based science methods. Students experimentally investigate topics, observe structure, use critical thinking skills to predict and test ideas, and engage in hands-on learning. Students are often asked, “ what evidence do you have that... ” in order to encourage them to think for themselves. By emphasizing investigative, quantitative, and comparative approaches to the topics, the authors continually emphasize how the

biological sciences are integrative, yet unique. An instructor's manual, available through McGraw-Hill Lab Central, provides detailed advice based on the authors' experience on how to prepare materials for each lab, teachings tips and lesson plans, and questions that can be used in quizzes and practical exams. This manual is an excellent choice for colleges and universities that want their students to experience the breadth of modern biology.

The medical use of marijuana is surrounded by a cloud of social, political, and religious controversy, which obscures the facts that should be considered in the debate. This book summarizes what we know about marijuana from evidence-based medicine—the harm it may do and the relief it may bring to patients. The book helps the reader understand not only what science has to say about medical marijuana but also the logic behind the scientific conclusions. *Marijuana and Medicine* addresses the science base and the therapeutic effects of marijuana use for medical conditions such as glaucoma and multiple sclerosis. It covers marijuana's mechanism of action, acute and chronic effects on health and behavior, potential adverse effects, efficacy of different delivery systems, analysis of the data about marijuana as a gateway drug, and the prospects for developing cannabinoid drugs. The book evaluates how well marijuana meets accepted standards for medicine and considers the conclusions of other blue-ribbon panels. Full of useful facts, this volume will be important to anyone interested in informed debate about the medical use of marijuana: advocates and opponents as well as policymakers, regulators, and health care providers.

The Dusky Dolphin

The context of natural forest management and FSC certification in Brazil

Atlas of the Anatomy of Dolphins and Whales

Zoology

Comparative Cognition

History: A Very Short Introduction

Authoritative, thorough, and engaging, *Life: The Science of Biology* achieves an optimal balance of scholarship and teachability, never losing sight of either the science or the student. The first introductory text to present biological concepts through the research that revealed them, *Life* covers the full range of topics with an integrated experimental focus that flows naturally from narrative. This approach helps to bring the drama of classic and cutting-edge research to the classroom - but always in the context of reinforcing core ideas and the innovative scientific thinking behind them. Students will experience biology not just as a litany of facts or a highlight reel of experiments, but as a rich, coherent discipline.

Management decisions on appropriate practices and policies regarding tropical forests often need to be made in spite of innumerable uncertainties and complexities. Among the uncertainties are the lack of formalization of lessons learned regarding

impacts of previous programs and projects. Beyond the challenges of generating the proper information on these impacts, there are other difficulties that relate with how to socialize the information and knowledge gained so that change is transformational and enduring. The main complexities lie in understanding the interactions of social-ecological systems at different scales and how they have varied through time in response to policy and other processes. This volume is part of a broad research effort to develop an independent evaluation of certification impacts with stakeholder input, which focuses on FSC certification of natural tropical forests. More specifically, the evaluation program aims at building the evidence base of the empirical biophysical, social, economic, and policy effects that FSC certification of natural forest has had in Brazil as well as in other tropical countries. The contents of this volume highlight the opportunities and constraints that those responsible for managing natural forests for timber production have experienced in their efforts to improve their practices in Brazil. As such, the goal of the studies in this volume serve as the foundation to design an impact evaluation framework of the impacts of FSC certification of natural forests in a participatory manner with interested parties, from institutions and organizations, to communities and individuals.

A pioneering neuroscientist argues that we are more than our brains. To many, the brain is the seat of personal identity and autonomy. But the way we talk about the brain is often rooted more in mystical conceptions of the soul than in scientific facts. This blinds us to the physical realities of mental function. We ignore bodily influences on our psychology, from chemicals in the blood to bacteria in the gut, and overlook the ways that the environment affects our behavior, via factors varying from subconscious thoughts and sounds to the weather. As a result, we alternately overestimate our capacity for free will or equate brains to inorganic machines like computers. But a brain is neither a soul nor an electrical network: it is a bodily organ, and it cannot be separated from its surroundings. Our selves aren't just inside our heads--they're spread throughout our bodies and beyond. Only once we come to terms with this can we grasp the true nature of our humanity.

The Anatomy of Dolphins: Insights into Body Structure and Function is a precise, detailed, fully illustrated, descriptive, and functionally oriented text on the anatomy and morphology of dolphins. It focuses on a number of delphinid species, with key chapters on important dolphin-like genera, such as the harbor porpoise. It also serves as a useful complement for expanding trends and emphasizes in molecular biology and genetics. The authors share their life-long expertise on marine mammals in various disciplines. Written as a team rather than being prepared as a collection of separate contributions, the result is a uniform and comprehensive style, giving each of the different topics appropriate space. Many color figures, which use the authors' access to wide collections of unique dolphin and whale material, round out this exceptional offering to the field. Includes high-quality illustrations, drawings, halftone artwork, photographic documentations, microphotos, and tables detailing dolphin anatomy, function, and morphology. Facilitates education and training of students of all basic research and applied sciences dedicated to marine biology and the medical care of marine mammals. Brings together the current knowledge and information on this topic, including those in obscure past or non-English publications, or scattered in short chapters in volumes. Covers a number of delphinid species and serves as a useful complement for expanding trends in molecular biology and genetics.

Behavior, Community Structure, and Conservation

Form, Function, Diversity, and Process

Animal Morphology and the German Universities, 1800-1900

The Biological Mind

A Journey into the Wild and Haunting World of Dolphins

Basic Library Skills, 5th ed.

Mixed-Species Groups of Animals: Behavior, Community Structure, and Conservation presents a comprehensive discussion on the mixed-species groups of animals, a spectacular and accessible example of the complexity of species interactions. They are found in a wide range of animals, including invertebrates, fish, mammals and birds, and in different habitats, both terrestrial and aquatic, throughout the world. While there are more than 500 articles on this subject scattered in separate categories of journals, there has yet to be a general, cross-taxa book-length introduction to this subject that summarizes the behavior and community structure of these groups. The authors first survey the diversity of spatial associations among animals and then concentrate on moving groups. They review the major classes of theories that have been developed to explain their presence, particularly in how groups increase foraging efficiency and decrease predation. Finally, they explore the intricacies of species interactions, such as communication, that explain species roles in groups and discuss what implications these social systems have for conservation. Functions as a single resource for readers inside and outside of academia on mixed-species groups, serving as a foundation for future research in this field Begins with an empirical summary of mixed-species distribution and reviews how the theories explaining their adaptive benefits are supported by the evidence Includes many aspects of mixed-group behavior (e.g. foraging, communication, collective decision-making, dominance, social roles of species and leadership, relationship to conservation) that were not previously or easily accessible

The result of a conference on language and related cognitive processes in animals, this book brings together scientists working on language and communication, reviews research done on language in apes and dolphins, and places this work in a larger perspective of animal communication and cognition. The conference convened an international group of distinguished scientists interested in exploring the neurological, cognitive, social, and behavioral aspects of communication in animals. A broad spectrum of perspectives was represented, including naturalistic investigations of animals in their natural habitat as well as strictly controlled laboratory investigations. Similarly, a broad range of species was described including rats, parrots, monkeys, apes, dolphins, and humans. New methodologies and perspectives are continuously emerging that allow consideration of issues that previously could not be resolved. Emerging technology such as video equipment and advanced database systems allow one to exhaustively record in an accessible format the evidence on which scientific conclusions must be based. Investigation of animal language and communication is a small,

but vigorously exciting area of scientific investigation as the chapters in this volume clearly attest.

Provides a variety of solutions for common JavaScript questions and problems.

Starting with an examination of how historians work, this "Very Short Introduction" aims to explore history in a general, pithy, and accessible manner, rather than to delve into specific periods.

Comparative Perspectives

Books in Print

Effects of Noise on Marine Mammals

The Analysis of Biological Data

Stories of Personal Triumph from the Frontiers of Brain Science

Books in Print Supplement

Designed to be used with all majors-level general biology textbooks, the included labs are investigative, using both discovery- and hypothesis-based science methods. Students experimentally investigate topics, observe structure, use critical thinking skills to analyze and test ideas, and engage in hands-on learning. By emphasizing investigative, quantitative, and comparative approaches to the biological sciences, the authors continually emphasize how the biological sciences are integrative, yet unique. This manual is an excellent choice for colleges and universities that want their students to experience the breadth of modern biology encouraged them to think for themselves. The instructor's manual, provides detailed advice based on the authors' experience on how to prepare materials for each lab, teaching tips, and lesson plans, and questions that can be used in quizzes and practical exams

Atlas of the Anatomy of Dolphins and Whales is a detailed, fully illustrated atlas on the anatomy and morphology of toothed and baleen whales. The book provides basic knowledge on anatomical structures, in particular, soft tissues, and functions as a standalone reference work for dissecting rooms and labs, and for those sampling stranded and by-caught dolphins in the field. As a companion and supplement to Anatomy of Dolphins: Insights into Body Structure and Function, this atlas will be of great interest to the scientific community, including veterinarians and biologists, as a book of reference. With a modern approach to dolphin anatomy and morphology, this atlas provides the extensive knowledge necessary to practitioners and theoretical scientists such as evolutionary biologists. The conceptual clarity, precision, and comprehensive and updated display of the topographical anatomy of the body of cetaceans in the atlas support and illustrate the authors' related work, serving as a comprehensive reference for those who are specifically interested in the details of the anatomy and morphology of porpoises, dolphins and whales. Offers a single reference and useful teaching tool for visualizing the integrated body and its components Functions as a helpful method for demonstrating an animal's anatomy prior to dissection, and for teaching topographic and comparative anatomy Provides a unique and authoritative resource that explicitly relates the gross and microscopic anatomy of cetacean organs and tissues The prenatal development of cetaceans is largely achieved

List of Illustrations Acknowledgments Abbreviations 1: Situating Morphology Pt. 1: Morphology and Physiology 2: The Study of Form

before 18503: Rearranging the Sciences of Animal Life, 1845-1870Pt. 2: Evolutionary Morphology, 1860-18804: Descent and of Development5: Evolutionary Morphology at Jena6: Evolution and Morphology among the Zoologists, 1860-18807: Evolutionary Morphology in Anatomy: Carl Gegenbaur and His SchoolPt. 3: Morphology and Biology, 1880-19008: The Kompetenzkonflikt with the Evolutionary Morphological Program9: New Approaches to Form, 1880-1900: Rhetoric, Research, and Rewards10: Morphology, Biology, and the Zoological Professoriate11: Morphology and Disciplinary Development: Observations and ReflectionsApp. 1. Anatomy and Zoology Professors, 1810-1918, by BirthdateApp. 2. Professorships in Zoology, 1810-1918App. 3. Professorships in Anatomy, 1810-1918Archival SourcesBibliographyIndex Copyright © Libri GmbH. All rights reserved.

True river dolphins as well as marine dolphins that frequent freshwater systems are large animals that have traditionally gone unnoticed by the general public and, in a certain sense, by marine mammal specialists as well. In fact, only a limited number of researchers have investigated the biology of these dolphin species. This is quite surprising given that these species are common predators in their habitats. Now for the first time, revolutionary molecular techniques are being applied to answer evolutionary reconstruction questions of many animals, including river dolphins. In addition, new paleontological records are dramatically changing our perspective about the relationships of these dolphins with each other and with other cetaceans. In this book, new census information and important ecological characteristics are provided of the river dolphins *Inia*, *Sotalia*, *Pontoporia*, *Lipotes*, and *Orca*. For the first time, molecular and genetic results of these dolphin species are presented. A compilation of these data is essential to present a strategic conservation plan for these animals. Upon being informed of critical evolutionary historical data, conservation biologists will now be able to tailor their conservation efforts for each threatened river dolphin species. Additional morphological data and the new discoveries in the fossil record for river dolphins are examined. The major dolphin specialists in Colombia, Brazil, Bolivia, Argentina, the United States of America, China, and India present their newest results within a single that graduate students, professors, scientists, evolutionary ecologists, aquatic mammalogists, population ecologists, conservation ecologists, and marine biologists will all find valuable for the foreseeable future.

How Brain, Body, and Environment Collaborate to Make Us Who We Are

The JavaScript Anthology

The Science of Biology

New Approaches to the Study of Marine Mammals

Experimental Explorations of Animal Intelligence

Assessing the Science Base

A Photographic Atlas for the Biology Laboratory, Seventh Edition by Byron J. Adams and John L. Crawley is a full-color photographic atlas that provides a balanced visual representation of the diversity of biological organisms. It is designed to accompany any biology textbook or laboratory manual.

Here, experts in different areas of the field provide an overview of the bioacoustics of whales and dolphins as well

as a thorough introduction to the subject for investigators of hearing in other animals. Topics covered include the structure and function of cetacean auditory systems, the unique sound production system of odontocetes, acoustic communication, psychoacoustics, echolocation and models of sound propagation.

Biological Investigations Form, Function, Diversity, and Process McGraw-Hill Science, Engineering & Mathematics David Charles presents a study of Aristotle's views on meaning, essence, necessity, and related topics. These interconnected views are central to Aristotle's metaphysics, philosophy of language, and philosophy of science. They are also highly relevant to current philosophical debates. Charles aims, on the basis of a careful reading of Aristotle's texts and many subsequent works, to reach a clear understanding of his claims and arguments, and to assess their truth and their importance to philosophy ancient and modern.

The Image of the City

A Guide to Biology Lab

Master Acrobat Off Different Shores

Insights into Body Structure and Function

Biology

This black-and-white laboratory manual is designed to provide a broad, one-semester introduction to zoology. The manual contains observational and investigative exercises that explore the anatomy, physiology, behavior, and ecology of the major invertebrate and vertebrate groups. This manual is designed to be used in conjunction with Van De Graaff's Photographic Atlas for the Zoology Laboratory, 8e.

The Dusky Dolphin: Master Acrobat Off Different Shores covers various topics about the dusky dolphin, including its taxonomy, history and demography, ecology, and behavior. After introducing the dusky dolphin as a member of the genus *Lagenorhynchus* under the family Delphinidae, the book continues by describing its life history, its demographic patterns, and its role in the food web considering predation, parasitism, and competition. The book also includes chapters that discuss the interaction of the dusky dolphin with its habitats, such as the dusky dolphin's sound production, its foraging at night and in daylight, its survival strategies in response to predator threats, the mating habits of New Zealand duskies, calf rearing, sexual segregation, and genetic relationships. Other chapters address the interaction of dusky dolphins with humans. This book offers information about dusky dolphins off Southern Africa and discussions about the patterns of sympatry in *Lagenorhynchus* and *Cephalorhynchus*. Finally, comparisons between dusky dolphins and great apes as large-brained mammals are also reviewed in this book. Only book fully devoted to the southern hemisphere "dusky" dolphin Heavily illustrated with charts, figures, tables, and all color photos Written by a cadre of experts intimately familiar with dolphin field work Written in an accurate yet accessible style for the scientist and natural historian alike

The Analysis of Biological Data provides students with a practical foundation of statistics for biology students. Every chapter has several biological or medical examples of key concepts, and each example is prefaced by a substantial description of the biological setting. The

emphasis on real and interesting examples carries into the problem sets where students have dozens of practice problems based on real data. The third edition features over 200 new examples and problems. These include new calculation practice problems, which guide the student step by step through the methods, and a greater number of examples and topics come from medical and human health research. Every chapter has been carefully edited for even greater clarity and ease of use. All the data sets, R scripts for all worked examples in the book, as well as many other teaching resources, are available to qualified instructors (see below).

This text focuses on the scientific study of animal intelligence. It celebrates comparative cognition's first quarter century, with a collection of chapters, covering the realm of the scientific study of animal intelligence.

Biological Investigations

Language and Communication

Biology Laboratory Manual

An Introduction to the History of Life

Experimental Hydrodynamics of Fast-Floating Aquatic Animals

101 Essential Tips, Tricks & Hacks

Humans and dolphins have a unique bond. We know that dolphins are highly intelligent, intensely sociable beings who recognize their own reflections, introduce themselves by name, form close friendships, communicate constantly, feel despondent, rescue one another (and humans), deduce, infer, throw tantrums, gossip, joke, and scheme. Many who have swum with them describe the experience as life-changing. They are heralded as magical creatures, and yet we force them into starring roles at theme parks, trade them on the black market and put them to slaughter. Voices in the Ocean is at once a celebration of these beloved animals and a devastating chronicle of the damage wrought when human and dolphin worlds meet. Through Casey's illuminating portrayal of these beguiling creatures we encounter the best and worst of ourselves.

The classic work on the evaluation of city form. What does the city's form actually mean to the people who live there? What can the city planner do to make the city's image more vivid and memorable to the city dweller? To answer these questions, Mr. Lynch, supported by studies of Los Angeles, Boston, and Jersey City, formulates a new criterion—imageability—and shows its potential value as a guide for the building and rebuilding of cities. The wide scope of this study leads to an original and vital method for the evaluation of city form. The architect, the planner, and certainly the city dweller will all want to read this book.

“Fascinating. Doidge's book is a remarkable and hopeful portrait of the endless adaptability of the human brain.”—Oliver Sacks, MD, author of The Man Who Mistook His Wife for a Hat What is

neuroplasticity? Is it possible to change your brain? Norman Doidge's inspiring guide to the new brain science explains all of this and more An astonishing new science called neuroplasticity is overthrowing the centuries-old notion that the human brain is immutable, and proving that it is, in fact, possible to change your brain. Psychoanalyst, Norman Doidge, M.D., traveled the country to meet both the brilliant scientists championing neuroplasticity, its healing powers, and the people whose lives they've transformed—people whose mental limitations, brain damage or brain trauma were seen as unalterable. We see a woman born with half a brain that rewired itself to work as a whole, blind people who learn to see, learning disorders cured, IQs raised, aging brains rejuvenated, stroke patients learning to speak, children with cerebral palsy learning to move with more grace, depression and anxiety disorders successfully treated, and lifelong character traits changed. Using these marvelous stories to probe mysteries of the body, emotion, love, sex, culture, and education, Dr. Doidge has written an immensely moving, inspiring book that will permanently alter the way we look at our brains, human nature, and human potential.

Because of their exposure in marine parks, movies, and television as well as their presence in tropical and warm-temperature waters around the world, bottlenose dolphins are among the most familiar of marine mammals. Since they are relatively easy to obtain and they thrive in captivity, these dolphins have been used in a great variety of studies. Work with the bottlenose has provided insight into the sensory mechanisms, communication systems, energetics, reproduction, anatomy, and other aspects of cetacean biology. This volume presents the most recent biological and behavioral discoveries of bottlenose dolphins from different regions and compares bottlenose dolphins as a group with other species of animals.

Biology, Evolution, and Conservation of River Dolphins Within South America and Asia

Plant Evolution

Biology for Junior High School

Exercises for the Zoology Laboratory, 4e

Van de Graaff's Photographic Atlas for the Biology Laboratory

The Bottlenose Dolphin

Experimental Hydrodynamics of Fast-Floating Aquatic Animals presents the latest research on the physiological, morphological and evolutionary factors in aquatic animal

locomotion. Beginning with an overview on how to conduct experiments on swimming aquatic animals, assessing hydrodynamic forces, resistance and geometric parameters of animal bodies, the book then details how aquatic animals, such as fast-moving dolphins, can achieve high speeds without over-expelling their energy resources. It provides insights into investigations on how animals, including dolphins, sharks and swordfish can maneuver through water at high speeds, offering a natural model for improving human and technological underwater locomotion. This book is essential for researchers and practicing biologists interested in the study of aquatic animal locomotive physiology and its application to human technology. Advanced undergraduate and graduate students will also find this a helpful academic resource for further understanding animal hydrodynamics. Analyzes the locomotive benefits of bodily structures in aquatic animals such as cetacean species, penguins, sharks and fast-swimming fish species, such as the swordfish Features the latest research and firsthand investigative studies of aquatic animal hydrodynamic factors, including skin elasticity, fin shape and movement, bioenergy, and more Provides a comparison of human to animal hydrodynamics, detailing how energy is spent differently due to evolutionary advances in the latter

This laboratory manual is designed for an introductory majors biology course with a broad survey of basic laboratory techniques. The experiments and procedures are simple, safe, easy to perform, and especially appropriate for large classes. Few experiments require a second class-meeting to complete the procedure. Each exercise includes many photographs, traditional topics, and experiments that help students learn about life. Procedures within each exercise are numerous and discrete so that an exercise can be tailored to the needs of the students, the style of the instructor, and the facilities available. This lab manual is for a one or two-semester majors level general biology lab and can be used with any majors-level general biology textbook. The labs are investigative and ask students to use more critical thinking and hands-on learning. The author emphasizes investigative, quantitative, and comparative approaches to studying the life sciences. Although plants comprise more than 90% of all visible life, and land plants and algae collectively make up the most morphologically, physiologically, and ecologically diverse

group of organisms on earth, books on evolution instead tend to focus on animals. This organismal bias has led to an incomplete and often erroneous understanding of evolutionary theory. Because plants grow and reproduce differently than animals, they have evolved differently, and generally accepted evolutionary views—as, for example, the standard models of speciation—often fail to hold when applied to them. Tapping such wide-ranging topics as genetics, gene regulatory networks, phenotype mapping, and multicellularity, as well as paleobotany, Karl J. Niklas's *Plant Evolution* offers fresh insight into these differences. Following up on his landmark book *The Evolutionary Biology of Plants*—in which he drew on cutting-edge computer simulations that used plants as models to illuminate key evolutionary theories—Niklas incorporates data from more than a decade of new research in the flourishing field of molecular biology, conveying not only why the study of evolution is so important, but also why the study of plants is essential to our understanding of evolutionary processes. Niklas shows us that investigating the intricacies of plant development, the diversification of early vascular land plants, and larger patterns in plant evolution is not just a botanical pursuit: it is vital to our comprehension of the history of all life on this green planet.

Life

Voices in the Ocean

Biology Takes Form

The Brain That Changes Itself

Aristotle on Meaning and Essence

Molecular Biology of the Cell