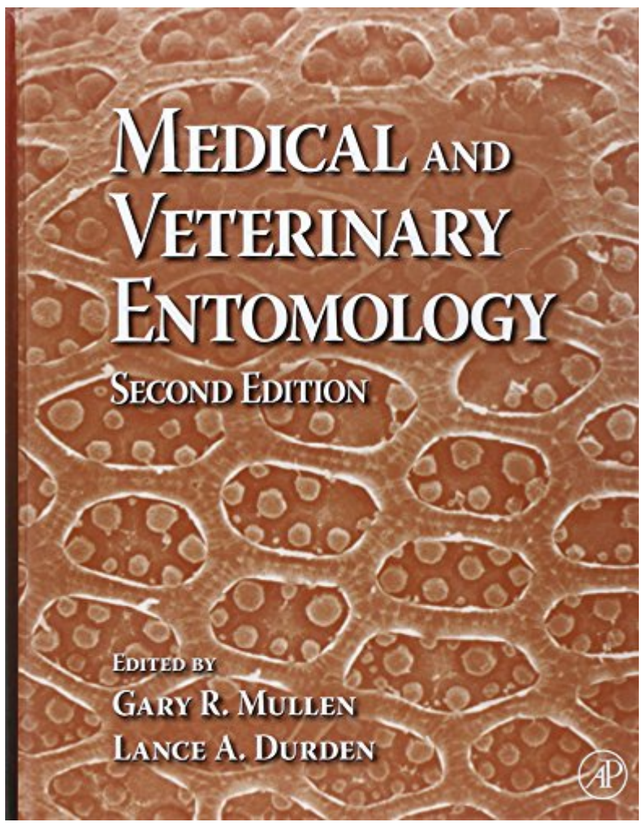

[DOC] Medical And Veterinary Entomology

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Medical and Veterinary Entomology-Gary R. Mullen 2009-04-22 Medical and Veterinary Entomology, Second Edition, has been fully updated and revised to provide the latest information on developments in entomology relating to public health and veterinary importance. Each chapter is structured with the student in mind, organized by the major headings of Taxonomy, Morphology, Life History, Behavior and Ecology, Public Health and Veterinary Importance, and Prevention and Control. This second edition includes separate chapters devoted to each of the taxonomic groups of insects and arachnids of medical or veterinary concern, including spiders, scorpions, mites, and ticks. Internationally recognized editors Mullen and Durden include extensive coverage of both medical and veterinary entomological importance. This book is designed for teaching and research faculty in medical and veterinary schools that provide a course in vector borne diseases and medical entomology; parasitologists, entomologists, and government scientists responsible for oversight and monitoring of insect vector borne diseases; and medical and veterinary school libraries and libraries at institutions with strong programs in entomology. Follows in the tradition of Herm's Medical and Veterinary Entomology The latest information on developments in entomology relating to public health and veterinary importance Two separate indexes for enhanced searchability: Taxonomic and Subject New to this edition: Three new chapters Morphological Adaptations of Parasitic Arthropods Forensic Entomology Molecular Tools in Medical and Veterinary Entomology 1700 word glossary Appendix of Arthropod-Related Viruses of Medical-Veterinary Importance Numerous new full-color images, illustrations and maps throughout

Medical and Veterinary Entomology-Gary R. Mullen 2002-09-27 Medical and Veterinary Entomology is a comprehensive text and is primarily intended for graduate students and upper level undergraduates studying the medical and veterinary significance of insects and related arthropods. The book will also appeal to a larger audience, specialists and non-specialists alike, including entomologists, parasitologists, biologists, epidemiologists, physicians, public health personnel, veterinarians, wildlife specialists and others looking for a readable, authoritative book on this topic. The first two chapters provide overviews of medical-veterinary entomology and epidemiology, respectively. These are followed by individual chapters devoted to each group of insects or arachnids of medical-veterinary importance and the health problems they can cause including their role as vectors of pathogens. Each of these chapters provides an overview of the taxonomy, biology and ecology of the group, and is followed by separate sections on their medical and veterinary importance, then by a section on prevention and control and, finally, by a list of references and further reading. Nationally and internationally renowned contributing authors Up to date and new information that is easy to locate, with extensive subheadings and highlighted key words throughout text Includes extensive coverage of arachnids, including scorpions, solpugids, spiders, mites and ticks Designed for teaching several courses including Medical Entomology, Veterinary Entomology or combined Medical-Veterinary Entomology courses

Medical and Veterinary Entomology-Gary Richard Mullen 2009 For medical, veterinary, entomology and public health students, this acclaimed textbook has been fully updated and revised to reflect the most recent advances. Each chapter is structured with the student in mind, organized by the major headings of Taxonomy, Morphology, Life History, Behavior and Ecology, Public Health and Veterinary Importance, and Prevention and Control. This 2e includes separate chapters devoted to each of the taxonomic groups of insects and arachnids of medical or veterinary concern, including spiders, scorpions, mites, and ticks. Internationally recognized editors Mullen and Durden surpass the competition by including extensive coverage of both medical and veterinary entomological importance. * Follows in the tradition of Herm's Medical and Veterinary Entomology * The latest information on developments in entomology relating to public health and veterinary importance * Two separate indexes for enhanced searchability: Taxonomic and Subject New to this edition: * Three new chapters - Morphological Adaptations of Parasitic Arthropods - Forensic Entomology - Molecular Tools in Medical and Veterinary Entomology * Online ancillaries: glossary, chapter images, study questions, and related web links * 1700 word glossary * Appendix of Arthropod-Related Viruses of Medical-Veterinary Importance * Numerous new full-color images, illustrations and maps throughout

Medical and Veterinary Entomology-Douglas Stewart Kettle 1995-01-01 This second edition has been revised to take account of new advances. The main focus is on the general biology of insects and the Acari (mites and ticks) of medical and veterinary importance, together with brief descriptions of their taxonomy and of the treatment of diseases they cause. The text is divided into three parts: the first provides a general introduction to the classification, structure and function of the relevant insects and Acari; the second covers, in 17 chapters, the main groups of insects and acarines of medical and veterinary importance, from the Culicidae (mosquitoes) to the Ixodidae (hard ticks); part three then provides an overview of those diseases of which the pathprofessionals working in both pure and applied entomology.

Veterinary Entomology-R. Wall 2012-12-06 Although usually treated as unified subject, in many respects the two components of what is broadly described as 'medical and veterinary is usual, the term entomology is entomology' are clearly distinct. As used loosely here to refer to both insects and arachnids. In medical entomology blood-feeding Diptera are of paramount importance, primarily as vectors of pathogenic disease. Most existing textbooks reflect this bias. However, in veterinary entomology ectoparasites such as the mites, fleas or dipteran agents of myiasis assume far greater prominence and the most important effects of their parasitic activity may be mechanical damage, pruritus, blood loss, myiasis, hypersensitivity and dermatitis, in addition to vector-borne pathogenic disease. Ectoparasite infestation of domestic and companion animals, therefore, has clinical consequences necessitating a distinct approach to diagnosis and control. The aim of this book is to introduce the behaviour, ecology, pathology and control of arthropod ectoparasites of domestic animals to students and practitioners of veterinary medicine, animal husbandry and applied biology. Since the book is directed primarily at the non-entomologist, some simplification of a number of the more involved entomological issues has been deemed necessary to improve the book's logical structure and comprehensibility, and keep its length within limits. A reading list is presented at the end of each chapter to act as a stepping-stone into the specialist literature.

Medical Entomology-B.F. Eldridge 2012-12-06 This book is designed primarily as a textbook for graduate and postgraduate courses in Medical, Public Health and Veterinary Entomology. Its uniqueness is that its emphasis is on disease as opposed to arthropods. It includes general discussions of epidemiology, transmission, disease control, vector control and disease surveillance. In addition, it contains chapters oriented towards the many specific arthropod-borne diseases. Furthermore, the book discusses the many direct impacts that parasitic insects have on human and animal health. The arthropods themselves are dealt with in two introductory chapters.

Medical and Veterinary Entomology-William Brodbeck Herms 1915

The Encyclopedia of Medical and Veterinary Entomology-Richard C. Russell 2013 Arthropod transmitted infections continue to be a front-line issue in all regions of the world. Understanding the insects that transmit diseases, the mechanisms of infection and the resulting diseases is vital to doctors, veterinarians, public health workers and disease control agencies. This major reference examines the biology, classification and control of arthropods that cause disease in animals and humans. The morphology, taxonomy and phylogeny of fleas, flies, lice, mites, midges, mosquitoes and ticks are described, with descriptions of their medical and veterinary significance, diseases they cause, insect distribution and global disease spread. Updated, developed and reworked from Doug Kettle's seminal Medical and Veterinary Entomology, this major new reference presents vital information in encyclopedia format, with alphabetical entries and an extensive index to make key facts easy to find. This new treatment of the subject provides accessible content and up-to-date research, illustrated by line drawings and color photographs.

Public Health Entomology-Jerome Goddard 2012-09-12 In the struggle against vector-borne diseases, it is critical that we bridge the gap between vector control workers on the ground (practitioners) and public health planners and administrators. Limited guidance is available from the Centers for Disease Control and the World Health Organization, but reference books are scarce. Public Health Entomology comprehensively examines vector-borne disease prevention, surveillance, and control from a governmental and public health perspective with worldwide application. Divided into two sections, the book begins with a historical account of the early beginnings of pest control and public health. Next, it outlines the concepts, design, and implementation of a sound public health entomology program. The second section provides an overview of some of the most common public health pests that are found globally. Copious photos and line drawings accentuate the text, along with textboxes and sidebars. Author Jerome Goddard designed and implemented the vector control program along the Mississippi Gulf Coast after Hurricane Katrina. His ability to communicate his knowledge and experience to public health professionals and the general public make this book an essential resource for preventing disease from these vector-borne threats.

Arthropods of Medical and Veterinary Importance-A. R. Pittaway 1991 Intended to provide a single, reliable source for checking the scientific names and taxonomic position of most important species and genera of arthropods in the fields of medical and veterinary entomology.

Veterinary Entomology-Ralph E. Williams 2009-12-21 Livestock production systems and some husbandry practices are prone to producing veterinary important entomological concerns. In addition, various arthropod-borne diseasessuch as West Nile and some types of encephalitiscan affect both humans and animals. To circumvent these problems successfully, a solid understanding of veterinary entomology shoul

Mosquitoes, Communities, and Public Health in Texas-Mustapha Debboun 2019-09-14 Mosquitoes, Communities, and Public Health in Texas focuses on 87 known species of mosquitoes found throughout Texas. It includes information on the ecology, medical and public health importance, and biological diversity of each species. In addition, it provides detailed identification keys for both larval and adult stages of all mosquito genera and species known to occur in Texas, along a review of surveillance and control strategies. The expansion of invasive mosquitoes from other regions (including Mexico), together with climate change occurrences increase the likelihood for an increase in diseases, such as West Nile Virus, Yellow Fever, Dengue, Chikungunya and Zika. This unique work is the first unified reference and resource rich in mosquito information for medical entomologists, mosquito and vector control professionals, pest management professionals, biologists, environmentalists, wildlife professionals, government regulators, instructors of medical entomology and public health professionals who have disease or vector responsibilities, mosquito taxonomists, epidemiologists, entomology students, academia, pest control industry, and libraries, etc., with utility for medical, veterinary and health professionals. Brings into one volume the previously fragmented or unavailable information on the species of mosquitoes found in Texas and neighboring states of Mexico Provides a variety of audiences with key data on mosquito biology, distribution and how to identify each Includes a geographic distribution map, habitat associations, and medical importance on Zika, West Nile virus, Dengue and Chikungunya for each species

Veterinary Forensic Medicine and Forensic Sciences-Jason H. Byrd 2020-07-19 While there are several recent books on this emerging field, Veterinary Forensic Medicine and Forensic Sciences sets the bar, covering all relevant aspects in a succinct, easy-to-read, comprehensive format designed to be taught in a single-semester course. Intended to be the premier textbook on veterinary forensic sciences, the book covers the application of veterinary forensic medicine to cases, including the medical perspective as well as law enforcement response, crime scene management, and evidence recovery issues. Coverage includes the scientific and legal principles for veterinary forensic evidence. This clearly delineates it from veterinary-only practices, since the forensic aspects present additional challenges that include evidence recovery and preservation, report writing, and maintaining an evidentiary chain of custody, all the way through expert witness testimony. Some emerging topics that are covered include DNA and genetic evidence, entomological evidence in support of veterinary forensics, animal fighting, situational deaths, including poisonings, domestic violence, and cruelty, sharp and blunt force trauma, gunshot and wound ballistics, sexual assault, nonhuman odontology and osteology, and more. Features Details a process for forensic science case management for humane law enforcement agencies Presents multiple chapters on specific types of trauma analysis in animals Provides developments on current trends in forensic entomology as applied to wildlife crime and minimum postmortem interval determinations Explores national and international considerations in combating organized animal fighting Offers DNA applications for wildlife crime and environmental monitoring Outlines current animal and environmental forensic toxicology legal casework This text offers a straightforward presentation of current practices and includes several real-world case examples throughout to illustrate concepts. Fully illustrated with more than 280 full-color images, Veterinary Forensic Medicine and Forensic Sciences provides the latest in advances and up-to-date field techniques, applicable for student instruction in the classroom and beyond.

Medical Entomology for Students-Mike Service 2012-05-10 Despite numerous scientific investigations on vector-borne human infections such as malaria, Lyme disease and typhus these diseases continue to threaten human health. Understanding the role of vectors in disease transmission, and the most appropriate control strategies, is therefore essential. This book provides information on the recognition, biology, ecology and medical importance of the arthropods that affect human health. The fifth edition of this popular textbook is completely updated and incorporates the latest strategies for controlling insects, ticks and mites. Numerous illustrations, with new colour photographs of some of the most important vectors, aid recognition. A glossary of entomological and epidemiological terms is included, along with a list of commonly used insecticides and their trade names. Clearly presented in a concise style, this text is aimed at students of medical entomology, tropical medicine, parasitology and pest control. It is also essential reading for physicians, health officials and community health workers.

Arthropods of Humans and Domestic Animals-A.R. Walker 1994-08-31 This book is an identification guide to the arthropods (insects, mites, ticks, etc.) which affect the health of people and their domestic animals. It is designed for practical use on the laboratory bench and in the field. Coverage of organisms is world-wide, allowing the student to become familiar with and identify to genus level, all types of medical and veterinary pests.

Control of Arthropods of Medical and Veterinary Importance-R. Pal 2012-12-06

Skin and Arthropod Vectors-Nathalie Boulanger 2018-01-20 Recent research on skin immunity and the skin microbiome reveals the complexity of the skin and its importance in the development of immunity against arthropod-borne diseases. In diseases such as malaria, borreliosis, leishmaniasis, trypanosomiasis, etc., the skin interface has been shown as an essential site for pathogens to hide from the immune system, and as a potential site of persistence. Only very few vaccines have been successfully developed so far against these diseases, likely because of an insufficient understanding on the development of skin immunity against pathogens. Skin and Arthropod Vectors expands our knowledge on the role of the skin interface during the transmission of arthropod-borne diseases and particularly its immunity. This work may support researchers who strive for developing more efficient diagnostic tools and vaccines. It also gives scientists and advanced students working in related areas a better insight on how humans and animals are attractive to arthropods to develop better repellents, or to set up transgenic arthropods. Offers the only compilation of research focusing on both the skin interface and arthropod vectors, with contributions from international experts Advances research in the effort toward generating more effective diagnostic tools and vaccines focusing on the skin interface Can also serve as supplemental material for dermatology lectures or specialized lectures on medical entomology and skin immunity

Six-Legged Soldiers-Jeffrey A. Lockwood 2010-07-22 Examines how insects have been used as weapons in wartime conflicts throughout history, presenting as examples how scorpions were used in Roman times and hornets nests were used during the MIddle Ages in siege warfare and how insects have been used in Vietnam, China, and Korea.

Medical and Veterinary Entomology-Douglas Stewart Kettle 1982 The first edition of this book, published in 1984, established itself internationally as a standard text in medical and veterinary entomology. This new edition retains the same overall aims and structure but has been thoroughly revised to take account of new advances in the subject. The main focus of the book is on the general biology of insects and the Acari (mites and ticks) of medical and veterinary importance, together with brief descriptions of their taxonomy and of the treatment of diseases they cause. The book consists of 32 chapters and is divided into three parts: the first provides a general introduction to the classification, structure and function of the relevant insects and Acari; the second covers, in 17chapters, the main groups of insects and acarines of medical and veterinary importance, from the Culicidae (mosquitoes) to the Ixodidae (hard ticks); part three then provides an overview of those diseases of which the pathogens are transmitted by insects or acarines.

Review of Medical and Veterinary Entomology- 2000

Veterinary Medical Education-Jennifer L. Hodgson 2017-03-28 Veterinary Medical Education: A Practical Guide offers a complete resource to fundamental information on key areas of veterinary education. Provides a practical guide to the key principles of veterinary medical education Takes a real-world approach, with concrete guidance for teaching veterinary skills and knowledge Covers all aspects of designing and implementing a veterinary curriculum Emphasizes key points and helpful tips Offers a veterinary-specific resource for any veterinary educator worldwide

The Biology of Mosquitoes-Alan N. Clements 2011-01-01 The Biology of Mosquitoes Volume 3: Viral, Arboviral and Bacterial PathogensA N Clements, Professor Emeritus, London School of Hygiene and Tropical MedicineMosquitoes are of significant interest both as transmitters of major diseases and as nuisance insects, and as such are one of the most intensively studied and well-known groups of insects.Following the widely acclaimed first two volumes of The Biology of Mosquitoes, this authoritative review covers viral, arboviral and bacterial pathogens of mosquitoes, with a further volume on malarial, filarial and other parasites to follow.While originally intended as a chapter in the projected third volume Dormancy, Survival, Speciation and Evolution, the important and extensive subjects of parasites and pathogens have instead been devoted two volumes of their own, providing the appropriate breadth and detail of coverage for factors so significant in the survival of adult mosquitoes, and therefore the epidemiology of mosquito-borne diseases.Covering host-parasite interactions, mosquito immune responses and characteristics and transmission of viruses and prokaryotes, this essential reference book is a must-read for entomologists, particularly those involved with mosquitoes as disease vectors or pests both in the laboratory and the field." Third volume in definitive series on mosquito biology" Indexed by species and subject" Illustrated with diagrams and electron micrographs" Uses the new classification and nomenclature for mosquito species" Broad coverage of developments in molecular biology" Synthesis of research from many disparate journals into one comprehensive volumeA fourth volume, Malarial, Filarial and Other Parasites, and the fifth and final volume, Dormancy, Survival, Speciation and Evolution, are in preparation.Praise for previous volumes"The Biology of Mosquitoes will form an essential source for years to come'¦Professor Clements' masterly compilation constitutes an indispensable guide for all culicidologists, whether their interests be academic or applied." - Philip Corbet, Antenna: Bulletin of the Royal Entomological Society

Guide to Medical Entomology- 1980-07-31

Biology of Blood-Sucking Insects-Mike Lehane 2012-12-06 Blood-sucking insects are the vectors of many of the most debilitating parasites of man and his domesticated animals. In addition they are of considerable direct cost to the agricultural industry through losses in milk and meat yields, and through damage to hides and wool, etc. So, not surprisingly, many books of medical and veterinary entomology have been written. Most of these texts are organized taxonomically giving the details of the life-cycles, bionomics, relationship to disease and economic importance of each of the insect groups in turn. I have taken a different approach. This book is topic led and aims to discuss the biological themes which are common in the lives of blood-sucking insects. To do this I have concentrated on those aspects of the biology of these fascinating insects which have been clearly modified in some way to suit the blood-sucking habit. For example, I have discussed feeding and digestion in some detail because feeding on blood presents insects with special problems, but I have not discussed respiration because it is not affected in any particular way by haematophagy. Naturally there is a subjective element in the choice of topics for discussion and the weight given to each. I hope that I have not let my enthusiasm for particular subjects get the better of me on too many occasions and that the subject material achieves an overall balance.

Arthropod Vector: Controller of Disease Transmission, Volume 1-Stephen K. Wikel 2017-04-25 Arthropod Vector: Controller of Disease Transmission, Volume 1: Vector Microbiome and Innate Immunity of Arthropods is built on topics initially raised at a related Keystone Symposium on Arthropod Vectors. Together with the separate, related Volume 2: Vector Saliva-Host Pathogen Interactions, this work presents a logical sequence of topic development that leads to regulatory considerations for advancing these and related concepts for developing novel control measures. The three themes of symbionts, vector immune defenses and arthropod saliva modulation of the host environment are central to the concept of determinants of vector competence that involves all aspects of vector-borne pathogen development within the arthropod that culminates in the successful transmission to the vertebrate host. These three areas are characterized at the present time by rapid achievement of significant, incremental insights, which advances our understanding for a wide variety of arthropod vector species, and this work is the first to extensively integrate these themes. Includes such major areas of coverage as host-derived factors, innate immunity of arthropod presentations and the arthropod microbiome/symbionts Features expertly curated topics, ensuring appropriate scope of coverage and aid integration of concepts and content Provides the necessary scientific background for the development of the research and discussions that have laid the groundwork for future efforts, including the Keystone Symposium and relevant meetings at NIAID/NIH

Prevention of Bug Bites, Stings, and Disease-Daniel Strickman 2009-04-23 This book provides anyone, anywhere with the information they need to prevent bites and stings from scorpions, spiders, mites, ticks, centipedes, lice, and other such creatures.

Immunolabelling for Electron Microscopy-Julia M Polak 1984

Honey Bee Medicine for the Veterinary Practitioner-Terry Ryan Kane 2021-05-11 An essential guide to the health care of honey bees Honey Bee Medicine for the Veterinary Practitioner offers an authoritative guide to honey bee health and hive management. Designed for veterinarians and other professionals, the book presents information useful for answering commonly asked questions and for facilitating hive examinations. The book covers a wide range of topics including basic husbandry, equipment and safety, anatomy, genetics, the diagnosis and management of disease. It also includes up to date information on Varroa and other bee pests, introduces honey bee pharmacology and toxicology, and addresses native bee ecology. This new resource: Offers a guide to veterinary care of honey bees Provides information on basic husbandry, examination techniques, nutrition, and more Discusses how to successfully handle questions and 'hive calls' Includes helpful photographs, line drawings, tables, and graphs Written for veterinary practitioners, veterinary students, veterinary technicians, scientists, and apiarists, Honey Bee Medicine for the Veterinary Practitioner is a comprehensive and practical book on honey bee health.

The Goddard Guide to Arthropods of Medical Importance-Gail Miriam Moraru 2019-03-04 Key features: Includes an in-depth chapter with diagnostic aids to help physicians to recognize and accurately diagnose arthropod-related diseases and conditions more easily Updates all chapters with the latest medical and scientific findings, including Zika virus, red meat allergy, new viruses found in ticks, and vaccine development for malaria and dengue fever Presents a greater medical parasitology emphasis throughout Offers electronic downloads containing additional photographs of arthropod-caused diseases and lesions, as well as instructional videos with pest identification aids, basic entomology, and insect and pest ecology. Covering all major arthropods of medical importance worldwide, this award-winning resource has established itself as a standard reference for almost 25 years. With the globilization of commerce and the world becoming more intimately connected through the everyday ease of travel, unknown arthropod species are being increasingly encountered. This means access to up-to-date, authoritative information in medical entomology has never been more important. Now in its seventh edition, this book maintains its well-acclaimed status as the ultimate easy-to-use guide to identify disease-carrying arthropods, the common signs and symptoms of vector-borne diseases, and the current recommended procedures for treatment. Illustrated throughout with detailed color images to aid identification, The Goddard Guide to Arthropods of Medical Importance, Seventh Edition will remain an essential guide for physicians, public health officials, and pest control professionals.

Physician's Guide to Arthropods of Medical Importance, Fourth Edition-Jerome Goddard 2010-12-12 Even in the most industrialized nations, the health problems caused by common and exotic insects pose a serious threat, making quick and accurate diagnosis and treatment imperative. Physician's Guide to Arthropods of Medical Importance is the ultimate resource for identifying arthropods - including varieties of insects, spiders, mites, ticks, and scorpions - and their harmful effects on human health.

Biology of Disease Vectors-William H. Marquardt 2004-12-04 Biology of Disease Vectors presents a comprehensive and advanced discussion of disease vectors and what the future may hold for their control. This edition examines the control of disease vectors through topics such as general biological requirements of vectors, epidemiology, physiology and molecular biology, genetics, principles of control and insecticide resistance. Methods of maintaining vectors in the laboratory are also described in detail. No other single volume includes both basic information on vectors, as well as chapters on cutting-edge topics, authored by the leading experts in the field. The first edition of Biology of Disease Vectors was a landmark text, and this edition promises to have even more impact as a reference for current thought and techniques in vector biology. Current - each chapter represents the present state of knowledge in the subject area Authoritative - authors include leading researchers in the field Complete - provides both independent investigator and the student with a single reference volume which adopts an explicitly evolutionary viewpoint throuoghout all chapters. Useful - conceptual frameworks for all subject areas include crucial information needed for application to difficult problems of controlling vector-borne diseases

Large Animal Medicine for Veterinary Technicians-Laura Lien 2014-06-23 This comprehensive guide to all aspects of caring for horses, cattle, camelids, small ruminants, and pigs helps veterinary technician students learn everything they need to know about large animal medicine. Presented in full-color, Large Animal Medicine for Veterinary Technicians provides species-specific coverage with a wealth of images, as well as clinical applications. Coverage includes AVMA-required topics such as hospital biosecurity, restraint, physical examinations, nutrition, clinical and diagnostic procedures, reproduction, neonatology, and disease. To reinforce the text, an accompanying website offers review questions and answers, case studies, and an image bank with additional photographs to aid in breed identification. Veterinary technician students, veterinary technician educators, and veterinary technicians in practice who wish to foster and expand their knowledge of large animal medicine will find Large Animal Medicine for Veterinary Technicians an invaluable resource.

Dayside Magnetosphere Interactions-Qiugang Zong 2020-03-13 Exploring the processes and phenomena of Earth’s dayside magnetosphere Energy and momentum transfer, initially taking place at the dayside magnetopause, is responsible for a variety of phenomenon that we can measure on the ground. Data obtained from observations of Earth’s dayside magnetosphere increases our knowledge of the processes by which solar wind mass, momentum, and energy enter the magnetosphere. Dayside Magnetosphere Interactions outlines the physics and processes of dayside magnetospheric phenomena, the role of solar wind in generating ultra-low frequency waves, and solar wind-magnetosphere-ionosphere coupling. Volume highlights include: Phenomena across different temporal and spatial scales Discussions on dayside aurora, plume dynamics, and related dayside reconnection Results from spacecraft observations, ground-based observations, and simulations Discoveries from the Magnetospheric Multiscale Mission and Van Allen Probes era Exploration of foreshock, bow shock, magnetosheath, magnetopause, and cusps Examination of similar processes occurring around other planets The American Geophysical Union promotes discovery in Earth and space science for the benefit of humanity. Its publications disseminate scientific knowledge and provide resources for researchers, students, and professionals.

The Return of the Russian Leviathan-Sergei Medvedev 2019-12-18 Russia’s relationship with its neighbours and with the West has worsened dramatically in recent years. Under Vladimir Putin’s leadership, the country has annexed Crimea, begun a war in Eastern Ukraine, used chemical weapons on the streets of the UK and created an army of Internet trolls to meddle in the US presidential elections. How should we understand this apparent relapse into aggressive imperialism and militarism? In this book, Sergei Medvedev argues that this new wave of Russian nationalism is the result of mentalities that have long been embedded within the Russian psyche. Whereas in the West, the turbulent social changes of the 1960s and a rising awareness of the legacy of colonialism have modernized attitudes, Russia has been stymied by an enduring sense of superiority over its neighbours alongside a painful nostalgia for empire. It is this infantilized and irrational worldview that Putin and others have exploited, as seen most clearly in Russia’s recent foreign policy decisions, including the annexation of Crimea. This sharp and insightful book, full of irony and humour, shows how the archaic forces of imperial revanchism have been brought back to life, shaking Russian society and threatening the outside world. It will be of great interest to anyone trying to understand the forces shaping Russian politics and society today.

Ethics-David Seedhouse 2008-11-20 Ethics: The Heart of Health Care — a classic ethics text in medical, health and nursing studies — is recommended around the globe for its straightforward introduction to ethical analysis. In this Third Edition David Seedhouse again demonstrates tangibly and graphically how ethics and health care are inextricably bound together, and creates a firm theoretical basis for practical decision-making. He not only clarifies ethics but, with the aid of the acclaimed Ethical Grid, teaches an essential practical skill which can be productively applied in day-to-day health care. Completely revised and updated, this Third Edition presents an expanded theory of ethics section, and includes comprehensive and contemporary examples and case studies. Newly covered are introductions to rights in health care ethics, the ethics of care, intuitionism, privacy, euthanasia, suicide and consent, and an extensive FAQ section is added.

Imbalanced Learning-Haibo He 2013-06-07 The first book of its kind to review the current status andfuture direction of the exciting new branch of machinelearning/data mining called imbalanced learning Imbalanced learning focuses on how an intelligent system canlearn when it is provided with imbalanced data. Solving imbalancedlearning problems is critical in numerous data-intensive networkedsystems, including surveillance, security, Internet, finance,biomedical, defense, and more. Due to the inherent complexcharacteristics of imbalanced data sets, learning from such datarequires new understandings, principles, algorithms, and tools totransform vast amounts of raw data efficiently into information andknowledge representation. The first comprehensive look at this new branch of machinelearning, this book offers a critical review of the problem ofimbalanced learning, covering the state of the art in techniques,principles, and real-world applications. Featuring contributionsfrom experts in both academia and industry, Imbalanced Learning:Foundations, Algorithms, and Applications provides chaptercoverage on: Foundations of Imbalanced Learning Imbalanced Datasets: From Sampling to Classifiers Ensemble Methods for Class Imbalance Learning Class Imbalance Learning Methods for Support VectorMachines Class Imbalance and Active Learning Nonstationary Stream Data Learning with Imbalanced ClassDistribution Assessment Metrics for Imbalanced Learning Imbalanced Learning: Foundations, Algorithms, andApplications will help scientists and engineers learn how totackle the problem of learning from imbalanced datasets, and gaininsight into current developments in the field as well as futureresearch directions.

Fundamentals of Wireless Sensor Networks-Waltenegus Dargie 2010-11-05 In this book, the authors describe the fundamental concepts and practical aspects of wireless sensor networks. The book provides a comprehensive view to this rapidly evolving field, including its many novel applications, ranging from protecting civil infrastructure to pervasive health monitoring. Using detailed examples and illustrations, this book provides an inside track on the current state of the technology. The book is divided into three parts. In Part I, several node architectures, applications and operating systems are discussed. In Part II, the basic architectural frameworks, including the key building blocks required for constructing large-scale, energy-efficient sensor networks are presented. In Part III, the challenges and approaches pertaining to local and global management strategies are presented – this includes topics on power management, sensor node localization, time synchronization, and security. At the end of each chapter, the authors provide practical exercises to help students strengthen their grip on the subject. There are more than 200 exercises altogether. Key Features: Offers a comprehensive introduction to the theoretical and practical concepts pertaining to wireless sensor networks Explains the constraints and challenges of wireless sensor network design; and discusses the most promising solutions Provides an in-depth treatment of the most critical technologies for sensor network communications, power management, security, and programming Reviews the latest research results in sensor network design, and demonstrates how the individual components fit together to build complex sensing systems for a variety of application scenarios Includes an accompanying website containing solutions to exercises (http://www.wiley.com/go/dargie_fundamentals) This book serves as an introductory text to the field of wireless sensor networks at both graduate and advanced undergraduate level, but it will also appeal to researchers and practitioners wishing to learn about sensor network technologies and their application areas, including environmental monitoring, protection of civil infrastructure, health care, precision agriculture, traffic control, and homeland security.

Veterinary Ectoparasites-Richard L. Wall 2008-04-15 Ectoparasites are of growing significance in modern

veterinary medicine and a detailed understanding of the biology of these parasites is fundamental to their appropriate treatment and control. The authors of this book have therefore provided a complete overview of the biology, and behaviour of arthropod ectoparasites along with the pathology and treatment of diseases in livestock and companion animals of temperate habitats. This is the only up-to-date book available written specifically for practitioners and students of veterinary medicine, animal husbandry and applied animal sciences. Such a unique volume is essential because in veterinary parasitology, ectoparasites such as the lice, mites, ticks, fleas or dipteran agents of myiasis assume far greater prominence than in other parasitological disciplines. Ectoparasite infestation of domestic and companion animals, therefore, has overt clinical features requiring a distinct approach to diagnosis and control. This book has been written with this in mind. The text takes a unique integrated approach combining both ectoparasite biology and veterinary dermatology. In the second edition of this successful book (previously, entitled Veterinary Parasitology), the detailed coverage of individual ectoparasite species has been expanded. Up-to-date information of new veterinary drugs and modes of application has been included and the practical clinical relevance of the information has been strengthened.

Net Zero Energy Design-Thomas Hootman 2013 Written by an architect who is director of sustainability at a global architecture firm, this is a guide for architects and related construction professionals to design and build net zero commercial architecture. It offers practical strategies, step-by-step technical analysis, and valuable examples in addition to developed case studies. With a focus on application in a variety of building types and scales, the book also develops a broad based understanding of all the integrated principles involved in achieving net zero energy. The book is a practical guide for anyone venturing into net zero energy design, construction and operation, and also serves as an excellent resource on a variety of sustainable design topics.

Resilient Life-Brad Evans 2014-04-10 What does it mean to live dangerously? This is not just a philosophical question or an ethical call to reflect upon our own individual recklessness. It is a deeply political issue, fundamental to the new doctrine of ‘resilience’ that is becoming a key term of art for governing planetary life in the 21st Century. No longer should we think in terms of evading the possibility of traumatic experiences. Catastrophic events, we are told, are not just inevitable but learning experiences from which we have to grow and prosper, collectively and individually. Vulnerability to threat, injury and loss has to be accepted as a reality of human existence. In this original and compelling text, Brad Evans and Julian Reid explore the political and philosophical stakes of the resilience turn in security and governmental thinking. Resilience, they argue, is a neo-liberal deceit that works by disempowering endangered populations of autonomous agency. Its consequences represent a profound assault on the human subject whose meaning and sole purpose is reduced to survivability. Not only does this reveal the nihilistic qualities of a liberal project that is coming to terms with its political demise. All life now enters into lasting crises that are catastrophic unto the end.