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ENTOMOLOGY

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Science Publishers
Enfield, New Hampshire, USA

BIOCOMMUNICATION IN INSECTS

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

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

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

INVASIVE ARTHROPODS IN AGRICULTURE

Problems and Solutions

Guy J. Hallman: USDA–ARS, Weslaco, Texas USA
Charles Schwalbe: USDA–APHIS, Washington, DC, USA

978-1-57808-172-1; 2002; 462 pages, hc; $ 111.40

Out of Stock

Concentrating on invasive anthropods that are damaging to agriculture, this volume contains 19 contributions written by biologists, zoologists, entomologists, nematologists, and other academic specialists as well as laboratory and industry-affiliated researchers and government officials in regulatory and other agencies. Topics include invasive arthropods and pest outbreaks in the context of the ecology of mechanized agricultural systems; pathways of arrival; predicting the invasive potential of exotic insects; some regulatory environmental considerations for importation of arthropods as biological control agents; eradication; and the future of regulatory entomology.

INTEGRATED PEST MANAGEMENT OF TROPICAL PERENNIAL CROPS

Dominique Mariau (ed.)

. . . see Agriculture

HELMINTHS OF WILDLIFE

N. Chowdhury and *A. Aguirre*

. . . see Biology

MICROBIALS IN INSECT PEST MANAGEMENT

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

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

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

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

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

BIOLOGY, ECOLOGY, AND EVOLUTION OF GALL-INDUCING ARTHROPODS

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

978-1-57808-262-9; 2005; 780 pages (2 vols.), hc; $ 165.80 ††

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

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

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

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

INSECTS
Their Spermatozoa and Phylogeny

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

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

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

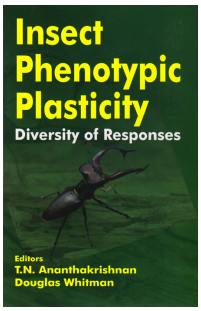
CONTENTS: Development of the Insect Spermatozoon: Spermatogenesis; The Fertilizing Spermatozoon; Phylogeny of the Hexapod Orders; Superclass Hexapoda; Class Insecta (Ectognathous Hexapods) Subclass Apterygota; Subclass Pterygota (Introduction); Infraclass Palaeoptera; Infraclass Neoptera; Orthoptera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

PHENOTYPIC PLASTICITY OF INSECTS
NEW
Mechanisms and Consequence

Douglas Whitman and *T.N. Ananthakrishnan (eds.)*

978-1-57808-423-4; March 2008; c.600 pages, hc; $ 135.00

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



INSECT PHENOTYPIC PLASTICITY
Diversity of Responses

Editors:
T.N. Ananthakrishan: Formerly Director, Entomology Research Institute, Chennai, India
Douglas Whitman: Professor of Biology, Illinois State University, Normal, IL, USA

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

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

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."

— Megadrilogica, Vol. 10(a), 2005

INVERTEBRATE CELL CULTURE
Novel Directions and Biotechnology Applications

Karl Maramorosch and *Jun Mitsuhashi*

. . . see Biology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