

Rodent Societies: An Ecological & Evolutionary Perspective

Edited by J. O. Wolff and P. W. Sherman. 2007. The University of Chicago Press, Chicago, 610 pages. U.S. \$49. Paper, \$125 Cloth.

This opus on rodent behaviour brings together 61 researchers in a single edited volume. There are 42 chapters grouped into various topics including systematics, sexual behaviour, life histories, behavioural development, social behaviour, antipredator behaviour, comparative socioecology, conservation and disease. The main objectives are to present the latest research on the behaviour of rodents and to place it in the context of ecology and evolution. The resultant compilation of papers is firmly based on comparative biology, which goes beyond merely describing phenomena and explains it in terms of the larger ecosystem and within a phylogenetic framework. There is an emphasis on hypothesis testing and explicit experimentation that results in robust and scientifically-sound studies. This approach fostered by the editors gives more than just summaries of particular topics but highlights the ongoing nature of our understanding of behaviour in not only rodents but also as related to other organisms.

At over 2200 species, Rodentia is the most speciose order of mammals and accounts for approximately 40% of the diversity. In terms of breadth of coverage, almost half of the chapters summarize behavioural data across all major lineages of rodents or within a higher-level classification. In addition, many different groups or species of rodents are directly studied as case examples in this compendium, with taxa examined ranging from squirrels to beavers to rats to capybara.

After an introductory chapter on rodents as model systems, the evolutionary background is set with a paper discussing phylogenetics and biogeography. This is followed by several chapters on sexual behaviour dealing with mating and reproductive strategies. Life histories of rodents are covered by topics on dimorphism, sex ratios, stress, dispersal and philopatry, gene dynamics, and self-regulation. There is discussion of behavioural development such as neural regulation, ontogeny, learning, and kin recognition. Social behaviour is examined with papers on parental care, ecology of sociality, scent marking, non-parental infanticide, monogamy, and pacifism. There is a small section with three chapters on antipredator behaviour including

alarm communication. Comparative socioecology has several papers on social organization and structure of a number of different species or higher-level groups. The book ends with a section on conservation and disease followed by a chapter summarizing conclusions and future directions on the research of rodent behaviour.

One weakness in an otherwise comprehensive anthology was the lack of molecular study on the genetic basis for much of the evolution of behaviour. In particular, DNA sequence data nowadays seems to be churning out by the genome. Was this an editorial oversight, or is there just nobody looking into this field of research for rodents? If so, this highlights an area that needs attention, especially since there are several candidate model-system species in rodents to choose from. Likewise, I found it odd that only four of the chapters have figures of phylogenies, considering that an evolutionary perspective is supposed to be one of the major underlying themes of the volume. Perhaps this is an indication that there is still an obvious gap that requires bridging between micro- and macroevolution.

Another observation is that over 80% of the authors are based at institutions in the Americas. Has this biased the presentation of the state of knowledge of rodent behaviour? A more subjective criticism is the combined literature cited section for the whole book. For edited volumes, I prefer references listed separately at the end of each chapter, especially when topics are as varied as this monograph. However, there are some advantages such as the elimination of repeated citations for general publications on rodents and a single compiled source useful for searching purposes. Nonetheless, these minor detractions by no means diminish from the scientific merits of the book.

This book is definitely aimed at the specialist researching the behaviour of rodents, but will also be of interest to biologists working on other organisms and studying similar social systems. At over 600 pages, the price is reasonable for purchase by a university library, or would be a valuable addition to any ecologist's bookshelf because it is packed with the latest information on ethology.

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Seashells: Jewels from the Ocean

By Budd Titlow. 2007. Voyageur Press, 729 Prospect Avenue, P.O. Box 1, Osceola, Wisconsin 54020. 112 pages. US \$20. Cloth.

Sea shells have fascinated people since the dawn of time. Intrinsically beautiful, they have inspired artists and architects, been used to fashion tools, and have even served as money. They are also the prize of collectors the world over. All of these themes feature in

Budd Titlow's handsome book *Seashells: Jewels from the Ocean*.

This relatively slender volume, copiously illustrated with photographs by the author or from stock footage, provides a good introduction to the world of mollusks and the shells which adorn so many of them. Successive chapters deal with the physiology of mollusks, their classification, their habitats, their cultural and econom-