

Animal Behavior



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著者:John Alcock

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This new edition of Animal Behavior has been thoroughly rewritten with coverage of much recent work in animal behavior. The scope of the changes for the Tenth Edition, however, is much more all-encompassing than that of past revisions. Thoughtful suggestions from many readers inspired a major reorganization of the material, such that the new book presents the central concepts of animal behavior in a different sequence from prior editions:

The Theory of Evolution by Natural Selection. Instead of introducing the concept of proximate and ultimate causation and then focusing heavily on the proximate mechanisms of behavior in the early chapters, this edition focuses first on the evolutionary basis of behavior. Chapter 1 presents the concept of a Darwinian puzzle, a trait that exists even though it seems to reduce the reproductive success of individuals, in which case it should have been eliminated by natural selection. The emphasis on Darwinian puzzles continues, with an in-depth discussion of the evolution of altruism in Chapter 2 (versus Chapter 14) and subsequent exploration of the adaptive value of a broad range of traits from anti-predator activities to reproductive and parental behaviors.

The Distinction between Proximate and Ultimate Causation in Biology. Once the major findings of behavioral ecology have been examined, the book turns its attention to the proximate mechanisms underlying animal behavior. Here, too, the emphasis remains on the evolutionary puzzles provided by particular developmental and neurophysiological mechanisms. This approach provides continuity with earlier chapters while helping readers see the connections between adaptive behaviors and the adaptive internal systems that make those behaviors possible.

The Procedures That Scientists Use to Test Their Tentative Explanations for Such Things as Darwinian Puzzles. Throughout, the text shows how researchers use scientific logic to study the underlying mechanisms and the evolutionary bases of behavior. The emphasis is on how evolutionary theory unifies the various subdisciplines within animal behavior. These points are highlighted again in the final chapter on human behavior, with its treatment of the proximate and ultimate causes of language and the evolution of mate choice in our species.

Enduring features of prior editions remain evident in this new book: the clear, engaging writing style; text beautifully illustrated with many new photographs; references to a large number of new scientific articles; and a substantial number of new and old discussion questions embedded in the text.

作者介绍:

John Alcock is Regents' Professor Emeritus of Biology at Arizona State University. He received his Ph.D. from Harvard University under the direction of Ernst Mayr. His research deals with the behavioral ecology of insect mating systems, with projects that have taken him from Arizona to Costa Rica and Australia. He wrote *The Triumph of Sociobiology* (2001) and coauthored *The Evolution of Insect Mating Systems* (1983) with Randy Thornhill. Alcock has also written seven other books on animal behavior and natural history for general audiences. One of these, *In a Desert Garden*, received the Burroughs' Award for natural history writing in 1998. Dr. Alcock also received the Dean's Quality Teaching Award the first year it was given at Arizona State University.

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