

# Helping and Communal Breeding in Birds

Ecology and Evolution

JERRAM L. BROWN



MONOGRAPHIES IN BEHAVIOR AND ECOLOGY

# Helping And Communal Breeding In Birds Ecology Evolution

**Michal Segoli, Eric Wajnberg**



## **Helping And Communal Breeding In Birds Ecology Evolution:**

**Helping Communal Breeding in Birds** J. L. Brown, 2014-07-14 An overview of the extensive and frequently controversial literature on communally breeding birds developed since the early 1960s when students of evolution began to examine sociality as a product of natural selection Jerram Brown provides original data from his own theoretical and empirical studies and summarizes the wide array of results and interpretations made by others Originally published in 1987 The Princeton Legacy Library uses the latest print on demand technology to again make available previously out of print books from the distinguished backlist of Princeton University Press These editions preserve the original texts of these important books while presenting them in durable paperback and hardcover editions The goal of the Princeton Legacy Library is to vastly increase access to the rich scholarly heritage found in the thousands of books published by Princeton University Press since its founding in 1905

**Helping and Communal Breeding in Birds** Jerram L. Brown, **Cooperative Breeding in Vertebrates** Walter D. Koenig, Janis L. Dickinson, 2016-01-07 Brings together long term studies of cooperation in vertebrates that challenge our understanding of the evolution of social behavior

**Ecology of Social Evolution** Judith Korb, Juergen Heinze, 2008-02-23 Research on the evolution of social behaviour has been dominated by genetic relatedness for a long time however both recent empirical studies and theoretical concepts give growing evidence for ecological factors acting as very prominent additional or alternative driving forces in social evolution Now the time is ripe to investigate similarities and differences in the course of social evolution in different animals This book brings together renowned researchers working on sociality in different animals For the first time they compile the evidence for the importance of ecological factors in the evolution of social life ranging from invertebrate to vertebrate social systems and evaluate its importance versus that of relatedness

*Life History Evolution* Michal Segoli, Eric Wajnberg, 2025-03-10 Provides a timely and authoritative account of Life History Evolution by a multidisciplinary team of scholars and researchers from around the world Life History Evolution Traits Interactions and Applications presents a cutting edge synthesis of the mechanisms driving life history strategies that span the breadth of taxa from bacteria to humans Integrating classical and contemporary perspectives this comprehensive volume addresses how organisms evolve traits in response to diverse ecological pressures Editors Michal Segoli and Eric Wajnberg bring together leading experts to explore the intersection of evolutionary biology ecology and applied research focusing on the evolving complexity of life history traits and their implications In depth yet accessible chapters cover a broad spectrum of life history traits from classical traits of lifespan and reproduction to more complex interactions like social behaviour predator prey dynamics and human induced evolutionary processes The contributing authors explain essential concepts identify critical knowledge gaps discuss future research directions and demonstrate the relevance of life history evolution in addressing climate change species invasion pollution and more Providing a well balanced understanding of life history traits and their implications Life History Evolution Incorporates

recent advances in evolutionary theory including eco evolutionary feedback loops and anthropogenic impacts Offers diverse perspectives and original research from leading experts in fields such as evolutionary biology ecology entomology zoology agriculture and veterinary medicine Discusses life history evolution in the context of co evolved interactions such as predator prey parasite host plant herbivore and endosymbiont host relationships Provides an overview of the foundational theory recent developments and current thinking in the field Features numerous case studies that highlight real world applications in biological control wildlife management climate change adaptation and others Revealing how life history traits shape the evolutionary strategies of organisms Life History Evolution Traits Interactions and Applications is an essential resource for undergraduate and graduate students researchers industry professionals and policymakers in ecological science It is an ideal textbook for courses in evolutionary ecology evolutionary biology conservation biology environmental science and environmental management

*Sociobiology of Caviomorph Rodents* Luis A. Ebensperger, Loren D. Hayes, 2016-02-18 Fully integrative approach to the sociobiology of caviomorph rodents Brings together research on social systems with that on epigenetic neuroendocrine and developmental mechanisms of social behavior Describes the social systems of many previously understudied caviomorph species identifying the fitness costs and benefits of social living in current day populations as well as quantified evolutionary patterns or trends Highlights potential parallels and differences with other animal models

**Encyclopedia of Animal Behavior**, 2019-01-21 Encyclopedia of Animal Behavior Second Edition Four Volume Set the latest update since the 2010 release builds upon the solid foundation established in the first edition Updated sections include Host parasite interactions Vertebrate social behavior and the introduction of overview essays that boost the book's comprehensive detail The structure for the work is modified to accommodate a better grouping of subjects Some chapters have been reshuffled with section headings combined or modified Represents a one stop resource for scientifically reliable information on animal behavior Provides comparative approaches including the perspective of evolutionary biologists physiologists endocrinologists neuroscientists and psychologists Includes multimedia features in the online version that offer accessible tools to readers looking to deepen their understanding

*The Evolution of Social Behavior in Insects and Arachnids* Jae C. Choe, Bernard J. Crespi, 1997 Social insects and arachnids exhibit complex forms of behavior that involve cooperation in building a nest defending against attackers or rearing offspring This book is a comprehensive up to date guide to sociality and its evolution in a wide range of taxa

*Interpretation And Explanation In The Study Of Animal Behavior* Ph.D. Bekoff, 2021-11-28 People have long been fascinated not just by the behaviour of non human animals but by the problem of how this behaviour is to be interpreted and explained This is one of two volumes of original essays on the cognitive and emotional dimensions of non human minds and the relationship of natural minds to behaviour The essays also address questions concerning the meaning and significance of consciousness animal intelligence awareness and emotions behavioural plasticity flexibility and constraints on understanding animal minds and the structure of explanation in the study

of behaviour      **Comparative Social Evolution** Dustin R. Rubenstein, Patrick Abbot, 2017-03-24 Darwin famously described special difficulties in explaining social evolution in insects More than a century later the evolution of sociality defined broadly as cooperative group living remains one of the most intriguing problems in biology Providing a unique perspective on the study of social evolution this volume synthesizes the features of animal social life across the principle taxonomic groups in which sociality has evolved The chapters explore sociality in a range of species from ants to primates highlighting key natural and life history data and providing a comparative view across animal societies In establishing a single framework for a common trait based approach towards social synthesis this volume will enable graduate students and investigators new to the field to systematically compare taxonomic groups and reinvigorate comparative approaches to studying animal social evolution      Readings in Animal Cognition Marc Bekoff, Dale Jamieson, 1996 This collection of 24 readings is the first comprehensive treatment of important topics by leading figures in the rapidly growing interdisciplinary field of animal cognition Taken together the essays provide the nucleus for an introductory course in animal cognition cognitive ethology and comparative psychology philosophy of biology or philosophy of mind Selections are grouped in five sections Perspectives on Animal Cognition Cognitive and Evolutionary Explanations Recognition Choice Vigilance and Play Communication and Language and Animal Minds Seventeen essays are reprinted from the authors much cited two volume collection Interpretation and Explanation in the Study of Animal Behavior One essay taken from that book has been subsequently revised and five additional essays are recent examples of critical thinking in cognitive ethology The preface and final chapter Ethics and the Study of Animal Cognition are new A Bradford Book      **Advances in the Study of Behavior** Marc Naguib, 2020-04-19 Advances in the Study of Behavior Volume 52 provides users with the latest insights in this ever evolving field Users will find new information on a variety of species including ecological determinants of sex roles and female sexual selection copulatory behavior and genital morphology in vertebrates proximate and ultimate influences on social behavior and more Sample chapters in this release include Ecological determinants of sex roles and female sexual selection Sensory information in social insects How the material basis of colors impacts how they evolve participate in behavioral interactions and interface with other life history characters Fiddler crabs the Evolution of female coloration and more Serves the increasing number of scientists engaged in the study of animal behavior Makes another important contribution to the development of the field Presents theoretical ideas and research to those studying animal behavior and related fields      *Alternative Reproductive Tactics* Rui F. Oliveira, Michael Taborsky, H. Jane Brockmann, 2008-03-13 The study of alternative reproductive tactics the behavioural strategies used by individuals to increase their reproductive success is an evolutionary puzzle and one of great interest to researchers For instance why do some males guard both nest and eggs while others sneak into nests while pairs are spawning and fertilise those eggs The field offers a special opportunity to study the evolution and functional causes of phenotypic variation which is a general problem in the field of evolutionary biology By

integrating both mechanistic psychological and evolutionary behavioural ecology perspectives and by covering a great diversity of species *Alternative Reproductive Tactics* addresses this integrated topic of longstanding interest bringing together a multitude of otherwise scattered information in an accessible form that is ideal for graduate students and researchers

**Levels of Selection in Evolution** Laurent Keller, 2019-12-31 Ever since the groundbreaking work of George Williams W D Hamilton and Richard Dawkins evolutionary biologists have recognized that natural selection generally does not operate for the good of the group but rather for the good of lower level units such as the individual the cell even the gene One of the fundamental problems of biology is what keeps competition between these various levels of natural selection from destroying the common interests to be gained from cooperation In this volume twelve prominent scientists explore this question presenting a comprehensive survey of the current theoretical and empirical research in evolutionary biology Recent studies show that at many levels of biological organization mechanisms have evolved to prevent potential conflict in natural selection Editor Laurent Keller's aim in this book is to bring together leading researchers from all biological disciplines to outline these potential conflicts and discuss how they are resolved A multi level approach of this kind allows important insights into the evolution of life as well as bridging the long standing conceptual chasm between molecular and organismal biologists The chapters here follow a rigorous theoretical framework giving the book an overall synergy that is unique to multi authored books The contributors in addition to the editor are H Charles J Godfray Edward Allen Herre Dawn M Kitchen Egbert Giles Leigh Jr Catherine M Lessells Richard E Michod Leonard Nunney Craig Packer Andrew Pomiankowski H Kern Reeve John Maynard Smith and E rs Szathm ry

*Developmental Psychobiology* Elliott M. Blass, 2012-12-06 ELLIOTT M BLASS Fifteen years have passed since the first volume on developmental psychobiology Blass 1986 appeared in this series and 13 since the publication of the second volume Blass 1988 These volumes documented the status of the broad domain of scientific inquiry called developmental psychobiology and were also written with an eye to the future The future has been revolutionary in at least three ways First there was the demise of a descriptive ethology as we had known it to be replaced first by sociobiology and later by its more sophisticated versions based on quantitative predictions of social interactions that reflected relatedness and inclusive fitness Second there was the emergence of cognitive science including cognitive development as an enormously strong and interactive multidisciplinary effort Making the functional brain more accessible made this revolution all the more relevant to our discipline In the laboratory immunocytochemical detection of immediate early genes such as *c-fos* now allows us to trace neuronal circuits activated during complex behaviors The functional brain of primates especially humans was also made very accessible through neuroimaging with which we can look at and into brains as they solve and attempt to solve particular tasks Those of us who were trained in neurology as graduate students two or three decades ago recognize only the people in white coats and patients in beds or on gurneys when we visit neurological units today The rest is essentially new

**The Condor** ,2001 [DNA Fingerprinting: Approaches and Applications](#) G.

Dolf,2013-03-08 Although DNA fingerprinting is a very young branch of molecular genetics being barely six years old its recent impact on science law and politics has been dramatic The application of DNA finger printing to forensic and legal medicine has guaranteed a high public profile for this technology and indeed scarcely a week goes by with out the press reporting yet another crime successfully solved by molec ular genetics Less spectacularly but equally importantly DNA typing methods are steadily diffusing into an ever wider set of applications and research fields ranging from medicine through to conservation biology To date two DNA fingerprinting workshops have been held in the UK one in 1988 organised by Terry Burke at the University of Leicester and the second in 1989 at the University of Nottingham co ordinated by David Parkin In parallel with these workshops which have provided an important focus for researchers Bill Amos and Josephine Pemberton in Cambridge have established an informal newsletter Fingerprint News which is playing a major role as a forum for DNA fingerprinters By 1989 it was clear that the field had broadened sufficiently to warrant a full international meeting As a result Gaudenz Dolf took on the task of organising the first of what I hope will be many International Symposium of DNA Fingerprinting held at Bern during 1st 3rd October 1990 The success of the meeting can be judged from the remarkable attendance with 270 delegates from no less than 30 countries

#### **Behavioural Responses to a Changing World** Bob B. M.

Wong,Ulrika Candolin,2025-04-23 For many animals behavioural adjustments represent the first response to human modified conditions By improving reproduction and survival such adjustments can play the lead in maintaining viable populations in the face of rapid environmental change Behavioural responses however can also be maladaptive and reduce individual fitness particularly if favourable reaction norms have not yet evolved because animals are encountering conditions that they have never experienced before Clearly behaviour matters But how can we capitalise on our understanding of animal behaviour to improve conservation and management outcomes Behavioural Responses to a Changing World Challenges and Applications a companion volume to the first edition published in 2012 examines wildlife behavioural responses to human induced environmental change through a translational lens Despite considerable and growing interest in research on the topic the predictive value and practical application of what has been learned remains underappreciated and underutilized in the context of developing real world solutions To redress this the current book builds upon the foundations of the original volume but with a more applied perspective that focuses on highlighting how different forms of environmental challenges from climate change to urbanisation influence animal behaviour and how we can effectively harness knowledge of animal behaviour to effect practical solutions to predicting and mitigating the weighty impacts of a radically changed and changing world

Feminism and Evolutionary Biology Patricia Gowaty,2012-12-06 Standing at the intersection of evolutionary biology and feminist theory is a large audience interested in the questions one field raises for the other Have evolutionary biologists worked largely or strictly within a masculine paradigm seeing males as evolving and females as merely reacting passively or carried along with the tide Would our view of nature red in tooth in claw be different if women had played a

larger role in the creation of evolutionary theory and through education in its transmission to younger generations Is there any such thing as a feminist science or feminist methodology For feminists does any kind of biological determinism undermine their contention that gender roles purely constructed not inherent in the human species Does the study of animals have anything to say to those preoccupied with the evolution and behavior of humans All these questions and many more are addressed by this book whose contributing authors include leading scholars in both feminism and evolutionary biology Bound to be controversial this book is addressed to evolutionary biologists and to feminists and to the large number of people interested in women s studies

*Cooperative Breeding in Birds* Peter B. Stacey, Walter D. Koenig, 1990-04-19 Cooperative breeding is an unusual kind of social behaviour found in a few hundred species worldwide in which individuals other than the parents help raise young Understanding the apparently altruistic behaviour of helpers has provided numerous challenges to evolutionary biologists This book includes detailed first hand summaries of many of the major empirical studies of cooperatively breeding birds It provides comparative information on the demography social behaviour and behavioural ecology of these unusual species and explores the diversity of ideas and the controversies which have developed in this field The studies are all long term and consequently the book summarises some of the most extensive studies of the behaviour of marked individuals ever undertaken Graduate students and research workers in ornithology sociobiology behavioural ecology and evolutionary biology will find much of value in this book



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