

The kea is considered by some a playful comic and by others a vicious killer. This fascinating new book offers a comprehensive account of the kea's contradictory nature, casting new light on the origins of behavioral flexibility and the problem of species survival in human environments everywhere.



Kea, Bird of Paradox

The Evolution and Behavior of a New Zealand Parrot

by JUDY DIAMOND & ALAN B. BOND

\$29.95 at bookstores or order 1-800-822-6657

UNIVERSITY OF CALIFORNIA PRESS • www.ucpress.edu

Copublished with Pica Press

New in paper

Nightjars

A Guide to the Nightjars and Related Nightbirds



Nigel Cleere; Illustrated by Dave Nurney

This book, the first to describe in detail every species of the nightjar order, includes discussions on plumage, structure, fossil records, and taxonomy, as well as distribution maps and accounts of each species' voice, habitat, habit, food, breeding behavior, description, and current status. 150 b/w + 36 color illus. \$40.00

Birds of Madagascar

A Photographic Guide

Peter Morris and Frank Hawkins

This beautiful photographic guide to the 260 species of birds found on Madagascar details the plumages, vocalizations, habitat and behavior, range, status, and habitat zones of each species.

500 color illus. \$35.00

Parrots

A Guide to the Parrots of the World

Tony Juniper and Michael Parr
Illustrated by Kim Franklin, Robin Restall, Dan Powell, David Johnston, and Carl D'Silva

The first book created primarily for the field identification of parrots, including color illustrations for every species of parrot as well as range maps of their locations. 88 color illus. \$55.00



Rails

A Guide to the Rails, Crakes, Gallinules and Coots of the World

Barry Taylor
Illustrated by Ber van Perlo

This up-to-date book provides a detailed summary of current knowledge on rails.

40 color illus. \$49.95

The Origin and Evolution of Birds

Second Edition

Alan Feduccia

"A truly monumental contribution to the paleontological and ornithological literature."

—John Rubin, *BioScience*

"A superb review of avian evolution."—Ernst Mayr, *American Zoologist*

Available Spring 1999
562 illus. \$29.95 pb

Manual of Ornithology

Avian Structure and Function

Noble S. Proctor and Patrick J. Lynch

Illustrated by Patrick J. Lynch

Foreword by Roger Tory Peterson

"A stunning work . . . Valuable . . . for scientists working with birds, for bird banders and for anatomists."

—Edward H. Burt, Jr., *American Scientist*

226 illus. \$25.00 pb

Yale University Press P.O. Box 209040 New Haven, CT 06520

www.yale.edu/yup/nho • 1-800-YUP-READ



Where to Watch Birds in Australasia and Oceania

Nigel Wheatley

The newest guidebook in Nigel Wheatley's series describes over 200 major sites in detail and many more in passing, from New Guinea to New Zealand and across the Pacific to Hawaii. Most important, it answers crucial questions, like Where can I see birds that epitomize the region? How long do I need, and when is the best time to go? This guide will prove invaluable in birding trips to any country, archipelago, or island in this highly varied region of the world.

100 maps. 50 line drawings.

Cloth \$35.00 ISBN 0-691-00231-2

Not available from Princeton in the U.K. and E.U.



A Guide to the Birds and Mammals of Coastal Patagonia

Graham Harris

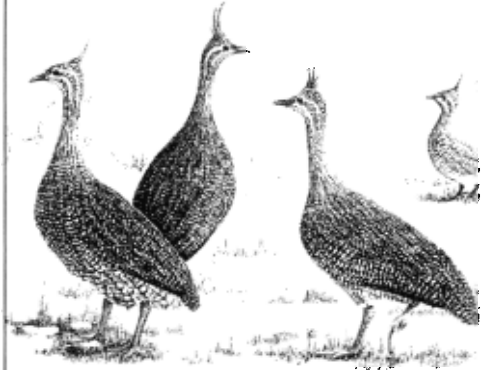
With a foreword by William Conway

Illustrations by the author

This is the first guidebook to the birds and mammals of the coastal region of Patagonia, a vast area at the southern tip of South America. It describes the 185 species of birds and 61 species of mammals known to inhabit the land and sea along 2000 miles of the Patagonian coast. Extensively illustrated by the author, this is a comprehensive guide.

33 color plates. 28 line drawings. 243 maps.

Cloth \$65.00 ISBN 0-691-05831-8



A Passion for Birds

American Ornithology after Audubon

Mark V. Barrow, Jr.

A Passion for Birds provides the first book-length history of American ornithology from the death of John James Audubon to the Second World War. Mark Barrow vividly reconstructs this story through the experiences of birdwatchers, collectors, conservationists, and taxidermists, and also through the eyes of a relatively new breed of bird enthusiast: the technically oriented ornithologist.

Cloth \$39.50 ISBN 0-691-04402-3

Princeton University Press

AT FINE BOOKSTORES OR CALL 800-777-4726 • HTTP://PUP.PRINCETON.EDU

New from Princeton



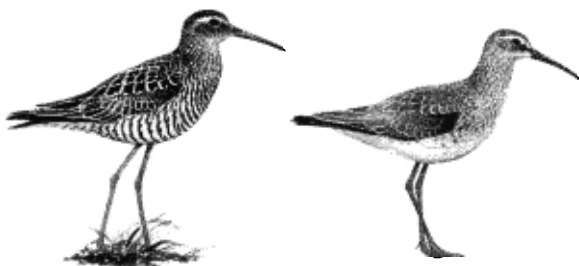
©BOB COUSINS/BBC

The Life of Birds David Attenborough

Based on the spectacular ten-part BBC program that will air on PBS, *The Life of Birds* is David Attenborough at his best. The renowned writer and filmmaker treks through rain forests and deserts, through city streets and isolated wilderness, to bring us an illuminating panorama of every aspect of birds' lives—from their songs to their search for food, from their eggs and nests to their mastery of the air. Beautifully illustrated with nearly 200 color photographs, the book will delight and inform all bird lovers.

Cloth \$29.95 ISBN 0-691-01633-X

Available from Princeton in the U.S. and Canada



A Guide to the Birds of the West Indies

Herbert A. Raffaele

This is the first comprehensive field guide to the birds of the West Indies to appear in more than fifty years. It covers all 564 bird species known to occur in the region. Each species is represented by a full description that includes identification field marks, local names, status, habitat, voice, nesting, range, and comments about the bird. A map showing the bird's distribution accompanies each species account. This book supersedes all other guides to the region.

86 color plates

Cloth \$49.50 ISBN 0-691-08736-9

Not available from Princeton in the U.K. and E.U.



The Handbook of Bird Identification for Europe and the Western Palearctic

Mark Beaman
and Steve Madge

Drawing on their unrivaled field experience in Europe, the Middle East, and North Africa, authors Mark Beaman and Steve Madge have combined forces with some of Europe's finest bird artists to produce the region's most comprehensive bird guide ever. This is the first book to cover every species to have occurred in the region, including vagrants and accidentals—nearly 900 species in total. It is a landmark publication and an indispensable resource for all serious birders.

357 color plates. 625 color maps.

Cloth \$99.50 ISBN 0-691-02726-9

Not available from Princeton in the U.K. and E.U.

**AVIAN REPRODUCTIVE TACTICS:
FEMALE AND MALE PERSPECTIVES**

Ornithological Monographs No. 49

Patricia G. Parker and Nancy Tyler Burley, Editors

- Themes and questions in the study of avian reproductive tactics (Burley and Parker)
- Mating tactics and systems of birds (Johnson and Burley)
- Variation in extra-pair behavior of Red-winged Blackbirds (Gray)
- Impact of extra-pair fertilizations on Dark-eyed Junco reproductive success (Ketterson et al.)
- Evolution of extra-pair mating systems (Stutchbury and Neudorf)
- Sexual selection and the clustering of avian territories (Wagner)
- Extra-group paternity in Superb Fairy-wrens (Dunn and Cockburn)
- Sexual coercion (McKinney and Evarts)

Send \$20.00 (\$16.00 for AOU members) plus \$3.50 for shipping and handling, payable by Mastercard/Visa or check in U.S. funds to: Max C. Thompson, Assistant to the Treasurer, AOU, Department of Biology, Southwestern College, 100 College St., Winfield, Kansas 67156, USA

American Ornithologists' Union

CHECK-LIST OF NORTH AMERICAN BIRDS

7th Edition

**The Species of Birds of North America from the Arctic
through Panama, including the West Indies
and Hawaiian Islands**

Regular price: \$49.95

AOU member price: \$39.95

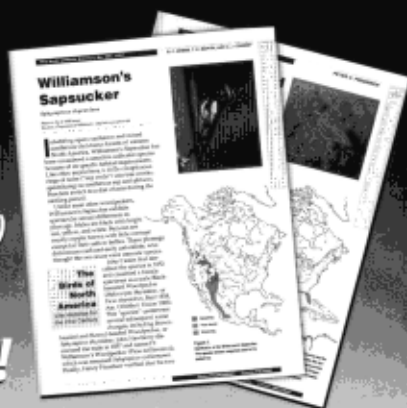
Send payment plus \$4.00 (domestic) or \$7.00 (foreign) for shipping and handling, payable by MasterCard/Visa or check in U.S. funds to: Max C. Thompson, Assistant to the Treasurer, AOU, Department of Biology, Southwestern College, 100 College St., Winfield, Kansas 67156, USA

"I strongly recommend that... those who do not have access to The BIRDS OF NORTH AMERICA either buy it themselves or find a library that will."

(The Auk, January 1999)

Prices have been slashed!

BUY YOUR COPY NOW!



AOU Members' price: \$1,690 – SAVE \$560

Academic & Public Library price: \$1,875 – SAVE \$1,420



A limited number of copies available at these prices.

CALL TODAY!



"A LANDMARK IN THE HISTORY OF NORTH AMERICAN ORNITHOLOGY."

"THE MOST IMPORTANT REFERENCE FOR THE CONTINENT."



The Birds of North America
P.O. Box 1897, Lawrence, KS 66044-8897

Call: 800-627-0629 x224 • Fax: 785-843-1274

Visit our web site: www.birdsofna.org



The American Ornithologists' Union

The Council for 1998–1999

Officers and Editors

President: FRANK B. GILL, *National Audubon Society, 700 Broadway, New York, New York 10003*

President-Elect: JOHN W. FITZPATRICK, *Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, New York 14850*

Vice President: JAMES A. KUSHLAN, *U.S. Geological Survey, Biological Resources Division, Patuxent Wildlife Research Center, Laurel, Maryland 20708*

Secretary: MARY VICTORIA McDONALD, *Department of Biology, University of Central Arkansas, Conway, Arkansas 72035*

Treasurer: FREDERICK H. SHELDON, *Museum of Natural Science, Foster Hall 119, Louisiana State University, Baton Rouge, Louisiana 70803*

Editor of *The Auk*: THOMAS E. MARTIN, *Montana Cooperative Wildlife Research Unit, University of Montana, Missoula, Montana 59812*

Editor of *Ornithological Monographs*: DAVID A. WIEDENFELD, *Sutton Avian Research Center, P.O. Box 2007, Bartlesville, Oklahoma 74005*

Elective Councilors and Living Past Presidents

1999: Susan M. Haig, Jeffrey R. Walters, Wesley W. Weathers. 2000: Irene M. Pepperberg, Carol M. Vleck, David W. Winkler. 2001: Walter D. Koenig, Scott M. Lanyon, Stephen M. Russell.

Past Presidents: Ernst Mayr (1957–59), Dean Amadon (1964–66), Harold F. Mayfield (1966–68), Robert W. Storer (1970–72), Wesley E. Lanyon (1976–78), Harrison B. Tordoff (1978–80), Thomas R. Howell (1982–84), Frances C. James (1984–86), Glen E. Woolfenden (1988–90), Brina Kessel (1992–94), Richard C. Banks (1994–96), Ned K. Johnson (1996–98).

Instructions to Contributors

The Auk publishes original reports on the biology of birds. Appropriate topics include documentation, analysis, and interpretation of laboratory and field studies, theoretical or methodological developments, and reviews of information or ideas. Authors are encouraged to write papers from the perspective of general concepts and theories, and to consider the relevance of their findings to taxa in addition to birds. *The Auk* strives to publish a color frontispiece with each lead article; authors are encouraged to submit suitable color illustrations. Contributions are welcome from throughout the world but must be written in English. Submit five copies of each manuscript complete with tables, figure legends, and figures (retain original figures until notified) to the Editor. Include a copy of the manuscript on a 3.5-inch diskette (WordPerfect preferred, but identify the software). Double-space all written material (including tables and figure legends) on standardized stationery. Number pages through the figure legends. Submit tables separately from the text; type figure legends consecutively on a separate sheet. Manuscripts should conform to general usage in the most recent issue of the journal. The title page should contain: (1) full title; (2) authors' names and addresses; (3) left and right running heads (<36 characters each); and (4) name, mailing address, and e-mail address of author to whom correspondence should be sent. **Detailed instructions to contributors are available in *Auk* 113(3):731–733; copies may be obtained from the Editor. Paying close attention to these instructions will hasten the processing of your manuscript and gratify the editorial staff.**

Contents (continued)



THE LONG-BILLED LARK COMPLEX: A SPECIES MOSAIC IN SOUTHWESTERN AFRICA. <i>Peter G. Ryan and Paulette Bloomer</i>	194
A MODEL OF THE DYNAMICS OF COWBIRDS AND THEIR HOST COMMUNITIES. <i>Joseph A. Grzybowski and Craig M. Pease</i>	209
IN MEMORIAM: MIKLÓS D. F. UDVARDY, 1919–1998. <i>Blair Csuti and Martin R. Brittan</i>	223
IN MEMORIAM: MIGUEL ÁLVAREZ DEL TORO, 1917–1996. <i>Adolfo G. Navarro S. and José Eduardo Morales-Pérez</i>	226
SHORT COMMUNICATIONS	
Body size, nest initiation date, and egg production in Ruddy Ducks. <i>Lori A. Boon and C. Davison Ankney</i>	228
Intraclutch variation in testosterone content of Red-winged Blackbird eggs. <i>Joseph L. Lipar, Ellen D. Ketterson, and Val Nolan Jr.</i>	231
Timing of egg laying in Yellow Warblers. <i>D. Glen McMaster, Spencer G. Sealy, Sharon A. Gill, and Diane L. Neudorf</i>	236
Effects of dominance on vigilance in avian social groups. <i>Vladimir V. Pravosudov and Thomas C. Grubb, Jr.</i>	241
Maintenance energy costs of two partially folivorous tropical passerines. <i>Carlos Bosque, M. Andreina Pacheco, and Rodney B. Siegel</i>	246
Low extrapair paternity in the Cactus Finch (<i>Geospiza scandens</i>). <i>Kenneth Petren, B. Rosemary Grant, and Peter R. Grant</i>	252
Orange-tufted Sunbirds do not feed nectar to their chicks. <i>Shai Markman, Berry Pinshow, and Jonathan Wright</i>	257
Video identification of predators at songbird nests in old fields. <i>Frank R. Thompson III, William Dijak, and Dirk E. Burhans</i>	259
Floater males engage in extrapair copulations with resident female Tree Swallows. <i>Colleen A. Barber and Raleigh J. Robertson</i>	264
Response of female Hooded Mergansers to eggs of an interspecific brood parasite. <i>Bruce D. Dugger, Lia C. Bollmann, and Leigh H. Fredrickson</i>	269
Speciation in North American chickadees: II. Geography of mtDNA haplotypes in <i>Poecile carolinensis</i> . <i>Frank B. Gill, Beth Slikas, and David Agro</i>	274
WILLIAM BREWSTER MEMORIAL AWARD, 1998: FRANK B. GILL	278
ELLIOTT COUES AWARD, 1998: JARED M. DIAMOND	280
NOTICE FROM THE COMMITTEE ON CLASSIFICATION AND NOMENCLATURE	282
REVIEWS. <i>Edited by Carl D. Marti</i>	284
100 YEARS AGO IN <i>THE AUK</i>	298



CONTENTS

OVERVIEWS

- RECONSTRUCTING THE EVOLUTIONARY ORIGIN OF POLYGYNY IN RED-WINGED BLACKBIRDS. *Michael S. Webster* 1

ARTICLES

- EVOLUTION OF POLYGYNY IN THE ANCESTORS OF RED-WINGED BLACKBIRDS. *William A. Searcy, Ken Yasukawa, and Scott Lanyon* 5
- WINTER PHILOPATRY IN MIGRATORY WATERFOWL. *Gregory J. Robertson and Fred Cooke* 20
- RECENT INCREASE IN MALE HOUSE FINCH PLUMAGE VARIATION AND ITS POSSIBLE RELATIONSHIP TO AVIAN POX DISEASE. *Sherie N. Zahn and Stephen I. Rothstein* 35
- NEST-SITE SELECTION IN THE ACORN WOODPECKER. *Philip N. Hooge, Mark T. Stanback, and Walter D. Koenig* 45
- NEST-BUILDING BEHAVIOR IN PCB-CONTAMINATED TREE SWALLOWS. *John P. McCarty and Anne L. Secord* 55
- EXOGENOUS TESTOSTERONE AND THE ADRENOCORTICAL RESPONSE IN DARK-EYED JUNCOS. *Stephan J. Schoech, Ellen D. Ketterson, and Val Nolan, Jr.* 64
- EFFECTS OF PLOT SIZE AND HABITAT CHARACTERISTICS ON BREEDING SUCCESS OF SCARLET TANAGERS. *Christopher Roberts and Christopher J. Norment* 73
- SPECIES LIMITS IN ANTIBIRDS (PASSERIFORMES: THAMNOPHILIDAE): THE *MYRMOTHERULA SURINAMENSIS* COMPLEX. *Morton L. Isler, Phyllis R. Isler, and Bret M. Whitney* 83
- USE OF SUPPLEMENTAL FOOD BY BREEDING ROSS'S GEESE AND LESSER SNOW GEESE: EVIDENCE FOR VARIABLE ANOREXIA. *Mark L. Gloutney, Ray T. Alisauskas, Keith A. Hobson, and Alan D. Afton* 97
- HABITAT REQUIREMENTS OF HENSLOW'S SPARROWS WINTERING IN SILVICULTURAL LANDS OF THE GULF COASTAL PLAIN. *Sheldon Plentovich, Nicholas R. Holler, and Geoffrey E. Hill* 109
- PHYLOGENY OF THE FALCONIDAE INFERRED FROM MOLECULAR AND MORPHOLOGICAL DATA. *Carole S. Griffiths* 116
- HOW WHITE-THROATED MAGPIE-JAY HELPERS CONTRIBUTE DURING BREEDING. *Tom A. Langen and Sandra L. Vehrencamp* 131
- MOLECULAR SYSTEMATICS AND BIOGEOGRAPHY OF THE COCKATOOS (PSITTACIFORMES: CATUIDAE). *David M. Brown and Catherine A. Toft* 141
- EVOLUTION OF REVERSED SEXUAL SIZE DIMORPHISM IN SKUAS AND JAEGERS. *Paulo Catry, Richard A. Phillips, and Robert W. Furness* 158
- UNUSUAL TIMING OF COPULATIONS IN THE AUSTRALIAN BRUSH-TURKEY. *Sharon M. Birks* 169
- FLYING THE GANTLET: POPULATION CHARACTERISTICS, SAMPLING BIAS, AND MIGRATION ROUTES OF EARED GREBES DOWNED IN THE UTAH DESERT. *Joseph R. Jehl, Jr., Annette E. Henry, and Suzanne I. Bond* 178
- FOAM PRODUCED BY MALE *COTURNIX* QUAIL: WHAT IS ITS FUNCTION? *Elizabeth Adkins-Regan* 184