Oxford

Handbook of the Birds of Europe, the Middle East, and North Africa

The Birds of the Western Palearctic Volume III:

Waders to Gulls

STANLEY CRAMP. Chief Editor

"An incomparable and indispensable work.... Exhaustive, concisely written accounts for each species cover field characteristics, habitat, distribution, breeding and wintering areas, breeding, food, voice, plumage, molts, measurements, weights, structure, and geographic variations. The sections on population, social patterns, and behavior are outstanding—well illustrated with informative drawings of behavioral postures. Numerous other text figures include voice sonograms, annual cycle diagrams, superb range maps, and color plates of eggs. All species are shown in plumage variation and flight appearances with outstanding color plates... No serious ornithological collection, personal or institutional, is functional without this reference work."—Choice

1983 913 pp.;105 color plates, over 500 line drawings 857506-8 \$89.00 Other volumes in the series...

Volume I: Ostrich to Ducks "A delight to use."—American Scientist 1977 722 pp.; 108 color plates, 350 line drawings 857358-8 \$98.00

Volume II: **Hawks to Bustards** "A truly monumental work."—*American Birds* 1980 696 pp.; 95 color plates, 300 line drawings 857505-X \$98.00

SPECIAL LIMITED TIME OFFER! Save 20% on all three volumes. See coupon below.



CHRISTOPHER FEARE

This book traces the evolution of the Starling from its arboreal, largely fruit-eating ancestor, to the ground-dwelling omnivorous bird that we see today. Habitat choice, annual cycles, behavior, breeding, feeding, flocking, and roosting are all discussed in terms of their contribution to this species' extraordinary biological success.

1983 200 pp.; 16 color plates, 68 line drawings 217705-2 \$24.95

Birds of Prey of Britain and Europe

IAN WALLACE

This concise, authoritative treatment of the magnificent birds of prey of Britain and Europe is a unique combination of superb illustrations and the latest scientific information.

1983 88 pp.; 32 color plates, maps 217729-X \$15.95

The Wildfowl of Britain and Europe

MALCOLM OGILVIE

The variety and beauty of ducks, geese, and swans are illustrated in this book. A general introduction outlines the characteristics of the wildfowl and their biology, and descriptions with the plates provide information on individual species and their identification.

1982 84 pp.; 30 color plates, maps 217723-0 \$16.50

A Field Guide to the Warblers of Britain and Europe

the East and

ALICK MOORE

For each of the 53 members of the Old World warblers, this beautifully illustrated book provides a full description including identification marks, especially those that help to distinguish similar species.

1983 200 pp.; 32 color plates, 53 line drawings, 45 maps 217710-9 \$18.95

of Europe, the Mic Africa, Vols. I-III (8	air Lawn, NJ 07410 adbook of the Birds Idle East, and North 57506-8, 857358-8, ecial discount price of
Please send me the t circled codes:	itles for which I've
857506-8 \$89.00 23	7729-X \$15.95
857358-8 \$98.00 23	7723-0 \$16.50
857505-X \$98.00 21	7710-9 \$18.95
217705-2 \$24.95	•
Check/money	order enclosed. (Prices good only in the U.S.; e add sales tax.)
Name	
Address	
City	State 7in



Birding in Ohio

By Tom Thomson

A valuable guide to the marvelous variety of birdlife in Ohio. More than two hundred good birding spots are described. Grouped by region and presented in alphabetical order, the sites are keyed to section maps. Drawings by Ohio artist and birder Charles Gambill illustrate a representative assortment of birds. \$15.00

Cranes of the World

By Paul A. Johnsgard

A lavishly illustrated, comprehensive, up-to-date survey of our scientific knowledge about the 14 extant species of cranes. Cranes of the World is divided into two main sections—the comparative biology of cranes and the natural histories of individual species. Includes a key to the species and subspecies of cranes of the world, a section on the origins of names, and detailed references.



\$37.50

Indiana Birds and Their Haunts

A Checklist and Finding Guide

By Charles E. Keller, Shirley A. Keller, and Timothy C. Keller ... a much needed book for all birders. And it is a delightful book for a gift." -The Columbus Republic \$12.50 cloth \$6.95 paper

A Guide to North American Waterfowl

By Paul A. Johnsgard

"... much more than a field guide—it is fascinating reading."—The Explorer \$15.95 cloth \$7.95 paper

Waterfowl of North America

By Paul A. Johnsgard

. one of the most comprehensive treatments of our native ducks, geese, and swans to appear under one cover.'



Available at bookstores, or send \$1.50 postage and handling for first book, 50¢ for each additional book, to

order from Publisher. UNIVERSITY PRESS

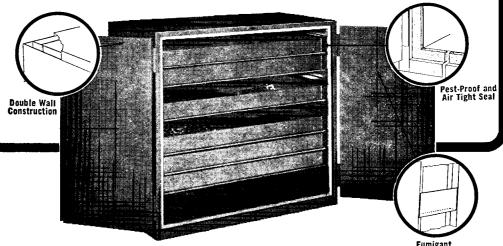
Tenth and Morton Streets, Bloomington, Indiana 47405

How many years would it take to replace your collection?

Safe-guard your valuable specimens

PERMANENT SPECIMEN PRESERVATION





- Double Wall Construction
 - Pest-Proof and Air Tight Seal
 - Double Panel Door
 - Lift-Off Safe Type Hinge
 - Fumigant Compartment
 - 3-Point Locking Mechanism
 - Front and Back Air Tight Seals
 - Specimen Trays of Aluminum and Masonite. Lightweight, sturdy and easy to handle.

FOR ILLUSTRATED BROCHURE, WRITE



Skin Case #201 (illustrated)
Holds large trays for larger specimens.

Skin Case # 202 (not illustrated)
Divided for half-size trays for smaller specimens.

York, NY 10122
is on Lane Zoology and Ornithol-
Title
ZoneState



JUST PUBLISHED

Ornithological Monographs No. 32

The Marine Ecology of Birds in the Ross Sea, Antarctic, by David G. Ainley, Edmund F. O'Connor and Robert J. Boekelheide. x + 97 pp., 42 text figures. 1984. Price \$9.00 prepaid (\$8.00 to AOU members). Order from Frank R. Moore, Assistant to the Treasurer, A.O.U., Department of Biology, University of Southern Mississippi, Southern Station Box 5018, Hattiesburg, Mississippi 39406, U.S.A. All orders must be prepaid and include a \$0.50 handling charge.

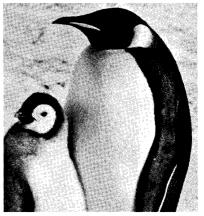
Now available in paperback

Penguins

Past and Present, Here and There George Gaylord Simpson

"One of the best books on the penguin that I have read.... Delightful, amusing and informative." — Gerald Durrell, Harper's

"A beautifully written account of the extraordinary and entrancing group of birds...that can be enjoyed by the general reader and ornithologist alike." — Wildlife



"A book for every animal lover."
—Roger Caras, CBS

Please send me copies of the paperback edition of <i>Penguins</i> at \$6.95 each.		
My check for is enclosed. Add \$1.50 for postage/handling (plus 7.5% tax in CT).		
Or charge ☐ MasterCard ☐ VISA	Account #	Expiration Date
SignatureName		
Street	City	StateZip
Yale University Press, Dept. 488J, 92A Yale Station, New Haven, Connecticut 06520		

THE AUK

A Quarterly Journal of Ornithology

PUBLISHED BY THE AMERICAN ORNITHOLOGISTS' UNION

Editor: JOHN A. WIENS, Department of Biology, University of New Mexico, Albuquerque, New Mexico 87131

Copy Editor: JEAN FERNER

Editorial Board: WALTER BOCK, JAMES R. KING, HELMUT C. MUELLER, RICHARD L. ZUSI

Associate Editors: HERBERT W. KALE, II (Periodical Literature), WILLIAM E. SOUTHERN (Book Reviews)

THE AUK welcomes original reports dealing with the biology of birds, emphasizing the documentation, analysis, and interpretation of laboratory and field studies, theoretical or methodological developments, or reviews of existing information or ideas. Contributions are welcomed from throughout the world, but must be written in English.

SUGGESTIONS TO CONTRIBUTORS. Submit the typewritten original and two copies of the text, tables, and all other material to the editor. Three copies of illustrations should be submitted. All typewritten material must be double-spaced on one side of numbered 8½ × 11 inch (2½ × 28 cm) good quality bond paper, with at least 1 inch (2½ cm) margins. Originals typed on erasable, light weight, or mimeo bond will not be considered, but copies may be clear reproductions. Number pages through the Literature Cited. Avoid footnotes. The style of manuscripts should conform to general usage in recent issues. A cover page should contain the full title, a shortened version of the title (not to exceed 35 characters in length) for use as a running head, and your address at the time the research was conducted. Your present address, if different, should be given at the bottom of the first text page. The cover page should include the name and full address of the individual to whom proof is to be sent.

Each article should be preceded by an Abstract not exceeding 5% of the length of the paper. The Abstract should recapitulate the findings of the paper, not describe the work done. Acknowledgments should follow the text and precede the Literature Cited. Scientific and English names of birds always should be given where first mentioned in the text, and should follow the A.O.U. Check-list of North American Birds and supplements or the appropriate equivalent unless departures are explained and defended. SI metric units should be used in all measurements. In general, abbreviations of statistical terms and mensural units should conform with the Council of Biology Editors (CBE) Style Manual, 4th ed. Use the 24-hour clock (0800 and 2030) and "continental" dating (1 July 1971).

Tables, which must not duplicate material in either the text or illustrations, are typewritten (double-spaced throughout!) separately from the text. Each table should contain a short but complete heading, and must not contain vertical rulings. Illustrations (including labels of coordinates) should be on $8\% \times 11$ inch $(21\% \times 28$ cm) sheets, and must be mailed flat. The name of the author and the figure number should be penciled on the back of each figure. Legends should be typed consecutively (double-spaced) on a separate page. Drawings should be drafted with undiluted india ink, and be large enough to permit 1/2 to 1/2 reduction to the size that they will appear in print. Graphs may be drafted on coordinate paper ruled with light blue lines; do not use coordinate paper ruled with green lines. Use mechanical lettering, pressure transfer letters, or calligraphy; typewritten lettering is not acceptable. Lettering should be large enough to be easily readable after 50% reduction of the figure, but not overly large. Lettering style should be uniform among all figures for a manuscript, as should the size of lettering following reduction. Photographs should be glossy prints of good contrast and sharpness, and should be approximately the same size as they will appear in print. Letters and arrows on photographs are best applied by pressure-sensitive materials. The Auk is published in a double-column format; give careful attention to designing your tables and illustrations accordingly.

Literature citations for all manuscripts are listed (double-spaced!) in a Literature Cited section following the text and Acknowledgments. Text citations should include author and year (e.g. Darwin 1858), or, if more than two authors are involved, the first author and year (Jones et al. 1947). If critical matter is cited or quoted directly from longer works, indicate the pertinent pages (e.g. MacArthur 1972: 204). Citations of two or more works on the same topic should be cited in chronological order (e.g. Meanley 1971, Dyer 1975). For abbreviations and forms of titles of serial publications, follow the BIOSIS List of Serials. Consult recent issues of The Auk and the CBE Style Manual for additional details.

A more detailed set of instructions for contributors appeared in the Auk, Vol. 99, No. 1 (January 1982), copies of which are available from the Editor.

ORNITHOLOGICAL MONOGRAPHS

Order from Frank R. Moore, Assistant to the Treasurer A.O.U., Department of Biology, University of Southern Mississippi, Hattiesburg, Mississippi 39406. All orders must be prepaid and include a \$0.50 handling charge. Prices to AOU members are given in parentheses.

- No. 2. A Comparative Study of Some Social Communication Patterns in the Pelecaniformes, by Gerard Frederick van Tets. 1965. \$3.50 (\$2.50).
- No. 3. The Birds of Kentucky, by Robert M. Mengel. 1965. \$15.00 (\$12.50).
- No. 6. Adaptations for Locomotion and Feeding in the Anhinga and the Double-crested Cormorant, by Oscar T. Owre. 1967. \$6.00 (\$4.50).
- No. 7. A Distributional Survey of the Birds of Honduras, by Burt L. Monroe, Jr. 1968. \$14.00 (\$11.00).
- No. 10. The Behavior of Spotted Antbirds, by Edwin O. Willis. 1972. \$9.00 (\$7.50).
- No. 11. Behavior, Mimetic Songs and Song Dialects, and Relationships of the Parasitic Indigobirds (Vidua) of Africa, by Robert B. Payne. 1973. \$12.50 (\$10.00).
- No. 12. Intra-island Variation in the Mascarene White-eye Zosterops borbonica, by Frank B. Gill. 1973. \$3.50 (\$2.50).
- No. 13. Evolutionary Trends in the Neotropical Ovenbirds and Woodhewers, by Alan Feduccia. 1973. \$3.50 (\$2.50).
- No. 14. A Symposium on the House Sparrow (Passer domesticus) and European Tree Sparrow (P. montanus) in North America, edited by S. Charles Kendeigh. 1973. \$6.00 (\$4.50).
- No. 15. Functional Anatomy and Adaptive Evolution of the Feeding Apparatus in the Hawaiian Honeycreeper Genus Loxops (Drepanididae), by Lawrence P. Richards and Walter J. Bock. 1973. \$9.00 (\$7.50).
- No. 16. The Red-tailed Tropicbird on Kure Atoll, by Robert R. Fleet. 1974. \$5.50 (\$4.50).
- No. 17. Comparative Behavior of the American Avocet and the Black-necked Stilt (Recurvirostridae), by Robert Bruce Hamilton. 1975. \$7.50 (\$6.00).
- No. 18. Breeding Biology and Behavior of the Oldsquaw (Clangula hyemalis L.), by Robert M. Alison. 1975. \$3.50 (\$2.50).
- No. 19. Bird Populations of Aspen Forests in Western North America, by J. A. Douglas Flack. 1976. \$7.50 (\$6.00).
- No. 20. Sexual Size Dimorphism in Hawks and Owls of North America, by Noel F. R. Snyder and James W. Wiley. 1976. \$7.00 (\$6.00).
- No. 21. Social Organization and Behavior of the Acorn Woodpecker in Central Coastal California, by Michael H. MacRoberts and Barbara R. MacRoberts. 1976. \$7.50 (\$6.00).
- No. 22. Maintenance Behavior and Communication in the Brown Pelican, by Ralph W. Schreiber. viii + 78 pp., 38 text figures. 1977. Price \$6.50 (\$5.00).
- No. 23. Species Relationships in the Avian Genus Aimophila, by Larry L. Wolf. viii + 220 pp., 17 text figures + 10 plates, long-play phono disc album. 1977. Price \$12.00 (\$10.50).
- No. 24. Land Bird Communities of Grand Bahama Island: The Structure and Dynamics of an Avifauna, by John T. Emlen. xi + 129 pp., 38 text figures, appendix. 1977. Price \$9.00 (\$8.00).
- No. 25. Systematics of Smaller Asian Night Birds Based on Voice, by Joe T. Marshall. viii + 58 pp., frontispiece, 15 plates, phono disc supplement, appendices I-III. 1978. Price \$7.00 (\$6.00).
- No. 26. Ecology and Behavior of the Prairie Warbler Dendroica discolor, by Val Nolan, Jr. xx + 595 pp., color frontispiece, 42 text figures, 8 appendices. 1978. Price \$29.50.
- No. 27. Ecology and Evolution of Lek Mating Behavior in the Long-tailed Hermit Hummingbird, by F. Gary Stiles and Larry L. Wolf. viii + 78 pp., 26 text figures. 1979. Price \$8.50 (\$7.50).
- No. 28. The Foraging Behavior of Mountain Bluebirds with Emphasis on Sexual Foraging Differences, by Harry W. Power. x + 72 pp., color frontispiece, 12 text figures. 1980. Price \$8.50 (\$7.50).
- No. 29. The Molt of Scrub Jays and Blue Jays in Florida, by G. Thomas Bancroft and Glen E. Woolfenden. viii + 51 pp., 15 text figures. 1982. Price \$8.00 (\$6.50).
- No. 30. Avian Incubation: Egg Temperature, Nest Humidity, and Behavioral Thermoregulation in a Hot Environment, by Gilbert S. Grant. viii + 75 pp., 35 text figures. 1982. Price \$9.00 (\$7.00).
- No. 31. The Native Forest Birds of Guam, by J. Mark Jenkins. x + 61 pp., color frontispiece, 6 color plates, 24 text figures. 1983. Price \$9.00 (\$7.00).