

DECADES OF GIVING

GUARANTORS

Marcia Brady Tucker (1968)
Beecher Bowdish (1970)
Christian Goetz (1970)
James Savage (1970)
Herbert and Betty Carnes (1979)
Alexander and Beatrice Wetmore (1979)
Wilbur Yocum Gary (1986)
Charles R. Blake (1988)
Donald L. Bleitz (1988)

BENEFACTORS

Robert M. Mengel (1990)

PATRONS

1930-1939

Ruthven and Martha R. Towner Deane
C. Hart Merriam

1940-1949

Hoyes Lloyd
Edward McIlhenny
Witmer and Lillie May Lafferty Stone
Dayton and Lillian C. Stoner
William P. Wharton

1950-1959

Jonathan and Ethel A. Dwight	Margaret Morse Nice
Crawford H. Greenewalt	John Treadwell Nichols
Ludlow Griscom	Theodore S. Palmer
Alfred O. Gross	James Lee Peters
Raymond G. Guernsey	Roger T. Peterson
Mrs. B. Brewster Jennings	Arlie W. Schorger
Louise de Kiriline Lawrence	Herbert L. Stoddard
Cyrus Mark	Josselyn Van Tyne
Loye H. Miller	

1960-1969

Ormsby Annan	Frank A. Hartman
Thomas C. Desmond	Burt L. Monroe, Sr.
Robert G. Goelet	Frank Walters
Stephen Gregory	Gertrude Wicks

1970-1979

John E. Dupont
Amelia R. Laskey
Edmund W. Mudge, Jr.
William H. Phelps, Jr.
William H. Pugh

Ralph W. Schreiber
Elizabeth A. Schreiber
Paul A. Stewart
W. E. Clyde Todd
Col. Lloyd R. Wolfe

1980-1989

John W. Aldrich
Dean Amadon
Walter Bock
Alan H. Brush
Lula and Ben B. Coffey, Jr.
Charles T. and Patricia H. Collins
Nicholas E. and Elsie C. Collias
Donald S. Farner
Thomas R. Howell
Marion A. Jenkinson
Brina Kessell
Wesley E. Lanyon
Deane McGurk

Richard Marrus
Margaret K. Mitchell
Burt L. Monroe, Jr.
Frank A. Pitelka
Stephen M. and Ruth Ogden Russell
Charles G. Sibley
Frances Sibley
Peter Stettenheim
Harrison B. Tordoff
George Wickstrom
Merrill Wood
Glen E. and Janet A. Woolfenden

1990-

Kendall W. Corbin
Frank B. Gill
Wayne Hoffman

C. Stuart Houston
Kenneth C. Parkes
Sartor O. Williams III

Categories of Giving
(as established in 1989)

Sponsor (\$1,000), Patron (\$3,000), Benefactor (\$10,000)
Guarantor (\$25,000)

The names of major donors are listed in perpetuity in the rolls of the
American Ornithologists' Union.

The needs of the American Ornithologists' Union have changed since its
founding over 100 years ago, and they will continue to change. Thus the
A. O. U. strongly recommends that gifts to the Union be unrestricted.

ORNITHOLOGICAL MONOGRAPHS 45 & 46

DESCRIPTIONS OF THIRTY-TWO NEW SPECIES OF BIRDS
FROM THE HAWAIIAN ISLANDS

Part I. Non-Passeriformes

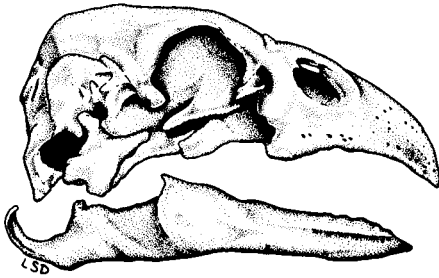
by

STORRS L. OLSON and HELEN F. JAMES

Part II. Passeriformes

by

HELEN F. JAMES AND STORRS L. OLSON



Bound as one volume - 176 pp
\$25.00 (\$22.50 to AOU Members)
Postage \$2.00 N. Am., \$4.00 all other countries
MasterCard and VISA accepted

Order from:

Max C. Thompson, Asst. to Treasurer
American Ornithologists' Union
Dept. Biology, Southwestern College
100 College Street
Winfield, Kansas 67156

ORNITHOLOGICAL MONOGRAPHS NO. 44

RECENT ADVANCES IN THE STUDY OF NEOGENE FOSSIL BIRDS

I. The Birds of the Late Miocene-Early Pliocene Big Sandy Formation, Mohave County, Arizona

BY K. JEFFREY BICKART

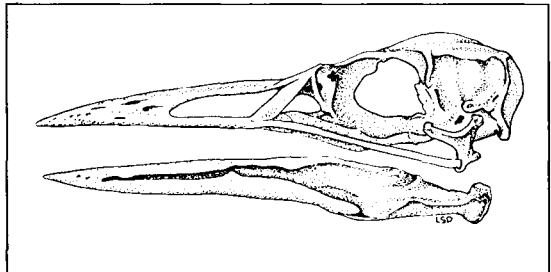
II. Fossil Birds of the San Diego Formation, Late Pliocene, Blanco, San Diego County, California

BY ROBERT M. CHANDLER

vi + 161 pp.
\$19.75 (\$17.75 to AOU Members)
postage: \$2.00 North America
\$4.00 Other Countries
MasterCard and VISA accepted

Order from:

Max C. Thompson, Assistant to Treasurer
American Ornithologists' Union
Dept. Biology, Southwestern College
100 College Street
Winfield, Kansas 67156



Cambridge University Press

Prodigious Birds

Moas and Moa-hunting in
New Zealand

Atholl Anderson

Brings a historical perspective to the development of moa research and its formative debates, analytical methods, and results, reviewing evidence from paleontology, biology, archaeology, ethnography, and history.

1990 280 pp. 35209-6 Hardcover \$79.50

Bird Migration

Thomas Alerstam

David A. Christie, Translator

Presents the life histories and migratory habits of nine different ecological categories of birds. It details the course and timing of the flight journeys, flight behavior, fuel economy, flocking, and the hazards from disorientation and predation.

1990 428 pp. 32865-9 Hardcover \$105.00

Bird Life of Mountain and Upland

Derek Ratcliffe

"...a cut above the average bird book, and is the first in what promises to be an outstanding series on bird habitats of the British Isles...it is also a source of valuable insights into bird ecology and conservation."

—*Nature*

Bird Life Series

1991 268 pp. 33123-4 Hardcover \$44.50

Available in bookstores or write:

**CAMBRIDGE
UNIVERSITY PRESS**

40 West 20th Street

New York, NY 10011-4211.

Call toll-free 800-872-7423.

MasterCard/VISA accepted.

Process Bird Sightings With WORLD BirdBase

Easy entry of sightings and comments, using Clements' 1989-updated list of scientific and common names of every world species plus a name finding facility. Species can be added, split, combined, or renamed. Versatile display of taxonomically sorted sightings, with selection by: faunal zone, country or area, state or province, trip or place, special feature, species, first sightings only, date, or any combination. All displays can be shown on screen, printed, or written to disk files readable by word processors, spread sheets, etc. Nearly 33,000 sightings can be stored in any directory, and occupy only about 2 M bytes of disk space. The program requires an IBM-compatible PC with 640 K bytes of RAM memory and a hard disk. Send your check or major-organization purchase order for US\$99.00 (with 6% tax if CA order) plus US\$5.00 s&h (US\$10.00 if foreign order). Request 3.5 inch disks if needed for drive A of your computer.

Santa Barbara Software Products; Dept. A; 1400 Dover Rd., S.B. CA 93103 USA; (805) 963-4886

The Handbook of Australian, New Zealand and Antarctic Birds

Volume 1: Ratites to Ducks, Parts A & B

EDITED BY STEPHEN MARCHANT AND PETER HIGGINS

The Handbook of Australian, New Zealand and Antarctic Birds (HANZAB) details the fascinating world of birdlife in Australasia, and is the first comprehensive study since Gregory Mathew's 1927 treatise *Birds of Australia*. Each volume examines all aspects of field identification, social organization, behavior, voice, habitat, distribution, breeding, movement, food, measurements, moult and precise plumage characteristics. One hundred superb color plates by Jeff Davies provide accurate detail. Essential for collectors.

1991 • 1056 pp.; 100 color, 300 b&w plates
\$295.00



The Birds of Sumatra and Kalimantan

DEREK HOLMES

ILLUSTRATED BY STEPHEN NASH

This book introduces 148 species from the rich lowland and coastal habitats of Sumatra and Kalimantan. The plumage, behavior, habitat, and species distribution and references for 129 other species are included.

1991 • 122 pp.; 148 illus.
\$24.95

Songbirds in Singapore

The Growth of a Pastime

LESLEY LAYTON

This book discusses the popularity of bird-keeping in Singapore and describes the most popular songbirds and the paraphernalia that surrounds their care.

October 1991 • 350 pp.; 24 color, 24 b&w illus.
\$19.95

Bustards, Hemipodes, and Sandgrouse Birds of Dry Places

PAUL A. JOHNSGARD

This is the first monograph to cover all 51 extant species of these diverse bird families. Comparative chapters on the taxonomy and phylogeny of the three groups, their zoogeographic patterns, social behavior, and breeding biology make it essential reading for ornithologists, zoologists, and naturalists.

October 1991 • 304 pp.; 51 color plates, 53 illus.
\$135.00

The Breeding Birds of Kashmir

R.S.P. BATES AND E.H.N. LOWTHER

Bates and Lowther traversed the western Himalayan region for 20 years to photograph the 116 remarkable bird species identified in this richly illustrated volume.

January 1991 • 384 pp.; 5 pp color plates, 151 photos
\$35.00

The Birds of Pakistan Volume 1: Regional Studies and Non-Passeriformes

T.J. ROBERTS

This two-volume set, by world-famous ornithologist Tom Roberts, is the first complete account of the avifauna of Pakistan.

1991 • 666 pp.; 76 illus., 23 color plates,
\$85.00

Volume 2

December 1991 • 624 pp.; 24 color plates, 16 illus.
\$85.00

To order or for more
information, write:

**OXFORD
UNIVERSITY
PRESS**



200 Madison Avenue
New York, NY 10016
Attn: Science and Medical
Marketing Director

Prices and publication dates are subject to
change.

1991 MEETING OF THE AMERICAN SOCIETY OF ZOOLOGISTS
with the
AMERICAN MICROSCOPICAL SOCIETY, ANIMAL BEHAVIOR SOCIETY
THE CRUSTACEAN SOCIETY,
AND THE INTERNATIONAL ASSOCIATION OF ASTACOLOGY

Hyatt Regency
Atlanta, Georgia
December 27-30

Housing Rates
\$72/room for single
or double rooms

Call for Papers: April 1991
Abstract Deadline: August 1, 1991
For Poster or Oral Papers

ASZ DIVISIONAL SYMPOSIA

- Basic Animal Behavior Research in Zoos: A Link with the Wild
- Hormonal Control of Growth and Reproduction in Arthropods
- Natural and Adaptive Immune Mechanisms in Insects
- Neuropeptides: Synthesis, Release, Action, and Evolution
- Current Perspectives on the Evolution, Ecology, and Comparative Physiology of Bimodal Breathing
- Development and Evolution of the Vertebrate Head
- Libbie Henrietta Hyman: Life and Contributions
- Reproduction, Larval Biology and Recruitment in the Deep-Sea Benthos
- Scorpions as Model Biological Systems
- Comparative Anatomy of the Branchial and Hypobranchial Nerves:
New Data from Adults and Embryos
- Long-Term Dynamics of Coral Reefs

SOCIETY-SPONSORED SYMPOSIA

- Strategies for Analyzing Neuropeptide Systems (ASZ)
- The Biology of Flatworms (AMS)

Meeting Hosted by Agnes Scott College and Emory University.
John F. Pilger and Darrell R. Stokes, Co-Chairpersons of the Local Committee

For more information, contact:

Mary Adams-Wiley, Executive Officer
American Society of Zoologists
104 Sirius Circle
Thousand Oaks, California 91360
Phone: (805) 492-3585
Fax: (805) 492-0370



Investigating new advances . . .
CURRENT ORNITHOLOGY

edited by **Dennis M. Power**

From reviews of earlier volumes:

"**Current Ornithology** . . . is an outstanding collection. . . . Buy it, and be ready to shell out more for subsequent numbers in the series." —**The Auk**

" . . . these chapters are written by the established authorities in the respective fields. . . . Serious ornithologists should have this book . . . and probably subsequent volumes." —**The Wilson Bulletin**

Current Ornithology presents timely reviews, overviews, and essays on topics of current interest in avian biology. Covering all facets of biology pertinent to ornithology, the series is designed to give the reader understanding and insight into new developments in this fascinating field. Contributions are profusely illustrated and are accompanied by extensive bibliographies.

Volume 8

Here, leading experts in the field provide new information on avian studies in New Zealand and the southern Pacific Ocean. They discuss a variety of timely issues, including avian radioecology, enemy recognition and nest parasitism, and the relation between showy plumage and blood parasites using the New Guinea avifauna.

0-306-43640-X/352 pp./ill./1991/\$75.00
(\$90.00 outside US & Canada)

Volume 7

Contributors examine bird population declines in relation to global conservation, energy storage, reproductive biology, evolution of colonial breeding, nonbreeding social organization in *Parus*, age-specific variation in reproductive performance of birds, the ecology and evolution of extra-pair copulations in birds, and survival rates and their relationship to life-history traits in some common British birds.

0-306-43307-9/402 pp./ill./1990/\$75.00
(\$90.00 outside US & Canada)

PLENUM PUBLISHING CORPORATION

233 Spring Street,
New York, NY 10013-1578
Telephone orders: 212-620-8000
1-800-221-9369



IBIS

Journal of the British Ornithologists' Union

Edited by **Dr Peter Jones**

*Department of Forestry and Natural Resources, University of Edinburgh,
King's Buildings, Edinburgh EH9 3JU, UK*

One of the most prestigious bird journals in the world, *Ibis* has been in existence since 1859. It publishes papers from both professionals and amateurs on all aspects of ornithology ranging from geographical distribution to bird behaviour, covering topics such as kin selection, altruism and breeding systems. Reviews of the ornithological literature have always been an important feature of the jour-

nal. Although it is published for the British Ornithologists' Union it is by no means exclusively British, and less than half the papers deal with British birds.

Subscription Information

Ibis is published quarterly. Subscription rates for 1991 are £95.00 (UK), £110.00 (overseas) and US\$199.50 (USA & Canada) post free.

BSIP

Blackwell Scientific Publications

- JOURNALS -

Osney Mead, Oxford OX2 0EL Tel: (0865) 240201

The Journals of the British Ecological Society

JOURNAL OF ECOLOGY

Edited by J. White
and P. Moore

The Journal of Ecology is one of the world's oldest and most respected publications in the science. The objects of the journal are: (1) to foster and promote the study of vegetation and ecology, especially in the British Isles; (2) to afford an outlet for original work on these subjects; (3) as far as possible to present a record of the commentary on the progress of these studies throughout the world. The journal includes the series Biological Flora of the British Isles, which appear in most issues of the journal but are also available as separate offprints on standing orders.

JOURNAL OF ANIMAL ECOLOGY

Edited by B. Shorrocks and J.M. Elliott

This leading international journal publishes papers on original research in all branches of animal ecology. A balance is sought between aquatic and terrestrial environments, between invertebrates and vertebrates, and between theoretical, experimental and analytical approaches to soundly-based field data. Occasional purely descriptive, theoretical or review papers may be published at the discretion of the editors on animals or concepts of special interest or as part of an extensive development of a subject or as an adjunct to a long-term project.

Subscription Information

The *Journal of Ecology* is published quarterly, the *Journal of Animal Ecology* and *Journal of Applied Ecology* are published three times a year and *Functional Ecology* is published bi-monthly. The subscription rates for 1991 are, for each one: £130.00 (UK), £148.00 (overseas) and US\$257.50 (USA & Canada) post free.

Subscriptions and free specimen copies are available from:

BSP

- JOURNALS -

Blackwell Scientific Publications

Osney Mead, Oxford OX2 0EL Tel: 0865 240201

JOURNAL OF APPLIED ECOLOGY

Edited by W.C. Block, J. Miles
and N.R. Webb

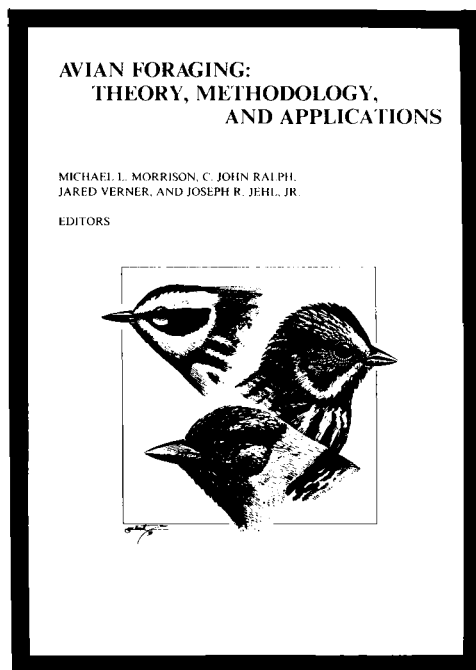
The journal publishes the results of original research in which ecological ideas and methods are applied to the study, conservation, management, control, development and use of natural resources in the widest sense. The editors select for publication only material of the highest scientific standards and this policy has attracted contributions by the world's leading authorities.

FUNCTIONAL ECOLOGY

Edited by P. Calow and J. Grace

Functional Ecology publishes short, original papers in a wide range of ecological topics, but particularly emphasizing the fields of physiological, biophysical and evolutionary ecology. Papers may describe experimental, observational or theoretical studies on terrestrial, freshwater or marine systems. The Editors are especially keen to publish papers that blend between these subject areas. Work that is purely descriptive and/or concerned exclusively and specifically with the population dynamics of organisms will not be accepted unless it sheds light on those specific areas mentioned above.

NEW RELEASES FROM STUDIES IN AVIAN BIOLOGY



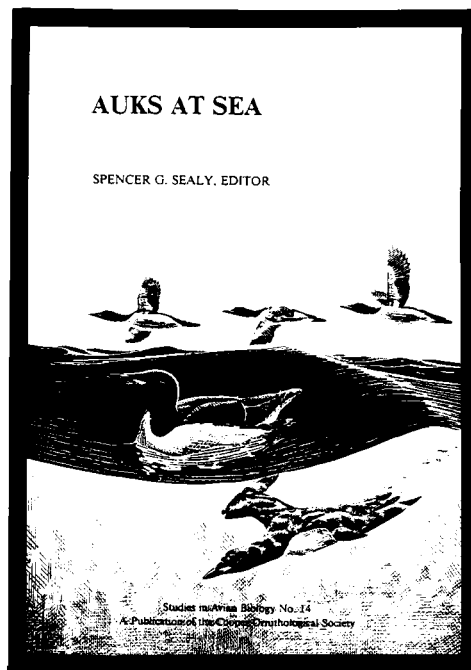
**AVIAN FORAGING:
THEORY, METHODOLOGY,
AND APPLICATIONS**

MICHAEL L. MORRISON, C. JOHN RALPH,
JARED VERNER, AND JOSEPH R. JEHL, JR.

EDITORS



STUDIES IN AVIAN BIOLOGY NO. 13
\$29.50
(includes postage & handling)



AUKS AT SEA

SPENCER G. SEALY, EDITOR

Studies in Avian Biology No. 14
A Publication of the Cooper Ornithological Society

STUDIES IN AVIAN BIOLOGY NO. 14
\$16.00
(includes postage & handling)

OTHER RECENT PUBLICATIONS:

SAB 11: Bird Communities at Sea off
California: 1975 to 1983

\$7.00

SAB 12: Biology of the Eared Grebe
and Wilson's Phalarope in the
Nonbreeding Season: A Study of
Adaptations to Saline Lakes

\$14.00

Order from:

Cooper Ornithological Society
Western Foundation of Vertebrate
Zoology
1100 Glendon Ave., Suite 1400
Los Angeles, CA 90024 USA

All order must be prepaid in
U.S. dollars.

Make checks payable to the
Cooper Ornithological Society

Lovebirds, Cockatiels, Budgerigars: BEHAVIOR & EVOLUTION

by J. Lee Kavanau, UCLA

- ▶...highly informative volume...actually several books under one cover...[the author has] enormous experience with the raising of these birds....presenting a great deal of interesting information, much of it new. Prof. Ernst Mayr, Harvard Univ.
- ▶...unique, exhaustive laboratory studies of..behavior....insightful and remarkably comprehensive scenario of..origin & evolution of birds &..roots of their behaviors....must reading for all interested in avian behavior & reproduction....wealth of information & concepts that will be of interest to all evolutionists. Prof. E. C. Olson, UCLA
- ▶...enormous amount of information....very important contribution to..study of behavior of parrot birds, about which so little is known... Prof. K. Immelmann, Univ. Bielefeld
- ▶...monumental in..scope...much fascinating reading...many intriguing subjects....enormous project.....excellent reference for..experimental behavior or evolutionary science....looking forward to..in-depth study &..to apply [the author's] concepts to...aviculture and avian veterinary medicine. G. J. Harrison, DVM, Bird World, Nov., 1987
- ▶...offers an interesting synthesis of avian evolution, in general, tying together [the author's] views on evolutionary sequences involved in thermoregulation, insulation, egg care, care of young, mode of feeding, and degree of arboreality. Auk, July, 1988
- ▶.....scope..is impressive.....information conveyed..is almost overwhelming.....comprehensive discussions on..behavior, morphology, physiology, ecology, biogeography, and evolution of all birds.....extremely detailed discussion of the avian brain.....fascinating ideas on the evolution of bird reproductive behavior.....should provide much fuel for thought & some debate among students of avian evolution.....detailed descriptions of captive bird breeding and experimentation provide numerous ideas for..research on captive birds..... a must for anyone seriously interested in avian evolution... Wilson Bull., Sept., 1989

March, 1987, xxvi + 1,001 pp., 7 indices, 1,455 refs., \$49.95
Prepay ck. or m/o. Add \$4 p/h (\$6 outside U.S.) + \$3.25 s/t in Calif.
Science Software Sys., Monogr., Box 241710, Los Angeles, CA 90024

**POSTDOCTORAL FELLOWSHIP
AT THE
AMERICAN MUSEUM OF NATURAL HISTORY**

The Frank M. Chapman Memorial Fund Committee welcomes applications for the Postdoctoral Fellowship Program in the areas of evolutionary and systematic ornithology. The Fellowship is usually for one year, but applicants may apply for two years, with a review of performance after the first year.

Deadline for applications is 15 January.

For application form and brochure, please write to:

Frank M. Chapman Memorial Fund

Department of Ornithology / American Museum of Natural History
Central Park West at 79th Street New York, New York 10024-5192, U.S.A.

Are you regularly reading these journals?

Journal of Comparative Physiology A

Sensory, Neural, and Behavioral Physiology

Editorial Board: H. Autrum, München; W. Heiligenberg, La Jolla; F. G. Barth, Wien; G. Neuweiler, München

Advisory Board: H. Atwood, J. A. Coles, S. Daan, F. Delcomyn, R. DeVoe, R. Hardie, F. Huber, M. Konishi, M. F. Land, H. C. Lüttgau, H. Markl, A. Michelsen, W. R. A. Muntz, C. H. Page, F. Papi, J. D. Pettigrew, C. L. Prosser, J. D. Pye, H. F. Rowell, D. G. Stavenga, N. J. Strausfeld, U. Thurm, R. Wehner, F. Yokohari

The **Journal of Comparative Physiology** is essential for researchers of invertebrates, vertebrates, and non-human mammals. Researchers of higher mammals - especially humans - refer to the journal frequently, as studies of other animals have laid the groundwork for our understanding of the complex processes in higher vertebrates.

Appearing monthly, **Journal of Comparative Physiology A - Sensory, Neural, and Behavioral Physiology** is concerned with the sense organs and all aspects of neural and neural processes as well as with the experimental analysis of behavior, especially neuro-ethology.

ISSN 0340-7594

Title No. 359

Subscription Information 1991		
Vols. 168+169	6 issues each	Price DM 2560,-*
Plus carriage charges: FRG DM 32,10 Other countries DM 51,60		

* suggested list price

Journal of Comparative Physiology B

Biochemical Systemic, and Environmental Physiology

Editorial Board: H. Langer, Bochum; T. Hirano, Tokyo; W. T. W. Potts, Lancaster; R. B. Reeves, Buffalo

Advisory Board: P. J. Butler, D. H. Evans, P. W. Hochachka, J. A. Hoffmann, H. Huddart, D. Hume, C. L. Prosser, D. Randall, W. Rautenberg, R. Reinboth, T. J. Shuttleworth, G. N. Somero, K. Urich, L. C.-H. Wang, R. E. Weber, E. Zebe

In 1984, the **Journal of Comparative Physiology** was split into two sections, each available separately.

Appearing bimonthly, **Journal of Comparative Physiology B - Biochemical, Systemic, and Environmental Physiology** publishes articles concerning the "machinery" of animals, from the molecular level up to the organismic level. Covered are comparative aspects of metabolism and enzymology, metabolic regulation, respiration and gas transport, circulation, physiology of body fluids, temperature relations, and muscular physiology.

ISSN 0174-1578

Title No. 360

Subscription Information 1991		
Vols. 160	6 issues	Price DM 1096,-*
Plus carriage charges: FRG DM 16,05 Other countries DM 25,80		

* suggested list price

If not, why not start today...

Order Form

Please order through your bookseller or return to:

Please enter my subscription to the following journal:

_____ (give title)

Please send me a free samplly copy.

Name/Address _____

Date/Signature _____

Springer-Verlag
Life Sciences
Marketing
Tiergartenstrasse 17
W-6900 Heidelberg

Please note:

I realize that I may cancel this order within ten days by writing to the address on the order form whereby the postmark date will suffice as proof that the cancellation was made within the deadline. I confirm my understanding of this with my second signature:

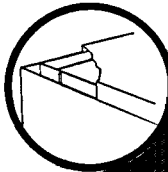
2nd signature _____



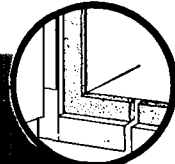
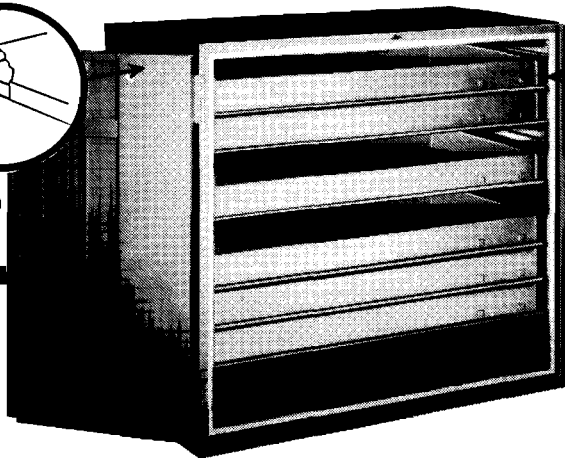
wi.10.430/A/1

How many years would it take to replace your collection?
 Safe-guard your valuable specimens
PERMANENT SPECIMEN PRESERVATION

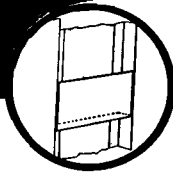
with *Lane* **ZOOLOGY AND ORNITHOLOGY
 SPECIMEN CABINETS**



Double Wall Construction



Pest-Proof and Air Tight Seal



Fumigant Compartment

- 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.

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

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

FOR ILLUSTRATED BROCHURE, WRITE

Lane

SCIENCE EQUIPMENT CORP.

225 WEST 34th Street New York, NY 10122
 (212) 563-0663 FAX: (212) 465-9440

Lane Science Equipment Corp., Dept. D
 225 W. 34th St., New York, N.Y. 10122

Please send complete details on Lane Zoology and Ornithology Specimen Cabinets to:

Name _____ Title _____

Institution _____

Address _____

City _____ Zone _____ State _____

THE AUK

A Quarterly Journal of Ornithology

PUBLISHED BY THE AMERICAN ORNITHOLOGISTS' UNION

Editor: ALAN H. BRUSH, Department of Physiology and Neurobiology, University of Connecticut, Storrs, Connecticut 06269.

Copy Editor: GAIL W. HUNTER

Associate Editors: JOHN L. TRAPP (Recent Ornithological Literature) AND BRUCE M. BEEHLER (Book Reviews)

THE AUK welcomes original reports on the biology of birds. Appropriate topics include the documentation, analysis, and interpretation of laboratory and field studies, theoretical or methodological developments, and reviews of information or ideas. Contributions written in English are encouraged from throughout the world.

SUGGESTIONS TO CONTRIBUTORS

Manuscript preparation.—Submit the original and two clear copies of the text, tables, and all other text materials along with a letter of transmittal (Auk 105: 803), and three copies of all illustrations (retain original figures). Double-space all written material (including tables and figure legends) on one side of 8½ × 11 inch (21.5 × 28 cm) good quality bond paper, with at least 1 inch (2.5 cm) margins. Number pages through the Literature Cited. Do not right justify. Type tables separately from the text; type figure legends consecutively on one sheet. Mail figures flat and on text-sized sheets with your name and figure number penciled on the back. Do not use boldface, italics, or reduced type. Signify italics by underlining.

Manuscript style.—The style of manuscripts should conform to general usage in recent issues. The title page contains the full title (avoid colons or questions, please) and author's name and address at the time of research. The present address, if different, is given in a footnote. The cover page includes the name and mailing address of the individual to whom proof is to be sent, and a shortened version of the title (<36 characters).

An Abstract (<5% of the paper length) that summarizes important premises, recapitulates your findings, and gives your conclusions precedes each regular article. In articles, text citations should include author and year (e.g. Darwin 1858, Wolter and Hunter 1968, Mayr et al. 1989); multiple citations on the same topic are arranged chronologically. Quotations and citations from longer works require page numbers (Matthew 1976: 193). Acknowledgments follow the text and precede the Literature Cited. Abbreviations of titles of serial publications are found in "Serial Sources for the BIOSIS Data Base." Scientific and English names of birds are given at first mention, and they follow the AOU "Check-list of North American Birds" and supplements unless departures are explained and defined. All measurements are in SI metric units. In general, abbreviations of statistical terms and mensural units conform to the latest Council of Biological Editors' "CBE Style Manual." Use the 24-hour clock (0800 and 2035) and continental dating (29 September 1934).

Tables and figures.—Tables and figures must not duplicate material in either the text or each other. Each table requires a short but complete heading and no vertical rules. Illustrations must allow reduction to one-column (16 pica) width or, if necessary, 26-pica (11 cm) width—without reduction in clarity or readability. Style and size among figures should be uniform. Typewritten lettering is not acceptable on figures. Computer-generated figures of good contrast and sharpness on bond paper are encouraged. Drawings should be prepared with undiluted india ink. Photographs should be glossy prints of the highest possible quality, and approximately the same size as they will appear in print. Letters, arrows, and symbols on photographs are best applied by pressure-sensitive materials. Color figures will be considered both as figure plates and for the frontispiece.

Copies of a more detailed set of instructions (Auk 105: 231) are available from the Editor.

ORNITHOLOGICAL MONOGRAPHS

- No. 2. *A Comparative Study of Some Social Communication Patterns in the Pelecaniformes*. G. F. van Tets. 1965. \$10.00.
- No. 3. *The Birds of Kentucky*. R. M. Mengel. 1965. \$10.00.
- No. 6. *Adaptations for Locomotion and Feeding in the Anhinga and the Double-crested Cormorant*. O. T. Owre. 1967. \$3.00.
- No. 7. *A Distributional Survey of the Birds of Honduras*. B. L. Monroe, Jr. 1968. \$7.00.
- No. 10. *The Behavior of Spotted Antbirds*. E. O. Willis. 1972. \$4.00.
- No. 11. *Behavior, Mimetic Songs and Song Dialects, and Relationships of the Parasitic Indigobirds (Vidua) of Africa*. R. B. Payne. 1973. \$6.00.
- No. 12. *Intra-island Variation in the Mascarene White-eye Zosterops borbonica*. F. B. Gill. 1973. \$2.50.
- No. 13. *Evolutionary Trends in the Neotropical Ovenbirds and Woodhewers*. A. Feduccia. 1973. \$2.50.
- No. 14. *A Symposium on the House Sparrow (Passer domesticus) and European Tree Sparrow (P. montanus) in North America*. S. C. Kendeigh, Ed. 1973. \$3.00.
- No. 15. *Functional Anatomy and Adaptive Evolution of the Feeding Apparatus in the Hawaiian Honeycreeper Genus Loxops (Drepanididae)*. L. P. Richards and W. J. Bock. 1973. \$5.00.
- No. 16. *The Red-tailed Tropicbird on Kure Atoll*. R. R. Fleet. 1974. \$3.00.
- No. 17. *Comparative Behavior of the American Avocet and the Black-necked Stilt (Recurvirostridae)*. R. B. Hamilton. 1975. \$4.00.
- No. 18. *Breeding Biology and Behavior of the Oldsquaw (Clangula hyemalis L.)*. R. M. Alison. 1975. \$2.50.
- No. 19. *Bird Populations of Aspen Forests in Western North America*. J. A. D. Flack. 1976. \$4.00.
- No. 21. *Social Organization and Behavior of the Acorn Woodpecker in Central Coastal California*. M. H. MacRoberts and B. R. MacRoberts. 1976. \$4.00.
- No. 22. *Maintenance Behavior and Communication in the Brown Pelican*. R. W. Schreiber. 1977. \$3.50.
- No. 23. *Species Relationships in the Avian Genus Aimophila*. L. L. Wolf. 1977. \$7.00.
- No. 24. *Land Bird Communities of Grand Bahama Island: The Structure and Dynamics of an Avifauna*. J. T. Emlen. 1977. \$5.00.
- No. 25. *Systematics of Smaller Asian Night Birds Based on Voice*. J. T. Marshall. 1978. \$4.00.
- No. 26. *Ecology and Behavior of the Prairie Warbler Dendroica discolor*. V. Nolan, Jr. 1978. \$15.00.
- No. 27. *Ecology and Evolution of Lek Mating Behavior in the Long-tailed Hermit Hummingbird*. F. G. Stiles and L. L. Wolf. 1979. \$4.50.
- No. 28. *The Foraging Behavior of Mountain Bluebirds with Emphasis on Sexual Foraging Differences*. H. W. Power. 1980. \$4.50.
- No. 29. *The Molt of Scrub Jays and Blue Jays in Florida*. G. T. Bancroft and G. E. Woolfenden. 1982. \$4.00.
- No. 30. *Avian Incubation: Egg Temperature, Nest Humidity, and Behavioral Thermoregulation in a Hot Environment*. G. S. Grant. 1982. \$5.00.
- No. 31. *The Native Forest Birds of Guam*. J. M. Jenkins. 1983. \$6.00.
- No. 32. *The Marine Ecology of Birds in the Ross Sea, Antarctica*. D. G. Ainley, E. F. O'Connor, and R. J. Boekelheide. x + 97 pp. 1984. \$9.00 (\$8.00).
- No. 33. *Sexual Selection, Lek and Arena Behavior, and Sexual Size Dimorphism in Birds*. R. B. Payne. viii + 52 pp. 1984. \$8.00 (\$6.50).
- No. 34. *Pattern, Mechanism, and Adaptive Significance of Territoriality in Herring Gulls (Larus argentatus)*. J. Burger. xii + 92 pp. 1984. \$9.00 (\$7.00).
- No. 35. *Ecogeographical Variation in Size and Proportions of Song Sparrows (Melospiza melodia)*. J. W. Aldrich. x + 134 pp. 1984. \$10.50 (\$8.50).
- No. 36. *Neotropical Ornithology*. P. A. Buckley et al., Eds. xi + 1,041 pp., 8 color plates. 1985. \$50.00.
- No. 37. *Avian Monogamy*. P. A. Gowaty and D. W. Mock, Eds. vi + 121 pp. 1985. \$11.00 (\$9.00).
- No. 38. *An Analysis of Physical, Physiological, and Optical Aspects of Avian Coloration with Emphasis on Wood-Warblers*. E. H. Burt, Jr. x + 122 pp. 1986. \$15.00 (\$12.50).
- No. 39. *The Lingual Apparatus of the African Grey Parrot, Psittacus erithacus Linné (Aves: Psittacidae): Description and Theoretical Mechanical Analysis*. D. G. Homberger. xii + 236 pp. 1986. \$25.00 (\$20.00).
- No. 40. *Patterns and Evolutionary Significance of Geographic Variation in the schistacea Group of the Fox Sparrow (Passerella iliaca)*. R. M. Zink. viii + 119 pp. 1986. \$15.00 (\$12.50).
- No. 41. *Hindlimb Myology and Evolution of the Old World Suboscine Passerine Birds (Acanthisittidae, Pittidae, Philepittidae, Eurylaimidae)*. R. J. Raikow. viii + 81 pp. 1987. \$12.50 (\$9.50).
- No. 42. *Speciation and Geographic Variation in Black-tailed Gnatcatchers*. J. L. Atwood. viii + 74 pp. 1988. \$10.00 (\$8.00).
- No. 43. *A Distributional Survey of the Birds of the Mexican State of Oaxaca*. L. C. Binford. viii + 418 pp. 1989. \$40.00 (\$36.00).
- No. 44. *Recent Advances in the Study of Neogene Fossil Birds. I. The Birds of the Late Miocene-Early Pliocene Big Sandy Formation, Mohave County, Arizona* (K. J. Bickart); *II. Fossil Birds of the San Diego Formation, Late Pliocene, Blancan, San Diego County, California* (R. M. Chandler). vi + 161 pp. 1990. \$19.75 (\$17.75).
- No. 45 & 46. *Descriptions of Thirty-two New Species of Birds from the Hawaiian Islands. Part I. Non-Passeriformes* (S. L. Olson and H. F. James); *Part II. Passeriformes* (H. F. James and S. L. Olson). Bound as one volume. 176 pp. 1991. \$25.00 (\$22.50).

Order from: Max C. Thompson, Assistant to the Treasurer A.O.U., Department of Biology, Southwestern College, 100 College Street, Winfield, KS 67156. Orders must be prepaid, in U.S. dollars; add 5 percent (minimum \$2.00) handling and shipping charge in U.S., and 20 percent (minimum \$3.00) for all other countries. Make checks payable to American Ornithologists' Union. Prices in parentheses are for A.O.U. members.