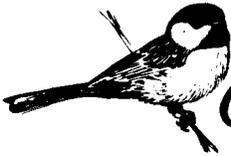


## THE BIRD BOOKSHOP

We can supply any natural history book in print; over 500 titles in stock; worldwide service; low postage rates; post free to SOC members (except small orders); free 30-page booklist from:

The Bird Bookshop, Scottish Ornithologists' Club,  
Dept. 4, 21 Regent Terrace, Edinburgh, EH7 5BT,  
Scotland



*The  
Chickadee* INC.

"Everything for the Wild Bird Enthusiast"

### BOOKS FOR BIRD LOVERS

**In Print:** Write for free list of Books and Records

**Out of Print:** Books bought and sold. Want lists encouraged.

You will be quoted if or when available.

*Bushnell Optical Equipment available at 25% discount.*

702 Marshall St., Houston, Texas 77006

(713) 528-0139

Patricia Ledlie -bookseller Box 46 Buckfield, Maine 04220  
(207) 336-2969

Out of Print, Rare, & New



# Bird Books

Annotated Catalogues: \$1.50

By Appointment

# Strictly for the Chickens

Frances Hamerstrom

"*Fran Hamerstrom's poetic language makes "Strictly for the Chickens" a delightful narrative, one of the most absorbing nature books I've ever read.*"

—Bob Strohm, Managing Editor  
*National Wildlife/International Wildlife*

Prairie chickens, circus posters, a bedspread salvaged from the town dump, and Fran Hamerstrom's irrepressible humor add up to just one thing—*Strictly for the Chickens*.

This book is a lighthearted account of wildlife biologists Fran and Frederick Hamerstrom's half-century of work with the nearly extinct prairie chickens of central Wisconsin.

Originally from Boston, the Hamerstroms share a common love of wildlife and of roughing it. Their mutual dedication to what has become a fascinating and absorbing life work has buoyed them through the trials and triumphs encountered in the Wisconsin wilds.

1980, 174 pp., ill., cloth, CIP, #0-8138-0800-6. \$11.95. Please add \$1 per book for postage and handling.

**IOWA STATE UNIVERSITY PRESS**  
Dept. SC1, South State Ave., Ames, IA 50010



## THE PEREGRINE FALCON by Derek Ratcliffe

Derek Ratcliffe, Chief Scientist of the Nature Conservancy Council in England, was the leading figure in a major conservation breakthrough which identified low breeding success of birds of prey with effects of organochlorine insecticides.

His book is highly readable, and at the same time a detailed, definitive study by an internationally acknowledged authority.

Donald Watson has contributed three color plates, the jacket painting, and many drawings. There are 16 chapters, 416 pages plus 32 pages of photographs, a color plate of egg clutches, maps, diagrams, 23 tables, bibliography and index.

\$42.50

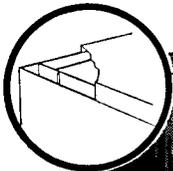
Also available—

THE HAWAIIAN GOOSE by Janet Kear and A. J. Berger. Conservation story.	\$30.00
POPULATION ECOLOGY OF RAPTORS by Ian Newton. A world synthesis.	\$35.00
WILD GEESE by M. A. Ogilvie. True geese of the world except Hawaiian.	\$30.00
GREENSHANKS by Desmond and Maimie Nethersole-Thompson.	\$27.50
ARCTIC SUMMER, Birds in North Norway by Richard Vaughan.	\$17.50
THE GANNET by Bryan Nelson. Includes a chapter on the boobies.	\$30.00
THE HEN HARRIER by Donald Watson. Also known as Marsh Hawk.	\$27.50

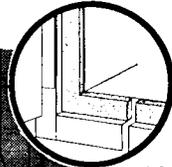
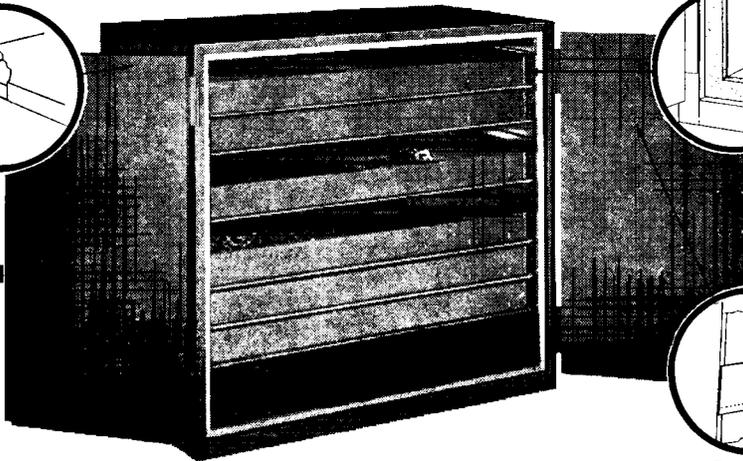
BUTEO BOOKS, PO Box 481, Vermillion, SD 57069 USA. Shipping \$1.50 US, \$2 Canada.

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

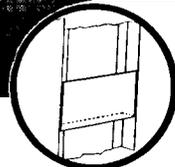
with *Lane* **ZOOLOGY AND ORNITHOLOGY  
 SPECIMEN CABINETS**



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 CO.**  
 105 Chambers Street New York 7, N. Y.

Lane Science Equipment Co. Dept. D  
 105 Chambers Street, New York 7, N. Y.

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

Name \_\_\_\_\_ Title \_\_\_\_\_

Institution \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

U.S. POSTAL SERVICE  
**STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION**  
*(Required by 39 U.S.C. 3685)*

1. TITLE OF PUBLICATION <b>THE AUK</b>		A. PUBLICATION NO.		2. DATE OF FILING 2/29/80	
3. FREQUENCY OF ISSUE <b>QUARTERLY</b>		A. NO. OF ISSUES PUBLISHED ANNUALLY 4		B. ANNUAL SUBSCRIPTION PRICE \$20.00	
4. LOCATION OF KNOWN OFFICE OF PUBLICATION (Street, City, County, State and ZIP Code) (Not printers) Dept. of Anatomy, Univ. of Illinois at Medical Center, P.O. Box 6998, Chicago, Il. 60680					
5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers) Treasurer's office: same as 4					
6. NAMES AND COMPLETE ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR					
PUBLISHER (Name and Address) American Ornithologists' Union, National Museum of Natural History, Washington, D. C. 20560					
EDITOR (Name and Address) John A. Wiens, Dept. of Biology, Univ. New Mexico, Albuquerque, MN 87131					
MANAGING EDITOR (Name and Address) None					
7. OWNER (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be giving. If the publication is published by a nonprofit organization, its name and address must be stated.)					
NAME			ADDRESS		
American Ornithologists' Union			Permanent address:		
No stockholders			Division of Birds		
			National Museum of Natural History		
			Washington, D. C. 20560		
8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES (If there are none, so state)					
NAME			ADDRESS		
None					
9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 132.122, PSM) The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one)					
<input checked="" type="checkbox"/> HAVE NOT CHANGED DURING PRECEDING 12 MONTHS		<input type="checkbox"/> HAVE CHANGED DURING PRECEDING 12 MONTHS		<i>(If changed, publisher must submit explanation of change with this statement.)</i>	
10. EXTENT AND NATURE OF CIRCULATION		AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS		ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE	
A. TOTAL NO. COPIES PRINTED (Net Press Run)		5200		5200	
B. PAID CIRCULATION					
1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES					
2. MAIL SUBSCRIPTIONS		4900		4893	
C. TOTAL PAID CIRCULATION (Sum of 10B1 and 10B2)		4900		4893	
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES		60		58	
E. TOTAL DISTRIBUTION (Sum of C and D)		4960		4951	
F. COPIES NOT DISTRIBUTED					
1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING		240		249	
2. RETURNS FROM NEWS AGENTS					
G. TOTAL (Sum of E, F1 and 2—should equal net press run shown in A)		5200		5200	
11. I certify that the statements made by me above are correct and complete.		SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER <i>Joel Cracraft</i> Joel Cracraft, Treasurer			
12. FOR COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES (Section 132.121, Postal Service Manual)					
39 U. S. C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."					
In accordance with the provisions of this statute, I hereby request permission to mail the publication named in Item 1 at the phased postage rates presently authorized by 39 U. S. C. 3626.					
SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER <i>Joel Cracraft</i> Joel Cracraft, Treasurer					

# 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

*Assistant to the Editor:* JEAN FERNER

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

*Associate Editors:* WALTER BOCK (Reviews), HERBERT W. KALE, II (Periodical Literature)

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, illustrations, and all other material to the Editor. *All typewritten material must be double-spaced* on one side of numbered  $8\frac{1}{2} \times 11$  inch ( $21\frac{1}{2} \times 28$  cm) good quality bond paper, with at least 1 inch ( $2\frac{1}{2}$  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, followed by your present address, if different. The cover page should also 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. 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. 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  $8\frac{1}{2} \times 11$  inch ( $21\frac{1}{2} \times 28$  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  $\frac{1}{3}$  to  $\frac{1}{2}$  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.

In articles containing more than five references, the citations are listed (double-spaced!) in a Literature Cited section following the text and Acknowledgments. For five or fewer references, cite them in the text following these examples: Sauer (1972, *Auk* 39: 717), or (Sauer 1972, *Auk* 39: 717). 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: 204-207). 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. 94, No. 1 (January 1977), copies of which are available from the Editor.**

## ORNITHOLOGICAL MONOGRAPHS

Order from **Glen E. Woolfenden, Assistant to the Treasurer A.O.U., Department of Biology, University of South Florida, Tampa, Florida 33620.** All orders must be prepaid and include a \$0.50 handling charge. Prices to AOU members are given in parentheses.

- No. 1. *A Distributional Study of the Birds of British Honduras*, by Stephen M. Russell. 1964. \$7.00 (\$5.50).
- 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. 5. *A Comparative Life-history Study of Four Species of Woodpeckers*, by Louise de Kiriline Lawrence. 1967. \$6.00 (\$4.50).
- 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. 9. *Mating Systems, Sexual Dimorphism, and the Role of Male North American Passerine Birds in the Nesting Cycle*, by Jared Verner and Mary F. Willson. 1969. \$4.00 (\$3.00).
- 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*, 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 to AOU members).
- 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 to AOU members).
- 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 to AOU members).
- 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 to AOU members).
- 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 to AOU members).
- 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 to AOU members).