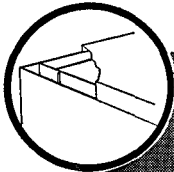
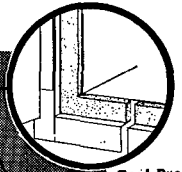


How many years would it take to replace your collection?  
 Safe-guard your valuable specimens  
**PERMANENT SPECIMEN PRESERVATION**

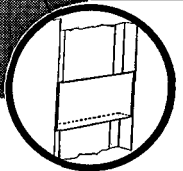
with *Lane* **ZOOLOGY AND ORNITHOLOGY  
 SPECIMEN CABINETS**



**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



**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 \_\_\_\_\_



NOW AVAILABLE - STANDARD PROFILES

Receive all current literature on

Profile 1: WATERFOWL (Anseriformes) - North America

Profile 2: UPLAND GAME BIRDS (Galliformes, Columbigiformes) - North America

Profile 3: RAPTORS (Falconiformes, Strigiformes) - North America

Each profile includes all Holarctic literature - only \$ 5.75 per month for any one profile (25-35 references per month, printed on 3" x 5" library cards per citation). Retrospective searches 1934- 1974 by genus -- \$ 35.00 and up. Same card format.

### BIOLOGICAL INFORMATION SERVICE

3050 West 7th Street • Room 102 • Los Angeles, California 90005



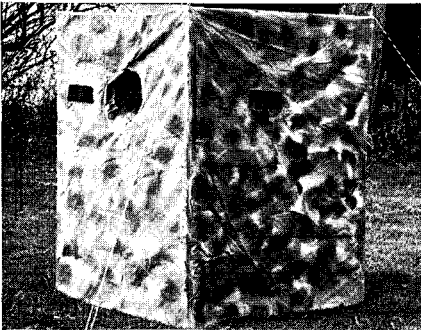
Patricia Ledlie - bookseller  
Box 292  
Jericho, Vt. 05465

## Natural History Books

Specializing In  
Ornithology

*Catalogues Issued*

*Out-of-print, Rare*



### THE FENSMAN PORTABLE BLIND

This all-purpose blind is fully portable and measures 50" X 36" X 36", weighs approx. 7 lb., folded measures only 22" X 7", and is supplied in a carrying grip. Manufactured from camouflaged water resistant canvas, held rigid by four interlocking hardwood poles supported by adjustable guy ropes. The 'Fensman' can be used for photography or general observation.

There are four 2½" X 7" observation slits suitable for binoculars (one on each side), which (a) can be secured with the built-in storm flaps, (b) left fully open, or (c) partially obscured by a fine nylon mesh blind which renders the observer unseen from outside, yet offers an almost unrestricted view from inside. A special feature of the 'Fensman' hide is the camera funnel which can be seen in the photograph.

The hide is being used by the Wild Life Film Units, The Nature Conservancy, etc. and has been well proven in the field.

The bottom of the hide is a double thickness skirt forming an all-round pocket, which, if necessary, can be filled with any material such as sand, beach or earth to give added anchorage in high wind areas, or is useful for the storage of items like note pads, etc. Price (includes carrying grip, all pegs, poles, ropes, etc. and carriage paid): \$45 by surface mail, \$55 by air mail.

**JAMIE WOOD PRODUCTS LTD.**

Dept. AUK, Cross Street, Polegate  
Sussex BN 26 6BN England

---

# Handbook of North American Birds

*Volume 2:*

*Waterfowl (Part 1)*

*Volume 3:*

*Waterfowl (Part 2)*

edited by Ralph S. Palmer

Sponsored by the American Ornithologists' Union and the New York State Museum and Science Service

These encyclopedic, carefully illustrated volumes bring together all available information on North American species. Written in nontechnical language and organized in a manner that renders a great deal of information easily accessible, these volumes will become a standard reference for everyone with even a casual interest in ornithology.

Each volume includes maps and illustrations.

\$30.00 per volume

## Penguins

*Past and Present, Here and There*

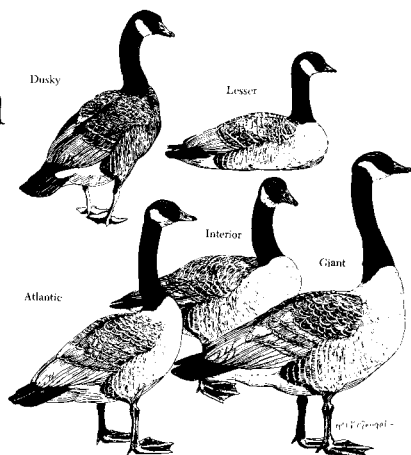
George Gaylord Simpson

In this eminently readable volume George Gaylord Simpson documents the long history of penguins. He describes the six genera and eighteen living species with zest, affection, and, above all, the scholar's eye for detail. Illus. \$10.00

# Yale

Yale University Press  
New Haven and London

---



---

Also available

*Volume 1:*

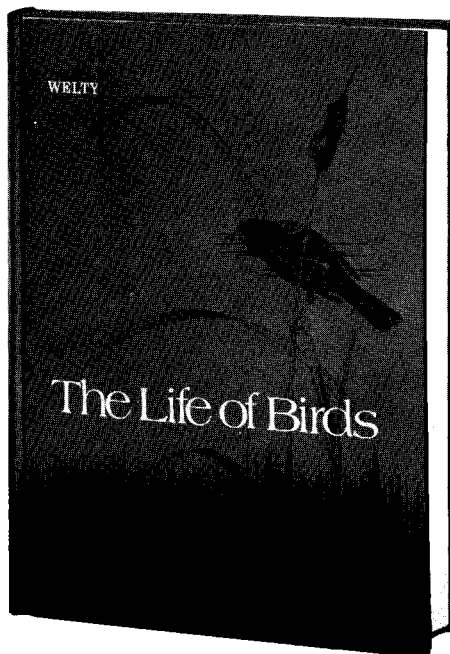
*Loons through Flamingos*

"The *Handbook* series is destined to become a workhorse of professional ornithologists throughout the world and of all amateur bird watchers who do their 'watching' in North America."—*Natural History*



# Encyclopedia Ornithologica

## Welty: THE LIFE OF BIRDS Second Edition



The first edition was hailed as "the best and broadest coverage of bird biology" (*American Birds*), "unsurpassed in presenting the truly absorbing story of bird life" (*National Wildlife*), and "the best [general bird book] on the market today" (*Audubon Magazine*). The second edition promises to uphold and enhance this reputation.

Professor Welty provides a comprehensive, completely up-dated overview of ornithology that makes enjoyable, informative reading for any bird enthusiast. It incorporates the latest findings on *photoperiodism, circadian rhythms, celestial orientation, territorial instinct, magnetic sensitivity, vocalization* and *evolution*. Material on *plumage and molting, reproduction, avian behavior, migration, population dynamics, and conservation* has been extensively revised.

By **Joel Carl Welty**, Professor Emeritus of Biology, Beloit College. 623 pp. 290 ill. Published June 1975. \$18.50.

Order #9231-1.

Instructors: For examination copies, write Textbook Marketing Division, W. B. Saunders Company, West Washington Square, Philadelphia, Pa. 19105

Please send me on  
30-day approval:

**9231-1**  
**Welty:**  
**THE LIFE OF BIRDS**  
**\$18.50**

**W. B. SAUNDERS** AUK 4/76  
**COMPANY**  
West Washington Square, Philadelphia, Pa. 19105  
Prices subject to change

\_\_\_\_\_  
FULL NAME (Please Print)

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
CITY

\_\_\_\_\_  
STATE

\_\_\_\_\_  
ZIP

check enclosed (Saunders pays postage)  send C.O.D.  bill me

The Canadian Wildlife Service  
announces the publication of

# ATLAS OF EASTERN CANADIAN SEABIRDS

by R.G.B. Brown, D.N. Nettleship,  
P. Germain, C.E. Tull and T. Davis

This Atlas brings together and summarizes basic information on the ecology and pelagic and breeding distributions for the seabirds of the Gulf of St. Lawrence, the Atlantic Provinces, the eastern Canadian Arctic and west Greenland. It represents the *first* detailed account of the status and distribution of marine birds in northeastern North America and the western North Atlantic and the *first* comprehensive quantitative treatment of the pelagic distributions of seabirds over a wide geographic area.

The paper-bound work has 220 pages and includes 108 pelagic and 21 breeding distribution maps. Price in Canada is \$6.75; in other countries, \$8.10. Please refer to Information Canada Catalogue No. CW66-44/1975. when ordering.

Available from Information Canada bookshops across Canada or by mail from Information Canada, Ottawa, Canada K1A 0S9. All mail orders must be prepaid by cheque or postal money order made payable to the Receiver General of Canada. Prices listed are in Canadian dollars and include postage and handling.

## Parent Birds and Their Young

By Alexander F. Skutch

Here is the only up-to-date world-wide survey of the family life and reproductive behavior of birds, from the formation of pairs to the young birds' attainment of independence. Written in language that the general reader can understand, it avoids technicalities, yet the thoroughness of its coverage, supported by a bibliography of over 800 titles, makes it valuable as a reference for the ornithologist. More than 100 illustrations accompany the text.

503 pages, \$27.50



## The Bird Life of Texas

By Harry C. Oberholser

Edited by Edgar B. Kincaid, Jr.

Paintings by Louis Agassiz Fuertes

"This is one of the most important contributions to American ornithology in years. . . . the work ranks with Audubon."—*John Barkham Reviews*.

" . . . a stunning, historic, unique achievement . . ."—*The Houston Post*.

Volume 1, 530 pages; Volume 2, 550 pages. Not sold separately.

Boxed set, \$60.00

University of Texas Press

Box 7819

Austin 78712

# THE AUK

## A Quarterly Journal of Ornithology

### ORGAN OF THE AMERICAN ORNITHOLOGISTS' UNION

THE AUK is edited at the Florida State Museum, University of Florida, Gainesville, Florida 32611, by the following staff:

*Editor*, OLIVER L. AUSTIN, JR.; *Assistant Editor*, JUNE B. GABALDON

*Associate Editors*, WALTER BOCK (Reviews), HERBERT W. KALE, II (Periodical Literature), and JAMES J. DINSMORE (Index)

THE AUK welcomes original articles and short notes, not published elsewhere, containing significant new knowledge about birds, or new interpretation of existing knowledge. Address all articles and notes intended for publication and all books intended for review to the editor. For longer articles (ca. 6000 words or over) a charge for all printed pages above 12 is assessed at actual costs, currently \$55.00 per page.

**SUGGESTIONS TO CONTRIBUTORS.**—Submit all MSS *in duplicate*. They must satisfy the following minimal requirements: *MSS should be typewritten, double-spaced (especially tables and "literature cited"), on one side of numbered sheets of standard (8½ × 11 in.) bond paper, with at least 1-inch margins all around. Tables (which should be unruled) and figure legends should be typed on separate sheets. Drawings should be in india ink on good board or drafting paper and lettered by lettering guide or the equivalent. Photographs should be clear, of good contrast, on glossy paper. Illustrations should allow (with particular regard to lettering) for reduction to their final width (usually 4½ in.). Illustrations larger than 8½ × 11 in. are not acceptable and should be reduced photographically to that size or smaller. Designate top of each illustration and identify (on the back with soft pencil) by author's name, title, and figure number. Submit a duplicate or readable copy of each figure for use of reviewers.*

Titles should be short and descriptive. MSS should follow the conventions of form observed in articles, general notes, and reviews in THE AUK, with minor variations, since 1973. Avoid footnotes. If more than five works are cited, references in text should relate to a terminal list of "literature cited" (*include no titles not cited*). Where critical matter is cited from longer works, indicate the pertinent pages, e.g. (Lack 1947: 96–97). Citations in text should be parenthetical, e.g. (Austin 1971, Families of birds, New York, Golden Press, pp. 44–49) or (Sauer 1972, Auk 39: 717). *Verify all citations from original sources unless impossible, in which case so indicate.* For spellings, abbreviations, and general conventions of form and style, Auk follows WNI, third ed. (1967); the Columbia Lippincott Gazetteer (1962); the CBE Style Manual, third ed. (1972); and the GPO Style Manual (1973).

For bird weights and measurements use metric units. Other measurements should be in the form usual to the discipline of the paper as practiced in the United States. The 24-hour clock (0800 and 2030) and "continental" dating (1 July 1971) are preferred. Scientific and (if any) vernacular names of birds should be given upon first mention thereof and should follow the A.O.U. Check-list, fifth ed. (1957), including the 32nd Supplement (1973, Auk 90: 411–419), or the appropriate equivalent unless departures are explained and defended. Articles more than 10 pages long should include a summary that should not exceed 10% of the length of the article.

Proofs of all articles and notes will be sent to authors. Reprints of articles, notes, and other items are to be paid for by the author. These must be ordered from Allen Press Inc. on the blanks sent with the proof.

## CONTENTS

BREEDING DISTRIBUTION OF NASHVILLE AND VIRGINIA'S WARBLERS. <i>Ned K. Johnson</i>	219
SOME EFFECTS OF WEATHER ON PURPLE MARTIN ACTIVITY. <i>J. Campbell Finlay</i>	231
BEHAVIORAL ADAPTATIONS OF THE VERDIN TO THE DESERT. <i>George T. Austin</i>	245
ALEUTIAN ISLAND ALBATROSSES: A POPULATION HISTORY. <i>David R. Yesner</i>	263
THE EFFECTS OF A TALL TOWER ON NOCTURNAL BIRD MIGRATION—A PORTABLE CEILOMETER STUDY. <i>Michael Avery, Paul F. Springer, and J. Frank Cassel</i>	281
NEST GUARDING BEHAVIOR BY MALE GRAY CATBIRDS. <i>R. Douglas Slack</i>	292
EXPLOITATION OF FLUCTUATING FOOD RESOURCES BY WESTERN GULLS. <i>George L. Hunt, Jr. and Molly W. Hunt</i>	301
DAILY AND SEASONAL ACTIVITY PATTERNS IN BREEDING LAUGHING GULLS. <i>Joanna Burger</i>	308
FUNCTIONAL SYRINGEAL ANATOMY OF THE MALLARD. I. <i>IN SITU</i> ELECTROMYOGRAMS DURING ESB ELICITED CALLING. <i>F. Russell Lockner and Orlan M. Youngren</i>	324
REPRODUCTIVE RATE AND TEMPORAL SPACING OF NESTING OF RED-WINGED BLACKBIRDS IN UPLAND HABITAT. <i>Richard A. Dolbeer</i>	343
AVIAN DISTRIBUTION PATTERNS IN FOREST ISLANDS OF DIFFERENT SIZES IN CENTRAL NEW JERSEY. <i>Anne E. Galli, Charles F. Leck, and Richard T. T. Forman</i>	356
IN MEMORIAM: GEORGE ELFORD HUDSON. <i>James R. King</i>	365
<b>GENERAL NOTES</b>	
Egg specific gravity and incubation in the Sooty Tern and Brown Noddy. <i>William Y. Brown</i>	371
Body-bobbing woodcocks. <i>C. Brooke Worth</i>	374
Spread-wing sunbathing by juvenile White-faced Ibis. <i>James A. Rodgers, Jr.</i>	375
Plain Chachalaca food habits in south Texas. <i>Wayne R. Marion</i>	376
The Common Snipe in Surinam. <i>F. Haverschmidt</i>	379
Observations on the Yellow-eared Toucanet. <i>Steve West</i>	381
Notes on the Long-billed Curlew in Saskatchewan. <i>Douglas A. R. Sadler and W. J. Maker</i>	382
Countershading on the feet and legs of the Common Loon. <i>Jerome A. Jackson</i>	384
Bald Eagles soaring into opaque cloud. <i>Christopher Serroheen</i>	387
On flight pursuits in wintering Dark-eyed Juncos. <i>Martha Hatch Balph and David F. Balph</i>	388
Additional records of Mountain White-crowned Sparrows parasitized by the Brown-headed Cowbird. <i>J. R. King, S. A. Mahoney, C. S. Maxwell, and L. R. Mewaldt</i>	389
Golden Eagle preys on Osprey. <i>A. Richard Lafontaine and Janet H. Fowler</i>	390
Hérons catch two fish in one strike. <i>David E. Willard</i>	391
Possible intermediate Ross' Goose and Snow Goose in Manitoba. <i>David R. M. Hatch and Angus H. Shortt</i>	391
REVIEWS. <i>Edited by Walter Bock</i>	393
NOTES AND NEWS	409