

JOURNAL OF FIELD ORNITHOLOGY

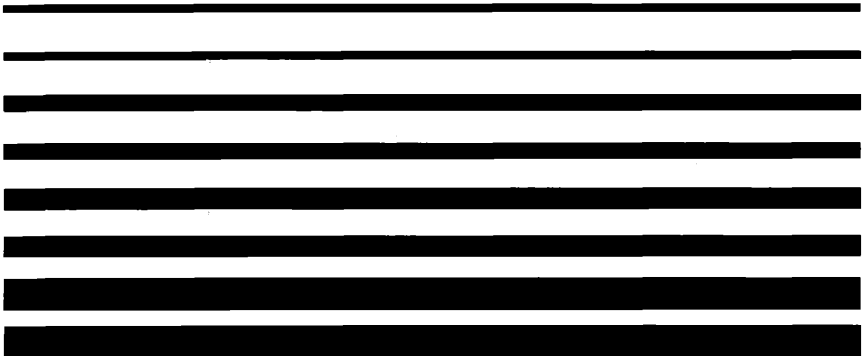
Vol. 64

Spring 1993

No. 2



PUBLISHED BY
ASSOCIATION OF FIELD ORNITHOLOGISTS, INC.



JOURNAL OF FIELD ORNITHOLOGY

Published by
Association of Field Ornithologists

The Journal of Field Ornithology welcomes original articles that emphasize the descriptive or experimental study of birds in their natural habitats. Articles depicting techniques, emphasizing conservation, describing life history, or assessing published studies or existing ideas are appropriate. The Journal is especially interested in field studies conducted in the neotropics and those involving amateur participation.

Editor

KEN YASUKAWA

Beloit College, Department of Biology, 700 College Street, Beloit, WI 53511

Assistant Editor, TERESA HOLEVAS,

Beloit College, Department of Biology, 700 College Street, Beloit, WI 53511

Spanish Editor, RAÚL A. PÉREZ-RIVERA,

Department of Biology, U.P.R.—Humacao Campus, Humacao, P.R. 00791

Bird Count Editors, GREGORY S. BUTCHER AND ROBERT M. MARSHALL,

Cornell Laboratory of Ornithology, 159 Sapsucker Woods Rd., Ithaca, NY 14850

Recent Literature Editor, JOHN A. SMALLWOOD,

Department of Wildlife and Range Science, University of Florida, Gainesville, FL 32611

OFFICERS OF THE ASSOCIATION

President, EDWARD H. BURTT, JR.,

Department of Zoology, Ohio Wesleyan University, Delaware, OH 43015

Vice-President, GREGORY S. BUTCHER,

Cornell Laboratory of Ornithology, 159 Sapsucker Woods Rd., Ithaca, NY 14850

Secretary, LISA C. WAHLE,

205 Avery Hill Rd., Ledyard, CT 06339

Treasurer, GEORGE B. MOCK,

P.O. Box 393, Mattapoisett, MA 02739

Assistant Treasurer, BRIAN HARRINGTON,

Manomet Bird Observatory, Manomet, MA 02345

Councilors (with year of expiration of terms)

Lise A. Hanners ('93)

Debra Miller ('94)

Joseph M. Wunderle, Jr. ('95)

Erica H. Dunn ('93)

Nathaniel T. Wheelwright ('94)

Martha Steele ('96)

Julie Zickefoose ('93)

Alan Poole ('95)

David F. Westneat ('96)

P. A. Buckley ('94)

Peter D. Vickery ('95)

Margaret C. Brittingham ('96)

Robert P. Yunick, James O. Seamans, James Baird, Charles Huntington, George A. Clark, Jr., John C. Kricher, William E. Davis, Jr., Peter F. Cannell, *Past-Presidents*

Applications for membership in the association should be sent to: Ornithological Societies of North America (O.S.N.A.), P.O. Box 1897, Lawrence, KS 66044-8897. The annual membership dues of \$21 per year (\$45 institutional subscription) include a subscription to *J. Field Ornithol.* Life membership is \$650. All payments must be in U.S. dollars, and subscriptions are accepted for current calendar year.

Back issues may be obtained from O.S.N.A., P.O. Box 1897, Lawrence, KS 66044-8897. 16mm microfilm, 35mm microfilm, 105mm microfiche and issue and article copies are available through Serials Acquisitions Department, University Microfilms Inc., 300 North Zeeb Road, Ann Arbor, MI 48106.

JOURNAL OF FIELD ORNITHOLOGY. (ISSN 0273-8570). Published quarterly (Winter, Spring, Summer and Autumn) by the Association of Field Ornithologists. *J. Field Ornithol.* is included in the AFO annual dues: Student, \$15; Individual, \$21; Institutional Subscription, \$45; Supporting, \$50 or more; Life, \$650. Subscriptions, changes of address, and claims for undelivered copies should be sent to: O.S.N.A., P.O. Box 1897, Lawrence, KS 66044-8897. Second-class postage paid at Lawrence, KS 66044. POSTMASTER: Send address changes to O.S.N.A., P.O. Box 1897, Lawrence, KS 66044-8897.

Publication number for second class matter: 056760.

Cover: AFO Logo Design by Julie Zickefoose

THIS PUBLICATION IS PRINTED ON ACID-FREE PAPER.