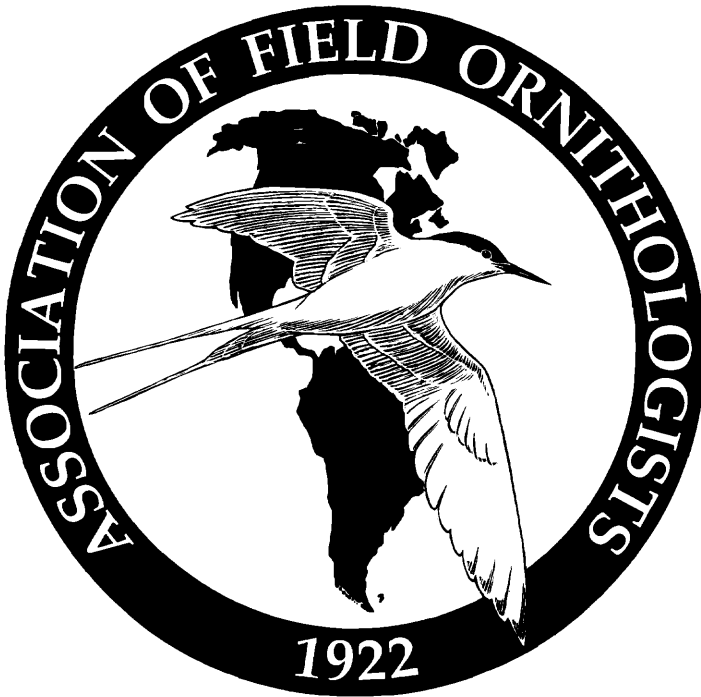


JOURNAL OF FIELD ORNITHOLOGY

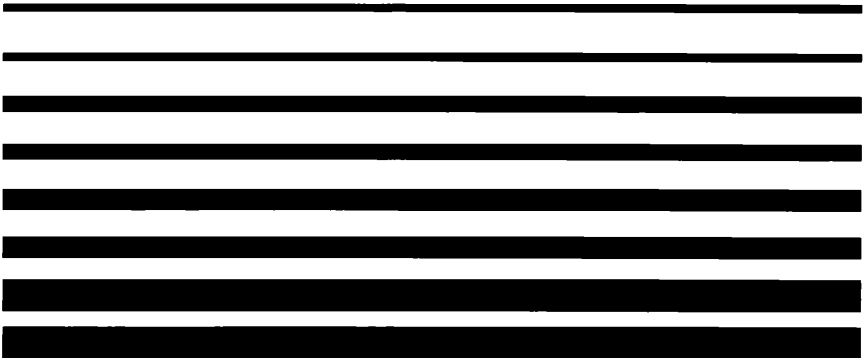
Vol. 65

Summer 1994

No. 3



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, Assistant Spanish Editor, ENRIQUE HERNÁNDEZ
Department of Biology, U.P.R.-Humacao Campus, Humacao, P.R. 00791

Bird Count Editor, JAMES D. LOWE,

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

Recent Literature Editor, ROBERT C. BEASON,

Biology Department, State University of New York, 1 College Circle, Geneseo, NY 14454

OFFICERS OF THE ASSOCIATION

President, GREGORY S. BUTCHER,

American Birding Association, P.O. Box 6599, Colorado Springs, CO 80934

Vice-President, ELISSA LANDRE,

Broadmoor Sanctuary, Massachusetts Audubon Society, 280 Eliot St., South Natick, MA 01760

Secretary, GEORGE GALE,

Department of Ecology and Evolutionary Biology, Box U-43, University of Connecticut, Storrs, CT 06269

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)

P. A. Buckley ('94)

Peter D. Vickery ('95)

David F. Westneat ('96)

Debra Miller ('94)

Joseph M. Wunderle, Jr. ('95)

Jim Berry ('97)

Nathaniel T. Wheelwright ('94)

Margaret C. Brittingham ('96)

Lise A. Hanners ('97)

Alan Poole ('95)

Martha Steele ('96)

Ken Rosenberg ('97)

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