

# THE JOURNAL OF RAPTOR RESEARCH

A QUARTERLY PUBLICATION OF THE RAPTOR RESEARCH FOUNDATION, INC.  
(FOUNDED 1966)



EDITOR IN CHIEF  
CARL D. MARTI

## ASSOCIATE EDITORS

KEITH L. BILDSTEIN  
GARY R. BORTOLOTTI  
CHARLES J. HENNY

FABIAN JAKSIĆ  
PATRICIA L. KENNEDY  
ERKKI KORPIMÄKI

## BOOK REVIEW EDITOR

JEFFREY S. MARKS

## EDITOR OF RRF KETTLE

RICHARD J. CLARK

## CONTENTS FOR VOLUME 29, 1995

---

### NUMBER 1

NESTING DENSITY, NEST AREA REOCCUPANCY, AND MONITORING IMPLICATIONS FOR COOPER'S HAWKS IN WISCONSIN. Robert N. Rosenfield, John Bielefeldt, Joelle L. Affeldt and David J. Beckmann.....	1
WINTER MOVEMENTS OF ADULT NORTHERN GOSHAWKS THAT NESTED IN SOUTHCENTRAL WYOMING. John R. Squires and Leonard F. Ruggiero .....	5
PREY OF NESTING BALD EAGLES IN TEXAS. David W. Mabie, M. Todd Merendino and David H. Reid .....	10
WHAT IS <i>FALCO ALTAICUS</i> MENZBIER? David H. Ellis .....	15
PREY CAPTURE BY PEREGRINE FALCONS WINTERING ON SOUTHERN VANCOUVER ISLAND, BRITISH COLUMBIA. Dick Dekker.....	26
SHORT COMMUNICATIONS	
ADDITIONAL RECORDS OF WHITE-TAILED KITES IN BAJA CALIFORNIA SUR, MEXICO. Ricardo Rodriguez-Estrella, José Antonio Donázar and Fernando Hiraldo .....	30
NEST STRUCTURE COHABITATION BY RAPTORS IN SOUTHEASTERN IDAHO. Richard W. Hansen and Lester D. Flake .....	32
LETTERS .....	35
BOOK REVIEWS. Edited by Jeffrey S. Marks .....	37
ABSTRACTS OF PRESENTATIONS MADE AT THE ANNUAL MEETING OF THE <i>RAPTOR RESEARCH FOUNDATION, INC.</i> .....	41
MANUSCRIPT REFEREES .....	75
THESIS AND DISSERTATION ABSTRACTS .....	76
INDEX TO VOLUME 28 .....	79

---

### NUMBER 2

FLIGHT STRATEGIES OF MIGRATING OSPREY: FASTING VS. FORAGING. Grady L. Candler and Patricia L. Kennedy.....	85
BEHAVIOR OF PEREGRINES IN WINTER IN SOUTH TEXAS. James H. Enderson, Jon Larrabee, Zach Jones, Chris Peper and Chris Lepisto .....	93
FALL CONCENTRATIONS OF BUTEOS NEAR THE CONTINENTAL DIVIDE: A TWENTY-YEAR SUMMARY. Arnold T. Gerstell and Charles H. Trost .....	99

MODIFICATION OF PARENTAL BEHAVIOR DURING THE NESTING PERIOD IN THE COMMON BUZZARD ( <i>BUTEO BUTEO</i> ). Christine Hubert, Alain Gallo and Gilles le Pape .....	103
BREEDING BIOLOGY THE ZONE-TAILED HAWK AT THE LIMIT OF ITS DISTRIBUTION. Patricia L. Kennedy, Dorothy E. Crowe and Tylan F. Dean .....	110
PARASITIC HELMINTHS OF SIX SPECIES OF HAWKS AND FALCONS IN FLORIDA. John M. Kinsella, Garry W. Foster and Donald J. Forrester .....	117
PREY SELECTION BY WILD AMERICAN KESTRELS: THE INFLUENCE OF PREY SIZE AND ACTIVITY. Ronald J. Sarno and Alan A. Gubanich .....	123
SPRING 1994 RAPTOR MIGRATION AT EILAT, ISRAEL. Reuven Yosef .....	127
<b>SHORT COMMUNICATIONS</b>	
AMERICAN KESTREL REPRODUCTION AND DISPERSAL IN CENTRAL WISCONSIN. Eugene A. Jacobs .....	135
SEX-SPECIFIC DIET ANALYSIS OF THE TAWNY OWL ( <i>STRIX ALUCO</i> ) in Norway. Kristian Overskaug, Erlend Kristiansen and Peter Sunde .....	137
A NEW METHOD FOR CAPTURING BUTEONINE HAWKS. David L. Plumpton, Dennis I. Downing, David E. Andersen and J. Michael Lockhart .....	141
LETTER .....	144
COMMENTARY .....	145
BOOK REVIEW. Edited by Jeffrey S. Marks .....	148

---

**NUMBER 3**

SPATIAL OVERLAP AND HABITAT ASSOCIATIONS OF BARRED OWLS AND GREAT HORNED OWLS IN SOUTHERN NEW JERSEY. Kim J. Laidig and David S. Dobkin .....	151
PRODUCTIVITY, FOOD HABITS, AND BEHAVIOR OF SWAINSON'S HAWKS BREEDING IN SOUTHEAST COLORADO. David E. Andersen .....	158
ECOLOGICAL RELATIONSHIPS BETWEEN NESTING SWAINSON'S AND RED-TAILED HAWKS IN SOUTHEASTERN IDAHO. R.W. Hansen and L.D. Flake .....	166
SCALING SWAINSON'S HAWK POPULATION DENSITY FOR ASSESSING HABITAT USE ACROSS AN AGRICULTURAL LANDSCAPE. K. Shawn Smallwood .....	172
NEST-SITE SELECTION AND REPRODUCTIVE PERFORMANCE OF URBAN-NESTING SWAINSON'S HAWKS IN THE CENTRAL VALLEY OF CALIFORNIA. A. Sidney England, James A. Estep and Waldo R. Holt .....	179
REPRODUCTIVE PERFORMANCE, AGE STRUCTURE, AND NATAL DISPERSAL OF SWAINSON'S HAWKS IN THE BUTTE VALLEY, CALIFORNIA. Brian Woodbridge, Karen K. Finley and Peter H. Bloom .....	187

HOME RANGE AND HABITAT USE OF BREEDING SWAINSON'S HAWKS IN THE SACRAMENTO VALLEY OF CALIFORNIA. Keith W. Babcock .....	193
DECLINING REPRODUCTION AMONG SWAINSON'S HAWKS IN PRAIRIE CANADA. C. Stuart Houston and Josef K. Schmutz .....	198
SHORT COMMUNICATIONS	
AN INVESTIGATION OF THE SWAINSON'S HAWK IN ARGENTINA. Brian Woodbridge, Karen K. Finley and S. Trent Seager.....	202
RECOVERY OF A RESIDENT POPULATION OF OSPREY ON CORSICA. Jean-Claude Thibault, Vincent Bretagnolle and Jean-Marie Dominici .....	204
A COMPARISON OF TWO METHODS FOR STUDYING THE DIET OF THE PEREGRINE FALCON. Daniel Oro and José L. Tella .....	207
COOPERATIVE BREEDING BY A TRIO OF BALD EAGLES. David K. Garcelon, Gary L. Slater, Christopher D. Danilson and Roger C. Helm .....	210
LETTER .....	214
BOOK REVIEWS. Edited by Jeffrey S. Marks .....	215

---

NUMBER 4

SPOTTED OWLS: RESOURCE AND SPACE USE IN MOSAIC LANDSCAPES. Andrew B. Carey and Kevin C. Peeler .....	223
NESTLING DIET AND FLEDGLING PRODUCTION OF EURASIAN KESTRELS ( <i>FALCO TINNUNCULUS</i> ) in Eastern Spain. José A. Gil-Delgado, José Verdejo and Emilio Barba .....	240
GREAT HORNED AND BARN OWLS PREY DIFFERENTIALLY ACCORDING TO THE AGE/ SIZE OF A RODENT IN NORTHCENTRAL CHILE. Sergio A. Castro and Fabian M. Jaksic .....	245
NUMERICAL AND FUNCTIONAL RESPONSE OF BURROWING OWLS TO LONG-TERM MAMMAL FLUCTUATIONS IN CHILE. Sergio I. Silva, Ivan Lazo, Enrique Silva-Aranguiz, Fabian M. Jaksic, Peter L. Meserve and Julio R. Gutierrez .....	250
SURVIVAL AND POPULATION SIZE ESTIMATION IN RAPTOR STUDIES: A COMPARISON OF TWO METHODS. William R. Gould and Mark R. Fuller .....	256
SHORT COMMUNICATIONS	
GROUP HUNTING BY HARRIS' HAWKS IN TEXAS. Jennifer O. Coulson and Thomas D. Coulson .....	265
ACCIPITERS PREY ON NESTLING BIRDS IN JAPAN. Masaoki Takagi, Mutsuyuki Ueta and Sho Ikeda .....	267
NEST RECORDS FOR THE KING VULTURE ( <i>SARCORAMPHUS PAPA</i> ) in Venezuela. Marsha A. Schlee .....	269
AGE ESTIMATION AND GROWTH PATTERNS IN NESTLING BONELLI'S EAGLES. Santi Mañosa, Joan Real and Jordi Codina.....	273
AUTUMN MIGRATION OF HONEY BUZZARDS IN SOUTHERN ITALY. Nicolantonio Agostini and Daniela Logozzo .....	275

NOTES ON THE WINTER ROOST AND DIET OF LONG-EARED OWLS IN THE SONORAN DESERT. Nikolle L. Brown .....	277
OSPREY POLYGYNY IN WYOMING. John D. Berry and Charles J. Henny .....	279
LETTERS .....	282
BOOK REVIEWS. Edited by Jeffrey S. Marks .....	286
INFORMATION FOR CONTRIBUTORS .....	290
INDEX TO VOLUME 29 .....	294

THE RAPTOR RESEARCH FOUNDATION, INC.  
(FOUNDED 1966)

OFFICERS

PRESIDENT: MICHAEL W. COLLOPY  
PRESIDENT-ELECT: DAVID M. BIRD  
VICE-PRESIDENT: MICHAEL N. KOCHERT

SECRETARY: BETSY HANCOCK  
TREASURER: JIM FITZPATRICK

BOARD OF DIRECTORS

EASTERN DIRECTOR: BRIAN A. MILLSAP  
CENTRAL DIRECTOR: ROBERT N. ROSENFELD  
MOUNTAIN & PACIFIC DIRECTOR:  
KAREN STEENHOF  
CANADIAN DIRECTOR: GORDON S. COURT  
INTERNATIONAL DIRECTOR #1:  
JEMIMA PARRY-JONES

INTERNATIONAL DIRECTOR #2:  
M. ISABEL BELLOCCO  
DIRECTOR AT LARGE #1: JAMES C. BEDNARZ  
DIRECTOR AT LARGE #2: JOHN A. SMALLWOOD  
DIRECTOR AT LARGE #3: KEITH L. BILDSTEIN  
DIRECTOR AT LARGE #4: JOSEF K. SCHMUTZ  
DIRECTOR AT LARGE #5: PETRA BOHALL WOOD  
DIRECTOR AT LARGE #6: KATHERINE MCKEEVER

\*\*\*\*\*

EDITORIAL STAFF

JOURNAL EDITOR: CARL D. MARTI, Department of Zoology, Weber State University, Ogden, UT  
84408-2505 U.S.A.

ASSOCIATE EDITORS

KEITH L. BILDSTEIN  
GARY R. BORTOLOTTI  
CHARLES J. HENNY

FABIAN JAKSIĆ  
PATRICIA L. KENNEDY  
ERKKI KORPIMÄKI

BOOK REVIEW EDITOR: JEFFREY S. MARKS, Montana Cooperative Research Unit, University of Montana,  
Missoula, MT 59812 U.S.A.

EDITOR OF RRF KETTLE: RICHARD J. CLARK

*The Journal of Raptor Research* is distributed quarterly to all current members. Original manuscripts dealing with the biology and conservation of diurnal and nocturnal birds of prey are welcomed from throughout the world, but must be written in English. Submissions can be in the form of research articles, letters to the editor, thesis abstracts and book reviews. Contributors should submit a typewritten original and three copies to the Editor. All submissions must be typewritten and double-spaced on one side of 216 × 278 mm (8½ × 11 in.) or standard international, white, bond paper, with 25 mm (1 in.) margins. The cover page should contain a title, the author's full name(s) and address(es). Name and address should be centered on the cover page. If the current address is different, indicate this via a footnote. A short version of the title, not exceeding 35 characters, should be provided for a running head. An abstract of about 250 words should accompany all research articles on a separate page.

Tables, one to a page, should be double-spaced throughout and be assigned consecutive Arabic numerals. Collect all figure legends on a separate page. Each illustration should be centered on a single page and be no smaller than final size and no larger than twice final size. The name of the author(s) and figure number, assigned consecutively using Arabic numerals, should be pencilled on the back of each figure.

Names for birds should follow the A.O.U. Checklist of North American Birds (6th ed., 1983) or another authoritative source for other regions. Subspecific identification should be cited only when pertinent to the material presented. Metric units should be used for all measurements. Use the 24-hour clock (e.g., 0830 H and 2030 H) and "continental" dating (e.g., 1 January 1990).

Refer to a recent issue of the journal for details in format. Explicit instructions and publication policy are outlined in "Information for contributors," *J. Raptor Res.*, Vol. 27(4), and are available from the editor.

## 1996 ANNUAL MEETING

The Raptor Research Foundation, Inc. 1996 annual meeting will be held jointly with the American Ornithologists' Union annual meeting on 13–17 August at Boise State University, Boise, Idaho. Details about the meeting and a call for papers will be mailed to Foundation members in the spring of 1996 and can be obtained from Peter Lowther, Scientific Program Chairman, Field Museum of Natural History, Roosevelt Road at Lakeshore Drive, Chicago, IL 60605-2496, (telephone 312 922-9410 ext. 461; Fax 312 922-2572; e-mail lowther@fmnh.org) and Marc Bechard and Alfred Dufty, Local Co-chairs, Department of Biology, Boise State University, Boise, ID 83725 (telephone 208 385-3262; Fax 208 385-3006; e-mail rbihecha@idbsu.idbsu.edu or adufty@claven.idbsu.edu).

### RAPTOR RESEARCH FOUNDATION, INC., AWARDS Recognition for Significant Contributions<sup>1</sup>

- The **Dean Amadon Award** recognizes an individual who has made significant contributions in the field of systematics or distribution of raptors. Contact: **Dr. Clayton White, 161 WIDB, Department of Zoology, Brigham Young University, Provo, UT 84602 U.S.A.** Deadline August 15.
- The **Tom Cade Award** recognizes an individual who has made significant advances in the area of captive propagation and reintroduction of raptors. Contact: **Dr. Brian Walton, Predatory Bird Research Group, Lower Quarry, University of California, Santa Cruz, CA 95064 U.S.A.** Deadline: August 15.
- The **Fran and Frederick Hamerstrom Award** recognizes an individual who has contributed significantly to the understanding of raptor ecology and natural history. Contact: **Dr. David E. Andersen, Department of Fisheries and Wildlife, 200 Hodson Hall, 1980 Folwell Avenue, University of Minnesota, St. Paul, MN 55108 U.S.A.** Deadline: August 15.

### Recognition and Travel Assistance

- The **James R. Koplín Travel Award** is given to a student who is the senior author of the paper to be presented at the meeting for which travel funds are requested. Contact: **Dr. Petra Wood, West Virginia Cooperative Fish and Wildlife Research Unit, P.O. Box 6125, Percival Hall, Room 333, Morgantown, WV 26506-6125 U.S.A.** Deadline: established for conference paper abstracts.
- The **William C. Andersen Memorial Award** is given to the student who presents the best paper at the annual Raptor Research Foundation Meeting. Contact: **Ms. Laurie Goodrich, Hawk Mountain Sanctuary, Rural Route 2, Box 191, Kempton, PA 19529-9449 U.S.A.** Deadline: Deadline established for meeting paper abstracts.

### Grants<sup>2</sup>

- The **Stephen R. Tully Memorial Grant** for \$500 is given to support research, management and conservation of raptors, especially to students and amateurs with limited access to alternative funding. Contact: **Alan Jenkins, George Miksch Sutton Avian Research Center, Inc., P.O. Box 2007, Bartlesville, OK 74005-2007 U.S.A.** Deadline: September 10.
- The **Leslie Brown Memorial Grant** for \$500–\$1,000 is given to support research and/or the dissemination of information on raptors, especially to individuals carrying out work in Africa. Contact: **Dr. Jeffrey L. Lincer, Sweetwater Environmental Biologists, Inc., 3838 Camino del Rio North, Suite 270, San Diego, CA 92108 U.S.A.** Deadline: September 15.

<sup>1</sup> Nominations should include: (1) the name, title and address of both nominee and nominator, (2) the names of three persons qualified to evaluate the nominee's scientific contribution, (3) a brief (one page) summary of the scientific contribution of the nominee.

<sup>2</sup> Send 5 copies of a proposal (≤5 pages) describing the applicant's background, study goals and methods, anticipated budget, and other funding.