

# Studies in Avian Biology

## Recent Issues



### Research and Management of the Brown-headed Cowbird in Western Landscapes

Edited by Michael L. Morrison, Linnea S. Hall, Scott K. Robinson, Stephen I. Rothstein, D. Caldwell Hahn, and Terrell D. Rich

No. 18

1999

\$18

### Ecology and Conservation of Grassland Birds of the Western Hemisphere

Edited by Peter D. Vickery and James R. Herkert

No. 19

1999

\$25

Available in hardcover for \$39.50



Prices include postage and handling.

Order from: Cooper Ornithological Society  
c/o Western Foundation of Vertebrate Zoology  
439 Calle San Pablo  
Camarillo, CA 93010

# Studies in Avian Biology

## Recent Issues



### The Northern Goshawk: Ecology and Management

Edited by William M. Block, Michael L. Morrison, and M. Hildegard Reiser

No. 16

1994

\$16

### Demography of the Northern Spotted Owl

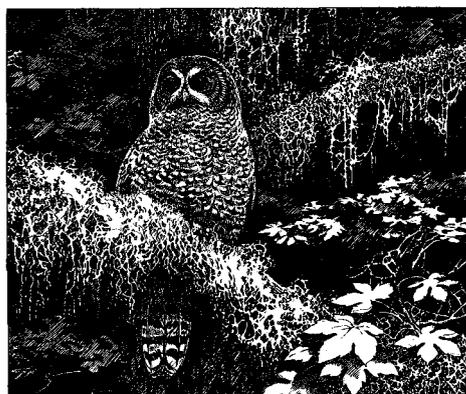
Edited by Eric D. Forsman, Stephen DeStefano, Martin G. Raphael, and R.J. Gutiérrez

No. 17

1996

\$20

Won The Wildlife Society's Award for outstanding publication in wildlife ecology and management for an edited monograph, 1997.



Prices include postage and handling.

Order from: Cooper Ornithological Society  
c/o Western Foundation of Vertebrate Zoology  
439 Calle San Pablo  
Camarillo, CA 93010

# A Telemetry Receiver Designed with The Researcher in Mind

*What you've been waiting for!*

Finally, a highly sensitive 999 channel synthesized telemetry receiver that weighs less than 13 ounces, is completely user programmable and offers variable scan rates over all frequencies. For each animal being tracked, the large LCD display provides not only the frequency (to 100Hz) and channel number, but also a 7 character alphanumeric comment field and a digital signal strength meter. Stop carrying receivers that are the size of a lunch box or cost over \$1500. The features and performance of the new R-1000 pocket sized telemetry receiver will impress you, and the price will convince you.

#### **Other Features Include:**

- Factory tuned to any 8MHz wide segment in the 148-174MHz Band
- Very high sensitivity of -148dBm to -150dBm
- Illuminated display and keypad for use in low light or darkness
- User selectable scan rates from 1-30 seconds in 1 second steps
- Rechargeable batteries operate the receiver for 12 hours and can be replaced with standard AA Alkaline batteries in the field. Both 12vdc and 110vac chargers are included.

- 6.1" (15.5cm) high,  
2.6" (6.6cm) wide,  
1.5" (3.8cm) deep.

- 3 year warranty

- 1 day delivery

**\$695.00**

Please specify desired 8MHz  
wide segment in the  
148-174MHz band



Visit our  
website for  
complete  
specifications,  
operating  
manual and  
information on the  
R-1000 or call our  
toll-free number to  
order your receiver now.

**Try the  
New R-1000  
and You'll Be  
Impressed!**



**COMMUNICATIONS SPECIALISTS, INC.**

426 West Taft Avenue • Orange, CA 92865-4296 • 1-714-998-3021 • Fax 1-714-974-3420  
Entire U.S.A. (800) 854-0547 • Fax (800) 850-0547 • <http://www.com-spec.com>

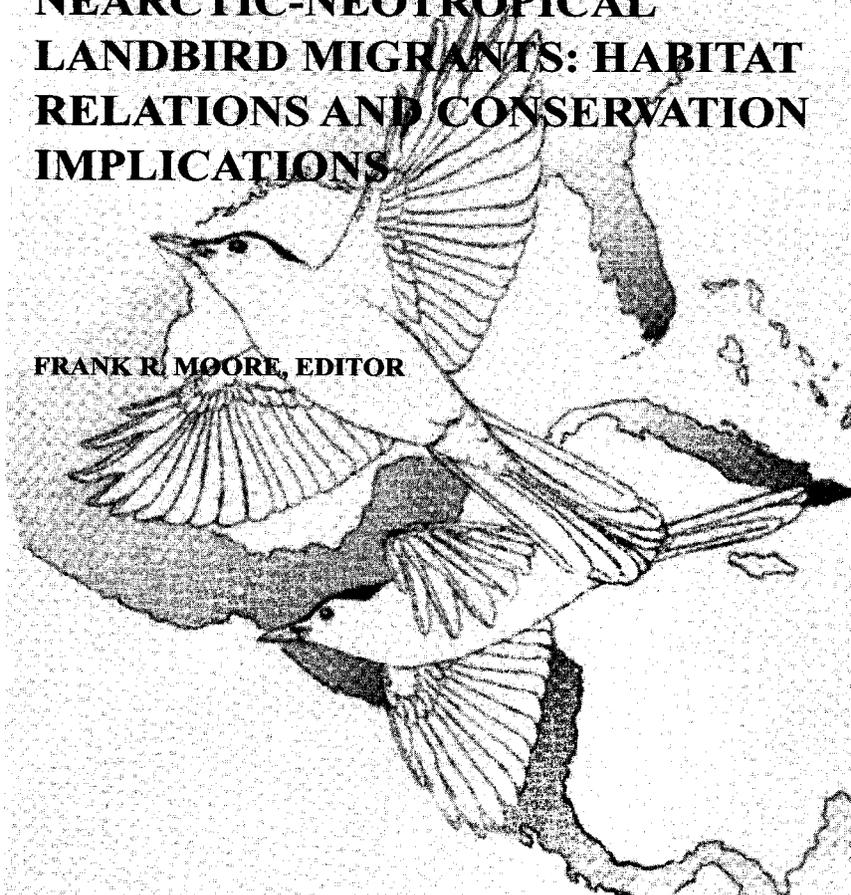


# Studies in Avian Biology

Recent Issue

## **STOPOVER ECOLOGY OF NEARCTIC-NEOTROPICAL LANDBIRD MIGRANTS: HABITAT RELATIONS AND CONSERVATION IMPLICATIONS**

**FRANK R. MOORE, EDITOR**



Studies in Avian Biology No. 20

A Publication of the Cooper Ornithological Society

Prices include postage and handling.

Order from: Cooper Ornithological Society  
c/o Western Foundation of Vertebrate Zoology  
439 Calle San Pablo  
Camarillo, CA 93012-8506

The Rufous Cacholote (Furnariidae: <i>Pseudoseisura</i> ) is Two Species KEVIN J. ZIMMER AND ANDREW WHITTAKER . . . . .	409
<b>SHORT COMMUNICATIONS</b>	
Marine Bird Attraction to Thermal Fronts in the California Current System CHRISTOPHER J. HOEFER . . . . .	423
Responses of Egg-Laying Pied Flycatchers to Experimental Changes in Clutch Size: A Re-examination M. D. KERN, R. J. COWIE AND F. M. SLATER . . . . .	428
Egg Recognition in Yellow-billed and Black-billed Magpies in the Absence of Interspecific Parasitism: Implications for Parasite-Host Coevolution GINGER M. BOLEN, STEPHEN I. ROTHSTEIN AND CHARLES H. TROST . . . . .	432
An Unusual Type of Sibling Aggression in Black-crowned Night Herons MATTHEW J. MEDEIROS, EMILY E. EMOND AND BONNIE J. PLOGER . . . . .	438
Philopatry to Stopover Site and Body Condition of Transient Reed Warblers During Autumn Migration Through Israel KOBI MEROM, YORAM YOM-TOV AND ROBIN McCLERY . . . . .	441
Flight Costs and Fuel Composition of a Bird Migrating in a Wind Tunnel MARCEL KLAASSEN, ANDERS KVIST AND ÅKE LINDSTRÖM . . . . .	444
Foraging Distances of Radio-marked Marbled Murrelets from Inland Areas in Southeast Alaska DARRELL L. WHITWORTH, S. KIM NELSON, SCOTT H. NEWMAN, GUSTAFF B. VAN VLIET AND WINSTON P. SMITH . . . . .	452
Plumage Brightness and Breeding-Season Dominance in the House Finch: A Negatively Correlated Handicap? KEVIN J. MCGRAW AND GEOFFREY E. HILL . . . . .	456
Effects of Electromagnetic Fields on the Growth of Nestling American Kestrels KIMBERLY J. FERNIE AND DAVID M. BIRD . . . . .	461
The Role of Gastrolites on Feeding Behavior and Digestive Efficiency in the Rufous- collared Sparrow M. VICTORIA LÓPEZ-CALLEJA, MAURICIO SOTO-GAMBOA AND ENRICO L. REZENDE . . . . .	465
<b>COMMENTARY</b>	
Measuring Annual Reproductive Success in Birds BERTRAM G. MURRAY JR. . . . .	470
<b>BOOK REVIEWS</b>	
Untangling Ecological Complexity: The Macroscopic Perspective, by Brian A. Maurer DAVID WARD . . . . .	474
The Raptors of Europe and the Middle East: A Handbook of Field Identification, by Dick Forsman REUVEN YOSEF . . . . .	475
The Birds of the Thai-Malay Peninsula. Volume One (Non-passerines), by David R. Wells ALLEN JEYARAJASINGAM . . . . .	476
<b>NEWS AND NOTES</b> . . . . .	478

**Cover:** A Black-legged Kittiwake *Rissa tridactyla* and young nesting in Prince William Sound, Alaska. Breeding kittiwakes exhibit a wide range of foraging strategies to locate often ephemeral schools of forage fishes that are critical to successful reproduction (see article by Suryan, Irons and Benson, p. 374). Photograph by Max Kaufman.

Editor: WALTER D. KOENIG  
Managing Editor: DAVID J. GUBERNICK  
Editorial Assistant: RICKEY WOLFE  
Book Review Editor: KIMBERLY G. SMITH  
Associate Book Review Editors: LAURA NAGY, MIKE POWERS,  
WAYNE THOGMARTIN,  
JEANETTE BIDER, AND  
DON CATANZARO

## CONTENTS

### FEATURES

- Local and Regional Effects of Pedestrians on Forest Birds in a Fragmented Landscape  
ESTEBAN FERNÁNDEZ-JURICIC . . . . . 247
- Evidence for Edge Effects on Multiple Levels in Tallgrass Prairie  
MAIKEN WINTER, DOUGLAS H. JOHNSON AND JOHN FAABORG . . . . . 256
- Influence of Treefall Gaps on Distributions of Breeding Birds Within Interior Old-Growth Stands in Białowieża Forest, Poland  
ROBERT J. FULLER . . . . . 267
- Activity Patterns of Marbled Murrelets in Douglas-Fir Old-Growth Forests of the Oregon Coast Range  
PATRICK G. R. JODICE AND MICHAEL W. COLLOPY . . . . . 275
- Patterns of Nest Attendance in Female Wood Ducks  
CHAD A. MANLOVE AND GARY R. HEPP . . . . . 286
- The Thermal Regime of Eggs During Laying and Incubation in Greater Snow Geese  
CATHERINE POUSSART, JACQUES LAROCHELLE AND GILLES GAUTHIER . . . . . 292
- Characteristics of Predators and Offspring Influence Nest Defense by Arctic and Common Terns  
REBECCA M. WHITTAM AND MARTY L. LEONARD . . . . . 301
- Sleep-Vigilance Trade-Off in Gadwall During the Winter Period  
MICHEL GAUTHIER-CLERC, ALAIN TAMISIER AND FRANK CÉZILLY . . . . . 307
- Nesting Success of Forest Birds in Southeast Alaska and Adjacent Canada  
MARY F. WILLSON AND SCOTT M. GENDE . . . . . 314
- Predation on Japanese Quail vs. House Sparrow Eggs in Artificial Nests: Small Eggs Reveal Small Predators  
THOMAS J. MAIER AND RICHARD M. DeGRAAF . . . . . 325
- Correlates of Reproductive Success in Cooperatively Breeding Western American Crows: If Helpers Help, It's Not by Much  
CAROLEE CAFFREY . . . . . 333
- Badge Size and Extra-Pair Fertilizations in the House Sparrow  
R. R. WHITEKILLER, DAVID F. WESTNEAT, P. L. SCHWAGMEYER AND DOUGLAS W. MOCK . . . . . 342
- Copulation Behavior in the Osprey in Relation to Breeding Density  
PER WIDÉN AND MALENA RICHARDSON . . . . . 349
- Survival and Song-Type Sharing in a Sedentary Subspecies of the Song Sparrow  
PAMELA L. WILSON, MARY C. TOWNER AND SANDRA L. VEHRENCAMP . . . . . 355
- Costs of Parasitism Incurred by Two Songbird Species and Their Quality as Cowbird Hosts  
DIRK E. BURHANS, FRANK R. THOMPSON III AND JOHN FAABORG . . . . . 364
- Prey Switching and Variable Foraging Strategies of Black-legged Kittiwakes and the Effect on Reproductive Success  
ROBERT M. SURYAN, DAVID B. IRONS AND JEB BENSON . . . . . 374
- Demography of Zenaida Doves in Puerto Rico  
FRANK F. RIVERA-MILÁN AND MYRNA VÁZQUEZ . . . . . 385
- Stress, Corticosterone, and Heterophil to Lymphocyte Ratios in Free-living Adélie Penguins  
CAROL M. VLECK, NICOLE VERTICALINO, DAVID VLECK AND THERESA L. BUCHER . . . . . 392
- Nest Site Selection and Productivity of Suburban Red-shouldered Hawks in Southern Ohio  
CHERYL R. DYKSTRA, JEFFREY L. HAYS, F. BERNARD DANIEL AND MELINDA M. SIMON . . . . . 401

(Continued on inside back cover)