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 4MHz 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 4MHz 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!









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



ZOOLOGY & ORNITHOLOGY

SPECIMEN CABINETS

PERMANENT SPECIMEN PRESERVATION

For over forty years, Lane Science Equipment has been the name museums, universities and individual collectors trust most to protect their valuable specimens.

To learn more about our Zoology & Ornithology Cabinets or any of our other products, visit our website at www.lanescience.com or contact us at the listing below.



- * Double neoprene door seal
- * No adhesives
- * Lane double panel lift-off door
- * Reinforced for easy stacking
- * Three-point locking mechanism

LANE SCIENCE EQUIPMENT CORP.

225 West 34th Street Suite 1412 New York, NY 10122-1496 Tel: 212-563-0663 Fax: 212-465-9440 www.lanescience.com



Increase Your Sales

Advertise In

The Auk



PUBLISHED BY

The Auk publishes original reports on the biology of birds. Topics include documentation, analysis, and interpretation of laboratory and field studies, theoretical or methodological developments, and reviews of information or ideas.

The Auk is a major international ornithological journal. Readership includes most ornithologists and avian scientists in North America. Subscribed to by all major college and university libraries. If you are looking to promote a new or existing product, The Auk, with over 4,000 readers, is the best way to do it. We can even design and run an employment ad for you, just ask. With low, low rates you'll be hard pressed to find a better deal anywhere.

For more information contact:

SCOTT MUELLER

785-843-1235 ext. 212

smueller@allenpress.com



The American Ornithologists' Union

The Council for 2000-2001

Officers and Editors

President: JOHN W. FITZPATRICK, Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, New York 14850

President-Elect: FRED COOKE, Department of Biological Sciences, Simon Fraser University, Burnaby, British Columbia V5A 1S6, Canada

Vice President: Patricia A. Gowaty, Institute of Ecology, University of Georgia, Athens, Georgia 30602

Secretary: M. ROSS LEIN, Department of Biology, University of Calgary, Calgary, Alberta T2N 1N4, Canada

Treasurer: Jeffrey D. Brawn, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, Illinois 61820

Editor of The Auk: Kimberly G. Smith, Department of Biological Sciences, University of Arkansas, Fayetteville, Arkansas 72701 E-mail: auk@uark.edu

Editor of Ornithological Monographs: David A. Wiedenfeld, Sutton Avian Research Center, P.O. Box 2007, Bartlesville, Oklahoma 74005 E-mail: dwiedenfeld@ou.edu

Elective Councilors and Living Past Presidents

2001: Walter D. Koenig, Scott M. Lanyon, Stephen M. Russell. 2002: Kenneth P. Able, Susan Hannon, Scott K. Robinson. 2003: Edward H. Burtt, Jr., Carla Cicero, Richard O. Prum.

Past Presidents: Ernst Mayr (1957–59), Dean Amadon (1964–66), Harold F. Mayfield (1966–68), Robert W. Storer (1970–72), Wesley E. Lanyon (1976–78), Harrison B. Tordoff (1978–80), Thomas R. Howell (1982–84), Frances C. James (1984–86), Glen E. Woolfenden (1988–90), Brina Kessel (1992–94), Richard C. Banks (1994–96), Ned K. Johnson (1996–98), Frank B. Gill (1998–00).

Instructions to Contributors

The Auk publishes original reports on the biology of birds. Appropriate topics include documentation, analysis, and interpretation of laboratory and field studies, theoretical or methodological developments, and reviews of information or ideas. Authors are encouraged to write papers from the perspective of general concepts and theories, and to consider the relevance of their findings to taxa in addition to birds. The Auk publishes a color cover with each issue; authors are encouraged to submit suitable color illustrations. Contributions are welcome from throughout the world but must be written in English. Submit three copies of each manuscript complete with tables, figure legends, and figures (retain original figures until notified) to the Editor. Include a copy of the manuscript on a 3.5-inch diskette (WordPerfect preferred, but identify the software). Double-space all written material (including tables and figure legends) on standard-sized stationery. Number pages through the figure legends. Submit tables separately from the text; type figure legends consecutively on a separate sheet. Manuscripts should conform to general usage in the most recent issue of the journal. The title page should contain: (1) full title; (2) authors' names and addresses; (3) left and right running heads (<36 characters each); and (4) name, mailing address, and e-mail address of author to whom correspondence should be sent. Detailed instructions to contributors are available at the journal's homepage (http://www.aou.org/aou/auklet.html), or copies may be obtained from the Editor. Paying close attention to those instructions will hasten the processing of your manuscript and gratify the editorial staff.

Contents (continued)



Diving depths of shearwaters. Alan E. Burger
Visual signals for individual identification: The silent "song" of Ruffs. David B. Lank and James Dale
Frequency of egg and nestling destruction by female Brown-headed Cowbirds at grassland nests. Diane A. Granfors, Pamela J. Pietz, and Lisa A. Joyal
Nest desertion by Field Sparrows and its possible influence on the evolution of cowbird behavior. Bill M. Strausberger and Dirk E. Burhans
Regional variation in response of Field Sparrows to the threat of Brown-headed Cowbird parasitism. Dirk E. Burhans, Bill M. Strausberger, and Michael D. Carey
Standard and comparative energetics of a small avian herbivore (Phytotoma rara). Enrico L. Rezende, M. Victoria López- Calleja, and Francisco Bozinovic
Function and temporal variation in use of ossuaries by Bearded Vultures (Gypaetus barbatus) during the nestling period. Antoni Margalida and Joan Bertran
Individual and seasonal variation in external genitalia of male Tree Swallows. Michael P. Lombardo
Observational learning in hummingbirds. Douglas L. Altshuler and Andrea M. Nunn
Phylogenetic utility of avian ovomucoid Intron G: A comparison of nuclear and mitochondrial phylogenies in Galliformes. Margaret H. Armstrong, Edward L. Braun, and Rebecca T. Kimball
Reviews. Edited by Rebecca Holberton
00 Years Ago in the American Ornithologists' Union

The Auk

Vol. 118 No. 3 July 2001



CONTENTS

Perspectives in Ornithology
CURRENT BIRD CONSERVATION ISSUES IN AFRICA. Thomas Brooks and Hazell Shokellu Thompson :
Overview
LONG-TERM RESEARCH AND THE DYNAMICS OF BIRD POPULATIONS AND COMMUNITIES. Scott L. Collins
Articles
THIRTY-YEAR BIRD POPULATION TRENDS IN AN UNFRAGMENTED TEMPERATE DECIDUOUS FOREST: IMPORTANCE OF HABITAT CHANGE. Richard T. Holmes and Thomas W. Sherry
A CYTOCHROME-b PERSPECTIVE ON PASSERINA BUNTING RELATIONSHIPS. John Klicka, Adam J. Fry, Robert M. Zink, and Christopher W. Thompson
Age and reproduction in Lesser Spotted Woodpeckers (Dendrocopos minor). Ulf Wiktander, Ola Olsson, and Sven G. Nilsson
COLONY AND POPULATION DYNAMICS OF BLACK-LEGGED KITTIWAKES IN A HETEROGENEOUS ENVIRONMENT. Robert M. Suryan and David B. Irons
Factors governing the distribution of Swainson's Warbler along a hydrological gradient in Great Dismal Swamp. Gary R. Graves
Comparative fuel use of migrating passerines: Effects of fat stores, migration distance, and diet. Leonard Z. Gannes
Response of passerine birds to forest edge in coast redwood forest fragments. L. Arriana Brand and T. Luke George
Composition of eggs and neonates of Canada Geese and Lesser Snow Geese. Shannon S. Badzinski, C. Davison Ankney, James O. Leafloor, and Kenneth F. Abraham
Low initial refueling rate at stopover sites: A methodological effect? Regine Schwilch and Lukas Jenni
ACTIVITY PATTERNS AND EFFECT OF TICKS ON GROWTH AND SURVIVAL OF TROPICAL ROSEATE TERN NESTLINGS. Jaime A. Ramos, John Bowler, Laura Davis, Sarah Venis, John Quinn, and Carole Middleton
Effect of conspecific brood parasitism on host fitness for Tufted Duck and Common Pochard. Bruce D. Dugger and Peter Blums
Territory and nest-site selection of Cerulean Warblers in Eastern Ontario. Jason Jones and Raleigh J. Robertson
N MEMORIAM: DON RICHARD ECKELBERRY, 1921–2001
N MEMORIAM: WILLIAM B. ROBERTSON, Jr., 1924-2000
Within-season nest-site fidelity in Eastern Bluebirds: Disentangling effects of nest success and parasite avoidance. Mark T. Stanback and Anne A. Dervan Sex-related differences in habitat use in wintering American Kestrels. Daniel R. Ardia and Keith L. Bildstein Female hematozoan infection reduces hatching success but not fledging success in Pied Flycatchers Ficedula hypoleuca Juan J. Sanz. Elena Arriero, Juan Moreno, and Santiago Merino

(Continued on inside back cover)