

Front Matter

Source: The Auk, 127(4)

Published By: American Ornithological Society

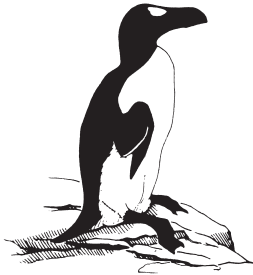
URL: <https://doi.org/10.1525/auk.2010.127.4.fm>

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.



The Auk

AN INTERNATIONAL JOURNAL OF ORNITHOLOGY

PUBLISHED BY THE AMERICAN ORNITHOLOGISTS' UNION

Editor: MICHAEL T. MURPHY, *Department of Biology,
Portland State University, P.O. Box 751, Portland, Oregon 97207, USA*

Phone: (503) 725-8734 **FAX:** (503) 725-3888 **E-mail:** murphym@pdx.edu

Managing Editor: MARK C. PENROSE **E-mail:** managingeditor@aou.org

Copy Editor: RICHARD D. EARLES **E-mail:** copyeditor@aou.org

Associate Editors

- | | |
|---|---|
| MARC J. BECHARD, <i>Boise State University</i> | MARK LINDBERG, <i>University of Alaska Fairbanks</i> |
| BRUCE E. BYERS, <i>University of Massachusetts</i> | CATHERINE A. LINDELL, <i>Michigan State University</i> |
| ROBERT G. CLARK, <i>Environment Canada</i> | GERALD MAYR, <i>Forschungsinstitut Senckenberg</i> |
| RUSSELL D. DAWSON, <i>University of Northern British Columbia</i> | KEVIN J. MCGRAW, <i>Arizona State University</i> |
| DONALD C. DEARBORN, <i>Bucknell University</i> | JENNIFER OWEN, <i>Michigan State University</i> |
| STEPHEN J. DINSMORE, <i>Iowa State University</i> | JESKO PARTECKE, <i>Max-Planck-Institute for Ornithology</i> |
| ALFRED M. DUFTY, JR., <i>Boise State University</i> | JOHN F. PIATT, <i>USGS Alaska Science Center</i> |
| JOHN P. DUMBACHER, <i>California Academy of Sciences</i> | JUAN C. REBOREDA, <i>Universidad de Buenos Aires</i> |
| TOM HAHN, <i>University of California Davis</i> | CHRISTOPHER M. ROGERS, <i>Wichita State University</i> |
| COLLEEN M. HANDEL, <i>USGS-Biological Resources Division</i> | SIEVERT A. ROHWER, <i>University of Washington</i> |
| MARK E. HAUBER, <i>Hunter College, CUNY</i> | KENNETH SCHMIDT, <i>Texas Tech University</i> |
| GARY R. HEPP, <i>Auburn University</i> | KIM T. SCRIBNER, <i>Michigan State University</i> |
| DOUGLAS H. JOHNSON, <i>USGS Northern Prairie Wildlife Research Center</i> | TERRY L. SHAFFER, <i>USGS Northern Prairie Wildlife Research Center</i> |
| JASON JONES, <i>Tetra Tech EC Inc.</i> | PHILIP C. STOUFFER, <i>Louisiana State University</i> |
| LEO JOSEPH, <i>Australian National Wildlife Collection</i> | ELAINA M. TUTTLE, <i>Indiana State University</i> |
| MARCEL KLAASSEN, <i>Deakin University, Australia</i> | JORGE H. VEGA RIVERA, <i>Instituto de Biología, UNAM</i> |
| JOHN T. KLICKA, <i>University of Nevada-Las Vegas</i> | |

Book Review Editor

R. TODD ENGSTROM, *Florida State University Coastal and Marine Laboratory, St. Teresa, Florida 32358, USA*

Memorials Editor

ALAN H. BRUSH, *92 High Street, Mystic, Connecticut 06355, USA*

Membership, Subscription, and Correspondence

The Auk (ISSN 0004-8038, e-ISSN 1938-4254) is published four times a year (January, April, July, October) by University of California Press, Journals and Digital Publishing, 2000 Center Street, Suite 303, Berkeley, CA 94704-1123, for the American Ornithologists' Union, 3575 Hempland Road, Lancaster, PA 17601. Periodicals postage paid at Berkeley, CA, and additional mailing offices. POSTMASTER: Send address changes to *The Auk*, University of California Press, Journals and Digital Publishing, 2000 Center Street, Suite 303, Berkeley, CA 94704-1223. E-mail: customerservice@ucpressjournals.com.

Membership: Persons interested in birds are invited to join the American Ornithologists' Union. Regular membership costs \$90 per year; student memberships are \$28. Membership is \$28 for persons in all countries *except* the United States, Canada, Israel, Japan, Australia, New Zealand, and the following Western European countries: Iceland, Norway, Sweden, Finland, Denmark, Germany, The Netherlands, Belgium, Luxembourg, France, the United Kingdom, Ireland, Switzerland, Austria, Italy, Spain, and Portugal. All members receive *The Auk*, *Ornithological Monographs*, and a bimonthly *Ornithological Newsletter*. A life membership is \$2,600, paid in one sum or four annual installments of \$650. All correspondence regarding membership, including dues payments and changes of address, should go to Ornithological Societies of North America, 5400 Bosque Blvd., Suite 680, Waco, TX 76710-4446, or business@osnabirds.org. Gifts of any amount for the Endowment Fund are welcome and should be sent to AOU c/o Schneider Group, 5400 Bosque Blvd., Suite 680, Waco, Texas 76710. Gifts to the AOU are tax deductible to the extent permitted by law.

Subscriptions: See www.ucpressjournals.com for single issue and subscription orders, and claims information. Domestic claims for nonreceipt of issues should be made within 90 days of the mail date; overseas claims within 180 days. Mail dates can be checked at: <http://www.ucpressjournals.com/ucpress.asp?page=ReleaseSchedule>. UC Press does not begin accepting claims for an issue until thirty (30) days after the mail date.

Advertising: Inquiries about advertising can be sent to adsales@ucpressjournals.com. For complete abstracting and indexing coverage for the journal, please visit <http://www.ucpressjournals.com>. All other inquiries can be directed to customerservice@ucpressjournals.com.

See last page for instructions to contributors, and copying and permissions notice.

Cover: The Bahama Yellow-throated Warbler (*Dendroica "dominica" flavescens*) shown foraging on Caribbean Pine in native forests in the Bahamas. Bark foraging is one of many genetic, plumage and behavioral features used by McKay et al. (pages 932–939) to argue for species status for the Bahama Yellow-throated Warbler. Mixed media painting © H. Douglas Pratt 2010.

The Auk

An International Journal of Ornithology

EDITOR

MICHAEL T. MURPHY

MANAGING EDITOR

MARK C. PENROSE

COPY EDITOR

RICHARD D. EARLES

BOOK REVIEW EDITOR

R. TODD ENGSTROM

MEMORIALS EDITOR

ALAN H. BRUSH



Volume 127

PUBLISHED BY

THE AMERICAN ORNITHOLOGISTS' UNION

2010

Contents of Volume 127



NUMBER 1

FROM THE EDITOR. *Michael Murphy* 1

SPECIAL REVIEWS IN ORNITHOLOGY

PROSPECTS FOR THE USE OF NEXT-GENERATION SEQUENCING METHODS IN ORNITHOLOGY. *Heather R. L. Lerner and Robert C. Fleischer* 4

RESEARCH ARTICLES

EVOLUTION AND GENETICS

BALANCED SEX RATIO AT HATCH IN A GREATER SAGE-GROUSE (*CENTROCERCUS UROPHASIANUS*) POPULATION. *Michael T. Atamian and James S. Sedinger* 16

EVIDENCE OF RECENT POPULATION DIFFERENTIATION IN ORANGE-CROWNED WARBLERS (*VERMIVORA CELATA*) IN HAIDA GWAIL. *Roger D. Bull, Andrée McCracken, Anthony J. Gaston, Tim P. Birt, and Vicki L. Friesen* 23

SMALL-SCALE DIVERGENCE IN EGG COLOR ALONG AN ELEVATION GRADIENT IN THE MEXICAN JAY (*APHELOCOMA ULTRAMARINA*): A CONDITION-DEPENDENT RESPONSE? *John E. McCormack and Elena C. Berg* 35

THE EVOLUTION OF TAIL SHAPE IN HUMMINGBIRDS. *Christopher J. Clark* 44

SUBSPECIES STATUS AND POPULATION GENETIC STRUCTURE IN PIPING PLOVER (*CHARADRIUS MELODUS*). *Mark P. Miller, Susan M. Haig, Cheri L. Gratto-Trevor, and Thomas D. Mullins* 57

METHODS AND STATISTICS

EFFECTS OF LIPID EXTRACTION ON STABLE ISOTOPE RATIOS IN AVIAN EGG YOLK: IS ARITHMETIC CORRECTION A RELIABLE ALTERNATIVE? *Steffen Oppel, Rebekka N. Federer, Diane M. O'Brien, Abby N. Powell, and Tuula E. Hollmén* 72

ESTIMATING LENGTH OF AVIAN INCUBATION AND NESTLING STAGES IN AFROTROPICAL FOREST BIRDS FROM INTERVAL-CENSORED NEST RECORDS. *Thomas R. Stanley and William D. Newmark* 79

EVALUATION OF A REPRODUCTIVE INDEX FOR ESTIMATING PRODUCTIVITY OF GRASSLAND BREEDING BIRDS. *Michael R. Morgan, Christopher Norment, and Michael C. Runge* 86

EFFECTS OF PRIOR DETECTIONS ON ESTIMATES OF DETECTION PROBABILITY, ABUNDANCE, AND OCCUPANCY. *Jason D. Riddle, Rua S. Mordecai, Kenneth H. Pollock, and Theodore R. Simons* 94

EFFECTS OF EXTRA MASS ON THE PELAGIC BEHAVIOR OF A SEABIRD. *Carlos Passos, Joan Navarro, Alessandro Giudici, and Jacob González-Solis* 100

MIGRATION

PATTERNS OF FUEL USE AND STORAGE IN MIGRATING PASSERINES IN RELATION TO FRUIT RESOURCES AT AUTUMN STOPOVER SITES. *Susan B. Smith and Scott R. McWilliams* 108

A COMPARISON BETWEEN NOCTURNAL AURAL COUNTS OF PASSERINES AND RADAR REFLECTIVITY FROM A CANADIAN WEATHER SURVEILLANCE RADAR. *François Gagnon, Marc Bélisle, Jacques Ibarzabal, Pierre Vaillancourt, and Jean-Pierre L. Savard* 119

PHYSIOLOGY AND BEHAVIOR

CONTEXT-DEPENDENT CHANGES IN THE WEIGHTING OF ENVIRONMENTAL CUES THAT INITIATE BREEDING IN A TEMPERATE PASSERINE, THE CORSICAN BLUE TIT (*CYANISTES CAERULEUS*). *Donald W. Thomas, Patrice Bourgault, Bill Shipley, Philippe Perret, and Jacques Blondel* 129

PROVISIONING IN FLESH-FOOTED SHEARWATERS (*PUFFINUS CARNEIPES*): PLASTIC FORAGING BEHAVIOR AND THE IMPLICATIONS FOR INCREASED FISHERY INTERACTIONS. *Sam J. Thalmann, Mary-Anne Lea, Mark Hindell, David Priddel, and Nicholas Carlile* 140

CONCENTRATION-DEPENDENT SUGAR PREFERENCES OF THE MALACHITE SUNBIRD (*NECTARINIA FAMOSA*). *Mark Brown, Colleen T. Downs, and Steven D. Johnson* 151

BIRDSONG DIFFERS BETWEEN MERCURY-POLLUTED AND REFERENCE SITES. *Kelly K. Hallinger, Daniel J. Zabransky, Katherine A. Kazmer, and Daniel A. Cristol* 156

FUELING INCUBATION: DIFFERENTIAL USE OF BODY STORES IN ARCTIC- AND TEMPERATE-BREEDING BARNACLE GEESE (<i>BRANTA LEUCOPSIS</i>). Götz Eichhorn, Henk P. van der Jeugd, Harro A. J. Meijer, and Rudolf H. Drent	162
--	-----

POPULATION AND CONSERVATION BIOLOGY

DETERMINANTS OF TERRITORIAL RECRUITMENT IN BONELLI'S EAGLE (<i>AQUILA FASCIATA</i>) POPULATIONS. <i>Antonio Hernández-Matías, Joan Real, Roger Pradel, Alain Ravayrol, Nicolas Vincent-Martin, Fabrice Bosca, and Gilles Cheylan</i>	173
EFFECTS OF FOREST MANAGEMENT ON POSTFLEDGING SURVIVAL OF ROSE-BREASTED GROSBEAKS (<i>PHEUCTICUS LUDOVICIANUS</i>). <i>Levi C. Moore, Bridget J. M. Stutchbury, Dawn M. Burke, and Ken A. Elliott</i>	185

REPRODUCTIVE ECOLOGY

EXPERIMENTAL EVIDENCE THAT BOTH TIMING AND PARENTAL QUALITY AFFECT BREEDING SUCCESS IN A ZOOPLANKTIVOROUS SEABIRD. <i>J. Mark Hipfner, Laura A. McFarlane-Tranquilla, and BriAnne Addison.</i>	195
BIOTIC AND ABIOTIC FACTORS GOVERNING NESTLING-PERIOD LENGTH IN THE OVENBIRD (<i>SEIURUS AUROCAPILLA</i>). <i>Kirk W. Stodola, David A. Buehler, Daniel H. Kim, Kathleen E. Franzreb, and Eric T. Linder</i>	204
FACTORS THAT AFFECT RENESTING IN MALLARDS (<i>ANAS PLATYRHYNCHOS</i>). <i>Todd W. Arnold, James H. Devries, and David W. Howerter.</i>	212
SEASONAL VARIATION IN REPRODUCTIVE OUTPUT OF A NEOTROPICAL TEMPERATE SUBOSCINE, THE FIREWOOD-GATHERER (<i>ANUMBIUS ANNUMBI</i>). <i>Kaspar Delhey, Martín Carrizo, Lucas C. Verniere, Bettina Mahler, and Anne Peters</i>	222

LETTERS

RECENT EXPERIMENTAL DATA ON THE ENERGY COSTS OF AVIAN FLIGHT CALL FOR A REVISION OF OPTIMAL MIGRATION THEORY. <i>Nikita Chernetsov.</i>	232
--	-----

MEMORIALS

IN MEMORIAM: BARBARA BLANCHARD DEWOLFE, 1912–2008. <i>Stephen I. Rothstein</i>	235
IN MEMORIAM: IAN CECIL ROBERT ROWLEY, 1926–2009. <i>Stephen Pruett-Jones</i>	238

BOOK REVIEWS

BOOK REVIEWS. <i>Edited by R. Todd Engstrom.</i>	239
--	-----

AWARDS

WILLIAM BREWSTER MEMORIAL AWARD, 2009: <i>Joanna Burger.</i>	243
ELLIOTT COUES AWARD, 2009: <i>Charles R. Brown and Mary Bomberger Brown</i>	244
NED K. JOHNSON YOUNG INVESTIGATOR AWARD, 2009: <i>Renée Duckworth</i>	245
RALPH W. SCHREIBER CONSERVATION AWARD, 2009: <i>Scott R. Derrickson</i>	246
MARION A. JENKINSON AOU SERVICE AWARD, 2009: <i>M. Ross Lein</i>	248

POSTSCRIPT

100 YEARS AGO IN THE AMERICAN ORNITHOLOGISTS' UNION. <i>Kimberly G. Smith.</i>	250
--	-----

NUMBER 2

PERSPECTIVES IN ORNITHOLOGY

DIVERSIFICATION OF LIFE HISTORIES IN NEW WORLD BIRDS. <i>W. Douglas Robinson, Michaela Hau, Kirk C. Klasing, Martin Wikelski, Jeffrey D. Brawn, Suzanne H. Austin, Corey E. Tarwater, and Robert E. Ricklefs</i>	253
--	-----

RESEARCH ARTICLES

BEHAVIOR AND BEHAVIORAL ECOLOGY

- COMMUNITY-LEVEL PATTERNS OF HOST USE BY THE BROWN-HEADED COWBIRD (*MOLOTHRUS ATER*), A GENERALIST BROOD PARASITE. *James W. Rivers, William E. Jensen, Karl L. Kosciuch, and Stephen I. Rothstein*. 263
- GEOGRAPHIC VARIATION IN SONGS OF THE TREE PIPIT (*ANTHUS TRIVIALIS*) AT TWO SPATIAL SCALES. *Tereza Petrusková, Tomasz S. Osiejuk, and Adam Petrusek*. 274
- HUMAN VISION CAN PROVIDE A VALID PROXY FOR AVIAN PERCEPTION OF SEXUAL DICHROMATISM. *Nathalie Seddon, Joseph A. Tobias, Muir Eaton, and Anders Ödeen*. 283
- PHENOTYPIC PLASTICITY IN COMMON GRACKLES (*QUISCALUS QUISCUA*) IN RESPONSE TO REPEATED BROOD PARASITISM. *Brian D. Peer and Stephen I. Rothstein*. 293
- EXTREME LEVELS OF MULTIPLE MATING CHARACTERIZE THE MATING SYSTEM OF THE SALTMARSH SPARROW (*AMMODRAMUS CAUDACUTUS*). *Christopher E. Hill, Carina Gjerdrum, and Chris S. Elphick*. 300

BEHAVIOR AND PHYSIOLOGY

- BILL MORPHOLOGY OF IBISES SUGGESTS A REMOTE-TACTILE SENSORY SYSTEM FOR PREY DETECTION. *Susan J. Cunningham, Maurice R. Alley, Isabel Castro, Murray A. Potter, Malcolm Cunningham, and Michael J. Pyne*. 308

CONSERVATION BIOLOGY

- ALTERATION OF HABITAT STRUCTURE AND FOOD RESOURCES BY INVASIVE SMOOTH CORDGRASS AFFECTS HABITAT USE BY WINTERING SALTMARSH BIRDS AT CHONGMING DONGTAN OF EAST CHINA. *Xiaojing Gan, Chiyeung Choi, Yong Wang, Zhijun Ma, Jiakuan Chen, and Bo Li*. 317
- NESTING SUCCESS OF GRASSLAND BIRDS IN SMALL PATCHES IN AN AGRICULTURAL LANDSCAPE. *Jeffery W. Walk, Eric L. Kershner, Thomas J. Benson, and Richard E. Warner*. 328

EVOLUTION AND GENETICS

- POPULATION GENETIC STUDIES OF MITOCHONDRIAL PSEUDO-CONTROL REGION IN THE ENDANGERED ARARIPE MANAKIN (*ANTILOPHIA BOKERMANNI*). *Péricles S. Régo, Juliana Araripe, Weber A. G. Silva, Ciro Albano, Thieres Pinto, Alberto Campos, Marcelo Vallinoto, Iracilda Sampaio, and Horacio Schneider*. 333
- BIRDS OF A FEATHER DO NOT ALWAYS LEK TOGETHER: GENETIC DIVERSITY AND KINSHIP STRUCTURE OF GREATER SAGE-GROUSE (*CENTROCERCUS UROPHASIANUS*) IN ALBERTA. *Krista L. Bush, Cameron L. Aldridge, Jennifer E. Carpenter, Cynthia A. Paszkowski, Mark S. Boyce, and David W. Coltman*. 343

LANDSCAPE AND MOVEMENT ECOLOGY

- MULTISCALE POSTFLEDGING HABITAT ASSOCIATIONS OF JUVENILE SONGBIRDS IN A MANAGED LANDSCAPE. *Greg W. Mitchell, Philip D. Taylor, and Ian G. Warkentin*. 354
- MOVEMENTS OF FLEDGLING OVENBIRDS (*SEIURUS AUROCAPILLA*) AND WORM-EATING WARBLERS (*HELMITHEROS VERMIVORUM*) WITHIN AND BEYOND THE NATAL HOME RANGE. *Andrew C. Vitz and Amanda D. Rodewald*. 364
- DELAYED DISPERSAL AND TERRITORY ACQUISITION IN NEOTROPICAL BUFF-BREASTED WRENS (*THRYOTHORUS LEUCOTIS*). *Sharon A. Gill and Bridget J. M. Stutchbury*. 372

METHODS AND STATISTICS

- A GENERAL BAYESIAN HIERARCHICAL MODEL FOR ESTIMATING SURVIVAL OF NESTS AND YOUNG. *Joshua H. Schmidt, Johann A. Walker, Mark S. Lindberg, Devin S. Johnson, and Scott E. Stephens*. 379
- TRAFFIC EFFECTS ON BIRD COUNTS ON NORTH AMERICAN BREEDING BIRD SURVEY ROUTES. *Emily H. Griffith, John R. Sauer, and J. Andrew Royle*. 387

MIGRATION

- INDICES OF IMMUNE FUNCTION ARE LOWER IN RED KNOTS (*CALIDRIS CANUTUS*) RECOVERING PROTEIN THAN IN THOSE STORING FAT DURING STOPOVER IN DELAWARE BAY. *Deborah M. Buehler, B. Irene Tieleman, and Theunis Piersma*. 394

POPULATION BIOLOGY AND DEMOGRAPHY

- APPARENT NEST ABANDONMENT AS EVIDENCE OF BREEDING-SEASON MORTALITY IN GREAT LAKES PIPING PLOVERS (*CHARADRIUS MELODUS*). *Erin A. Roche, Todd W. Arnold, and Francesca J. Cuthbert* 402
- THE ROLE OF THE EURASIAN SPARROWHAWK (*ACCIPITER NISUS*) IN THE DECLINE OF THE HOUSE SPARROW (*PASSER DOMESTICUS*) IN BRITAIN. *Christopher P. Bell, Sam W. Baker, Nigel G. Parkes, M. de L. Brooke, and Dan E. Chamberlain*. 411
- ATTENUATED NESTING SEASON OF THE ACADIAN FLYCATCHER (*EMPIDONAX VIRESCENS*) IN URBAN FORESTS. *Daniel P. Shustack and Amanda D. Rodewald* 421

SYSTEMATICS

- POLYPHYLY OF *CAMPYLORHAMPHUS*, AND DESCRIPTION OF A NEW GENUS FOR *C. PUCHERANI* (DENDROCOLAPTINAE). *Santiago Claramunt, Elizabeth P. Derryberry, R. Terry Chesser, Alexandre Aleixo, and Robb T. Brumfield* 430
- COMPLETE MITOCHONDRIAL GENOME SEQUENCES AND THE PHYLOGENY OF CRANES (GRUIFORMES: GRUIDAE). *Carey Krajewski, Justin T. Sipiorski, and Frank E. Anderson* 440

COMMENTARY

- A BLACKMAIL HYPOTHESIS FOR THE EVOLUTION OF CONSPICUOUS EGG COLORATION IN BIRDS. *Daniel Hanley, Stéphanie M. Doucet, and Donald C. Dearborn* 453

LETTERS

- COLOR BLINDNESS AND VISUALIZING GEOREFERENCED DATA IN MAPPED PRODUCTS: WE CAN DO MORE. *Wayne E. Thogmartin*. 460

MEMORIALS

- IN MEMORIAM: RUDOLF HERMAN DRENT, 1937–2008. *Joost M. Tinbergen and Theunis Piersma* 463
- IN MEMORIAM: WILLIAM HENRY BELTON, 1914–2009. *Lorien R. Belton* 465

BOOK REVIEWS

- BOOK REVIEWS. *Edited by R. Todd Engstrom*. 466

POSTSCRIPT

- 100 YEARS AGO IN THE AMERICAN ORNITHOLOGISTS' UNION. *Kimberly G. Smith* 469

NUMBER 3

PERSPECTIVES IN ORNITHOLOGY

- SPATIAL ECOLOGY OF MIGRATORY PASSERINES ON TEMPERATE AND BOREAL FOREST BREEDING GROUNDS. *Darroch M. Whitaker and Ian G. Warkentin* 471

RESEARCH ARTICLES

BEHAVIOR AND BEHAVIORAL ECOLOGY

- USING SPATIAL POINT-PATTERN ASSESSMENT TO UNDERSTAND THE SOCIAL AND ENVIRONMENTAL MECHANISMS THAT DRIVE AVIAN HABITAT SELECTION. *Trina S. Bayard and Chris S. Elphick* 485
- PASSIVE SPERM LOSS AND PATTERNS OF SPERM PRECEDENCE IN MUSCOVY DUCKS (*CAIRINA MOSCHATA*). *Sarah M. Stai and William A. Searcy* 495
- FACTORS INFLUENCING THE AT-SEA DISTRIBUTION OF CASSIN'S AUKLETS (*PTYCHORAMPHUS ALEUTICUS*) THAT BREED IN THE CHANNEL ISLANDS, CALIFORNIA. *Josh Adams, John Y. Takekawa, Harry R. Carter, and Julie Yee* 503

WINTER TERRITORIALITY AND SPATIAL BEHAVIOR OF BICKNELL'S THRUSH (<i>CATHARUS BICKNELLI</i>) AT TWO ECOLOGICALLY DISTINCT SITES IN THE DOMINICAN REPUBLIC. <i>Jason M. Townsend, Christopher C. Rimmer, and Kent P. McFarland</i>	514
INDIVIDUAL VARIATION OF FORAGING BEHAVIOR AND FOOD PROVISIONING IN ADÉLIE PENGUINS (<i>PYGOSCELIS ADELIAE</i>) IN A FAST-SEA-ICE AREA. <i>Yutaka Watanuki, Akinori Takahashi, and Katsufumi Sato</i>	523
FRUIT-SIZE PREFERENCES IN WILD AND NAIVE EURASIAN BLACKBIRDS (<i>TURDUS MERULA</i>) FEEDING ON ONESEED HAWTHORN (<i>CRATAEGUS MONOGYNA</i>). <i>Mar Sobral, Asier R. Larrinaga, and José Guitián</i>	532
BEHAVIOR AND PHYSIOLOGY	
MORPH-SPECIFIC VARIATION IN BASELINE CORTICOSTERONE AND THE ADRENOCORTICAL RESPONSE IN BREEDING WHITE-THROATED SPARROWS (<i>ZONOTRICHIA ALBICOLLIS</i>). <i>Brent M. Horton and Rebecca L. Holberton</i>	540
DIETARY CALCIUM NEGATIVELY AFFECTS THE SIZE OF A STATUS SIGNAL IN JUVENILE MALE HOUSE SPARROWS (<i>PASSER DOMESTICUS</i>). <i>Ian R. K. Stewart and David F. Westneat</i>	549
WHY GROW SLOWLY IN A DANGEROUS PLACE? POSTNATAL GROWTH, THERMOREGULATION, AND ENERGETICS OF NESTLING GREEN-RUMPED PARROTLETS (<i>FORPUS PASSERINUS</i>). <i>M. Andreína Pacheco, Steven R. Beissinger, and Carlos Bosque</i>	558
SOCIALLY INDUCED SYNCHRONIZATION OF EVERY-OTHER-DAY EGG LAYING IN A SEABIRD COLONY. <i>Shandelle M. Henson, James L. Hayward, J. M. Cushing, and Joseph G. Galusha</i>	571
CONSERVATION BIOLOGY	
ROAD EFFECTS ON FOOD AVAILABILITY AND ENERGETIC INTAKE IN FLORIDA SCRUB-JAYS (<i>APHELOCOMA COERULESCENS</i>). <i>Gina M. Morgan, Raoul K. Boughton, Michelle A. Rensel, and Stephan J. Schoech</i>	581
EVOLUTION AND GENETICS	
HOMOLOGY AND EVOLUTION OF AVIAN COMPOUND RHAMPHOTHECAE. <i>Tobin I. Hieronymus and Lawrence M. Witmer</i>	590
UNIDIRECTIONAL HYBRIDIZATION AND INTROGRESSION IN AN AVIAN CONTACT ZONE: EVIDENCE FROM GENETIC MARKERS, MORPHOLOGY, AND COMPARISONS WITH LABORATORY-RAISED F ₁ HYBRIDS. <i>Paula M. den Hartog, Ardie M. den Boer-Visser, and Carel ten Cate</i>	605
GENETIC DIFFERENTIATION OF A SUBSPECIES OF SPRUCE GROUSE (<i>FALCIPENNIS CANADENSIS</i>) IN AN ENDEMISM HOTSPOT. <i>Patrick D. Barry and David A. Tallmon</i>	617
BILL SHAPE AND SEXUAL SHAPE DIMORPHISM BETWEEN TWO SPECIES OF TEMPERATE HUMMINGBIRDS: BLACK-CHINNED HUMMINGBIRD (<i>ARCHILOCHUS ALEXANDRI</i>) AND RUBY-THROATED HUMMINGBIRD (<i>A. COLUBRIS</i>). <i>Chelsea M. Berns and Dean C. Adams</i>	626
MIGRATION	
AN INTEGRATIVE ASSESSMENT OF THE EFFECTS OF TAMARISK ON STOPOVER ECOLOGY OF A LONG-DISTANCE MIGRANT ALONG THE SAN PEDRO RIVER, ARIZONA. <i>David J. Cerasale and Christopher G. Guglielmo</i>	636
MIGRATORY BEHAVIOR AND DIFFERENTIAL RESOURCE ALLOCATION BETWEEN WING AND TAIL FEATHERS IN A PASSERINE BIRD. <i>Iván de la Hera, Javier Pérez-Tris, and José Luis Tellería</i>	647
POPULATION BIOLOGY AND DEMOGRAPHY	
ANTHELMINTICS INCREASE SURVIVAL OF AMERICAN COOT (<i>FULICA AMERICANA</i>) CHICKS. <i>Courtney L. Amundson and Todd W. Arnold</i>	653
SENSITIVITY OF NESTING GREAT EGRETS (<i>ARDEA ALBA</i>) AND WHITE IBISES (<i>EUDOCIMUS ALBUS</i>) TO REDUCED PREY AVAILABILITY. <i>Garth Herring, Dale E. Gawlik, Mark. I. Cook, and James M. Beerens</i>	660
SEX-RELATED DISPERSAL IN THE MOUNTAIN PLOVER (<i>CHARADRIUS MONTANUS</i>). <i>Paul D. B. Skrade and Stephen J. Dinsmore</i>	671
SYSTEMATICS	
A NEW SPECIES OF BOUBOU (<i>MALACONOTIDAE: LANIARIUS</i>) FROM THE ALBERTINE RIFT. <i>Gary Voelker, Robert K. Outlaw, Sushma Reddy, Michael Tobler, John M. Bates, Shannon J. Hackett, Charles Kahindo, Ben D. Marks, Julian C. Kerbis Peterhans, and Thomas P. Gnoske</i>	678

COMMENTARIES

- THE IMPORTANCE, EFFECTS, AND ETHICS OF BIRD COLLECTING. *Kevin Winker, J. Michael Reed, Patricia Escalante, Robert A. Askins, Carla Cicero, Gerald E. Hough, and John Bates*. 690
- CONTRIBUTION OF DECLINING ANADROMOUS FISHES TO THE REPRODUCTIVE INVESTMENT OF A COMMON PISCIVOROUS SEABIRD, THE DOUBLE-CRESTED CORMORANT (*PHALACROCORAX AURITUS*). *Andrew W. Jones, Christopher M. Dalton, Edward S. Stowe, and David M. Post* 696
- A HARD LOOK AT BLOOD SAMPLING OF BIRDS. *Margaret Voss, Dave Shutler, and Jacob Werner*. 704

MEMORIALS

- IN MEMORIAM: CARL D. MARTI, 1944–2010. *Jeffrey S. Marks and Fabian M. Jaksic*. 709
- IN MEMORIAM: KLAUS SCHMIDT-KOENIG, 1930–2009. *Charles Walcott* 711
- IN MEMORIAM: RICHARD GEORGE BOLNEY BROWN, 1935–2010. *David N. Nettleship*. 712

BOOK REVIEWS

- BOOK REVIEWS. *Edited by R. Todd Engstrom*. 714

POSTSCRIPT

- 100 YEARS AGO IN THE AMERICAN ORNITHOLOGISTS' UNION. *Kimberly G. Smith* 725
- FIFTY-FIRST SUPPLEMENT TO THE AMERICAN ORNITHOLOGISTS' UNION CHECK-LIST OF NORTH AMERICAN BIRDS. *R. Terry Chesser, Richard C. Banks, F. Keith Barker, Carla Cicero, Jon L. Dunn, Andrew W. Kratter, Irby J. Lovette, Pamela C. Rasmussen, J. V. Remsen, Jr., James D. Rising, Douglas F. Stotz, and Kevin Winker* 726

NUMBER 4

- ANNOUNCEMENT 745

RAPID COMMUNICATIONS

- BEAK DEFORMITIES IN NORTHWESTERN CROWS: EVIDENCE OF A MULTISPECIES EPIZOOTIC. *Caroline Van Hemert and Colleen M. Handel*. 746

PERSPECTIVES IN ORNITHOLOGY

- EVOLUTION OF PERSONALITY: DEVELOPMENTAL CONSTRAINTS ON BEHAVIORAL FLEXIBILITY. *Renée A. Duckworth* 752

RESEARCH ARTICLES

BEHAVIOR AND BEHAVIORAL ECOLOGY

- INTRACLUTCH VARIATION IN EGG APPEARANCE CONSTRAINS REJECTION OF BROWN-HEADED COWBIRD (*MOLOTHRUS ATER*) EGGS IN COMMON GRACKLES (*QUISCALUS QUISCULA*). *Brian D. Peer, Stephen I. Rothstein, and Robert A. McCleery* 759
- CONSPECIFIC BROOD PARASITISM IN COMMON EIDERS (*SOMATERIA MOLLISSIMA*): DO BROOD PARASITES TARGET SAFE NEST SITES? *Alain P. Lusignan, Katherine R. Mehl, Ian L. Jones, and Mark L. Gloutney*. 765

BEHAVIOR AND PHYSIOLOGY

- A DOUBLE-CLOCK OR JETLAG MECHANISM IS UNLIKELY TO BE INVOLVED IN DETECTION OF EAST–WEST DISPLACEMENTS IN A LONG-DISTANCE AVIAN MIGRANT. *Dmitry Kishkinev, Nikita Chernetsov, and Henrik Mouritsen*. . . 773
- SUGAR PREFERENCES OF A GENERALIST NONPASSERINE FLOWER VISITOR, THE AFRICAN SPECKLED MOUSEBIRD (*COLIUS STRIATUS*). *Mark Brown, Colleen T. Downs, and Steven D. Johnson*. 781
- THE DISPLAYS AND SONATIONS OF THE BLACK-CHINNED HUMMINGBIRD (TROCHILIDAE: *ARCHILOCHUS ALEXANDRI*). *Teresa J. Feo and Christopher J. Clark* 787

CONSERVATION BIOLOGY

- COMPARISON OF MOLECULAR MARKERS IN THE ENDANGERED BLACK-CAPPED VIREO (*VIREO ATRICAPILLA*) AND THEIR INTERPRETATION IN CONSERVATION. *Robert M. Zink, Andrew W. Jones, C. Craig Farquhar, Michael C. Westberg, and Jose I. Gonzalez Rojas*. 797
- SUBSPECIFIC STATUS AND POPULATION GENETIC STRUCTURE OF LEAST TERNS (*STERNULA ANTILLARUM*) INFERRED BY MITOCHONDRIAL DNA CONTROL-REGION SEQUENCES AND MICROSATELLITE DNA. *Hope M. Draheim, Mark P. Miller, Patricia Baird, and Susan M. Haig* 807

EVOLUTION AND GENETICS

- COMPLEX EVOLUTION OF BILE SALTS IN BIRDS. *Lee R. Hagey, Nicolas Vidal, Alan F. Hofmann, and Matthew D. Krasowski* 820
- THE UNUSUAL SPERM MORPHOLOGY OF THE EURASIAN BULLFINCH (*PYRRHULA PYRRHULA*) IS NOT DUE TO THE PHENOTYPIC RESULT OF GENETIC REDUCTION. *Kate L. Durrant, Deborah A. Dawson, Terry Burke, and Tim R. Birkhead* 832

METHODS AND STATISTICS

- AN UNRECONCILED DOUBLE-OBSERVER METHOD FOR ESTIMATING DETECTION PROBABILITY AND ABUNDANCE. *Jason D. Riddle, Kenneth H. Pollock, and Theodore R. Simons* 841

MIGRATION

- PROTEIN REQUIREMENTS OF AN OMNIVOROUS AND A GRANIVOROUS SONGBIRD DECREASE DURING MIGRATION. *Lillie A. Langlois and Scott R. McWilliams* 850
- EFFICACY OF MIGRATION COUNTS FOR MONITORING CONTINENTAL POPULATIONS OF RAPTORS: AN EXAMPLE USING THE OSPREY (*PANDION HALIAETUS*). *Christopher J. Farmer, Kamran Saft, David R. Barber, Ian Newton, Mark Martell, and Keith L. Bildstein*. 863
- AT-SEA DISTRIBUTION AND BEHAVIOR OF STREAKED SHEARWATERS (*CALONECTRIS LEUCOMELAS*) DURING THE NONBREEDING PERIOD. *Takashi Yamamoto, Akinori Takahashi, Nobuhiro Katsumata, Katsufumi Sato, and Philip N. Trathan* 871

PARASITES AND DISEASE

- EPIZOOTIC OF BEAK DEFORMITIES AMONG WILD BIRDS IN ALASKA: AN EMERGING DISEASE IN NORTH AMERICA? *Colleen M. Handel, Lisa M. Pajot, Steven M. Matsuoka, Caroline Van Hemert, John Terenzi, Sandra L. Talbot, Daniel M. Mulcahy, Carol U. Meteyer, and Kimberly A. Trust*. 882

POPULATION BIOLOGY AND DEMOGRAPHY

- SCALE-DEPENDENT MECHANISMS OF HABITAT SELECTION FOR A MIGRATORY PASSERINE: AN EXPERIMENTAL APPROACH. *Kerri L. Cornell and Therese M. Donovan* 899

REPRODUCTIVE AND BREEDING BIOLOGY

- TEMPORAL INSTABILITY OF AGRICULTURAL HABITAT REDUCES REPRODUCTIVE SUCCESS OF BARN OWLS (*TYTO ALBA*). *Jason M. Martin, Lyn C. Branch, Richard N. Raid, and Suzanne C. Beyeler* 909
- INFLUENCE OF SPRING TEMPERATURES AND INDIVIDUAL TRAITS ON REPRODUCTIVE TIMING AND SUCCESS IN A MIGRATORY WOODPECKER. *Karen L. Wiebe and Heather Gerstmar* 917
- UNUSUAL INCUBATION BEHAVIOR AND EMBRYONIC TOLERANCE OF HYPOTHERMIA BY THE BLOOD PHEASANT (*ITHAGINIS CRUENTUS*). *Chen-Xi Jia, Yue-Hua Sun, and Jon E. Swenson*. 926

SYSTEMATICS

- EVIDENCE FOR THE SPECIES STATUS OF THE BAHAMA YELLOW-THROATED WARBLER (*DENDROICA "DOMINICA" FLAVESCENS*). *Bailey D. McKay, M. Bryant J. Reynolds, William K. Hayes, and David S. Lee* 932

COMMENTARIES

- INTERPRETING THE LISTS AND EQUATIONS OF EGG DIMENSIONS IN SCHÖNWETTER'S *HANDBUCH DER OOLOGIE*.
Golo Maurer, Douglas G. D. Russell, and Phillip Cassey 940
- EVALUATION OF THE NELSON CAROLINA PARAKEET FILM. *Noel F. R. Snyder, Gregory F. Budney, and
Eduardo E. Iñigo-Elias* 948

MEMORIALS

- IN MEMORIAM: JAMES ALLEN KEAST, 1922–2009. *François Vuilleumier* 952
- IN MEMORIAM: DEREK GOODWIN, 1920–2008. *Jerome A. Jackson* 955

BOOK REVIEWS

- BOOK REVIEWS. *Edited by R. Todd Engstrom*. 956

POSTSCRIPT

- 100 YEARS AGO IN THE AMERICAN ORNITHOLOGISTS' UNION. *Kimberly G. Smith*. 964
- ERRATA 966
- REVIEWERS FOR *THE AUK* 2010 967
- STATUS OF THE CALIFORNIA CONDOR (*GYMNOGYPS CALIFORNIANUS*) AND EFFORTS TO ACHIEVE ITS RECOVERY.
Jeffrey R. Walters, Scott R. Derrickson, D. Michael Fry, Susan M. Haig, John M. Marzluff, and Joseph M. Wunderle, Jr. 969
- INDEX TO VOLUME 127. *Compiled by Todd J. Underwood* 1002

DATES OF ISSUE OF *THE AUK*
VOL. 127, No. 1—5 FEBRUARY 2010
VOL. 127, No. 2—30 APRIL 2010
VOL. 127, No. 3—28 JULY 2010
VOL. 127, No. 4—10 NOVEMBER 2010



The American Ornithologists' Union

THE COUNCIL FOR 2010–2011

Officers and Editors

President: JOHN FAABORG, 110 Tucker Hall, University of Missouri, Columbia, Missouri 65211, USA (aoupresident@aou.org)

President-Elect: SUSAN M. HAIG, USGS Forest and Rangeland Ecosystem Science Center, 3200 SW Jefferson Way, Corvallis, Oregon 97331, USA (aoupresidentelect@aou.org)

Secretary: SARA R. MORRIS, Department of Biology, Canisius College, Buffalo, New York 14208, USA (aousecretary@aou.org)

Treasurer: JAMES R. HERKERT, Illinois Department of Natural Resources, One Natural Resources Way, Springfield, Illinois 62702, USA (aoutreasurer@aou.org)

Editor of *The Auk*: MICHAEL T. MURPHY, Department of Biology, Portland State University, P.O. Box 751, Portland, Oregon 97207, USA (murphym@pdx.edu)

Editor of *Ornithological Monographs*: MICHAEL L. MORRISON, Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843, USA (mlmorrison@ag.tamu.edu)

Executive Officer: SCOTT GILLIHAN, 5405 Villa View Drive, Farmington, New Mexico 87402, USA (executiveofficer@aou.org)

Elective Councilors and Living Past Presidents

2011: Bonnie S. Bowen, Mary Bomberger Brown, Janis L. Dickinson, Rebecca L. Holberton, Amanda D. Rodewald. 2012: Peter Arcese, J. Michael Reed, Michael S. Webster. 2013: Ronald L. Mumme, Jennifer C. Owen, Ernesto Ruelas Inzunza, Brett K. Sandercock.

Past Presidents: Wesley E. Lanyon (1976–78), Frances C. James (1984–86), Brina Kessel (1992–94), Richard C. Banks (1994–96), Frank B. Gill (1998–00), John W. Fitzpatrick (2000–02), Fred Cooke (2002–04), James A. Kushlan (2004–06), Erica H. Dunn (2006–08), Edward H. Burt, Jr. (2008–10).

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 an original color painting on the cover of each issue; authors are encouraged to submit copies of suitable artwork. Contributions are welcomed from throughout the world but must be written in English. Submissions must be made online through ScholarOne at <http://mc.manuscriptcentral.com/ucpress-auk>. For instructions, please visit www.aou.org/auk/authors.php3. Paying close attention to detail will help expedite the processing of your manuscript. For assistance with the ScholarOne system, please contact the Managing Editor (managingeditor@aou.org). Individuals with limited or no access to online submission should contact the Editor directly.

Copying and permissions notice: Authorization to copy article content beyond fair use (as specified in Sections 107 and 108 of the U.S. Copyright Law) for internal or personal use, or the internal or personal use of specific clients, is granted by The Regents of the University of California on behalf of the American Ornithologists' Union for libraries and other users, provided that they are registered with and pay the specified fee through the Copyright Clearance Center (CCC), www.copyright.com. To reach the CCC's Customer Service Department, phone 978-750-8400 or write to info@copyright.com. For permission to distribute electronically, republish, resell, or repurpose material, and to purchase article offprints, use the CCC's Rightslink service, available on Caliber at <http://caliber.ucpress.net>. Submit all other permissions and licensing inquiries through University of California Press's Rights and Permissions website, www.ucpressjournals.com/reprintInfo.asp, or via e-mail: journalspermissions@ucpress.edu.

Abstracting and indexing: Articles appearing in *The Auk* are abstracted and indexed in the following select databases: Abstracts on Hygiene and Communicable Diseases, AgBiotech News and Information, Agroforestry Abstracts (Online Edition), Animal Behavior Abstracts, Animal Breeding Abstracts, Aquatic Sciences & Fisheries Abstracts, Biocontrol News and Information, Biological Abstracts, Biological & Agricultural Index (Apr. 1983–), BioOne Abstracts and Indexes, BIOSIS Previews, Biotechnology & Bioengineering Abstracts, C A B Abstracts, Crop Physiology Abstracts, Current Contents: Agriculture Biology & Environmental Sciences, Current Index to Statistics (Online Edition), Ecology Abstracts (Bethesda), Elsevier BIOBASE (vol.113, 1996–), EMBiology, Environment Index (1974–), Environmental Sciences and Pollution Management, Forestry Abstracts, General Science Index (Jan. 2002–), Genetics Abstracts, Geobase, GeoRef, Grasslands and Forage Abstracts, Helminthological Abstracts, Horticultural Science Abstracts, Index Veterinarius, Nutrition Abstracts and Reviews, Oceanic Abstracts, Ornamental Horticulture, Plant Genetic Resources Abstracts, Poultry Abstracts, Protozoological Abstracts, Psychological Abstracts, PsycINFO (1972–), Recent Ornithological Literature, Referativnyi Zhurnal, Review of Agricultural Entomology, Review of Medical and Veterinary Entomology, Review of Medical and Veterinary Mycology, Science Citation Index, Scopus (1982–1987, 1994, 1996–), Soils and Fertilizers, Veterinary Bulletin, Weed Abstracts, Wildlife and Ecological Studies Worldwide, Zoological Record. For complete abstracting and indexing information, please visit <http://www.ucpressjournals.com>.