

Version 19 Aug 2013

Program

One Hundred and Thirty-first Stated Meeting of the
American Ornithologists' Union
held in conjunction with the
Eighty-third Annual Meeting of the
Cooper Ornithological Society
14 - 17 August 2013
at
Chicago, IL



* - Papers competing for Student Presentation Awards are identified by a preceding asterisk.
Presentation Award winners are identified with **blue (awards from AOU)** or **green (from COS)** text

Wednesday, 14 August 2013

The evolution of birds: new insights from the fossil record. JULIA A. CLARKE, *Department of Geological Sciences, Jackson School of Geosciences, University of Texas at Austin, Austin, TX.*

Symposium 1.

The assembly of the North American avifauna. *Conveners J. A. Clarke and Ben Winger*

- s1.1 Symposium on the Assembly of the North American avifauna: Introductory remarks. JULIA A. CLARKE, *Dept. Geophysical Sci., Univ. Texas, Austin, TX* and BEN WINGER, *Bird Division, Field Mus. and Committee on Evol. Biol., Univ. Chicago, Chicago IL.*
- s1.2 The assembly of the North American avifauna: theory, method, and empirical approaches. JOEL CRACRAFT, CAMILO SANIN, SANTIAGO CLARAMUNT, *Am. Mus. Nat. Hist., New York, NY*, and BRIAN T. SMITH, *Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA.*
- s1.3 Large-scale biogeography of the North American avifauna. BRIAN TILSTON SMITH, *Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, and JOEL CRACRAFT, *Am. Mus. Nat. Hist., New York, NY.*
- s1.4 Assembly of the pelagic avifauna of North America: including insights gleaned from the fossil record of the Pan-Alcidae. N. ADAM SMITH, *Natl. Evol. Synthesis Center, Durham, NC.*
- s1.5 Historical diversity and extinction of New World passerines: evidence from Pleistocene fossils. JESSICA A. OSWALD, *Dept. Biol. and Florida Mus. Nat. Hist., Univ. Florida, Gainesville, FL*, and DAVID W. STEADMAN, *Florida Mus. Nat. Hist., Univ. Florida.*
- s1.6 It matters how you slice it: a new molecular perspective on the timing and success of interhemispheric dispersal in oscine passerine birds. F. KEITH BARKER, *Dept. Ecol., Evol. & Behav., Univ. Minnesota, St. Paul, MN.*
- s1.7 Geographic range evolution and diversification in migratory North American birds. BEN WINGER, *Bird Division, Field Mus. and Committee on Evol. Biol., Univ. Chicago, Chicago IL*, and RICHARD REE, *Dept. Botany, Field Mus.*

- s1.8 The temporal and spatial dynamics of speciation during the New World nine-primaried oscine radiation. DANIEL RABOSKY, *Dept. Ecol. & Evol., Univ. Michigan, Ann Arbor, MI*, B. M. WINGER, *Committee Evol. Biol., Univ. Chicago, Chicago, IL*, I. J. LOVETTE, *Lab. Ornithol., Cornell Univ., Ithaca, NY*, F. K. BARKER, *Dept. Ecol., Evol. & Behav., Univ. Minnesota, St Paul, MN*, K. J. BURNS, *Dept. Biol., San Diego State Univ., San Diego, CA*, J. KLICKA, *Dept. Biol., Univ. Washington, Seattle, WA*, and S. M. LANYON, *Dept. Ecol., Evol. & Behav., Univ. Minnesota*.
- s1.9 Latitudinal gradients in time to reproductive isolation of New World birds. JASON T. WEIR, *Dept. Biol. Sci., Univ. Toronto Scarborough, Scarborough ON*.
- s1.10 Advances in the understanding of Early Cenozoic avian evolution from the Green River avifauna. DANIEL KSEPCKA, *Natl. Evol. Synthesis Center, Durham, NC*, LANCE GRANDE, *Field Mus., Chicago, IL*, and JULIA CLARKE, *Dept. Geophys. Sci., Univ. Texas, Austin, TX*.
- s1.11 Ecological diversity of the 52-million year old Green River birds. JON MITCHELL, *Committee on Evol. Biol., Univ. Chicago, and Field Mus., Chicago IL*.

Symposium 2.

The science of wild bird feeding. Conveners D. Horn and T. Wilcoxon

- s2.1 Bird feeding practices and seed and feeder use of wild birds. DAVID J. HORN, STACEY M. JOHANSEN, and TRAVIS E. WILCOXEN, *Dept. Biol., Millikin Univ., Decatur, IL*.
- s2.2 Comparison of fortified and unfortified wild bird seed mixes. GHISLAIN ROMPRÉ, *The Scotts Co., Marysville, OH*, KIRK C. KLASING, VANESSA J. ISERI, *Dept. Animal Sci., Univ. California, Davis, CA*, and GRETCHEN WHITE, *The Scotts Co.*
- s2.3 Health effects of supplemental feeding in a free-living community of birds. TRAVIS E. WILCOXEN, DAVID J. HORN, JOSEPH C. FLAMM, BRIANNA M. HOGAN, CODY N. HUBBLE, SARAH J. HUBER, MADELINE H. KNOTT, FAARIA SALIK and SAMANTHA J. WASSENHOVE, *Dept. Biol., Millikin Univ., Decatur, IL*.
- s2.4 The effects of supplemental feeding on forest bird populations in central Illinois. KELLY A. COMMONS, REBEKAH D. CARLSON, LISA A. LUNDSTROM, DAVID J. HORN and TRAVIS E. WILCOXEN, *Dept. Biol., Millikin Univ., Decatur, IL*.
- s2.5 Influence of land cover and spatial scale on occupancy at backyard bird feeders. GRETCHEN L. WHITE, PATRICK A. ZOLLNER, JOHN B. DUNNING, *Dept. For. & Nat. Res., Purdue Univ., West Lafayette, IN*, DAVID J. HORN, *Dept. Biol., Millikin Univ., Decatur, IL*, and GHISLAIN ROMPRÉ, *The Scotts Co., Marysville, OH*.
- s2.6 Direct and indirect effects of supplemental food on House Finch populations. JASON D. FISCHER and JAMES R. MILLER, *Prog. Ecol., Evol. & Cons. Biol., Dept. Nat. Res. & Env. Sci., Univ. Illinois, Urbana, IL*.
- s2.7 Short-term effects and long-term consequences of supplemental food on a free-living threatened species, the Florida Scrub-Jay. THOMAS W. SMALL, *Dept. Biol., Univ. Memphis, Memphis, TN*, ELI S. BRIDGE, *Univ. Oklahoma, Norman, OK*, and STEPHAN J. SCHOECH, *Dept. Biol., Univ. Memphis*.
- s2.8 Feeder cameras provide a fine scale approach for temporally examining feeding relationships between exotic monk parakeets and other species. CHRISTOPHER W. APPELT, BRITTANY JONES, *Dept. Biol. Sci., St. Xavier Univ., Chicago, IL*, and CHRISTOPHER A. BAKER, *Dept. Psychol., St. Xavier Univ.*

Session 1A. Physiology, Michelle L. Beck, chair

- 2 Disentangling parasite-specific immune responses in *Myiarchus tyrannulus*. ELOISA H. R. SARI, VINCENZO A. ELLIS, LISA ROIS and PATRICIA G. PARKER, *Univ. Missouri, St. Louis, MO*.
- 3 Assessing hypoxic stress in high-Andean birds using right ventricular morphology. A. SMILEY, G. WILLIAMS, N. A. WRIGHT and C. C. WITT. *Dept. Biol. and Mus. Southwestern Biol., Univ. New Mexico, Albuquerque, NM*.
- 4 Feather growth and the biogeography of stress in Neotropical birds. RYAN S. TERRILL, *Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*.
- 5 Cold and exercise training produce similar increases in maximal metabolic output in House Sparrows YUFENG ZHANG and DAVID L. SWANSON, *Dept. Biol., Univ. South Dakota, Vermillion, SD*.
- 6 Seasonal and geographic variation in metabolism and ventilation in Downy Woodpeckers. SHELDON J. COOPER and CHRISTOPHER J. COUSINEAU, *Dept. Biol., Univ. Wisconsin Oshkosh, Oshkosh, WI*.
- 7 Diet, not introgression, explains red flight feathers in Yellow-shafted Flickers in eastern North America. JOCELYN HUDON, *Royal Alberta Mus., Edmonton, AB*, DANIEL P. SHUSTACK, *Massachusetts Coll. Liberal Arts, North Adams, MA*, ROBERT J. DRIVER, and NATHAN H. RICE, *Acad. Nat. Sci. and Drexel Univ., Philadelphia, PA*.
- 8 The costs of noise pollution in high desert secondary cavity nesting species. NATHAN J. KLEIST, ALEX CRUZ, *Univ. Colorado-Boulder, Boulder, CO*, and CLINTON D. FRANCIS, *Natl. Evol. Synthesis Center, Durham, NC*.
- 9 Exogenous testosterone has a negative effect on calling behavior of male and female Downy Woodpeckers in the non-breeding period. JAMES S. KELLAM, *Dept. Biol., St. Vincent Coll., Latrobe, PA*.
- 10 The effects of dietary exposure to trace element contamination on the stress and immune responses of Tree Swallows following remediation of a coal fly ash spill. MICHELLE L. BECK, WILLIAM A. HOPKINS, JOHN J. HALLAGAN, *Dept. Fish & Wildl. Conserv., Virginia Tech. Univ., Blacksburg, VA*, DANA M. HAWLEY, *Dept. Biol., Virginia Tech. Univ.*, and BRIAN P. JACKSON, *Dept. Earth Sci., Dartmouth Coll., Hanover, NH*.

Session 1B. Behavior, Sara A. Kaiser, chair

- 11 *** Habitat-specific reproductive strategies in response to food supplementation increase male fitness in a songbird. SARA A. KAISER, Lab. Ornithol., Cornell Univ., Ithaca, NY, T. SCOTT SILLETT, Migratory Bird Center, Smithsonian Conserv. Biol. Inst., Washington, DC, and MICHAEL S. WEBSTER, Lab. Ornithol., Cornell Univ.**
- 12 *** The bold and the bashful: anti-predator behavior in Carolina Chickadees. SARAH K. BAILLIE, EVAN P. KELEMEN, VALENTINA FERRETTI and ROBERT L. CURRY, Biol. Dept., Villanova Univ., Villanova, PA.**
- 13 *** Does sing behavior reveal personality in Carolina Chickadees. EVAN P. KELEMEN, SARAH K. BAILLIE and ROBERT L. CURRY, Dept. Biol., Villanova Univ., Villanova, PA.**
- 14 *** Winter nest box use and roost composition in Eastern Bluebirds in northeastern Arkansas.**

- JESSICA FOWLER, VIRGINIE ROLLAND, *Dept. Biol. Sci., Arkansas State Univ., State University, AR.*
- 15 * Intensity of interspecific competition differentially affects avian personality and reproductive success. MORGAN R. HARRIS and LYNN M. SIEFFERMAN, *Appalachian State Univ., Boone, NC.*
- 16 *** They remember: long-term memory and the link between stress physiology and anti-predator behavior in free-living Florida Scrub-Jays.** **BLAKE C. JONES, S. BEBUS, Univ. Memphis, Memphis, TN, P. W. BATEMAN, Curtin Univ., Perth, Western Australia, Australia, and S. J. SCHOECH, Univ. Memphis.**
- 17 * Phenotypic plasticity in nest departure calls: weighing costs and benefits. MELISSA L. GRUNST, *Univ. California-Riverside, Riverside, CA,* and JOHN C. ROTENBERRY, *Univ. Minnesota, Twin Cities, MN.*
- 18 Fire isn't scary, lack of fire is: behavioral responses to changes in predation risk. REED BOWMAN, M. SHANE PRUETT, *Archbold Biol. Sta., Venus, FL,* JILL ALDREDGE, *Durham, NC,* DAN ALBRECHT-MALINGER, *Virginia Commonwealth Univ., Richmond, VA,* and SAM SLOWINSKI, *Indiana Univ., Bloomington, IN.*
- 19 Paternity and paternal care by Eastern Kingbirds. CHRISTOPHER M. CHUTTER, LUCAS J. REDMOND *Dept. Biol., Portland State Univ., Portland, OR,* AMY C. DOLAN, *Dept. Biol., Northern State Univ., Aberdeen, SD,* and MICHAEL T. MURPHY, *Dept. Biol., Portland State Univ.*
- 20 Personality differences between migrants and residents in a partially migratory population of Western Bluebirds. CATHERINE A. DALE, *Dept. Biol., Queen's Univ., Kingston, ON,* JANIS L. DICKINSON, *CAGLAR AKCAY, Lab. Ornithol., Cornell Univ., Ithaca, NY,* T. KURT KYSER, *Dept. Geol., Queen's Univ.,* JOSEPH J. NOCERA, *Ontario Min. Nat. Res. and Trent Univ., Peterborough, ON,* and LAURENE M. RATCLIFFE, *Dept. Biol., Queen's Univ.*

Session 1C. Conservation, Jeremy J. Kirchman, chair

- 21 Birds, borders, and the black market: genetic insight into the Painted Bunting trade. A CONTINA, E. S. BRIDGE and J. F. KELLY, *Oklahoma Biol. Surv., Norman, OK.*
- 22 Genetic restoration of a threatened population of Greater Prairie-chickens in Wisconsin. ZACHARY W. BATESON, PETER O. DUNN, *Dept. Biol. Sci., Univ. Wisconsin-Milwaukee, Milwaukee WI,* SCOTT D. HULL, *Wisconsin Dept. Nat. Res., Madison, WI,* AMBERLEIGH E. HENSCHEN, *Univ. Wisconsin-Milwaukee,* JEFF A. JOHNSON, *Univ. North Texas, Denton, TX,* and LINDA A. WHITTINGHAM, *Univ. Wisconsin-Milwaukee.*
- 23 Bird communities of small Atlantic Forest patches in an agricultural landscape of Brazil: The analytical approach is the challenge. EDUARDO R. ALEXANDRINO, KATIA M. P. M. B. FERRAZ, HILTON T. Z. COUTO, *Dept. For. Sci., "Luiz de Queiroz" Coll. Agri., Univ. São Paulo, São Paulo State, Brazil,* and WESLEY R. SILVA, *Biol. Inst., Dept. Animal Biol., Univ. Campinas, São Paulo State, Brazil.*
- 24 Does the protected areas network in the US contribute to bird conservation? L. L. DORNAK, C. J. CONWAY, and J. AYCRIGG, *Idaho Coop. Fish & Wildl. Res. Unit, Dept. Fish & Wildl. Sci., Univ. Idaho, Moscow, ID.*
- 25 New changes in the avifauna of La Selva Biological Station: insights based on twenty-three years of Christmas bird counts. W ALICE BOYLE, *Div. Biol., Kansas State Univ., Manhattan, KS,* and BRYAN J. SIGEL, *Nevada State Coll., Henderson, NV.*

- 26 The influence of land-use and conservation practices on grassland songbird densities. W. ANDREW COX, L. LAREESA WOLFENBARGER, JOHN P. McCARTY, *Dept. Bio., Univ. Nebraska-Omaha, Omaha, NE.*
- 27 Effects of farmland heterogeneity on bird abundance varies among habitat guilds. JUDITH GIRARD, DENNIS DURO, DOUG KING, LENORE FAHRIG, SCOTT MITCHELL, GLEL, *Carleton Univ., Ottawa, ON,* and KATHRYN LINDSAY, *Environment Canada.*
- 28 Occupancy of grassland birds in State Acres for Wildlife Enhancement program enrollment fields in Kansas. ALAINA D. THOMAS, *Div. Biol., Kansas State Univ., Manhattan, KS,* LANCE B. McNEW, *US Geol. Surv., Anchorage, AK,* and BRETT K. SANDERCOCK, *Div. Biol., Kansas State Univ.*
- 29 Sacred forests are keystone structures for forest bird conservation in southwest China's Himalayan Mountains. JODI S. BRANDT, *Univ. Michigan, Ann Arbor, MI,* ERIC M. WOOD, ANNA M. PIDGEON, VOLKER C. RADELOFF, *Univ. Wisconsin, Madison, WI,* LIAN-XIAN HAN and ZHENDONG FANG, *Yunnan, China.*
- 30 Historic decline of genetic diversity in an imperiled population of Spruce Grouse (*Falciptennis canadensis*). JEREMY J. KIRCHMAN, *New York State Mus., Albany, NY.*

Symposium 3.

North American Breeding Bird Survey research. *Conveners J. R. Sauer, K. L. Pardieck, M.-A. Hudson, and A. C. Smith*

- s3.1 What's old is new: partnerships key to BBS success. KEITH PARDIECK, *US Geol. Surv., Patuxent Wildl. Res. Center, Laurel, MD.*
- s3.2 Using the North American Breeding Bird Survey in landscape assessments to support Forest Service planning. CURTIS H. FLATHER, *US Forest Serv., Rocky Mountain Res. Sta., Ft Collins, CO,* ANNA M. PIDGEON, *Dept. Forest & Wildlife Ecol., Univ. Wisconsin, Madison, WI,* and KEVIN J. GUTZWILLER, *Dept. Biology, Baylor Univ., Waco, TX.*
- s3.3 Use of multiple data sources in identifying drivers of abundance in an irruptive species, the Dickcissel. BROOKE L. BATEMAN, JESSICA GORZO, ANNA PIDGEON, VOLKER RADELOFF, RESIT AKCAKAYA, CURTIS H. FLATHER, THOMAS P. ALBRIGHT, STEPHEN J. VAVRUS, WAYNE THOGMARTIN and PATRICIA HEGLUND, *Dept. Forest & Wildl. Ecol., Univ. Wisconsin-Madison, Madison, WI.*
- s3.4 Revisions to BBS analyses for the northern part of the continent, and their potential for broader application. ADAM SMITH, *Natl. Wildl. Res. Center, Ottawa, ON.*
- s3.5 BBS and eBird: Roles and synergies among established and emerging surveys. KENNETH V. ROSENBERG, DANIEL FINK, MARSHALL ILIFF, CHRIS WOOD, BRIAN SULLIVAN, WESLEY M. HOCHACHKA and STEVE KELLING, *Lab. Ornith., Cornell Univ., Ithaca, NY.*
- s3.6 What are we missing? Emerging research themes and statistical methods: the need for an ongoing forum for discussion of BBS-based research. JOHN R. SAUER and WILLIAM A. LINK, *US Geol. Surv., Patuxent Wildl. Res. Center, Laurel, MD.*

Session 2A. Conservation, Brandon L. Noel, chair

- 31 Impacts of mountaintop mining on terrestrial ecosystem Integrity: identifying landscape thresholds for avian species. DOUGLAS A. BECKER, *West Virginia Coop. Fish & Wildl. Res. Unit, Div. Forestry & Nat. Res., West Virginia Univ., Morgantown, WV,* and *Dept. Biol., Kutztown Univ., Kutztown, PA,* PETRA B. WOOD, *US Geol. Sur., West Virginia Coop. Fish & Wildl. Res.*

Unit, West Virginia Univ., and MICHAEL P. STRAGER, Div. Resource Manage., West Virginia Univ.

- 32 Variation across bird species in exposure to radioactive contamination in the Chernobyl region. ANDREA BONISOLI-ALQUATI, Univ. South Carolina, Columbia, SC, ANDERS P. MØLLER, Laboratoire d'Ecologie, Systématique et Evolution, Université Paris-Sud, Orsay, France, DAVID J. TEDESCHI, Univ. South Carolina, GENNADI MILINEVSKY, National Taras Schevchenko University of Kyiv, Kyiv, Ukraine and TIMOTHY A. MOUSSEAU, Univ. South Carolina.
- 33 *** Nest predation and energy development; what's coming down the pipe for sagebrush obligate songbirds? MATTHEW G. HETHCOAT and ANNA D. CHALFOUN, Wyoming Coop. Fish & Wildl. Res. Unit, Univ. Wyoming, Laramie, WY.**
- 34 An experimental investigation into effects of traffic noise on distributions of birds: Avoiding the phantom road. CHRISTOPHER JW McCLURE, Biol. Dept., Boise State Univ., Boise, ID, HEIDI WARE, JAY CARLISLE, Biol. Dept., Boise State Univ., and Idaho Bird Observ., Boise, ID, and JESSE R. BARBER, Biol. Dept., Boise State Univ.
- 35 The influence of landscape composition on age structure of bird populations and implications for conservation: an example using Yellow Warblers. ASHLEY O. McKELVY, Dept. Biol., City Univ. New York, Staten Island, NY, M. PHILIP NOTT, Institute for Bird Populations, and LISA L. MANNE, Dept. Biol., Coll. Staten Island, Staten Island, NY.
- 36 Can annual surveys on the Georgia barrier coast provide insight into long-term trends for wintering shorebird populations? BRANDON L. NOEL, Bethune-Cookman Univ., Daytona Beach, FL, BRAD WINN, Manomet Center for Conserv. Sci., Manomet, MA, and TIM KEYES, Georgia Dept. Nat. Res., Brunswick, GA.

Session 2B. Physiology, D. G. Barron, chair

- 37 *** Testosterone production in parental and aggressive contexts in Eastern Bluebirds: physiological or behavioral constraint? MEDHAVI AMBARDAR and JENNIFER L. GRINDSTAFF Zool. Dept., Oklahoma State Univ., Stillwater, OK.**
- 38 *** Body condition influences sexual signal expression independent of circulating androgens in male Red-backed Fairy-Wrens. D. G. BARRON, School Biol. Sci., Washington State Univ., Pullman, WA, M. S. WEBSTER, Lab. Ornithol. and Dept. Neurobiol & Behav., Cornell Univ., Ithaca, NY, and H. SCHWABL, Washington State Univ.**
- 39 *** Corticosterone regulation of nestling begging behavior in Florida Scrub-Jays. EMILY K. ELDERBROCK, THOMAS, W. SMALL and STEPHAN J. SCHOECH, Univ. Memphis, Memphis, TN.**
- 40 Relative roles of temperature and photoperiod as drivers of metabolic flexibility in Dark-eyed Juncos. DAVID SWANSON, YUFENG ZHANG and MARISA KING, Dept. Biol., Univ. South Dakota, Vermillion, SD.
- 41 *** Molecular mechanisms of metabolic flexibility induced by synthetic, environmental cues in the Dark-eyed Junco. MARIA STAGER, Dept. Animal Biol., Univ. Illinois at Urbana-Champaign, Urbana, IL, DAVID L. SWANSON, Dept. Biol., Univ. South Dakota, Vermillion, SD, and ZACHARY A. CHEVIRON, Dept. Animal Biol., Univ. Illinois at Urbana-Champaign.**
- 42 Experimental relationships between plasma- and feather-levels of corticosterone in a free-living bird. GRAHAM D. FAIRHURST, Dept. Biol., Univ. Saskatchewan, Saskatoon, SK, and Environment Canada, Saskatoon, SK, TRACY A. MARCHANT, Dept. Biol., Univ.

Saskatchewan, CATHERINE SOOS, *Environment Canada, Saskatoon, SK, and Dept. Vet. Pathol., Univ. Saskatchewan*, KAREN L. MACHIN, *Dept. Vet. Biomed. Sci., Univ. Saskatchewan*, and ROBERT G. CLARK, *Environment Canada, Saskatoon, SK, and Dept. Biol., Univ. Saskatchewan*.

Session 2C. Breeding Biology, Mark T. Stanback, chair

- 43 Microbiota of avian brood parasites shaped by foster parent species: a role in enhanced immunity? CALDWELL HAHN, *US Geol. Surv., Patuxent Wildl. Res. Center, Laurel, MD*, SARA OYLER-McCANCE, *US Geol. Surv., Ft Collins Sci. Center, Ft Collins, CO*, C. P. PEPE-RANNEY, *Dept. Plant & Soil Sci.e, Cornell Univ., Ithaca, NY*, and E. K. HALL, *Nat. Res. Ecol. Lab., Colorado Sate Univ., Ft Collins, CO*.
- 44 Factors associated with local recruitment in Tree Swallows. MICHAEL P. LOMBARDO, DANIELLE M ANDREWS, and PATRICK A. THORPE, *Dept. Biol., Grand Valley State Univ., Allendale, MI*.
- 45 Association of nest success and nesting phenology of the Rufous-winged Sparrow to climate, vegetation, and land use in the Sonoran Desert of Mexico. ALBERTO MACIAS-DUARTE, J. ANDRES ALVARADO-CASTRO, O. G. GUTIERREZ-RUACHO, and L. VILLARRUEL-SAHAGUN, *Universidad Estatal de Sonora, Hermosillo, Sonora, Mexico*.
- 46 The cost of breeding (again): Eastern Bluebird replacement nests, clutches, eggs not smaller. MARK T. STANBACK, AUSTIN N. MERCADANTE, DAVID M. MILLICAN, and PATRICK G. McGOVERN, *Dept. Biol., Davidson Coll., Davidson, NC*.
- 47 * Characterization of the nest site preferences of Saltmarsh and Nelson's Sparrows, and hybrids. KATHARINE J. RUSKIN, *Ecol. & Environ. Sci., Univ. Maine, Orono, ME*, MATTHEW A. ETTERSON, *Mid-Continent Ecol. Div., US Environ. Protect. Agency, Duluth, MN*, and BRIAN J. OLSEN, *Ecol. & Environ. Sci., Univ. Maine*.
- 48 * House Sparrows optimize survival of well-fed offspring. ROBERT A. ALDREDGE, *Dept. Biol., Univ. North Carolina at Chapel Hill, Chapel Hill, NC*.

Session 3A. Systematics, Allison J. Shultz, chair

- 50 Rivers are not barriers: a taxonomic review of the *Phaethornis ruber-stuarti* group (Apodiformes: Trochilidae) suggest alternative promoters of speciation. VITOR Q. PIACENTINI and LUIS FABIO SILVEIRA, *Seção de Aves, Mus. Zool., Univ. Sao Paulo, Brazil*.
- 51 Quantifying taxonomic redescription: patterns of lumping and splitting in the last 127 years of the **Check-List of North American Birds**. GAURAV VAIDYA, *Univ. Colorado Boulder, CO*, DENIS LEPAGE, *Bird Studies Canada, Port Rowan, ON*, HILMAR LAPP, *Natl. Evol. Synthesis Center, Durham, NC*, and ROBERT P. GURALNICK, *Univ. Colorado Boulder*.
- 52 Different modes of evolution in males and females generate dichromatism in fairy-wrens (Maluridae). ALLISON E. JOHNSON, *Dept. Ecol. & Evol., Univ. Chicago, Chicago, IL*, J. JORDAN PRICE, *Dept. Biol., St. Mary's College of Maryland, St. Mary's City, MD*, and STEPHEN PRUETT-JONES, *Dept. Ecol. & Evol., Univ. Chicago*.
- 53 Evolution of female traits drives sexual dimorphism in New World blackbirds. J. JORDAN PRICE, *St. Mary's Coll. of Maryland, St. Mary's City, MD*, and MUIR D. EATON, *Drake Univ., Des Moines, IA*.
- 54 * **Phylogeography and signatures of pathogen-mediated selection using genome-wide diachronic comparisons in the House Finch (*Haemorrhous mexicanus*)**. ALLISON J.

SHULTZ, Dept. Organ. Evol. Biol., Mus. Comp. Zool., Harvard Univ., Cambridge, MA,
ALLAN J. BAKER, *Dept. Nat. Hist, Royal Ontario Mus., Dept. Ecol. Evol. Biol., Univ. Toronto,*
Toronto, ON, GEOFF E. HILL, *Dept. Biol. Sci., Auburn Univ., Auburn, AL,* PAUL M. NOLAN,
Dept. Biol., The Citadel, Charleston, SC, and SCOTT V. EDWARDS, *Dept. Organ. Evol. Biol.,*
Mus. Comp. Zool., Harvard Univ.

Session 3B. Habitat Relationships, Sarah W. Kendrick, chair

- 55 * Effects of conservation practices on grassland birds. CHRISTOPHER M. LITUMA, DAVID A. BUEHLER, *Dept. For., Wildl. & Fish., Univ. Tennessee, Knoxville, TN.*
- 56 * Conservation value of silvopasture and shade agroforestry to Andean forest birds. MOLLY E. McDERMOTT, *School Environ. & Nat. Res., Ohio State Univ., Columbus, OH,* and AMANDA D. RODEWALD, *Dept. Nat. Res., Cornell Univ., Ithaca, NY.*
- 57 * Cost-sensitive fine-scale resource selection in a cooperatively-breeding resident bird. RICHARD A. STANTON Jr., DYLAN C. KESLER, *Dept. Fish. & Wildl. Sci., Univ. Missouri-Columbia, Columbia, MO,* and FRANK R. THOMPSON III, *US Forest Serv., Northern Res. Station, Columbia, MO.*
- 58 * Habitat and social factors influence nest site selection in Arctic-breeding shorebirds. J. A. CUNNINGHAM, D. C. KESLER, *Univ. Missouri Columbia, Columbia, MO,* and R. B. LANCTOT, *US Fish & Wildl. Serv., Anchorage, AK.*
- 59 Stand-level breeding bird density response to experimental forest management in the Missouri Ozarks. SARAH W. KENDRICK, *Dept. Biol. Sci., Univ. Missouri, Columbia, MO,* P. A. PORNELUZI, D. L. MORRIS, *Div. Sci., Math. & Computer Sci., Central Methodist Univ., Fayette, MO,* J. M. HASLERIG, *Missouri Dept. Conserv., Jefferson City, MO,* F. R. THOMPSON III, *US Dept. Agri., Forest Service, Northern Res. Sta., Columbia, MO,* and J. FAABORG, *Dept. Biol. Sci., Univ. Missouri.*

Session 3C. Ecology, J. Patrick Kelley, chair

- 61 Analyzing movement and tracking data in birds via utilization distributions: now in 3D! NATHAN W. COOPER, *Tulane Univ. New Orleans, LA,* PETER P. MARRA, *Smithsonian Migratory Bird Center, Washington, DC,* and THOMAS W. SHERRY, *Tulane Univ.*
- 62 Estimating migratory connectivity of birds when encounter probabilities are heterogeneous. E. B. COHEN, J. A. HOSTETLER, P. P. MARRA, *Migratory Bird Center, Smithsonian Cons. Biol. Inst., Natl. Zool. Park, Washington, DC,* and J. A. ROYLE, *Geol. Surv., Patuxent Wildl. Res. Center, Laurel, MD.*
- 63 Occupancy of riparian birds in Utah. THERESA L. POPE, *Utah Div. Wildl. Res., Salt Lake City, UT.*
- 64 The effects of bison on bird diversity in early American forests. JACK M. STENGER, *Dept. Biol. Sci., Univ. Cincinnati, Cincinnati, OH.*
- 65 How many species of Hawaiian birds? HELEN F. JAMES and MEGAN D. SPITZER. *Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC.*
- 66 Quantifying predator-driven natural selection on nest phenotypes in the Lance-tailed Manakin: a 10-year study. J. PATRICK KELLEY and EMILY H. DuVAL, *Dept. Biol. Sci., Florida State Univ., Tallahassee, FL.*

Ordinary Extraordinary Junco. 88 min film, followed by panel discussion comprising ELLEN KETTERSON, JONATHAN ATWELL, *Dept. Biol., Indiana Univ., Bloomington, IN*, and CHRISTY BERGEON-BURNS, *Louisiana State Univ., Baton Rouge, LA*.

Thursday, 15 August 2013

Processes underpinning biogeographic patterns in birds of the Americas. CATHERINE H. GRAHAM, *Department of Ecology & Evolution, Stony Brook University, Stony Brook, NY.*

Symposium 4.

Golden-winged Warbler conservation and management. *Conveners H. M. Streby, D. A. Buehler and D. E. Andersen*

- s4.1 Welcome, explanation of the symposium, and introduction to Golden-winged Warblers. DAVID A. BUEHLER, *Univ. Tennessee, Knoxville, TN*, HENRY M. STREBY, *Univ. California, Berkeley, CA*, and DAVID E. ANDERSEN, *US Geol. Surv., Minnesota Coop. Fish & Wildl. Res. Unit, Dept. Fish., Wildl. & Conserv. Biol., Univ. Minnesota, Minneapolis, MN*.
- s4.2 Range-wide distribution and population status of Golden-winged Warbler. TOM WILL, *US Fish & Wildl. Serv., Minneapolis, MN*, KENNETH V. ROSENBERG, *Cornell Lab. Ornith., Ithaca, NY*, DAVID A. BUEHLER, *Univ. Tennessee, Knoxville, TN*, WAYNE THOGMARTIN, *US Geol. Surv., Upper Midwest Environ. Sci. Center, La Cross, WI*, and RICHARD CHANDLER, *US Geol. Surv., Patuxent Wildl. Res. Center, Laurel, MD*.
- s4.3 Influences of landscape-scale habitat and climate on range-wide distribution of breeding Golden-winged and Blue-winged Warblers. DOLLY CRAWFORD, *Mohave Community Coll., Kingman, AZ*, RON ROHRBAUGH, *Cornell Lab. Ornith., Ithaca, NY*, AMBER ROTH, *Michigan Tech. Univ., Houghton, MI*, JIM D. LOWE, SARA BARKER SWARTHOUT, and KENNETH V. ROSENBERG, *Cornell Lab. Ornith.*
- s4.4 Quantifying forest lands as Golden-winged Warbler breeding habitat in the US. AMBER ROTH, *Michigan Tech. Univ., Houghton, MI*, SCOTT A. PUGH, *US Forest Service, Houghton, MI*, DOLLY L. CRAWFORD, *Mohave Community College, Kingman, AZ*, RON W. ROHRBAUGH, SARA BARKER SWARTHOUT and JIM D. LOWE, *Cornell Lab. Ornith., Ithaca, NY*.
- s4.5 Effects of Golden-winged Warbler habitat management on other avian species. THERON TERHUNE, *Tall Timbers Res. Sta., Tallahassee, FL*, DAVID A. BUEHLER, *Univ. Tennessee, Knoxville, TN*, KYLE ALDINGER, *West Virginia Coop. Fish & Wildl. Res. Unit, West Virginia Univ., Morgantown, WV*, MARJA BAKERMANS, *Indiana Univ. of Pennsylvania, Indiana, PA*, JOHN CONFER, *Ithaca Coll., Ithaca, NY*, JEFF LARKIN, *Indiana Univ. of Pennsylvania*, JOHN LOEGERING, *Univ. Minnesota, Minneapolis, MN*, KATIE PERCY, *Univ. Tennessee, Knoxville, TN*, AMBER ROTH, *Michigan Tech. Univ., Houghton, MI*, and CURTIS SMALLING, *North Carolina Audubon Soc.*
- s4.6 Non-breeding Golden-winged Warbler habitat: status, conservation, and needs. DAVID KING, *Univ. Massachusetts, Amherst, MA*, RICHARD CHANDLER, *US Geol. Surv., Patuxent Wildlife Res. Center, Laurel, MD*, CURTIS SMALLING, *North Carolina Audubon Soc.*, and TOM WILL, *US Fish & Wildl. Ser., Minneapolis, MN*.
- s4.7 Habitat associations of the Golden-winged Warbler in Honduras. RUTH BENNETT, AMBER ROTH and JOSEPH BUMP, *Michigan Tech. Univ., Houghton, MI*.
- s4.8 Golden-winged Warbler breeding habitat selection at nest-site and territory scales. THERON TERHUNE, *Tall Timbers Res. Sta., Tallahassee, FL*, DAVID A. BUEHLER, *Univ.*

Tennessee, Knoxville, TN, KYLE ALDINGER, *West Virginia Coop. Fish & Wildl. Res. Unit, West Virginia Univ., Morgantown, WV*, MARJA BAKERMANS, *Indiana Univ. of Pennsylvania, Indiana, PA*, JOHN CONFER, *Ithaca Coll., Ithaca, NY*, JEFF LARKIN, *Indiana Univ. of Pennsylvania*, JOHN LOEGERING, *Univ. Minnesota, Minneapolis, MN*, KATIE PERCY, *Univ. Tennessee*, AMBER ROTH, *Michigan Tech. Univ., Houghton, MI*, and CURTIS SMALLING, *North Carolina Audubon Soc.*

- s4.9 Golden-winged Warbler nesting ecology and productivity: a range-wide assessment. KYLE ALDINGER, *West Virginia Coop. Fish & Wildl. Res. Unit, West Virginia Univ., Morgantown, WV.*, THERON TERHUNE, *Tall Timbers Res. Sta., Tallahassee, FL*, DAVID A. BUEHLER, *Univ. Tennessee, Knoxville, TN*, PETRA BOHALL WOOD, *US Geol. Surv., West Virginia Coop. Fish & Wildl. Res. Unit, West Virginia Univ.*, MARJA BAKERMANS, *Indiana Univ. of Pennsylvania, Indiana, PA*, JOHN CONFER, *Ithaca College, Ithaca, NY*, DAVID FLASPOHLER, *Michigan Tech. Univ., Houghton, MI*, JEFF LARKIN, *Indiana Univ. of Pennsylvania*, JOHN LOEGERING, *Univ. Minnesota, Minnesota, MN*, KATIE PERCY, *Univ. Tennessee, Knoxville, TN*, AMBER ROTH, *Michigan Tech. Univ.*, and CURTIS SMALLING, *North Carolina Audubon Soc.*
- s4.10 Space and habitat use by breeding Golden-winged Warblers in the central Appalachian Mountains. MACK W. FRANTZ, *Indiana Univ. of Pennsylvania, Indiana, PA*, KYLE ALDINGER, *US Geol. Surv., West Virginia Coop. Fish & Wildl. Res. Unit, West Virginia Univ., Morgantown, WV*, JOSEPH DUCHAMP, THOMAS SIMMONS, TIMOTHY NUTTLE, JEFFERY LARKIN, *Indiana Univ. of Pennsylvania*, ANDREW VITZ, *Powder Mill Nature Preserve, Rector, PA*, and PETRA BOHALL WOOD, *US Geol. Surv., West Virginia Coop. Fish & Wildl. Res. Unit, West Virginia Univ.*
- s4.11 Golden-winged warbler post-fledging habitat use and survival in the western Great Lakes region. HENRY M. STREBY, *Univ. California, Berkeley, CA*, SEAN M. PETERSON, *Minnesota Coop. Fish & Wildl. Res. Unit, Univ. Minnesota, Minneapolis, MN*, and DAVID E. ANDERSEN, *US Geol. Surv., Minnesota Coop. Fish & Wildl. Res. Unit.*
- s4.12 Sex-based differences in strategies of post-fledging parental care in Golden-winged Warblers. SEAN M. PETERSON, *Minnesota Coop. Fish & Wildl. Res. Unit, Univ. Minnesota, Minneapolis, MN*, HENRY M. STREBY, *Univ. California, Berkeley, CA*, and DAVID E. ANDERSEN, *US Geol. Surv., Minnesota Coop. Fish & Wildl. Res. Unit.*
- s4.13 Influence of landscape composition on Golden-winged Warbler full-season productivity. SEAN M. PETERSON, *Minnesota Coop. Fish & Wildl. Res. Unit, Univ. Minnesota, Minneapolis, MN*, HENRY M. STREBY, *Univ. California, Berkeley, CA*, and DAVID E. ANDERSEN, *US Geol. Surv., Minnesota Coop. Fish & Wildl. Res. Unit.*
- s4.14 Linking breeding and wintering grounds of Golden-winged Warbler using stable isotope analyses. KEITH A. HOBSON, STEVEN L. VAN WILGENBURG, *Environment Canada, Saskatoon, SK*, AMBER ROTH, DAVID FLASPOHLER, *Michigan Tech. Univ., Houghton, MI*, and RACHEL VALLENDER, *Environment Canada, Gatineau, QC.*
- s4.15 Symposium summary and future directions in Golden-winged Warbler research and conservation. RON ROHRBAUGH, *Cornell Lab. Ornith., Ithaca, NY*, HENRY M. STREBY, *Univ. California, Berkeley, CA*, DAVID E. ANDERSEN, *US Geol. Surv., Minnesota Coop. Fish & Wildl. Res. Unit, Univ. Minnesota, Minneapolis, MN*, JEFF LARKIN, *Indiana Univ. of Pennsylvania, Indiana, PA*, and DAVID A. BUEHLER, *Univ. Tennessee, Knoxville, TN.*

Discussion and meeting of the Golden-winged Warbler Working Group

Session 4A. Evolution, Robert L. Curry, chair

- 67 Subspecies discriminate against foreign song but not plumage: Red-backed Fairy-Wrens attack

feathered mounts of many colors. EMMA I. GREIG, DANIEL T. BALDASSARRE and MICHAEL S. WEBSTER, *Lab. Ornithol., and Dept. Neurobiol. & Behav., Cornell Univ., Ithaca, NY.*

- 68 * **Experimental evidence of asymmetrical introgression of a sexual trait via extra-pair mating.** DANIEL T. BALDASSARRE and MICHAEL S. WEBSTER, *Dept. Neurobiol. & Behav. and Lab. Ornithol., Cornell Univ., Ithaca, NY.*
- 69 * Sexual and natural selection on song across the temporally complex hybrid zone of Tufted and Black-crested Titmice (Paridae). C. M. CURRY and M. A. PATTEN, *Dept. Biol. and Oklahoma Biol. Surv., Univ. Oklahoma, Norman, OK.*
- 70 Introgression on a genomic scale: using next-generation sequencing to investigate hybridization between *Passerina amoena* and *Passerina cyanea*. MATTHEW D. CARLING and THOMAS L. PARCHMAN, *Univ. Wyoming, Laramie, WY.*
- 71 Variation in achromatic plumage brightness associated with hybridization between Black-capped and Carolina chickadees. ROBERT L. CURRY, KELSEY A. LOW and AMANDA L. McKENNA, *Dept. Biol., Villanova Univ., Villanova, PA.*
- 72 * Molecular analysis and ecological niche modeling reveal that Blue-tailed Hummingbird might be the result of hybrid speciation. ROSA A. JIMÉNEZ, FRANCISCO ORNELAS, *Instituto de Ecología, A.C., Xalapa, Veracruz, México,* and CARLA CICERO, *Mus. Vert. Zool., Univ. California, Berkeley, CA.*
- 73 Equal reproductive success of phenotypes in the *Larus glaucescens-occidentalis* complex. LIBBY C. MEGNA, ANDRE E. MONCRIEFF, JAMES L. HAYWARD, *Dept. Biol., Andrews Univ., Berrien Springs, MI* and SHANDELLE M. HENSON, *Dept. Mathematics, Andrews Univ.*
- 74 Comparative transcriptomics and environmental adaptation in *Poecile* chickadees. ZACHARY A. CHEVIRON, SCOTT TAYLOR, *Lab. Ornithol., Cornell Univ., Ithaca, NY,* JENNIFER JONES, *Dept. Animal Biol., Univ. Illinois, Urbana-Champaign, IL,* IRBY J. LOVETTE, *Lab. Ornithol.,* and MATT D. CARLING, *Dept. Zool. & Physiol., Univ. Wyoming, Laramie, WY.*

Session 4B. Breeding Biology, Miguel Â. Marini, chair

- 75 Factors affecting post-fledging survival in passerine birds and the value of post-fledging studies to conservation efforts. ALLISON S. COX, *Omaha, NE,* W. ANDREW COX, *Univ. Missouri, Columbia, MO,* FRANK R. THOMPSON III, *USDA Forest Service Northern Res. Sta., Columbia, MO,* and JOHN FAABORG, *Univ. Missouri, Columbia, MO.*
- 76 Does nest predation or food limitation explain the elevational gradient in clutch size in Red-faced Warblers? KRISTEN G. DILLON, *Idaho Coop. Fish & Wildl. Res. Unit, Dept. Fish & Wildl. Sci., Univ. Idaho, Moscow, ID,* and COURTNEY J. CONWAY, *US Geol. Surv., Idaho Coop. Fish & Wildl. Res. Unit, Dept. Fish & Wildl. Sci., Univ. Idaho.*
- 77 Not all predators are created equal: patterns in nest predation differ based on the type of predator involved. SCOTT J. CHIAVACCI, THOMAS J. BENSON and MICHAEL P. WARD, *Illinois Nat. Hist. Surv. and Univ. Illinois, Champaign, IL.*
- 78 Making the most of what remains: determining urban grassland quality in Illinois. VALERIE L. BUXTON, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois, Urbana-Champaign, IL,* and THOMAS J. BENSON, *Illinois Nat. Hist. Sur., Champaign, IL.*
- 79 Southward increase in variation and egg volume of New World flycatchers. MIGUEL Â. MARINI and NEANDER M HEMING, *Zool. Dept., Univ. Brasília, Brasília, DF, Brazil.*
- 80 * Subspecies and seasonal ecological niche variations of Wilson's Warbler. ANGELINA

RUIZ-SÁNCHEZ, *Universidad Nacional Autónoma de México, Coyoacán, Distrito Federal, México*, OCTAVIO ROJAS-SOTO, *Instituto de Ecología, Xalapa, Veracruz, México*, and KATHERINE RENTON, *Instituto de Biología, Universidad Nacional Autónoma de México, Jalisco, México*

81 * **Climate drives long-distance dispersal in a migratory bird.** CLARK S. RUSHING, MICHELE R. DUDASH, *Dept. Biol., Univ. Maryland, College Park, MD*, and PETER P. MARRA, *Smithsonian Conserv. Biol. Inst., Migratory Bird Center, Washington, DC*.

82 Cowbird experimental brood parasitism in a neotropical savanna, Brazil. THIAGO FILADELFO, MARIANA B. SILVEIRA and MIGUEL A. MARINI, *Dept. Zool., Brasília Univ., Brasília, DF, Brazil*.

Session 4C. Ecology and Breeding Biology, Helen R. Sofaer, chair

83 Maternal effects produce adaptive shifts in behavior during population colonization. RENEE A. DUCKWORTH, *Ecol. & Evol. Biol., Univ. Arizona, Tucson, AZ*.

84 Patterns and timing of nest attendance in New World swallows. JENNIFER M. WANG, *Univ. Central Arkansas, Conway, AR*, CAREN E. COOPER, *Lab. Ornithol., Cornell Univ., Ithaca, NY*, DANIEL R. ARDIA, *Franklin & Marshall Coll., Lancaster, PA*, and DAVID W. WINKLER, *Lab. Ornithol.*

85 Latitudinal differences in nestling provisioning rates, growth rates, and food quality: revisiting Lack's hypothesis. HELEN R. SOFAER, *Dept. Fish, Wildl. & Conserv. Biol., Colorado State Univ., Ft Collins, CO*, T. SCOTT SILLETT, MICHAEL L. POWER, *Smithsonian Conservation Biol. Inst.*, and CAMERON K. GHALAMBOR, *Colorado State Univ.*

86 Plasticity in fecundity varies among populations of a globally-distributed songbird. DAVID F. WESTNEAT, *Dept. Biol., Univ. Kentucky, Lexington, KY*, VERONIKA BÓKONY, *Dept. Limnology, Univ. Pannonia, Veszprém, Hungary*, TERRY BURKE, *Dept. Anim. & Plant Sci., Univ. Sheffield, UK*, OLIVIER CHASTEL, *Centre d'Etudes Biologiques de Chizé, CNRS, Beauvoir sur Niort, France*, HENRIK JENSEN, THOMAS KVALNES, *Centre Cons Biol, NTNU, Trondheim, Norway*, ÁDÁM Z. LENDVAI, *Dept. Biol., Virginia Tech. Univ., Blacksburg, VA*, ANDRÁS LIKER, *Centre d'Etudes Biologiques de Chizé, CNRS*, DOUGLAS MOCK, P. L. SCHWAGMEYER, *Dept. Biol., Univ. Oklahoma, Norman, OK*, JULIA SCHROEDER, *Evol. Biol., Max Planck Inst. Ornithol., Seewiesen, Germany*, GABRIELLE SORCI, *Laboratoire BioGéo Sciences, CNRS, Université de Bourgogne, Dijon, France*, and IAN R. K. STEWART, *Dept. Biol., Univ. Delaware, Newark, DE*.

87 Count-free estimates of population dynamics in American Black Ducks. TODD W. ARNOLD, *Dept. Fish., Wildl. & Cons Biol, Univ. Minnesota, St. Paul, MN*.

88 The state of the art in Fluvicolinae (Tyrannidae) breeding in South America. GABRIELA D. CORRÊA, NEANDER M. HEMING, MIGUEL A. MARINI, *Universidade de Brasília, DF-Brasília, Brazil*

89 The effects of temperature on nest predation by mammals, birds, and snakes. FRANK R. THOMPSON III, *USDA. Forest Ser. Northern Res. Sta., Columbia, MO*, and ANDREW COX, J.L. REIDY, *Dept. Fish. & Wildl. Sci., Univ. Missouri, Columbia, MO*.

90 Housing development erodes protected area avian community structure. ERIC M. WOOD, ANNA M. PIDGEON, VOLKER C. RADELOFF, PATRICK D. CULBERT, *Dept. Forest & Wildl. Ecol., Univ. Wisconsin-Madison, Madison, WI*, NICHOLAS S. KEULER, *Dept. Stat., Univ. Wisconsin-Madison*, and CURTIS H. FLATHER, *Rocky Mt. Res. Sta., USDA For. Serv., Ft. Collins, CO*.

Symposium 5.

Physiological and functional advances in avian coloration. Convener M. Butler

s5.1 Physiological roles of a pigment used in eggshell coloration. MICHAEL W. BUTLER, *Lafayette Coll., Easton, PA*, and KEVIN J. MCGRAW, *Arizona State Univ., Tempe, AZ*.

- s5.2 The proof is in the pattern: what the intricate egg patterns of cuckoos and their hosts reveal about coevolution. MARY CASWELL STODDARD, *Organ. & Evol. Biol. and Mus. Comp. Zool., Harvard Univ., Cambridge, MA*, MARTIN STEVENS, *Centre for Ecol. & Conserv., Coll. Life & Environ. Sci., Univ. Exeter, Exeter, UK*, REBECCA KILNER, *Dept. Zool., Univ. Cambridge, Cambridge, UK*, and CHRISTOPHER TOWN, *Computer Lab., Univ. Cambridge*.
- s5.3 Linking form and function to elucidate the evolution of iridescent colors in birds. CHAD M. ELIASON, RAFAEL MAIA, *Dept. Biol. & Integrated Biosci. Prog., Univ. Akron, Akron, OH*, PIERRE-PAUL BITTON, *Dept. Biol. Sci., Univ. Windsor, Windsor, ON*, and MATTHEW D SHAWKEY, *Dept. Biol. & Integrated Biosci. Prog., Univ. Akron*.
- s5.4 From nano(structure) to macro(evolution): what the development and mechanisms of iridescence can tell us about plumage color diversification. RAFAEL MAIA and MATTHEW D SHAWKEY, *Dept. Biol. & Integrated Biosci. Prog., Univ. Akron, Akron, OH*.
- s5.5 How iridescent plumage ocelli influence Peacock mating success. R. DAKIN and R. MONTGOMERIE, *Dept. Biol., Queen's Univ., Kingston, ON*.
- s5.6 Complementary shifts in carotenoid metabolism and opsin tuning facilitate avian color discrimination. MATTHEW B. TOOMEY, JENNIFER M. ENRIGHT, *Dept. Path. & Imm., Washington Univ. School of Med., St. Louis, MO*, KEN M. RIEDL, STEVEN J. SCHWARTZ, *Dept. Food Sci. & Tech., Ohio State Univ., Columbus, OH*, CHRISTOPHER C. WITT, *Dept. Biol., Univ. New Mexico, Albuquerque, NM*, EARL H. HARRISON, *Dept Human Nutr., Ohio State Univ., Columbus, OH*, OLLE LIND, ALMUT KELBER, *Dept. Biol., Lund Univ., Lund, Sweden*, KEVIN J. CGRAW, *School of Life Sci., Arizona State Univ., Tempe, AZ*, and JOSEPH C. CORBO, *Dept. Path & Imm., Washington Univ. School of Med.*
- s5.7 Evolution of SWS2 visual pigments in birds: from genes to function. NATASHA I. BLOCH, *Dept. Ecol. & Evol., Univ. Chicago, Chicago, IL*, JAMES M. MORROW, *Dept Cell & Syst. Biol., Univ. Toronto, Toronto, ON*, BELINDA S. W. CHANG, *Dept. Cell & Syst. Biol., and Dept. Ecol & Evol. Biol., Univ. Toronto*, and TREVOR D. PRICE, *Dept. Ecol. & Evol., Univ. Chicago*.
- s5.8 Honesty of a female status signal and physiological investment into aggression: baseline testosterone and bill color in female American Goldfinches. TROY G MURPHY, TIFFANY T PHAM, PHILIP S QUELLER, *Dept. Biol., Trinity Univ., San Antonio, TX*, and KEITH A TARVIN, *Dept. Biol., Oberlin Coll., Oberlin, OH*.
- s5.9 Vibrational spectroscopic analyses of unique yellow feather pigments (spheniscins) in penguins. DANIEL B. THOMAS, *Smithsonian Inst., Washington, DC*, KEVIN J. MCGRAW, *Arizona State Univ., Tempe, AZ*, CUSHLA M. MCGOVERIN, *Temple Univ., Philadelphia, PA*, and HELEN F. JAMES, *Smithsonian Inst.*
- s5.10 Effects of female condition on the allocation of carotenoids to egg yolks and feathers in the Yellow-headed Blackbird. JENNIFER L. NEWBREY, *Columbus State Univ., Columbus GA*, and WENDY L. REED, *North Dakota State Univ., Fargo, ND*.

Symposium 6.

Avian diversification in the Old World tropics. Conveners S. Reddy and B. Marks

- s6.1 Introduction to Symposium. How well do we know the Old World tropics? SUSHMA REDDY, *Loyola Univ. Chicago, Chicago, IL*, and BEN MARKS, *Field Mus., Chicago, IL*.
- s6.2 The scramble for Africa's montane highlands: patterns of colonization and diversification. RAURI C. K. BOWIE, *Univ. California, Berkeley, CA*.
- s6.3 Explosive or non-explosive adaptive radiation? Cryptic diversity alters diversification rate estimates for the Bernieridae, a Malagasy passerine radiation. NICHOLAS L. BLOCK, SHANNON J. HACKETT, JOHN M. BATES, STEVEN M. GOODMAN, *Field Mus., Chicago, IL*, and MARIE JEANNE

- RAHERILALAO, *Univ. d'Antananarivo, Antananarivo, Madagascar.*
- s6.4 Causes of the mid-elevation peak in east Himalayan songbird diversity. TREVOR D. PRICE, *Univ. Chicago, Chicago, IL*, and DHANANJAI MOHAN, *Wildlife Inst. India, Dehradun, India.*
- s6.5 Contrasting patterns of divergence and diversification in African brood parasites. MICHAEL D. SORENSON, JEFFREY M. DaCOSTA, KATIE F. STRYJEWSKI, *Boston Univ, Boston, MA*, CHRISTOPHER N. BALAKRISHNAN, *East Carolina Univ., Greenville, NC*, and CLAIRE N. SPOTTISWOODE, *Univ. Cambridge, Cambridge, UK.*
- s6.6 Assembly of an African continental montane avifauna: an assessment of the Albertine Rift avifauna. JOHN M. BATES, JOSH ENGEL, *Field Mus., Chicago, IL.*, and CHARLES KAHINDO, *Univ. Bukavu, Bukavu, Democratic Rep. Congo.*
- s6.7 Patterns of diversification in the Phasianidae. REBECCA T. KIMBALL and EDWARD L. BRAUN, *Univ. Florida, Gainesville, FL.*
- s6.8 Insights into the origins and diversification of the Philippine avifauna. ROBERT G. MOYLE, PETER A. HOSNER, CARL H. OLIVEROS and ROBIN JONES, *Univ. Kansas, Lawrence, KS.*
- s6.9 Diversification in an Afro-Asian songbird clade reveals multiple trans-oceanic dispersals and a southern to northern colonization pattern in Africa. GARY VOELKER, *Texas A&M Univ., College Station, TX*, and RAURI C. K. BOWIE, *Univ. California, Berkeley, CA.*
- s6.10 Resolving the complex evolutionary history of a Philippine passerine: insights from thousands of anonymous nuclear loci. PETER A. HOSNER, CARL H. OLIVEROS and ROBERT G. MOYLE, *Univ. Kansas, Lawrence, KS.*
- s6.11 A molecular phylogeny of *Pogoniulus* tinkerbirds contradicts current taxonomy based on morphology and plumage. ALEXANDER N. G. KIRSCHER, *Univ. Cyprus, Nicosia, Cyprus*, JUAN-CARLOS T. GONZALEZ, *Univ. Oxford, Oxford, UK*, and ROBERT G. MOYLE, *Univ. Kansas, Lawrence, KS.*
- s6.12 The early expansion of songbirds (Oscines) in Asia and Africa. JON FJELDSÅ, *Univ. Copenhagen, Copenhagen, Denmark.*

Session 5A. Evolution, Aaron Savit, chair

- 91 * Long-term changes in Red-cockaded Woodpecker life history traits. V. GARCIA and J. R. WALTERS, *Dept. Biol. Sci., Virginia Tech. Univ., Blacksburg, VA.*
- 92 Evidence for high altitude adaptation in Andean House Wrens. ANDREA N. CHAVEZ, SPENCER C. GALEN, *Dept. Biol. and Mus. Southwestern Biol., Univ. New Mexico, Albuquerque NM*, JOANA PROJECTO-GARCIA, JAY STORZ, *Dept. Biol., Univ. Nebraska, Lincoln NE*, and CHRISTOPHER C WITT, *Dept. Biol. and Mus. Southwestern Biol., Univ. New Mexico.*
- 93 Divergence among selected populations of Mountain Blackeye (*Chlorocharis emiliae*) in Borneo: estimating divergence times and substitution rates from mitochondrial genes. DECNY F. GAWIN and F. H. SHELDON, *Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA.*
- 94 Nuclear and mitochondrial data illustrate the influence of habitat on intraspecific diversification in *Tangara* tanagers. AARON SAVIT and JOHN M. BATES, *Field Mus., Chicago, IL.*
- 95 Testing alternative models for the evolution of the climatic niche in a South American radiation, the Furnariidae. G. F. SEEHOLZER, *Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, S. CLARAMUNT, *Am. Mus. Nat. Hist., New York City, NY*, and R. T. BRUMFIELD, *Mus. Nat. Sci.*

- 96 Allopatric speciation in an endemic cloud forest bird, the Unicolored Jay. MADHVI X. VENKATRAMAN and JOHN E. McCORMACK, *Moore Lab. Zool., Occidental Coll., Los Angeles, CA.*

Session 5B. Vocalizations, Clinton D. Francis, chair

- 97 Song variation in the Veery in the Appalachian Mountains. COURTNEY L. BRENNAN, *Cleveland State Univ., and Cleveland Mus. Nat. Hist., Cleveland OH,* and ANDREW W. JONES, *Cleveland Mus. Nat. Hist.*
- 98 Evaluating the strength of ecological selection on acoustic communication using metabolic theory of ecology. CLINTON D. FRANCIS, *Natl. Evol. Synthesis Center, Durham, NC.*
- 99 Song overlapping: distinguishing between intention and chance. CHRISTINA MASCO and STEPHEN PRUETT-JONES, *Dept. Ecol. & Evol., Univ. Chicago, Chicago, IL.*
- 100 Song divergence in island and mainland House Wrens populations. J. ROBERTO SOSA-LOPEZ and DANIEL J. MENNILL, *Dept. Biol. Sci., Univ. Windsor, ON.*
- 101 * The role of male vocal signals during male-male competition and female mate choice in Greater Prairie-Chickens. JENNIFER A. HALE, DOUGLAS A. NELSON, *Dept. Evol., Ecol. & Organ. Biol., Ohio State Univ., Columbus, OH,* and JACQUELINE K. AUGUSTINE, *Ohio State Univ., Lima, OH.*
- 102 Measuring vocal performance in Song Sparrows, and its relationship to age, morphology and song complexity. S. DREW MOORE, KIM L. SCHMIDT, *Dept. Biol., Western Univ., London, ON,* SCOTT A. MacDOUGALL-SHACKLETON, *Dept. Psych., Western Univ.,* and ELIZABETH A. MacDOUGALL-SHACKLETON, *Dept. Biol., Western Univ.*

Session 6A. Evolution, Mikus Abolins-Abols, chair

- 103 * **Shift in a life history trade-off linked with change in hormonal cross-talk. MIKUS ABOLINS-ABOLS and ELLEN KETTERSON, *Indiana Univ., Bloomington, IN.***
- 104 * Spatial variation in avian malaria prevalence and associations with major histocompatibility complex in Rufous-collared Sparrows. MATTHEW R. JONES, *Dept. Zool. & Physiol., Univ. Wyoming, Laramie, WY,* ZACHARY A. CHEVIRON, *Dept. Animal Biol., Univ. Illinois Urbana-Champaign, Urbana, IL,* and MATTHEW D. CARLING, *Dept. Zool. & Physiol., Univ. Wyoming.*
- 105 * Does sexual coloration differentially predict oxidative stress in Northern Yellow Warblers versus Mangrove Warblers? Effects of life history, environment, and sex. ANDREA S. GRUNST, *Univ. California-Riverside, Riverside, CA,* JAVIER SALGADO-ORTIZ, *Universidad Michoacana, Morelia, Michoacana, Mexico,* and JOHN T. ROTENBERRY, *Univ. Minnesota, Twin Cities, MN.*
- 106 Color polymorphism and adaptation in the Vermilion Flycatcher. C. JONATHAN SCHMITT, *Dept. Biol. and Mus. Southwestern Biol., Univ. New Mexico, Albuquerque, NM,* ENRIQUE L. MONTAÑO, *Dept. Geograph. Sci., Univ. Maryland, College Park, MD,* WALTER VARGAS CAMPOS, *Centro de Ornitología y Biodiversidad, Lima, Peru,* SABRINA M. McNEW, *Dept. Biol. and Mus. Southwestern Biol., Univ. New Mexico,* THOMAS VALQUI, *Centro de Ornitología y Biodiversidad,* and CHRISTOPHER C. WITT, *Dept. Biol. and Mus. Southwestern Biology, Univ. New Mexico.*
- 107 The mitonuclear compatibility hypothesis of sexual selection. GEOFFREY E. HILL and JAMES D. JOHNSON, *Dept. Biol. Sci., Auburn Univ., Auburn, AL.*
- 108 *Dendroica's* cry for help: should grade be considered to name a clade or is cladogenesis enough? JORGE NOCEDAL. *Facultad de Ciencias Forestales, Universidad Juárez del estado de Durango, Durango, Mexico.*

Session 6B. Migration/Orientation, Melissa S. Bowlin, chair

- 109 Using a hierarchical modeling framework to estimate detection probability of bird migration banding censuses. EVAN M ADAMS and BRIAN J OLSEN, *School Biol. & Ecol., Climate Change Inst., Univ. Maine, Orono, ME.*
- 110 Quantitative and qualitative approaches to identifying migration chronology in a continental migrant. WILLIAM S. BEATTY, DYLAN C. KESLER, *Dept. Fish. & Wildl., Univ. Missouri, Columbia, MO*, ELISABETH B. WEBB, *US Geol. Surv., Missouri Coop. Fish & Wildl. Res. Unit, Univ. Missouri*, ANDREW H. RAEDEKE, *Missouri Dept. Conserv.*, LUKE W. NAYLOR, *Arkansas Game & Fish Comm.*, DALE D. HUMBURG, *Ducks Unlimited.*
- 111 Between-individual variation in the flight altitudes of Swainson's Thrushes. MELISSA S. BOWLIN, *Univ. Michigan-Dearborn, Dearborn, MI*, DAVID A. ENSTROM, *Illinois Nat. Hist. Surv., Urbana, IL*, BRIAN J. MURPHY, PETER JURICH, CHRISTINE PURDY, *Univ. Michigan-Dearborn, Dearborn, MI*, WILLIAM W. COCHRAN, *Illinois Nat. Hist. Surv.*, JAMES COCHRAN, *JDJC Corp., Fisher, IL.*
- 112 * Migratory connectivity and en route migration strategies. KRISTINA L. PAXTON and FRANK R. MOORE, *Univ. Southern Mississippi, Hattiesburg, MS.*
- 113 * Testosterone production in a songbird during spring migration. KRISTEN M. COVINO, JODIE M. JAWOR, *Biol. Sci., Univ. Southern Mississippi, Hattiesburg, MS*, SARA R. MORRIS, *Biol. Dept., Canisius Coll., Buffalo, NY*, and FRANK R. MOORE, *Biol. Sci., Univ. Southern Mississippi.*
- 114 * Migratory behavior of captive Blue-winged Teals. JESSICA L. CATON and JENNIFER C. OWEN, *Dept. Fish. & Wildl., Michigan State Univ., East Lansing, MI.*

Friday, 16 August 2013

Measuring productivity in songbirds: tradeoffs between nest success and fledgling survival mean we need to study both stages. HENRY M. STREBY, *University of California - Berkeley, Berkeley, CA.*

Cheaters and collaborators: the evolution of communal nesting in the Greater Ani (*Crotophaga major*). CHRISTINA RIEHL, *Museum of Comparative Zoology, Harvard University, Cambridge, MA.*

Symposium 7.

Avian Parasites: models for understanding processes and patterns of diversification. *Conveners J. Weckstein, S. Bush and K. Johnson*

- s7.1 Repeated adaptive radiation in avian feather lice. KEVIN P. JOHNSON, *Illinois Nat. Hist. Surv., Univ. Illinois, Champaign, IL*, SCOTT M. SHREVE, *Dept. Entomol., Univ. Illinois, Champaign, IL*, and VINCENT S. SMITH, *The Natural History Museum, London, UK.*
- s7.2 When cospeciation isn't common: the importance of biogeography and host-specificity in host-parasite coevolutionary studies. JASON D. WECKSTEIN, *Field Mus., Chicago, IL*, HOLLY L. LUTZ, *Cornell Univ., Ithaca, NY*, THOMAS VALQUI, *Centro de Ornitología y Biodiversidad*, ALEXANDRE ALEIXO, *Museu Paraense Emilio Goeldi*, and JOHN M. BATES, *Field Mus.*
- s7.3 Birds as islands: is variation in the Galapagos Hawk's mating system a driver of feather louse population genetic structure? JENNIFER A. H. KOOP, *Univ. Arizona, Tucson, AZ*, KAREN DeMATTEO, PATRICIA G. PARKER, *Univ. Missouri, St. Louis, MO*, and NOAH K. WHITEMAN, *Univ. Arizona.*
- s7.4 Experimental evolution of cryptic coloration in parasites. SARAH E. BUSH, DUKGUN KIM, M. ALÉ AGUILAR and DALE H. CLAYTON, *Dept. Biol., Univ. Utah, Salt Lake City, UT.*
- s7.5 Why pick a fight when you can tolerate your enemy? defense mechanisms of Darwin's finches and

- Galapagos Mockingbirds against introduced nest flies. SARAH A. KNUTIE, SABRINA M. McNEW, ANDREW W. BARTLOW and DALE H. CLAYTON, *Dept. Biol., Univ. Utah, Salt Lake City, UT.*
- s7.6 Ecological and evolutionary relationships between haemosporidian parasites and their avian hosts. VINCENZO A. ELLIS and ROBERT E. RICKLEFS, *Univ. Missouri-St. Louis, St. Louis, MO.*
- s7.7 Avian malaria diversity across hosts and environments in the Peruvian Andes. CHRISTOPHER C. WITT and SPENCER C. GALEN, *Mus. Southwestern Biol. and Dept. Biol., Univ. New Mexico, Albuquerque, NM.*
- s7.8 Patterns of host use by avian malaria lineages across space and time. ROBERT C. FLEISCHER. *Smithsonian Conserv. Biol. Inst., Natl. Zool. Park, Washington, DC.*

Symposium 8.

Cowbird brood parasitism: a uniquely New World phenomenon. *Conveners B. Strausberger and M. E. Hauber*

- s8.1 The effect of egg shape on incubation temperature in the Brown-headed Cowbird. BRIAN D. PEER and LYNDON R. HAWKINS, *Dept. Biol. Sci., Western Illinois Univ., Macomb, IL.*
- s8.2 Brown-headed Cowbirds 'farm' their hosts. DAVID SWAN, LIANA ZANETTE and MICHAEL CLINCHY, *Dept. Biol., Univ. Western Ontario, London, ON.*
- s8.3 Incubation delay-dependent sex ratio skew in a bird: the Brown-headed Cowbird. BILL M. STRAUSBERGER and JOHN LITERACKI, *Pritzker Lab., Field Mus., Chicago, IL.*
- s8.4 New and old directions in the study of brood parasitism: from Herbert Friedman to modern phylogenetics. STEPHEN I. ROTHSTEIN, *Dept. Ecol., Evol. & Marine Biol., Univ. Calif., Santa Barbara, CA,* BRIAN PEER, *Dept. Biol. Sci., Western Illinois Univ., Macomb, IL,* JIM RIVERS *Oregon State Univ., Corvallis, OR,* and ROBERT C. FLEISCHER *Smithson. Inst, Washington, DC.*
- s8.5 Are genetic diversity and effective population size of the host generalist brood parasitic cowbird affected by West Nile Virus? JOHN CHARLES LITERACKI, *Roosevelt Univ. and Pritzker Lab., Field Mus., Chicago, IL.*
- s8.6 Begging displays of Brown-headed Cowbird nestlings are insufficient to maximize food provisioning by a small host. JAMES W. RIVERS, *Dept. Forest Ecosystems and Society, Corvallis, OR,* MELISSA A. BLUNDELL, *Dudek, Encinitas, CA,* and STEPHEN I. ROTHSTEIN, *Dept. Ecol., Evol. & Marine Biol., Univ. California, Santa Barbara, CA.*
- s8.7 Dynamic effects of nest-mates on growth and procurement of parental provisions by brood parasitic young. JUSTIN LOCK, *School Biol. Sci., Univ. Auckland, Auckland, New Zealand,* BILL M. STRAUSBERGER, *Pritzker Lab., Field Mus., Chicago, IL,* and MARK E. HAUBER, *Dept. Psychol., Hunter Coll. of City Univ. New York, New York, NY.*
- s8.8 Host choice of individual cowbirds across years: trade-offs among host range, parasitism efficiency, and offspring number? BILL M. STRAUSBERGER and J. DILON MADDOX, *Pritzker Lab., Field Mus., Chicago, IL.*

Session 7A. Behavior, Gavin M. Leighton, chair

- 115 * Female ornamentation, incubation rhythms, and offspring quality in a warbler. C. C. TAFF, *Dept. Evol. & Ecol., Univ. California, Davis, CA.*
- 116 * Sex roles in breeding Wilson's plovers and their consequences to foraging success. LAUREN M. DEANER and C. RAY CHANDLER, *Dept. Biol., Georgia Southern Univ., Statesboro, GA.*

- 117 * Personality, stress, and fitness in Nazca Boobies. JACQUELYN K. GRACE and DAVID J. ANDERSON, *Wake Forest Univ., Winston-Salem, NC.*
- 118 Habitat utilization, foraging and prey restraint of the Solitary Eagle in Belize. STACIA A. NOVY, *Southern Illinois Univ. Edwardsville, Edwardsville, IL.*
- 119 Developing sustainable ecotourism with the Magellanic Woodpecker (*Campephilus magellanicus*) as a charismatic species in the Cape Horn Biosphere Reserve. IRÁN ROMÁN, *Dept. Biol. Sci., Univ. North Texas, Denton, TX*, JAIME E. JIMÉNEZ, *Dept. Biol. Sci., and Dept. Philos. & Religious Stud., Univ. North Texas, and Inst. Ecol. & Biodiversity, Universidad de Magallanes*, PABLO VERGARA, *Universidad de Santiago, Chile*, and RICARDO ROZZI, *Dept. Philos. & Religion Stud., Univ. North Texas, and Inst. Ecol. & Biodiversity, Universidad de Magallanes*
- 120 Two's company, but three's no crowd: why do male Asian stubtails visit their neighbors and why are they tolerated? MASAYOSHI KAMIOKI, KEISUKE UEDA, *Dept. Life Sci., Rikkyo Univ., Tokyo, Japan*, and NORITOMO KAWAJI, *Hokkaido Res Center, Forestry & Forest Products Res. Inst., Sapporo, Japan.*
- 121 Mate choice of a small passerine bird is related to phenotypic, but not genetic characteristics. JIANQIANG LI, YONG WANG, *Dept. Biol. & Environm. Sci., School Agri., Life & Nat. Sci., Alabama A&M Univ., Normal, AL*, and ZHENGWANG ZHANG, LEILV, YINGYING LIU, *Ministry Edu. Key Lab. for Biodivers. Sci. & Ecol. Engineer., Coll. Life Sci., Beijing Normal Univ., Beijing, China.*
- 122 Variation in mate choice behavior among female Lance-tailed Manakins: the role of choosiness. EMILY H. DuVAL, *Dept. Biol. Sci., Florida State Univ., Tallahassee, FL.*
- 123 A test for multiple antipredation strategies in songbirds during migration using phylogenetic contrasts. DAVID P. GRUNZEL and BRIAN J. OLSEN, *Climate Change Inst., School Biol. & Ecol., Univ. Maine, Orono, ME.*
- 124 Behavior and genetics suggest indirect benefits are important for the maintenance of cooperative nest construction in Sociable Weavers. G. M. LEIGHTON, *Dept. Biol., Univ. Miami, Coral Gables, FL.*

Session 7B. Conservation, Elizabeth A. Rigby, chair

- 125 Geographic coincidence of avian conservation value measures. RALPH GRUNDEL, KRYSTALYNN J. FROHNAPPLE, *US Geol. Surv., Potter, IN*, DAVID N. ZAYA, *Univ. Illinois, Chicago, IL*, GARY A. GLOWACKI, *Lake Co. Forest Preserves, Grayslake, IL*, CHELSEA J. WEISKERGER, TAMATHA A. PATTERSON, *Univ. Notre Dame, Notre Dame, IN*, and NOEL B. PAVLOVIC, *US Geol. Survey, Porter, IN.*
- 126 Flying down the food web: museum specimen isotopes suggest long-term change in diet of a nocturnal aerial insectivore. PHILINA A. ENGLISH, DAVID J. GREEN, *Dept. Biol. Sci., Simon Fraser Univ., Vancouver, BC*, and JOSEPH J NOCERA, *Ontario Min. Nat. Res. and Trent Univ., Peterborough, ON.*
- 127 Hidden Markov models for estimating animal mortality from anthropogenic hazards. MATTHEW A. ETTERSON, *Natl. Health & Environ. Effects Res. Lab., US Environ. Prot. Agency, Duluth, MN.*
- 128 Bird collisions with communications towers: progressing from research to policy change and bird conservation. JOELLE GEHRING, *Fed. Communications Comm., Washington, DC.*
- 129 Use of fish farms and Wetland Reserve Program properties by Interior Least Terns in eastern Arkansas. LAUREN W. HELTON AND THOMAS S. RISCH, *Dept. Biol., Arkansas State Univ., State University, AR.*
- 130 An assessment of potential surrogate species for the Eastern Tallgrass Prairie Bird Conservation Region (BCR 22). JAMES R. HERKERT, *Illinois Dept. Nat. Res., Springfield, IL.*
- 131 A meta-population model for evaluating recovery criteria for Piping Plovers in the Great Plains. CONOR

P. McGOWAN, *US Geol. Surv., Alabama Coop. Fish & Wildl. Res. Unit, Auburn, AL*, DANIEL H. CATLIN, *Dept. Fish & Wildl. Conserv., Virginia Polytechnic Inst. & State Univ., Blacksburg, VA*, TERRY L. SHAFFER, *US Geol. Surv., Northern Prairie Wildl. Res. Center, Jamestown, ND*, CHERI L. GRATTO-TREVOR, *Environment Canada, Sci. & Tech., Delta, BC*, and CAROL ARON, *US Fish & Wildl. Serv., North Dakota Field Office, Bismark, ND*.

132 * Species site occupancy is underestimated when temporal dependencies in detections are not considered: implications for avian conservation. TRACY A. PINNEY and KEVIN J. GUTZWILLER, *Dept. Biol., Baylor Univ., Waco, TX*.

133 * Detection zones of simulated grassland birds: implications for bird surveys. ELIZABETH A. RIGBY, *Univ. Minnesota, St Paul, MN*, and DOUGLAS H. JOHNSON, *Northern Prairie Wildl. Res. Center, Jamestown, ND*.

134 From so small of beginnings: genome-wide sequence data of the extinct Passenger Pigeon. BEN J. NOVAK, *Revive & Restore, Long Now Found., Santa Cruz, CA*, ZEV KRONENBERG, MARK YANDELL, *Univ. Utah, Salt Lake City, UT*, DANIELLA PUIU, *Johns Hopkins Univ., Baltimore, MD*, ARTHUR BRADY, *Univ. Maryland, College Park, MD*, STEVEN L. SALZBERG, *Johns Hopkins Univ.*, RUTE DA FONSECA, M. THOMAS GILBERT, *Univ. Copenhagen, Copenhagen, Denmark*, TARA L. FULTON, RICHARD E. GREEN and BETH SHAPIRO, *Univ. California Santa Cruz, Santa Cruz, CA*.

Session 7C. Systematics, Edward L. Braun, chair

135 Acknowledging life history strategy in the choice of molecular marker for resolving phylogenetic relationships among recently divergent taxa. STEPHANIE GALLA and JEFF A. JOHNSON, *Dept. Biol. Sci., Univ. North Texas, Denton, TX*.

136 Deciphering the evolutionary history of the montane New Guinea avifauna: comparative phylogeography and insights from paleodistributional modeling in a dynamic landscape. B. W. BENZ, *Am. Mus. Nat. Hist., New York, NY*.

137 Phylogenetic relationships of the endemic genera of Australo-Papuan hawks. GEORGE F. BARROWCLOUGH, JEFF G. GROTH, JONAS E. LAI and SUSAN M. TSANG, *Am. Mus. Nat. Hist., New York, NY*.

138 "Big Bird" – inferences based upon analyses of a large-scale supermatrix of avian genetic data. EDWARD L. BRAUN, J. GORDON BURLEIGH and REBECCA T. KIMBALL, *Dept. Biol., Univ. Florida, Gainesville, FL*.

139 Diversification of tanagers (Thraupidae), the largest radiation of Neotropical songbirds. KEVIN J. BURNS, ALLISON J. SHULTZ, PASCAL O. TITLE and NICHOLAS A. MASON, *Dept. Biol., San Diego State Univ., San Diego, CA*.

140 Insights into the phylogeny of diurnal raptors from their feather lice. THERESE A. CATANACH, *Prog. Ecol., Evol. & Conserv., Univ. Illinois, Urbana, IL and Dept. Wildl. & Fish. Sci., Texas A&M Univ., College Station, TX*, and KEVIN P. JOHNSON, *Illinois Nat. Hist. Surv., Prairie Res. Inst., Univ. Illinois, Champaign, IL*.

141 Phylogeography of the Amazonian antwren *Myrmotherula brachyura*, with comparisons to co-distributed understory antwrens. R. TERRY CHESSER, *US Geol. Surv./Natl. Mus. Nat. Hist., Washington, DC*, MORTON L. ISLER, *Natl. Mus. Nat. Hist., Washington, DC*, ADAM MARTIN, *Oregon State Univ., Corvallis, OR*, LUCIANO N. NAKA, GUSTAVO A. BRAVO, *Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, ALEXANDRE ALEIXO, *Mus. Paraense Emilio Goeldi, Belem, Brazil*, L. BERGNER, *Natl. Zool. Park, Washington, DC*, and BRET M. WHITNEY, *Mus. Nat. Sci., Louisiana State Univ*

142 * **Phylogenomics and hybridization in an oceanic archipelago: high-throughput sequencing resolves patterns of diversification in the Fiji Whistler (*Pachycephala vitiensis*)**. MICHAEL J. ANDERSEN and R.

G. MOYLE, *Biodiv. Inst., Univ. Kansas, Lawrence, KS.*

- 143 * Information content of genomic ultraconserved elements for avian phylogenetics and phylogeography. MICHAEL G. HARVEY, *Dept. Biol. Sci. and Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, BRIAN TILSTON SMITH, *Mus. Nat. Sci., Louisiana State Univ.*, BRANT C. FAIRCLOTH, *Dept. Ecol. & Evol. Biol., Univ. California, Los Angeles, CA*, TRAVIS C. GLENN, *Dept. Environ. Health Sci., Univ., Athens, GA*, JOHN E. McCORMACK, *Moore Lab. Zool., Occidental Coll., Los Angeles, CA*, and ROBB T. BRUMFIELD, *Dept. Biol. Sci. and Mus. Nat. Sci., Louisiana State Univ.*
- 144 Comparative genomics suggests regulatory, not coding, innovation underlies the origin of feathers. SCOTT V. EDWARDS, *Mus. Comp. Zool., Harvard Univ., Cambridge, MA*, CRAIG B. LOWE, *Dept. Dev. Biol., Stanford Univ. School of Medicine, Stanford, CA*, JULIA A. CLARKE, *Jackson School Geosci., Univ. Texas, Austin, TX*, ALLAN J. BAKER, *Dept. Nat. Hist., Royal Ontario Mus., Toronto, ON*, and DAVID HAUSSLER, *Center for Biomol. Sci. & Engineering, Univ. California, Santa Cruz, CA.*

Symposium 9.

Ecology and conservation of insectivores of the tropical rainforest understory. *Convener L. L. Powell*

- s9.1 Bird functional diversity and ecosystem services in tropical forests, agroforests and agricultural areas. CAGAN H. SEKERCIOGLU, *Dept. Biol., Univ. Utah, Salt Lake City, UT.*
- s9.2 Understory bird community responses to logging in Upper Guinea forests of West Africa. N. SUZANNE DAUPHINE and ZEBIGOU KOLANI, *Zool. Soc. London and Dept. Marine & Wildl. Res., American Samoa Government, Pago Pago, AS.*
- s9.3 Forest fragmentation in an eastern arc forest impacts key understory species in mixed species foraging flocks. NORBERT J. CORDEIRO, *Dept. Bot. and Dept. Zool., Field Mus., Chicago, IL.*
- s9.4 Effects of edge on understory insectivorous birds in a fragmented tropical rainforest in peninsular Malaysia. MUHAMED H. ZAKARIA, M. N. RAIPAR and H. V. MORADI, *Dept. Park & Ecotourism, Faculty of Forestry, Universiti Putra Malaysia, Selangor, Malaysia.*
- s9.5 Integrating life history traits and forest structure to evaluate the vulnerability of rainforest birds along gradients of landscape change. DAVID C. PAVLACKY Jr., HUGH P. POSSINGHAM and ANNE W. GOLDIZEN, *School Biol. Sci., Univ. Queensland, St. Lucia, Queensland, Australia.*
- s9.6 How maturation of secondary growth affects movement and dispersal of understory insectivores through a heterogeneous Amazonian landscape. LUKE L. POWELL and PHILIP C STOUFFER, *School Renew. Nat. Res., Louisiana State Univ., Baton Rouge, LA.*
- s9.7 Using fine-scale age estimation to explore the influence of landscape on demography and sexual selection of a Neotropical bird. J. PATRICK KELLEY, *Dept. Biol. Sci., Florida State Univ., Tallahassee, FL*, and COREY E. TARWATER, *Dept. For. & Conserv. Sci., Univ. British Columbia, Vancouver, BC.*
- s9.8 Understanding dispersal in understory tropical forest insectivores: the role of genetic data. STEFAN WOLTMANN, *Dept. Biol., Austin Peay State Univ., Clarksville, TN.*
- s9.9 Nest predation patterns suggest that it is a key mechanism explaining an understory insectivore's demographic responses to forest fragmentation. DEBORAH M. VISCO, *Dept. Ecol. & Evol. Biol., Tulane Univ., New Orleans, LA.*
- s9.10 Habitat associations of terrestrial insectivorous birds compared to second growth, forest fragments, and a continuous forest site in central Amazonas, Brazil. JEFFREY A. STRATFORD, *Dept. Biol. & Health Sci., Wilkes Univ., PA*, and PHILIP C. STOUFFER, *School Renew. Res., Louisiana State Univ., Baton Rouge, LA.*

- s9.11 Visual sensory constraints in avian species exploiting micro-habitats with different ambient light conditions. ESTEBAN FERNANDEZ-JURICIC, *Dept. Biol. Sci., Purdue Univ., West Lafayette, IN.*
- s9.12 Microclimate matters: occupancy patterns of resident and migrant birds in the northern Neotropics. MICHAEL A. PATTEN and BRENDA D. SMITH-PATTEN, *Oklahoma Biol. Surv. and Dept. Biol., Univ. Oklahoma, Norman, OK.*
- s9.13 The role of microclimates and light environments in the habitat selection of tropical and temperate-zone birds. HENRY S. POLLOCK, JEFFREY D. BRAWN, *Dept. Nat. Res., Univ. Illinois at Urbana-Champaign, Champaign, IL,* and ZACHARY A. CHEVIRON, *Dept. Animal Biol., Univ. Illinois at Urbana-Champaign.*

Session 8A. Breeding Biology, Matthew E. Hane, chair

- 145 * Cavity availability in cloud forest in southern Mexico. RAFAEL RUEDA-HERNANDEZ and KATHERINE RENTON, *Instituto de Biología, Universidad Nacional Autónoma de México, Coyoacán, Distrito Federal, México*
- 146 Features of copulation and the copulation call in Glaucous-winged Gulls. AMANDA SANDLER, GORDON ATKINS, MINDY McLARTY, MELISSA McCORMICK, SHANDELLE HENSON and JAMES HAYWARD, *Dept. Biol. and Dept. Math., Andrews Univ., Berrien Springs, MI.*
- 147 How habitat connectivity shapes genetic structure during range expansion: insights from Virginia's Warbler in the Black Hills. CHRISTINE M. BUBAC, GARTH M. SPELLMAN, *Black Hills State Univ., Spearfish, SD.*
- 148 Low genetic relatedness between breeding pairs could explain lack of extra-pair paternity in the Blue-footed Booby of Isla el Rancho, Mexican Pacific. C. FRANCO, *UAM-ICML Univ. Nac. Aut. Mex., Mazatlán, México,* L. M. ENRÍQUEZ, *Univ. Aut. Baja California, Ensenada, Mexico,* J. A. CASTILLO-GUERRERO, *Cent. Inv. Alim. y Des., Mazatlán, México,* and G. FERNÁNDEZ, *UAM-ICML Univ. Nac. Aut. Mex., Mazatlan, Mexico.*
- 149 Nest survival in experimentally created snags on a managed forest landscape. MATTHEW E. HANE, ANDREW J. KROLL, JOSH R. JOHNSON, MIKE ROCHELLE, *Weyerhaeuser NR,* and EDWARD B. ARNETT, *Theodore Roosevelt Conservation Partnership.*
- 150 Ovulation synchrony in gulls. JAMES L. HAYWARD, SHANDELLE M. HENSON, and LIBBY C. MEGNA, *Dept. Biol. and Math., Andrews Univ., Berrien Springs, MI.*

Session 8B. Systematics, Bailey D. McKay, chair

- 151 Phylogeography and conservation genetics in the morphologically variable Bell's Vireo. LUKE B. KLICKA, KEVIN J. BURNS, *Dept. Biol., San Diego State Univ., San Diego, CA,* and BARBARA E. KUS, *US Geol. Surv., Western Ecol. Res. Center, San Diego, CA.*
- 152 Comparative phylogeographic history of the Channel-billed and White-throated Toucans. JENNIE LEE, *Univ. Chicago, Chicago, IL,* JOSÉ S. L. PATANÉ, *Instituto Butantan, São Paulo, SP, Brazil,* JOHN M. BATES, *Field Mus., Chicago, IL,* ALEXANDRE ALEIXO, *Museu Paraense Emílio Goeldi, Belém, Brazil,* and JASON D WECKSTEIN, *Field Mus., Chicago, Ill*
- 153 A genomic perspective on the phylogeography of the Brown Creeper. JOSEPH D. MANTHEY, *Univ. Kansas, Lawrence, KS,* and GARTH M. SPELLMAN, *Black Hills State Univ., Spearfish, SD.*
- 154 Integrative taxonomy and evolutionary history of the Varied Tit (*Poecile varius*). BAILEY D. MCKAY, *Am. Mus. Nat. Hist., New York, NY,* HERMAN L. MAYS, *Cincinnati Mus. Center, Cincinnati, OH,* DONGMEI WAN, *Liaoning Univ., Shenyang, China,* CHENG-TE YAO, *Endemic Species Res. Inst., Jiji, Taiwan,* and ISAO NISHIUMI, *Natl. Mus. Nature & Science, Tsukuba, Japan.*

- 155 Characterizing the morphological and genetic variation in the Plain Wren complex – with insights into biogeographic mechanisms of divergence in southern Central America. JACOB R. SAUCIER, *Dept. Zool. & Physiol., Univ. Wyoming, Laramie, WY, and Dept. Vert. Zool., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC*, CÉSAR SÁNCHEZ, *Mus. Nat. Sci., and Dept. Biol. Sci., Louisiana State Univ., Baton Rouge, LA*, and MATTHEW D. CARLING, *Dept. Zool. & Physiol., Univ. Wyoming, Laramie, WY*.
- 156 The phylogeographic power of sex at the species-level boundary: a multilocus study of wrens and thrashers. HERNAN VAZQUEZ-MIRANDA, *Dept. Ecol., Evol. & Behav. Univ. Minnesota, and Bell Mus. Nat. Hist., St. Paul, MN*.

Session 8C. Migration/Orientation, Darren E. Irwin, chair

- 157 Dynamics of nearshore concentrations of spring migrating birds around the Great Lakes. JEFFREY J. BULER, JACLYN A. SMOLINKSY, *Univ. Delaware, Newark, DE*, ROBERT J. SMITH, *Univ. Scranton, Scranton, PA*, and JENNIFER C. OWEN, *Michigan State Univ., East Lansing, MI*.
- 158 New services for archiving, processing, and analyzing avian movement data on Movebank. SARAH C. DAVIDSON, *Dept. Civil, Environ. & Geodetic Eng., Ohio State Univ., Columbus, OH and Max Planck Inst. Ornithol., Dept. Migration Immunoecol., Radolfzell, Germany*, SOMAYEH DODGE, *Dept. Civil, Environ. & Geodetic Eng., Ohio State Univ.*, ROLF WEINZIERL, *Seehausen, Gemany*, ROLAND KAYS, *North Carolina Mus. Nat. Sci., Raleigh, NC*, MARTIN WIKELSKI, *Max Planck Inst. Ornithol., Dept. Migration Immunoecol.*, and GIL BOHRER, *Dept. Civil, Env., and Geod. Eng., Ohio State Univ.*
- 159 Hybrid songbirds employ intermediate routes in a migratory divide. KIRA E. DELMORE and DARREN E. IRWIN, *Dept. Zoology, Univ. British Columbia, Vancouver, BC*.
- 160 Migratory songbirds vary in their stopover behavior along the northern Yucatan Peninsula coast in the fall. JILL L. DEPPE, *Dept. Biol. Sci., Eastern Illinois Univ., Charleston, IL*, MICHAEL P. WARD, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois Urbana-Champaign, Urbana, IL*, ROBERT H. DIEHL, *US Geol. Surv., N. Rocky Mtn. Sci. Center, Bozeman, MT*, ANTONIO CELIS-MURILLO, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois Urbana-Champaign*, JACLYN A. SMOLINSKY, *Dept. Entom. & Wildl. Ecol., Univ. Delaware, Newark, DE*, THEODORE J. ZENZAL, Jr., *Dept. Biol. Sci., Univ. Southern Mississippi, Hattiesburg, MS*, THOMAS J. BENSON, *Illinois Nat. Hist. Surv., Univ. Illinois Urbana-Champaign*, FRANK R. MOORE, *Dept. Biol. Sci., Univ. Southern Mississippi*, and WILLIAM W. COCHRAN, *Illinois Nat. Hist. Surv.*
- 161 A comparative analysis of migratory passage metrics. KYLE G. HORTON, W. GREG SHRIVER and JEFFREY J. BULER, *Dept. Entomol. & Wildl. Ecol., Univ. Delaware, Newark, DE*.
- 162 Access to food and not intolerance of cold drives altitudinal migration of Yellow-eyed Juncos. CARL G. LUNDBLAD and COURTNEY J. CONWAY, *Idaho Coop. Fish & Wildl. Res. Unit, Univ. Idaho, Moscow, ID*.

Session 9A. Ecology, Rebecka L. Brasso, chair

- 163 * *Pygoscelis* penguins as biomonitors of annual trends of mercury availability in the Antarctic Peninsula (2004/2005 - 2011/2012). REBECKA L. BRASSO, MICHAEL J. POLITO and STEVEN D. EMSLIE, *Dept. Biol & Marine Biol., Univ. North Carolina Wilmington, Wilmington, NC*.
- 164 * Diverse avian malaria in Andean House Wrens: evidence for co-diversification despite lability in host breadth and climatic niche. SPENCER C. GALEN and CHRISTOPHER C. WITT, *Mus. Southwestern Biol. and Dept. Biol., Univ. New Mexico, Albuquerque, NM,*
- 165 Evidence of a selfish roost? Communal roosting decreases vector-borne disease exposure in American Robins. BETHANY L. KREBS, *Prog. Ecol., Evol. & Cons. Biol., Univ. Illinois at Urbana-Champaign, Champaign, IL*, GABRIEL L. HAMER, *Dept. Entomoll, Texas A&M Univ., College Station, TX*, CHRISTINA M. NEWMAN, *Comp. Biomed. Sci. Prog., Univ. Wisconsin-Madison, Madison, WI*, TAVIS K. ANDERSON, MIKE P. WARD, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois at Urbana-Champaign*, MARILYN O'HARA

RUIZ, *Dept. Pathobiol., Univ. Illinois at Urbana-Champaign*, TONY L GOLDBERG, *Dept. Pathobiol. Sci., Univ. Wisconsin-Madison*, EDWARD D. WALKER, *Dept. Microbiol., Michigan State Univ., East Lansing, MI*, URIEL D KITRON, *Dept. Environ. Stud., Emory Univ., Atlanta, GA*, JEFFREY D BRAWN, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois at Urbana-Champaign*.

- 166 The microbial ecosystem in avian plumage. CODY M. KENT, JACK M. STENGER and EDWARD H. BURTT, Jr., *Dept. Zool., Ohio Wesleyan Univ., Delaware, OH*.
- 167 Disease dynamics of avian haemosporidia in a California songbird community. E. L. WALTHER, R. N. M. SEHGAL and A. J. CORNEL, *San Francisco State Univ., San Francisco, CA*.
- 168 * Reproductive consequences of low levels of mercury in Acadian Flycatcher. LINNEA M. ROWSE, *Ohio State Univ., Columbus, OH*, and AMANDA D. RODEWALD, *Cornell Univ., Ithaca, NY*.

Session 9B. Breeding Biology, David N. Bonter, chair

- 169 Demographic effects of wind power development on Greater Prairie-Chickens. BRETT K. SANDERCOCK, VIRGINIA L. WINDER, LANCE B. MCNEW, ANDREW J. GREGORY and SAMANTHA M. WISELY, *Div. Biol., Kansas State Univ., Manhattan, KS*.
- 170 Quantifying Greater Prairie-Chicken spatial ecology in response to wind energy development in north-central Kansas. V. L. WINDER, *Div. Biol., Kansas State Univ., Manhattan, KS*, L. B. MCNEW, *US Geol. Sur. Alaska Sci. Center, Anchorage, AK*, A. J. GREGORY, *School For., Northern Arizona Univ., Flagstaff, AZ*, L. M. HUNT, *Div. Biol., Kansas State Univ.*, S. M. WISELY, *Dept. Wildl. Ecol. & Conserv., Univ. Florida, Gainesville, FL*, and B. K. SANDERCOCK, *Div. Biol., Kansas State Univ.*
- 171 The Environmental-Data Automated Track Annotation (Env-DATA) system – new possibilities in processing and interpretation of movement data. GIL BOHRER, SOMAYEH DODGE, SARAH C. DAVIDSON, *Dept. Civil, Environ. & Geodetic Engineering, Ohio State Univ., Columbus, OH*, ROLF WEINZIERL, *Max Planck Inst. Ornithol., Radolfzell, Germany*, ROLAND KAYS, *North Carolina Mus. Nat. Sci. and North Carolina State Univ., Raleigh, NC*, DAVID DOUGLAS, *US Geol. Surv., Alaska Science Center, Juneau, AK*, and MARTIN WIKELSKI, *Max Planck Inst. Ornithol. and Dept. Biol., Univ. Konstanz, Konstanz, Germany*.
- 172 Temporal shifts in optimal nesting sites due to storms: a potential effect of climate change. DAVID N. BONTER, *Lab. Ornithol., Cornell Univ., Ithaca, NY*, SARAH A. MacLEAN, *Dept. Nat. Res., Cornell Univ.*, SHAILEE S. SHAH and MICHELLE C. MOGLIA, *Dept. Ecol. & Evol. Biol., Cornell Univ.*
- 173 Impacts of anthropogenic disturbance on Snowy Plover reproductive success and behavior in northwest Florida. MAUREEN M. DURKIN and JONATHAN B. COHEN, *SUNY Coll. Environ. Sci. & Foresty, Syracuse, NY*, and MARGO ZDRAVKOVIC, *Coastal Bird Conservation, Big Pine Key, FL*.
- 174 Avian ecological responses to anthropogenic and climate changes in an oceanic landscape. PABLO C. OLEIRO and DYLAN C. KESLER, *Dept. Fish. & Wildl., Univ. Missouri, Columbia, MO*.

Session 9C. Evolution, Kevin C. R. Kerr, chair

- 175 Influence of wood hardness on nest tree selection by a primary cavity excavator: is wood hardness an important but overlooked predictor? TERESA J. LORENZ, KERRI T. VIERLING, *Dept. Fish & Wildl., Univ. Idaho, Moscow, ID*, and TIMOTHY R. JOHNSON, *Dept. Stat., Univ. Idaho*.
- 176 Use of skeletal morphometrics and phylogenetic relationships in predicting body mass in the diverse "waterbird" assemblage. LIAM E. HEINS, *Univ. Chicago, Chicago, IL*, and NATHAN D. SMITH, *Dept. Biol., Howard Univ., Washington, DC*.
- 177 Readdressing the phylogeny of the waterbirds using exonic markers. KEVIN C. R. KERR, *Royal Ontario*

Mus., Toronto, ON, and ALLAN J. BAKER, *Univ. Toronto, Toronto, ON.*

- 178 Linkage between bill morphology and vocalization structure in Island Scrub-Jays: A driver of adaptive divergence in sympatry? KATHRYN M. LANGIN, *Dept. Biol., Colorado State Univ., Ft Collins, CO*, T. SCOTT SILLETT, *Smithsonian Migratory Bird Center, Natl. Zool. Park, Washington, DC*, SCOTT A. MORRISON, *The Nature Conservancy, San Francisco, CA*, and CAMERON K. GHALAMBOR, *Dept. Biol., Colorado State Univ.*
- 179 Allen's Rule and bird bills: an intraspecific approach using House Sparrows. J. DYLAN MADDOX and J. TIMOTHY WOOTTON, *Dept. Ecol. & Evol., Univ. Chicago, Chicago, IL.*
- 180 Investigating the homology of feathers and scales using high-throughput genomics. JACOB M. MUSSER, GUNTER P. WAGNER and RICHARD O. PRUM, *Dept. Ecol. & Evol. Biol., Yale Sys. Biol. Inst. and Peabody Mus. Nat. Hist., Yale Univ., New Haven, CT.*

Session 9D. Special supplemental, Blair O. Wolf, chair.

- 229 Climate change induced shift in North American wintering bird communities. KARINE PRINCÉ and BENJAMIN ZUCKERBERG, *Dept. Forest & Wildl. Ecol., Univ. Wisconsin-Madison, Madison WI.*
- 230 Urbanization, disease, and philopatry of American Crows. ANDREA K. TOWNSEND, *Dept. Wildl., Fish & Cons. Biol., Univ. California-Davis, Davis, CA*, SARAH S. WHEELER, CHRIS BARKER and WALTER BOYCE, *School Vet. Med. Univ. California-Davis.*
- 231 Sensitivity to heat stress varies greatly among avian orders; implications of warming for desert bird communities. BLAIR O. WOLF, ERIC K. SMITH, ALEX R. GERSON, JACQUELINE JENINIFER O'NEILL, *Dept. Biol., Univ. New Mexico, Albuquerque, NM*, ANDREW E. McKECHNIE, MAXINE C. WHITFIELD and BEN E. SMITT, *Dept. Zool. Univ. Pretoria, Pretoria, South Africa.*
- 232 The effects of handling on the corticosterone stress response and fledging success in American Kestrel nestlings. ERIN L. WONDER and JULIE A. HEATH, *Dept. Biol. Sci., Boise State Univ., Boise, ID.*
- 233 * Incidental take on nesting birds in a red pine plantation in southern Ontario. IAN FIFE, *Dept. Biol., Trent Univ., Peterborough, ON.*

Saturday, 17 August 2013

Evolution and ecology of avian malaria parasites. STAFFAN BENSCH, *Molecular Ecology & Evolution Lab, Department of Biology, Lund University, Lund, Sweden*

Symposium 10.

The extended specimen: emerging frontiers in collections-based ornithological research. *Convener M. Webster*

- s10.1 Ornithological Specimens in the 21st Century. MIKE WEBSTER, *Dept. Neurobiol. and Lab. Ornithol., Cornell Univ., Ithaca, NY.*
- s10.2 Non-destructive, *in-situ* analysis of avian plumage pigments using Raman spectroscopy. DANIEL B. THOMAS, HELEN F. JAMES, *Smithsonian Inst., Washington, DC*, and KEVIN J. MCGRAW, *Arizona State Univ., Tempe, AZ.*
- s10.3 From microscopic feather structure to whole-organism display behavior: using multiple specimen types to uncover the private courtship signals of *Parotia wahnesi* (Paradiseidae). TODD A. HARVEY, *Dept. Ecol. Evol. Biol., Yale Univ., New Haven, CT*, EDWIN SCHOLES, KIMBERLY S. BOSTWICK, *Lab. Ornithol.*

and *Mus. Vert.*, Cornell Univ., Ithaca, NY, TIMOTHY G. LAMAN, *Mus. Comp. Zool.*, Harvard Univ., Cambridge, MA, and STEVE MARSCHNER, *Dept. Computer Sci.*, Cornell Univ.

- s10.4 The integrated evolution of behavioral and morphological novelties in manakins (Pipridae) as revealed by digital and physical natural history specimens. KIMBERLY S. BOSTWICK, *Mus. Vert.*, Cornell Univ., Ithaca, NY.
- s10.5 Combining museum and media collections to study multimodal sexual signaling and acoustic adaptations in tanagers (Thraupidae). NICHOLAS A. MASON, KEVIN J. BURNS, *Dept. Biol.*, San Diego State Univ., San Diego, CA, and ALLISON J. SHULTZ, *Dept. Organ. Evol. Biol.*, Harvard Univ., Cambridge, MA.
- s10.6 Of songs and specimens: using vouchered behaviors to examine song evolution in avian radiations. E. P. DERRYBERRY, *Dept. Ecol. Evol. Biol.*, Tulane Univ., New Orleans, LA, N. SEDDON, *Dept. Zool.*, Oxford Univ., Oxford, UK, S. CLARAMUNT, *Am. Mus. Nat. Hist.*, New York, NY, R. T. BRUMFIELD, *Mus. Nat. Sci. and Dept. Biol. Sci.*, Louisiana State Univ., Baton Rouge, LA, and J. A. TOBIAS, *Dept. Zool.*, Oxford Univ.
- s10.7 Museum-based stable isotope studies: guiding principles, sampling strategies, and the past, present, and future of foraging ecology in the endangered Hawaiian Petrel (*Pterodroma sandwichensis*). ANNE E. WILEY, HELEN F. JAMES, *Dept. Vert. Zool.*, Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC, and PEGGY H. OSTROM, *Dept. Zool.*, Michigan State Univ., East Lansing, MI.
- s10.8 Prospects for using target enrichment and next-generation sequencing to collect thousands of DNA loci from museum specimens. JOHN McCORMACK, WHITNEY TSAI, *Moore Lab. Zool.*, Occidental Coll., Los Angeles, CA, and BRANT FAIRCLOTH, *Dept. Ecol. & Evol. Biol.*, Univ. California Los Angeles, Los Angeles, CA.
- s10.9 Flight ability drives genome size reduction in birds. NATALIE A. WRIGHT, *Mus. Southwest. Biol. and Dept. Biol.*, Univ. New Mexico, Albuquerque, NM, T. RYAN GREGORY, *Dept. Integrative Biol.*, Univ. Guelph, Guelph, ON, and CHRISTOPHER C. WITT, *Mus. Southwest. Biol. and Dept. Biol.*, Univ. New Mexico.
- s10.10 Using research specimens for comparative studies of dispersal in birds. SANTIAGO CLARAMUNT. *Dept. Ornithol.*, *Am. Mus. Nat. Hist.*, New York, NY.
- s10.11 The evolution of scientific collecting: comprehensive biodiversity surveys of avian parasites and pathogens can produce important baseline data and lead to novel eco-evolutionary insights. HOLLY L. LUTZ, *Dept. Ecol. Evol. Biol.*, *Dept. Pop. Med. & Diag. Sci.*, Cornell Univ., Ithaca, NY, and *Field Mus.*, Chicago, IL, ZIFENG JIANG, *Inst. Genomics and Systems Biology*, Univ. Chicago, Chicago, IL, and *Field Mus.*, HEATHER R. SKEEN, SHANNON J. HACKETT, and JASON D. WECKSTEIN, *Field Mus.*
- s10.12 Collecting the total specimen package: research and educational opportunities for museum expeditions. DAVID WINKLER, S. ORZECOWSKI, T. PEGAN, K. CHALKOWSKI, MARIA STAGER, JULIAN KAPOOR, J. HRUSKA, EMMA GREIG and JEREMY HITE, *Mus. Vert.*, Cornell Univ., Ithaca, NY.
- s10.13 VertNet and Big Data: visualizing birds in the cloud. CARLA CICERO, CAROL SPENCER, MICHELLE KOO, DAVID BLOOM, AARON STEELE, JOHN WIECZOREK, *Mus. Vert. Zool.*, Univ. California, Berkeley, CA, ROB GURALNICK, JAVIER OTEGUI, Univ. Colorado, Boulder, CO, LAURA RUSSELL, DAVID VIEGLAIS, Univ. Kansas, Lawrence, KS, HANK BART and NELSON RIOS, Tulane Univ., New Orleans, LA.
- s10.14 Open Discussion: The use of ornithological specimens and collections in the 21st Century. MIKE WEBSTER, *Lab. Ornithol.*, Cornell Univ., Ithaca, NY.

Session 10A. Evolution, Daizaburo Shizuka, chair

- 181 Duck, duck, goose: multiple origins of geese from a duck-like ancestor. AARON M OLSEN, *Univ.*

Chicago, Chicago, IL and MARK W WESTNEAT, Field Mus., Chicago, IL.

- 182 Female mating preferences and offspring survival: testing hypotheses on the genetic basis of mate choice in a wild lekking bird. REBECCA J. SARDELL, *Dept. Biol. Sci., Florida State Univ, Tallahassee, FL.*, BART KEMPENAEERS, *Max Planck Inst. Ornithol., Seewiesen, Germany*, EMILY H. DuVAL, *Dept. Biol. Sci., Florida State Univ.*
- 183 Song discrimination before song learning in Golden-crowned Sparrows. DAIZABURO SHIZUKA, *School Biol. Sci., Univ. Nebraska-Lincoln, Lincoln, NE.*
- 184 Multivariate specialism and diversification in birds. N. M. CROUCH, *Biol. Sci., Univ. Illinois, Chicago, IL*, R. RICKLEFS, *Univ. Missouri, St Louis, MO*, and R. BIERREGAARD, *Univ. North Carolina at Charlotte, Charlotte, NC.*
- 185 Phylogeography and landscape genetics of the Cape Robin Chat (*Cossypha caffra*). GUINEVERE O. U. WOGAN, *Mus. Vert. Zool., Univ. California, Berkeley, CA*, GARY VOELKER, *Texas A&M Univ., College Station, TX*, and RAURI C.K. BOWIE, *Univ. California, Berkeley, CA.*
- 186 Climate, ecological release, and bill dimorphism in an island songbird. R GREENBERG and R. M. DANNER, *Smithsonian Migratory Bird Center, Washington, DC.*
- 187 Not all types of individuals experience trade-offs or the same type of cost: the role of individual heterogeneity in costs of reproduction. COREY E. TARWATER and PETER ARCESE, *Univ. British Columbia, Vancouver, BC.*
- 188 Courtship, aeroacoustics, and the evolution of non-vocal communication in birds. C. J. CLARK, *Dept. Biol., Univ. California Riverside, Riverside, CA*, and R. O. PRUM, *Peabody Mus. Nat. Hist., Yale, New Haven, CT.*
- 189 The theoretical morphology and development of vane asymmetry in flight feathers. TERESA J. FEO and RICHARD O. PRUM, *Dept. Ecol. & Evol. Biol. and Peabody Mus. Nat. Hist., Yale Univ., New Haven, CT.*
- 190 Seed retention in four toucan species: testing general patterns. LANDON R. JONES, *Dept. Biol., Univ. Louisiana Lafayette, Lafayette, LA*, and RACHAEL A. DISCIULLO, *Dept. Biol., Drexel Univ., Philadelphia, PA.*

Session 10B. Habitat Relationships, Joseph C. Ortega, chair

- 191 Prairie Falcon home range and habitat use in the Inner Coast Ranges of California, with implications for conservation and land management. D. A. BELL, M. SOLOMON, S. C. BURANEK, W. I. BOARMAN, A. I. FESNOCK and GAVIN EMMONS, *East Bay Regional Park Dist., Oakland, CA.*
- 192 Differences in habitat use in the Red-breasted/Red-naped Sapsucker hybrid zone. SHAWN M. BILLERMAN, *Prog. Ecol., Univ. Wyoming, Laramie, WY*, MELANIE A. MURPHY, *Dept. Ecosys. Sci. & Manage., Univ. Wyoming*, and MATTHEW D. CARLING, *Dept. Zool. & Physiol., Univ. Wyoming.*
- 193 Habitat use and demography of Red-headed Woodpeckers in west-central Illinois. TYSON R DALLAS and THOMAS J BENSON, *Univ. Illinois, and Illinois Nat. Hist. Surv. Champaign, IL.*
- 194 Fire and grazing influence winter bird community dynamics. TORRE J. HOVICK, R. DWAYNE ELMORE and SAMUEL D. FUHLENDORF, *Dept. Nat. Res., Ecol. & Manage., Oklahoma State Univ., Stillwater, OK.*
- 195 Characteristics of salt marshes in New York City preferred by nesting Saltmarsh Sparrows. ALISON R. KOCEK and JONATHAN B. COHEN, *SUNY-ESF, Syracuse, NY.*

- 196 Breeding bird population responses to removal of invasive tamarisk and Russian olive in northwest New Mexico. JOSEPH C. ORTEGA, *Dept. Biol., Fort Lewis College, Durango, CO*, CATHERINE P. ORTEGA, *Durango, CO*, SARAH K. WAGNER, *Dept. Ecol. & Evol. Biol., Univ. Colorado, Boulder, CO*, GARY HATHORN, *Farmington, NM*, and BENJAMIN S. KRAUSHAAR, *Dept. Geosci., Fort Lewis College, Durango, CO*.
- 197 Relationships among home range size, habitat selection, and indices of stress in Eastern Whip-poor-wills. GREGORY JAMES RAND, GARY BURNES, *Trent Univ., Peterborough, ON*, and JOSEPH NOCERA, *Trent Univ. and Ontario Min. Nat. Res., Peterborough, ON*.
- 198 Not all habitats are disturbed equally: Black-backed Woodpecker population dynamics in burned forests and mountain pine beetle infestations. CHRISTOPHER T. ROTA, JOSHUA J. MILLSPAUGH, *Dept. Fish. & Wildl. Sci., Univ. Missouri, Columbia, MO*, MARK A. RUMBLE, *US Forest Service, Rapid City, SD*, CHAD P. LEHMAN, *South Dakota Dept. Game, Fish, & Parks, Custer, SD*, and DYLAN C. KESLER, *Dept. Fisheries & Wildlife Sciences, Univ. Missouri*.
- 199 Reproductive success of Dickcissels varies with burn management and average rainfall. B. F. SOUSA, *Univ. Kentucky, Lexington, KY*.
- 200 Occupancy and detectability of grassland birds using habitat and land cover relationships on Fort Campbell, TN/KY. EMILY V. HOCKMAN and D. A. BUEHLER, *Dept. For. Wildli. & Fish., Univ. Tennessee, Knoxville, TN*.

Session 10C. Migration/Orientation, Jonathan W. Atwell, chair

- 201 Avian fall migration decisions in the Gulf of Maine region. H. L. LIGHTFOOT, P. D. TAYLOR, and D. SHUTLER, *Dept. Biol., Acadia Univ., Wolfville, NS*.
- 202 First-time spring migrants: how much does experience improve migratory performance? EMILY A. MCKINNON and BRIDGET J. M. STUTCHBURY, *Dept. Biol., York Univ., Toronto, ON*.
- 203 An assessment of the potential for phenological mismatch in autumnal migratory stopover. BRIAN J. OLSEN, JENNIFER D. McCABE, EVAN M. ADAMS, DAVID P. GRUNZEL, *Univ. Maine, Orono, ME*, and ABRAHAM J. MILLER-RUSHING, *Natl. Park Serv., Bar Harbor, ME*.
- 204 Gene-based approaches to identifying magnetite-based magnetic sensory receptors. M. RENEE BELLINGER and MICHAEL A. BANKS. *Dept. Fish. & Wildl., Hatfield Marine Sci. Center, Oregon State Univ., Newport, OR*.
- 205 Mixed migration strategies in the Eastern Lark Sparrow. JEREMY D. ROSS, ELI S. BRIDGE, *Oklahoma Biol. Surv., Univ. Oklahoma, Norman, OK*, MARK J. ROZMARYNOWYCZ and VERNER P. BINGMAN, *Dept. Biol. Sci./Psychol., Bowling Green State Univ., Bowling Green, OH*.
- 206 Regional responses in spring migration phenology to climatic cues for short-distance migrants. ERIC J. ROSS, BENJAMIN ZUCKERBERG, *Dept. Forest & Wildl. Ecol., Univ. Wisconsin-Madison, Madison, WI*, and DAVID N. BONTER, *Lab. Ornithol., Cornell Univ., Ithaca, NY*.
- 207 Overwintering dynamics of neotropical migratory songbirds. VIVIANA RUIZ-GUTIERREZ, J. F. SARACCO, W. B. KENDALL and D. DeSANTE, *Colorado Coop. Fish & Wild. Res. Unit., Colorado State Univ., Ft Collins, CO*.
- 208 Does migration influence birds' ecology? A comparative study. ANDRÉ C. GUARALDO, *Universidade de Brasília, DF, Brazil*, JEFFREY F. KELLY, *Univ. Oklahoma, Norman, OK*, and MIGUEL Â. MARINI, *Universidade de Brasília*.
- 209 The role of migration corridors for an intra-tropical altitudinal migrant. CHRISTINA R. LEOPOLD, *Hawaii*

Coop. Studies Unit, Univ. Hawai'i at Hilo, Hawai'i Natl. Park, HI, and STEVEN C. HESS, U.S. Geol. Surv. Pacific Island Ecosys. Res. Center, Hawai'i Natl. Park, HI.

- 210 Rapid loss of migratory behavior and physiology associated with recent colonization of an urban habitat. JONATHAN W. ATWELL, R. J. RICE and E. D. KETTERSON, *Univ. Indiana, Bloomington, IN.*

Session 11A. Breeding Biology, Jennifer S. Malpass, chair

- 211 Opposites attract: mate choice for personality in Eastern Bluebirds. LYNN SIEFFERMAN, TINA MORRIS, *Biol. Dept., Appalachian State Univ., Boone, NC,* and WENDY HOOD, *Dept. Biol. Sci., Auburn Univ., Auburn, AL, and Biol. Dept., Appalachian State Univ.*
- 212 Nest box philopatry of Tree Swallows in Canadian parkland. JAMES M. SUTHERLAND, *Winnipeg, MB.*
- 213 Can air sac reflectance be used to determine species identity and individual quality in prairie-chickens (*Tympanuchus* spp.)? JACQUELINE K. AUGUSTINE and KEVIN J. OXENRIDER, *Dept. Evol., Ecol., & Organismal Biol., Ohio State Univ., Columbus, OH.*
- 214 Home-field advantage in a host-parasite system. YANINA SARQUIS-ADAMSON and ELIZABETH MacDOUGALL-SHACKLETON, *Dept. Biol., Western Univ., London, ON.*
- 215 Age-specific breeding probabilities for the Mountain Plover. PAUL DANIEL BLOM SKRADE and STEPHEN JAMES DINSMORE, *Dept. Nat. Res. Ecol. & Manage., Iowa State Univ., Ames, IA.*
- 216 Influence of complex vegetation on nest predator activity in residential yards. JENNIFER S. MALPASS and AMANDA D. RODEWALD, *Ohio State Univ., Columbus, OH.*

Session 11B. Conservation, David C. Pavlacky, Jr., chair

- 217 Hierarchical occupancy estimation to predict bird species distributions. DAVID C. PAVLACKY Jr., JENNIFER A. BLAKESLEY and DAVID J. HANNI. *Rocky Mountain Bird Observ., Brighton, CO.*
- 218 Behavioral plasticity of a Neotropical parrot in human-modified landscapes. ALEJANDRO SALINAS-MELGOZA, *Estación de Biología Chamela, Instituto de Biología, Universidad Nacional Autónoma de México, Mexico,* and TIMOTHY F WRIGHT, *Dept. Biol., New Mexico State Univ., Las Cruces, NM.*
- 219 Project Passenger Pigeon: message from Martha. S. M. SULLIVAN, *Chicago Acad. Sci. and Peggy Notebaert Nature Mus., Chicago, IL,* and J. GREENBERG, *Peggy Notebaert Nature Mus. and Field Mus., Chicago, IL.*
- 220 Tracking responses to marine derived nutrients in American Dippers in the context of the largest dam removal in United States history. CHRISTOPHER M. TONRA, PETER P. MARRA *Smithsonian Conser. Biol. Inst., Washington, DC,* and KIMBERLY SAGER-FRADKIN *Lower Elwha Klallam Tribe, Port Angeles, WA.*
- 221 Effects of switchgrass intercropping in early successional pine plantations on bird communities. ZACHARY G. LOMAN, SAMUEL K. RIFFELL, *Dept. Wildl., Fish. & Aquaculture, Mississippi State Univ., Mississippi State, MS,* and DARREN A. MILLER, *Weyerhaeuser NR Co., Columbus, MS.*
- 222 Range-wide variation in foraging habitat quality for the Red-cockaded Woodpecker. ANN E. McKELLAR, DYLAN C. KESLER, *Fish. & Wildl. Sci., Univ. Missouri-Columbia, Columbia, MO,* ROBERT J. MITCHELL, *Joseph W. Jones Ecol. Res. Center, Newton, GA,* DAVID K. DELANEY, *Engineer Res. & Develop. Center - Const. Engineering Res. Lab., Champaign, IL,* and JEFFREY R. WALTERS, *Virginia Tech, Blacksburg, VA.*

Session 11C. Ecology, Jeffrey F. Kelly, chair

- 223 Winter food limits timing of pre-alternate molt in a short-distance migrant. RAYMOND M. DANNER, RUSSELL GREENBERG, *Smithsonian Inst., Washington, DC*, and JEFFREY R. WALTERS, *Virginia Tech, Blacksburg, VA*.
- 224 Co-occurrence of Marsh Wrens and Yellow-headed Blackbirds at wetlands in Iowa. TYLER M. HARMS, STEPHEN J. DINSMORE, *Dept. Nat. Res. Ecol. & Manage., Iowa State Univ., Ames, IA*.
- 225 Listening to birds in the twentieth century. ALEXANDRA E. HUI, *Dept. Hist., Mississippi State Univ., Mississippi State, MS*.
- 226 Energetics of an abundant insectivore: the Purple Martin. JEFFREY F. KELLY, ELI S. BRIDGE, *Oklahoma Biol. Surv., Univ. Oklahoma, Norman, OK*, WINIFRED F. FRICK, *Univ. California, Santa Cruz, CA*, and PHILLIP B. CHILSON, *Adv. Radar Res. Center, Univ. Oklahoma, Norman, OK*.
- 227 Abundance and distribution of Pygmy Nuthatch in the southern and northern Rockies. ROBERT A. SPARKS, DAVID C. PAVLACKY, JR. AND DAVID J. HANNI, *Rocky Mountain Bird Observatory, Fort Collins, CO*.

NOTE: Lectures 229 - 234, comprising a special supplemental session 9D, were scheduled Friday afternoon, 16 August, and are located in the Friday sequence.

Poster Session (Thursday, 15 August 2013)

- 301 Cooperation and conflict among kin: disentangling the factors influencing dispersal in a passerine bird. STEPFANIE M. AGUILLON and RENEE A. DUCKWORTH, *Univ. Arizona, Tucson, AZ*.
- 302 Examining occupancy, abundance, and distribution of resident boreal birds in northern Wisconsin. NICHOLAS M. ANICH, MIKE WORLAND and KARL J. MARTIN, *Wisconsin Dept. Nat. Res., Ashland, WI*.
- 303 Does Brown-headed Cowbird parasitism increase bacterial contamination of host eggs? REBECCA M. ARNS, BRIAN D. PEER and SCOTT M. HOLT, *Dept. Biol. Sci., Western Illinois Univ., Macomb, IL*.
- 304 Improving survival estimates: an investigation of search bias. JULIANNA ARNTZEN, JOHN FAABORG, *Dept. Bio. Sci., Univ. Missouri-Columbia, Columbia, MO*, and FRANK R. THOMPSON III, *USDA Forest Service, North Central Res. Sta., Univ. Missouri-Columbia*.
- 305 A backyard bird film for teaching behavior & evolution? An invitation for educators to evaluate the **Ordinary Extraordinary Junco**. J. W. ATWELL and E. D. KETTERSON, *Dept. Biol., Indiana Univ., Bloomington, IN*.
- 306 How important is structural variation within closed-canopy bottomland forests for managing breeding bird diversity? JARED A. ZIMMERMAN and C. RAY CHANDLER, *Dept. Biology, Georgia Southern Univ., Statesboro, GA*.
- 307 Changes in avian body sizes in response to climate change. STEVEN M. BADAMI, ERICA C. BLUSTEIN, *Rhodes Coll., Memphis, TN*, DANNY BYSTRAK, *Patuxent Wildl. Res. Center, Laurel, MD*, GEORGE E. RELYEA, *Univ. Memphis, Memphis, TN*, and MICHAEL D. COLLINS, *Rhodes Coll.*
- 308 Tracing deuterium through birds and mammals along an elevational gradient in the Sangre de Cristo Mountains. MATTHEW J. BAUMANN and BLAIR O. WOLF, *Biol. Dept., Univ. New Mexico, Albuquerque, NM*.
- 309 Developmental corticosterone levels are correlated with learning and exploratory behavior in Florida

- Scrub-Jays. SARA BEBUS, TOM W. SMALL and STEPHAN J. SCHOECH, *Dept. Biol. Sci., Univ. Memphis, Memphis TN.*
- 310 Seaside Sparrow responses to the Deepwater Horizon oil spill. CHRISTINE M. BERGEON BURNS, STEFAN WOLTMANN, SABRINA S. TAYLOR and PHILIP C STOUFFER, *School Renew. Nat. Res., Agri. Center, Louisiana State Univ, Baton Rouge, LA.*
- 312 Eggshell permeability in clutches of House Wrens: implications for hatching asynchrony. E. KEITH BOWERS, *Illinois State Univ., Normal, IL*, ABIGAIL WHITE, LAUREN PODGORSKI, *Illinois Wesleyan Univ., Bloomington, IL*, CHARLES F. THOMPSON, SCOTT K SAKALUK, *Illinois State Univ.*, WILLIAM B. JAECKLE and R. GIVEN HARPER, *Illinois Wesleyan Univ.*
- 313 Stress and parenting: Hormones and caring for offspring in cooperatively breeding Florida Scrub-jays. KATHLEEN M. BOYD, THOMAS SMALL and STEPHAN J. SCHOECH, *Univ. Memphis, Memphis, TN.*
- 314 The Louisiana Bird Atlas Project: a data base of distributions and abundances of birds in Louisiana. MATTHEW L. BRADY, STEVEN W. CARDIFF, J. V. REMSEN, *Dept. Biol. Sci. and Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, and RICHARD E. GIBBONS, *Houston Audubon Soc., Houston TX.*
- 315 Improving population monitoring strategies for Greater Sage-Grouse: an application of dual frame sampling as an alternative to traditional lek counts. JESSICA E. BRAUCH, BARRY R. NOON, *Colorado State Univ., Ft Collins, CO*, and BRETT L. WALKER, *Colorado Parks & Wildl., Grand Junction, CO.*
- 316 TAGS: A simple online tool for geolocator analysis. ELI S. BRIDGE, PHILIP DOW, JONAH M. DUCKLES, *Univ. Oklahoma, Norman, OK*, SARAH DAVIDSON, *Max Planck Institute for Ornithology, Radolfzell, Germany*, STEFFEN HAHN, *Swiss Ornithological Institute, Sempach, Switzerland*, SIMEON LIISOVSKI, *Deakin Univ., Geelong, Victoria, Australia*, ELDAR RAKHIMBERDIEV, *NOIZ Royal Netherlands Institute for Sea Research, Texel, The Netherlands*, HEIKO SCHMALJOHANN, *Institute of Avian Research, Wilhelmshaven, Germany*, NATHANIEL E. SEAVY, *Point Blue Conservation Science, Petaluma, CA*, MICHAEL D. SUMNER, SIMON J. WOTHERSPOON, *Australian Antarctic Division, Kingston, Australia*, and DAVID W. WINKLER, *Lab. Ornithol., Cornell Univ., Ithaca, NY.*
- 317 Ecology, behavior and reproduction of an introduced populations of Red-vented Bulbuls in Houston, Texas. D. M. BROOKS, *Houston Mus. Nat. Sci., Dept. Vert. Zool., Houston, TX.*
- 318 Furcular fat and plasma corticosterone as indices of migratory readiness in Tree Swallows at a staging area in Louisiana. CLARE E. BROWN, *Dept. Biol. Sci. and Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, ANDREW J. LAUGHLIN, *Dept. Ecol. & Evol. Biol., Tulane Univ., New Orleans, LA*, DAVID W. WINKLER, *Dept. Ecol. & Evol. Biol., Cornell Univ., Ithaca, NY*, and FREDERICK H. SHELDON, *Dept. Biol. Sci. and Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA.*
- 319 Effects of resource availability and parental condition on Carolina Wren nestling sex ratio variation and survival in urban and natural ecosystems. ALYSON E. V. BUCHANAN and DIANE L. H. NEUDORF, *Sam Houston State Univ., Huntsville, TX.*
- 320 Prevalence of haematozoa in migrating Northern Saw-whet Owls of eastern North America. EMMA I. YOUNG and GLENN A. PROUDFOOT, *Dept. Biol., Vassar Coll., Poughkeepie, NY.*
- 321 Use of regenerating clearcuts by mature forest breeding birds: convenience or necessity? ALICIA D. BURKE, JOHN FAABORG, *Div. Biol. Sci., Univ. Missouri, Columbia, MO*, and FRANK R. THOMPSON III, *USDA Forest Serv. Northern Res. Sta., Univ. Missouri.*
- 322 Does specialization increase vulnerability to disturbance in forest birds? A study of the blue orbital ring. LYNDA BURNS and BRYAN J SIGEL, *Nevada State College, Henderson, NV.*
- 323 A morphometric study of the White-starred Robin (*Pogonocichla stellata*). MICHAEL HANSON, JOHN M.

- BATES, *Field Mus., Chicago, IL*, and SUSHMA REDDY, *Loyola Univ. Chicago, Chicago, IL*.
- 324 Testing for female song in newly recognized species: the Puerto Rican Oriole. SUSANNA K CAMPBELL and KEVIN E OMLAND, *Univ. Maryland Baltimore County, Baltimore, MD*.
- 325 Phylogeography of the Vermilion Flycatcher, *Pyrocephalus rubinus* (Passeriformes: Tyrannidae). ORE CARMI, *California Acad. Sci., San Francisco, CA*, CHRISTOPHER C. WITT, *Mus. Southwest. Biol., Albuquerque, NM*, ALVARO JARAMILLO, *San Francisco Bay Bird Observ., Milpitas, CA*, and JOHN P. DUMBACHER, *California Acad. Sci.*
- 326 Biogeography and taxonomy of birds of Maratua Island, Borneo. VIVIEN L. CHUA, *Louisiana State Univ., Baton Rouge, LA*, QUENTIN PHILLIPPS, ROBERT G. MOYLE, *Univ. Kansas, Lawrence, KS*, and FREDERICK H. SHELDON, *Louisiana State Univ.*
- 327 Assessing the contribution of migrating songbirds to the southward expansion of Lyme disease in the Midwestern US. SARAH H. CLEETON, *Prog. Ecol., Evol., & Conserv. Biol., Univ. Illinois at Urbana-Champaign, Champaign, IL*, CHRISTINE M. ROY, JAMES R. MILLER, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois at Urbana-Champaign*, PAGE L. FREDERICKS and BRIAN F ALLAN, *Dept. Entomol., Univ. Illinois at Urbana-Champaign*.
- 328 The effects of urbanization on migrating birds on the western shore of Lake Michigan. ELISABETH L. CONDON, *Integrated Biosci. Prog., Univ. Minnesota, Duluth, MN*, GERALD J. NIEMI, *Nat. Resources Res. Inst., Duluth, MN*, MATTHEW A. ETTERTSON, *US Environ. Protection Agency, Duluth, MN*, and RICHARD GREEN, *Dept. Math. & Stat., Univ. Minnesota*.
- 329 Factors affecting bird non-identification rates in aviation strike reporting. TARA J. CONKLING, JAMES A. MARTIN, JERROLD L. BELANT, *Mississippi State Univ., Mississippi State, MS*, and TRAVIS L. DeVAULT, *USDA Animal & Plant Health Inspection Serv., Natl. Wildl. Res. Center, Sandusky, OH*.
- 330 Prey delivery rates: the effects on songbirds when parasitized by Brown-headed Cowbirds. AMY L. WYNIA, and THOMAS S. RISCH, *Dept. Biol. Sci., Arkansas State Univ., State University, AR*.
- 331 Conservation from orbit; predicting tidal marsh bird communities via remote sensing. MAUREEN CORRELL, BRIAN J. OLSEN, *Univ. Maine, Orono ME*, and THOMAS.P. HODGMAN, *Maine Dept. Inland Fish. & Wildl., Bangor ME*.
- 332 Extra-pair paternity in a recently established population of Grasshopper Sparrows on a restored grassland in Maryland. JULIE E. DANNER, T. BRANDT RYDER, ROBERT C. FLEISCHER, *Center Conserv. & Evol. Genet., Smithsonian Natl. Zool. Park, Smithsonian Inst., Washington, DC*, DANIEL M. SMALL, *Chester River Field Res. Sta., Washington Coll., Chestertown, MD*, BRIAN S. MASTERS, *Dept. Biol. Sci., Towson Univ., Towson, MD*, BERNARD LOHR, *Dept. Biol. Sci., Univ. Maryland-Baltimore County, Baltimore, MD*, and DOUGLAS E. GILL, *Dept. Biol., Univ. Maryland, College Park, MD*.
- 333 Avian productivity, recruitment, and survival in Samoa, Polynesia. N. SUZANNE DAUPHINE, *Dept. Marine & Wildl. Res., Pago Pago, AS*, PETER PYLE, RUDY BADIA, DANIEL LIPP, COLLEEN S. NELL, KEEGAN TRANQUILLO, RON TAYLOR and ERIN ROWAN, *Inst. Bird Pop., Point Reyes Station, CA*.
- 334 Eastern Bluebirds eject model Brown-headed Cowbird eggs, but not white eggs. ELEANOR S. DIAMANT, ELLIOT W. CARTER, IAN J. DANIEL, CHRISTINA L. FONDA, BENJAMIN E. HARDIE, ERIN F. SHUFFLEBARGER and MARK T. STANBACK. *Dept. Biol., Davidson Coll., Davidson, NC*.
- 335 Avian community occupancy and patch disturbance in a heterogeneous landscape. KELSEY M. DREY, JAMES A. MARTIN and SAMUEL K. RIFFELL, *Dept. Wildl., Fish. & Aquaculture, Mississippi State Univ., Mississippi State, MS*.
- 336 Nesting responses of grassland birds in areas managed with the fire-grazing interaction. COURTNEY J.

- DUCHARDT, JAMES R. MILLER, *Univ. Illinois, Urbana-Champaign, IL*, DIANE M. DEBINSKI, *Iowa State Univ., Ames, IA*, and DAVID M. ENGLE, *Oklahoma State Univ., Stillwater OK*.
- 337 Comparing trail cameras and video systems for shorebird nest monitoring. MAUREEN M. DURKIN and JONATHAN B. COHEN, *SUNY Coll. Environ. Sci. & Forestry, Syracuse, NY*.
- 338 * Irruption Black-capped Chickadees integrate into local Carolina Chickadee flocks. CHRISTINE L. ELDRIDGE and ROBERT L. CURRY, *Dept. Biol., Villanova Univ., Villanova, PA*.
- 339 A geographic and historical analysis of bird diversity in Mesoamerica. GERARDO ESPINOSA-GARRIDO, DANIEL MÉNDEZ-ARANDA, ALEJANDRO GORDILLO-MARTINEZ, CÉSAR A. RÍOS-MUÑOZ, and ADOLFO G. NAVARROS-SIGÜENZA. *Mus. Zool., UNAM, Mexico DF, Mexico*.
- 340 An examination of prey in the guts of BoNT/E affected birds. DAVID A. ESIAN and JILL B. K. LEONARD, *Northern Michigan Univ., Marquette, MI*.
- 341 Long-term declines of winter resident warblers in a Puerto Rican dry forest. JOHN FAABORG, *Univ. Missouri-Columbia, Columbia, MO*, W. J. ARENDT, *US Forest Service, Luquillo, PR*, J.D. TOMS, *Eco-Logic Consulting, Victoria, BC*, W. A. COX, *Univ. Nebraska-Omaha, Omaha, NE*, and M. CANALS MORA, *Lajas, PR*.
- 342 * Morphological data do not support the São Francisco River as a geographical barrier for *Aratinga cactorum* (Aves: Psittacidae). ANNA FERRARONI, *Instituto de Biociencias da Universidade de São Paulo, São Paulo, SP, Brasil*, and LUÍS. F. SILVEIRA, *Museu de Zoologia da Universidade de São Paulo*.
- 343 Eastern Bluebirds respond to visual cues of nest predation, but not olfactory cues. CHRISTINA L. FONDA, ELEANOR S. DIAMANT, ELLIOT W. CARTER, IAN J. DANIEL, BENJAMIN E. HARDIE, PRESLEY S. PARKES, JENNA S. PTASCHINSKI, ERIN F. SHUFFLEBARGER and MARK T. STANBACK, *Dept. Biol., Davidson Coll., Davidson, NC*.
- 344 Repeat tracking of individual trans-hemispheric migratory songbirds to examine phenotypic plasticity in spring migration timing and routes. KEVIN C. FRASER and BRIDGET J. M. STUTCHBURY, *Dept. Biol., York Univ., Toronto, ON*.
- 345 The contribution of migrants to North American winter bird communities. TREVOR S. FRISTOE, *Dept. Biol., Univ. New Mexico, Albuquerque, NM*.
- 346 Dissolving dichotomies: obligate and facultative migration in a partially migratory songbird population. A. M. FUDICKAR, *Max Planck Inst. Ornithol., Radolfzell, Germany*, and *Dept. Biol., Indiana Univ., Bloomington, IN*.
- 347 * Innate preferences for conspecific song in two closely related chickadee species: potential consequences for hybridization. STEPHANIE G. WRIGHT, DOUGLAS A. NELSON, *Dept. EEO Biol., Ohio State Univ., Columbus, OH*, and ROBERT L. CURRY, *Dept. Biol., Villanova Univ., Villanova, PA*.
- 348 Geographic extent of hybridization between Black-capped and Mountain Chickadees. ARIEL M. GAFFNEY, *School Integrat. Biol., Univ. Illinois at Urbana-Champaign, Urbana, IL*, MATT D. CARLING, *Dept. Zool. & Physiol., Univ. Wyoming, Laramie, WY*, and ZACHARY A. CHEVIRON, *Dept. Animal Biol., Univ. Illinois at Urbana-Champaign*.
- 349 Leukocyte profiles of migrating Gray Catbirds in relation to habitat use. CARRIE E. GAWNE, YUSHI OGUCHI and JEN C. OWEN, *Dept. Fish. & Wildl., Michigan State Univ., East Lansing, MI*.
- 350 Effects of season and air temperature on snake activity patterns: implications for nest predation. A. D. GEORGE, *Div. Biol. Sci., Univ. Missouri, Columbia, MO*, F. R. THOMPSON, III., *USDA Forest Serv.*

- Northern Res. Station, Columbia, MO, and J. R. FAABORG, Div. Biol. Sci., Univ. Missouri.*
- 351 Testosterone, plumage, and feeding behavior in the Eastern Bluebird. LAUREN M. GILLESPIE and JODIE M. JAWOR, *Univ. Southern Mississippi, Hattiesburg, MS.*
- 352 Genetic structure in Western Scrub-Jays based on nuclear markers. FIONA C. GOWEN, *Moore Lab. Zool., Occidental Coll., Los Angeles, CA*, CARLA CICERO, *Mus. Vert. Zool., Univ. California Berkeley, Berkeley, CA*, A. T. PETERSON, *Univ. Kansas, Lawrence, KS*, and JOHN E. McCORMACK, *Moore Lab. Zool*
- 353 Acoustic characteristics of the American Redstart flight call and an examination of call variation in relation to age and sex. E. T. GRIFFITHS, J. C. ROSS, S. C. KEEN, *Lab. Ornithol., Cornell Univ., Ithaca, NY*, M. LANZONE, *Powdermill Avian Res. Center, Carnegie Mus. Nat. Hist., Pittsburgh, PA*, and A. FARNSWORTH, *Lab. Ornithol.*
- 354 Early ontogeny origin of consistent individual differences in a passerine bird. CHRISTOPHER I. GURGUIS and RENÉE A. DUCKWORTH, *Dept. Ecol. & Evol. Biol., Univ. Arizona, Tucson, AZ.*
- 355 Testing adaptive hypotheses at a continental level: phylogeography, hemoglobins and morphology of Torrent Ducks. N. GUTIERREZ-PINTO, *Lab. de Biología Evolutiva de Vertebrados, Univ. de los Andes, Colombia*, K. G. McCracken, *Inst. Arctic Biology, Univ. Alaska Fairbanks, AK*, L. ALZA, *Corbidi, Peru*, P. TUBARO, C. KOPUCHIAN, *Mus. Argentino de Ciencias Naturales, Argentina*, A. ASTIE, *Inst. Argentino de Invest. de las Zonas Áridas*, and C D CADENA, *Lab. de Biología Evolutiva de Vertebrados, Univ. de los Andes, Colombia.*
- 356 Supermatrix phylogeny and new taxonomy of the booted eagles (Accipitriformes: Aquilinae). HEATHER R. L. LERNER, SONIA KABRA, RACHEL WADLEIGH, *Joseph Moore Mus., Earlham Coll., Richmond, IN*, and JAN OVE GJERSHAUG, *Norwegian Inst. Nature Research, Trondheim, Norway.*
- 357 Migratory pathways of sagebrush-obligate passerines in the intermountain west. STEVEN E. HANSER, STEVEN T. KNICK, *US Geol. Surv., Boise, Idaho, ID*, and MATTHIAS LEU, *Coll. William & Mary, Williamsburg, Virginia, VA.*
- 358 Responses of birds to large-scale wildfires in southern California. LORI HARGROVE and PHILIP UNITT, *Dept. Birds & Mammals, San Diego Nat. Hist. Mus., San Diego, CA.*
- 359 The relationship between body condition and potential plumage signals in the American Goldfinch across an urbanization gradient. R. HARTLAND, JASON FISHER and J. R. MILLER, *Univ. Illinois, Urbana, IL*
- 360 * Estimating spring-migrating waterfowl abundance in the Lower Wabash River region using a grid-based aerial-sampling approach. JACOB D. HENNIG, THOMAS J. BENSON, KIRK W. STODOLA, *Illinois Nat. Hist. Surv. and Dept. Nat. Res. & Environ. Sci., Univ. Illinois, Champaign, IL*, AARON P. YETTER, *Illinois Nat. Hist. Surv., Bellrose Waterfowl Res. Center and Forbes Biol. Sta., Havana, IL*, and JOSHUA D. STAFFORD, *South Dakota Coop. Fish & Wildl. Res. Unit, South Dakota State Univ., Brookings, SD.*
- 361 Bird occupancy in relation to habitat structure in the Cross Timbers oak savanna of Kansas. NATHAN S. HOLOUBEK and WILLIAM E. JENSEN, *Emporia State Univ., Emporia, KS.*
- 362 Wind energy and American Golden-Plovers: Implications for a species of special concern in west-central Indiana. WESLEY T. HOMOYA, JOHN B. DUNNING, Jr., JONATHAN W. MOORE and JOOP JUKEMA, *Dept. For. & Nat. Res., Purdue Univ., W. Lafayette, IN.*
- 363 Living with aliens: effects of invasive shrub honeysuckles on avian nesting ecology. JASON GLEDITSCH, *Biol. Dept., Pennsylvania State Univ. University Park, PA.*

- 364 Modulation of corticosterone in the Northern Cardinal. JODIE M. JAWOR and BENJAMIN M. DUCKWORTH, *Biol. Sci. Dept., Univ. Southern Mississippi, Hattiesburg, MS.*
- 365 Avian use of habitat fragments in California oak-vineyard landscapes. JULIE A. JEDLICKA, *Dept. Environ. Sci., Policy & Manage., Univ. California, Berkeley, CA*, R. GREENBERG, *Migratory Bird Center, Smithsonian Conserv. Biol. Inst., Natl. Zool. Park, Washington, DC*, and P. RAIMONDI, *Dept. Ecol. & Evol. Biol., Univ. California, Santa Cruz, CA.*
- 366 Pairing success of Kirtland's warbler in marginal habitat. KIRSTEN E. JOHNSON, JENNIFER C. OWEN, *Michigan State Univ., East Lansing, MI*, and CAROL I. BOCETTI, *California Univ. Pennsylvania, California, PA.*
- 367 Past territory use and level of interspecific competition influences the timing of territorial establishment and level of aggression in a non-migratory passerine. JOHN A. JONES, MORGAN R. HARRIS and LYNN SIEFFERMAN, *Biol. Dept., Appalachian State Univ., Boone, NC.*
- 368 Leg injuries to birds caused by color bands. How widespread is the problem? MEGAN A. JONES, *Dept. Biol. Sci., Florida State Univ., Tallahassee, FL.*
- 369 Survival and population dynamics of Bell's Vireos in central Missouri. CARA JOOS, *Div. Biol. Sci., Univ. Missouri, Columbia, MO*, FRANK THOMPSON III, *Northern Res. Station, US Forest Serv., Univ. Missouri-Columbia*, and JOHN FAABORG, *Div. Biol. Sci., Univ. Missouri.*
- 370 Correlates of avian building strikes at a glass façade museum surrounded by avian habitat. LOGAN KAHLE, MAUREEN FLANNERY and JOHN P DUMBACHER, *Dept. Ornithol. & Mammal., California Acad. Sci., San Francisco, CA.*
- 371 Effect of microhabitat on the reproductive success of House Wrens. MOHAMMAD Z. KHAN, and JACQUELINE K. AUGUSTINE, *Dept. Evol., Ecol. & Organismal Biol., Ohio State Univ., Lima, OH.*
- 372 Diffuse migratory connectivity in two species of shrubland birds: evidence from stable isotopes. STEVEN T. KNICK, *US Geol. Surv., Boise, ID*, M LEU, *Biol. Dept., Coll William & Mary, Williamsburg, VA*, JOHN T. ROTENBERRY, *Coll. Biol. Sci., Univ. Minnesota, St. Paul, MN*, STEVEN E. HANSER, *US Geol. Surv., Boise, ID*, and KURT A. FESENMYER, *Trout Unlimited, Boise, ID.*
- 373 Characteristics of salt marshes in New York City preferred by nesting Saltmarsh Sparrows. ALISON R. KOCEK, JONATHAN B. COHEN, *SUNY-ESF, Syracuse, NY*, and SUSAN B. ELBIN, *New York City Audubon, New York, NY.*
- 374 Comparative genomics of Pleistocene divergence. LINDSEY M. KREUN, GARTH M. SPELLMAN, *Black Hills State Univ., Spearfish, SD*, JOE D. MANTHEY, *Univ. Kansas. Lawrence, KS*, and JOHN KLICKA, *Burke Mus., Univ. Washington, Seattle, WA.*
- 375 A morphometric analysis of wing shape variation among grouse (Aves: Galliformes). JUSTIN M. KRILOW and A. N. IWANIUK, *Dept. Neurosci., Univ. Lethbridge, Lethbridge, AB.*
- 376 Song divergence, plumage divergence and assortative mating in bird hybrid zones. EMILY J. HUDSON, *Univ. Nebraska- Lincoln, Lincoln, NE*, and TREVOR D PRICE, *Dept. Ecol. & Evol., Univ. Chicago, Chicago, IL.*
- 377 Prey abundance influences plumage coloration and body mass in nestling Eastern Bluebirds. PATRICK LATIMER, MORGAN R. HARRIS and LYNN SIEFFERMAN, *Biol. Dept., Appalachian State Univ., Boone, NC.*
- 378 Patterns of cospeciation and host switching in avian malaria parasites of African sunbirds (Family Nectariniidae). ELVIN J. LAURON, CLAIRE LOISEAU, HOLLY ARCHER, THOMAS B. SMITH, RAURI

- BOWIE, GREG SPICER and RAVINDER N. M. SEHGAL, *San Francisco State Univ., San Francisco, CA.*
- 379 Ecological factors predicting singing on the nest. MAUREEN LEONARD, *Mount Mary Coll., Milwaukee, WI.*
- 380 Monitoring flight calls of nocturnal avian migrants to identify rare or secretive species. VICTOR C. LINCECUM, *School Biol. Sci., Louisiana Tech Univ., Ruston, LA*, WILLIAM R. EVANS, *Oldbird, Inc., Ithaca, NY*, and TERRI J. MANESS, *School Biol. Sci., Louisiana Tech Univ*
- 381 * Plasma corticosterone levels suggest similar stopover habitat quality for riparian corridor woodlands and anthropogenic woodlots in the Northern Prairie region. MING LIU and DAVID L. SWANSON, *Dept. Biol., Univ. South Dakota, Vermillion, SD.*
- 382 Combining phylogeography and the geography of adaptation to understand population history: Ruddy Ducks in the New World. MARÍA LOZANO-JARAMILLO, *Lab. Biol. Evol. de Vert., Depto. de Ciencias Biológicas, Universidad de Los Andes, Bogotá, Colombia*, KEVIN McCracken, *Inst. Arctic Biol. & Dept. Biol. & Wildl., Univ. Alaska, Fairbanks, AK*, LUIS ALBERTO ALZA, *Inst. Arctic Biol.; Dept. Biol. & Wildl., Univ. Alaska, and Centro de Ornitología y Biodiversidad (CORBIDI), Lima, Perú*, and CARLOS DANIEL CADENA, *Lab. Biol. Evol. de Vert., Depto. de Ciencias Biológicas, Universidad de Los Andes*
- 383 Factors associated with occupancy of Barn Owl nest boxes in Illinois. AMBER K. WINGERT and THOMAS J. BENSON, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois, Champaign, IL.*
- 384 Available breeding habitat and population estimate for Audubon's Shearwater in the Caribbean. WILLIAM A MACKIN, *Seabird Working Group, Soc. for the Cons.Study of Carib. Birds*
- 385 Just like dear old dad? Are there similarities in the aggressive threat vocalizations of father and son Common Loons? JAY MAGER, *Dept. Biol. & Allied Health Sci., Ohio Northern Univ., Ada, OH.*
- 386 Refutation of Wyoming nesting record of the Pacific Wren. JAMES M. MALEY, JACOB R. SAUCIER and MATTHEW D. CARLING, *Mus. Vert., Dept. Zoo. & Phys., Univ. Wyoming, Laramie, WY.*
- 387 How well do species tree methods deal with gene flow? The case of mitochondrial introgression in the Northern Oriole complex. JOHN MALLOY, LEILA BAHMANI, FRODE JACOBSEN, MATTHIAS GOBBERT, *Dept. Math., Univ. Maryland Baltimore Co., Baltimore, MD*, and KEVIN OMLAND, *Dept. Biol. Sci., Univ. Maryland Baltimore Co.*
- 388 Mate choice in a male-biased population. TERRI J. MANESS, *School Biol. Sci., Louisiana Tech Univ., Ruston, LA*, and DAVID J. ANDERSON, *Biol. Dept., Wake Forest Univ., Winston-Salem, NC.*
- 389 The influence of land-cover type and vegetation on nocturnal foraging activities and vertebrate prey acquisition by Burrowing Owls. ALAN MARSH, E. BAYNE, and T. WELLICOME, *Dept. Biol. Sci., Univ. Alberta, Edmonton, AB.*
- 390 Origin and biogeographic history of the family Trogonidae. WILLIAM M MAUCK III, JOEL L. CRACRAFT, *Dept. Ornithol., Am. Mus. Nat. Hist., New York, NY*, PETER HOSNER and ROBERT G. MOYLE, *Dept. Ecol. & Evol. Biol. and Biodiversity Inst., Univ. Kansas, Lawrence, KS.*
- 391 Life histories of high elevation tropical birds in Malaysian Borneo, ADAM MITCHELL and T. E. MARTIN, *Missoula, MT.*
- 392 * The impact of human disturbance on the foraging ecology of Green Herons. AMANDA A. MOORE and M. CLAY GREEN, *Texas State Univ., San Marcos, TX.*
- 393 Video evidence of infanticide by a female Red-winged Blackbird. LES D. MURRAY, *Div. Sci. & Engineering, Penn State Abington, Abington, PA.*

- 394 * The effects of environmentally relevant doses of 17 α -ethinylestradiol on stress response in Zebra Finches. MADELEINE F. NAYLOR and JENNIFER L. GRINDSTAFF, *Zool. Dept., Oklahoma State Univ., Stillwater, OK.*
- 395 Mapping the spread of infectious disease in a migratory songbird. ALLISON NELSON and RAVINDER SEHGAL, *San Francisco State Univ., San Francisco, CA.*
- 396 * Spatial variability in mercury exposure and diet in Brown Pelicans in North Carolina. KIERSTEN N. NEWTOFF, *Dept. Biol. & Mar. Biol., Univ. North Carolina Wilmington, Wilmington, NC.*
- 399 Physiological and immunological consequences of using differential stopover habitats in fall migrating landbirds. YUSHI OGUCHI and JEN OWEN, *Dept. Fish. & Wildl., Michigan State Univ., East Lansing, MI.*
- 400 Lack of experience in local nest predation causes unsuitable nest site selection in the Narcissus Flycatcher. YUJI OKAHISA, GEN MORIMOTO, *Dept. Life Sci, Rikkyo Univ., Tokyo, Japan,* and KENTARO TAKAGI *Japan Bird Res. Assoc., Tokyo, Japan.*
- 401 Deep mitochondrial divergence within Common Ravens: speciation in reverse in the western US and Canada? KEVIN E. OMLAND, ANNA KEARNS, *Dept. Biol. Sci., Univ. Maryland Baltimore Co., Baltimore, MD,* WILLIAM C. WEBB, JOHN M. MARZLUFF, *Univ. Washington, Seattle, WA,* and ARILD JOHNSON, *Univ. Oslo, Oslo, Norway.*
- 402 Habitat characteristics of Greater and Lesser Prairie-Chicken leks in a recently developed hybrid zone. KEVIN J. OXENRIDER, *Dept. Evol., Ecol. & Organ. Biol., Ohio State Univ., Columbus, OH,* and JACQUELINE K. AUGUSTINE, *Dept. Evol., Ecol. & Organ. Biol., Ohio State Univ., Lima, OH.*
- 404 What does Gloger's Rule describe? A comparison of climatic factors and coloration in the Song Sparrow. JENNIFER L. PHILLIPS, AMY E. SANCHEZ and GAIL L. PATRICELLI, *Dept. Evol. & Ecol., Univ. California-Davis, Davis, CA*
- 405 A review of species limits in the Variable Mountain Gem complex (*Lampornis* sp.). MATTHEW J. MILLER and DANIEL E. BUITRAGO, *Smithsonian Tropical Res. Inst., Panamá, República de Panamá.*
- 406 A comparison of the bacterial microflora found on House Wren and American Kestrel eggs. BETH A. POTTER, EMILY J. HYDE, HOLLY N. PIER and MARGARET A. VOSS, *School Sci., Penn State Erie, The Behrend College, Erie, PA.*
- 407 Investigating the abilities of Autonomous Aerial Acoustic Recording Systems (AAARS) to monitor grassland bird populations in inaccessible areas. STEPHANIE C. PREVOST, EMILY V. HOCKMAN, DAVID A. BUEHLER, MATHEW G. MENACHERY, STACY K. WORLEY, JOHN B. WILKERSON, DAVID R. SMITH, *Univ. Tennessee, Knoxville, TN,* and RICHARD A. FISCHER, *US Army Engineer Res. & Develop. Center, Environ. Lab., Vicksburg, MS.*
- 408 Chronic stress and gonadotropin inhibitory hormone expression in White Leghorns. ELIZABETH A. PUSCH, JUDD A. THOMPSON and KRISTEN J. NAVARA, *Dept. Poultry Sci., Univ. Georgia, Athens, GA.*
- 409 Song delivered by male Carolina Wrens during nestling provisioning in urban and rural habitats. C. A. RANDALL and D. L. H. NEUDORF. *Sam Houston State Univ., Huntsville, TX.*
- 410 Introgression and phenotypic assimilation in *Zimmerius* flycatchers (Tyrannidae): population genetic and phylogenetic inferences from genome-wide SNPs. FRANK E. RHEINDT, *Dept. Biol. Sci., Natl. Univ. Singapore,* MATTHEW K. FUJITA, *Dept. Biol., Univ. Texas at Arlington, Arlington, TX,* PETER R. WILTON and SCOTT V. EDWARDS, *Dept. Organ. & Evol. Biol., Harvard Univ., Cambridge, MA.*
- 411 * Plain Wrens adjust their singing timing based on self and partner's cues to perform precisely coordinated duets. KARLA D. RIVERA-CÁCERES, *Univ. Miami, Miami, FL.*

- 412 Evidence for cost of fattening from natural populations. CHRISTOPHER M. ROGERS, *Avian Biol. Lab., Dept. Biol. Sci., Wichita State Univ., Wichita, KS.*
- 413 Do male House Wrens vary their singing among various reproductive stages? NATHANIEL J. SACKINGER and JACQUELINE K. AUGUSTINE, *Dept. Evol., Ecol. & Organismal Biol., Ohio State Univ., Lima, OH.*
- 414 Comparative phylogeography of three genera of Birds of Paradise (Paradisaeidae) across the highlands of New Guinea. CAMILO SANIN, JESSICA A. SHEARER and JOEL CRACRAFT. *Am. Mus. Nat. Hist., New York, NY.*
- 415 Genetic variation in Mexican populations of *Picooides fumigatus* (Picidae). JESÚS SANTIAGO-GARCÍA, MELISA VÁZQUEZ-LÓPEZ, MARISOL RAMÍREZ-BARRERA, LUZ ESTELA ZAMUDIO-BELTRÁN and BLANCA ESTELA HERNÁNDEZ-BAÑOS. *Museo de Zoología. Depto. Biología Evolutiva. Facultad de Ciencias, Universidad Nacional Autónoma de México, DF, México*
- 416 Confirmation and characterization of a recently-established hybrid zone between Melanesian honeyeaters (genus *Myzomela*). JASON M. SARDELL and J. ALBERT C. UY, *Dept. Biol., Univ. Miami, Coral Gables, FL.*
- 417 Performance of birds as surrogate group of plants. ROBERTO SÁYAGO, *Unidad Académica en Desarrollo Sustentable, Campus Costa Grande, Universidad Autónoma de Guerrero, Guerrero, México*, JUAN MARTÍNEZ, MIGUEL ANGEL SALINAS, MARIA de las NIEVES BARRANCO and GUILLERMO IBARRA-MANRÍQUEZ, *Centro de Investigaciones en Ecosistemas, Universidad Nacional Autónoma de México, Michoacán, Morelia, México.*
- 418 * Ranging behaviour of brood parasitic Shiny and Screaming Cowbirds while searching for host nests. ROMINA C. SCARDAMAGLIA and JUAN C. REBORDA, *Univ. de Buenos Aires, Buenos Aires, Argentina.*
- 419 Range expansion and the breakdown of Bergmann's rule in Red-bellied Woodpeckers. KATHRYN J. SCHNEIDER, *Hudson Valley Community Coll., Troy, NY*, and JEREMY J. KIRCHMAN, *New York State Mus., Albany, NY.*
- 420 Arrival order in relation to male quality and territory characteristics in the Blue-and-white Flycatcher. K. SEO and KEISUKE UEDA, *Dept. Life Sci., Rikkyo Univ. Tokyo, Japan*
- 421 The effect of egg crypsis on Mountain Plover nest survival. PAUL D. B. SKRADE and STEPHEN J. DINSMORE, *Dept. Nat. Res. Ecol. & Manage., Iowa State Univ., Ames, IA.*
- 422 Estimating survival and recovery rates of Wilson's Snipe in Eastern and Central North America. H. M. SPECHT and T. W. ARNOLD, *Dept. Fish., Wildl. & Conserv. Biol., Univ. Minnesota, St Paul, MN.*
- 423 Reversing songbird decline: Overwinter food supplementation significantly increases assumed survival of the Dark-eyed Junco. ANDREW J. SPELLMEYER and CHRISTOPHER M. ROGERS, *Dept. Biol. Sci., Wichita State Univ., Wichita, KS.*
- 424 Does social inertia limit a species geographic range? K. W. STODOLA and M. P. WARD, *Dept. Nat. Res. & Environ. Sci., Univ. Illinois, Urbana, IL.*
- 425 Trophic structure of grassland birds in a forested landscape: insights from stable isotopes. JEFF STRATFORD, NED FETCHER, COLLEEN PIKE, ALEXA GOLECKI, KEVIN ANDERSON, KATIE JESCAVAGE, RYAN KAISER and JOHN JANOSOV, *Wilkes Insti. Environ. Sci., Wilkes Univ., Wilkes-Barre, PA.*
- 427 Lifetime achievement awards or "mate choice" award? KIM SULLIVAN and MaLaura CREAGER, *Dept.*

Biol., Utah State Univ., Logan, UT.

- 428 Corrosion casts: a novel application of Pu4ii resin for visualizing eggshell pore morphology. MARK T. SWANSON, JASON P. MURPHY, WILLIAM B. JAECKLE and R. GIVEN HARPER, *Dept. Biol., Illinois Wesleyan Univ., Bloomington, IL.*
- 429 OMBIRDS: A new template for creating a media voucher for archiving avian blood and their derivatives (Online Museum of Bird Images and Recordings associated with DNA Samples). ILDIKO SZABO, STEPHANIE CAVAGHAN, GRANT HURLEY and DARREN E. IRWIN, *Beaty Biodiversity Mus., Univ. British Columbia, Vancouver, BC.*
- 430 A modified method to measure gas exchange through pores in eggshell fragments. SARAH TAKUSHI and WILLIAM JAECKLE. *Dept. Biol., Illinois Wesleyan Univ., Bloomington, IL.*
- 431 Modeling vertebrate species in the US: Species modeling efforts of the Gap Analysis Program. NATHAN TARR, *North Carolina State Univ., Raleigh, NC*, JOCELYN AYCRIGG, JEFF LONNEKER, *Univ. Idaho, Moscow, ID*, MATT RUBINO, *North Carolina State Univ.*, KEN BOYKIN, *New Mexico State Univ., Las Cruces, NM*, THOMAS LAXSON, *Univ. Idaho*, ALEXA MCKERROW, *US Geol. Surv., Raleigh, NC*, GARY BEAUVAIS, *Univ. Wyoming, Laramie, WY*, TRACEY GOTTHARDT, *Univ. Alaska, Anchorage, AK*, and WILLIAM GOULD, *USDA Forest Service, Rio Piedras, PR.*
- 432 Banding and flight call acoustic data: gaining more insight into avian migration. AMY K. TEGELER, ANDREW VITZ, MICHAEL LANZONE, EMMA DELEON and LEWIS GROVE, *Carnegie Mus. Nat. Hist., Powdermill Nature Reserve, Rector, PA.*
- 433 Effect of dispersal abilities and climatic niche breadth on avian diversification rates. ELKIN TENORIO, CARLOS D. CADENA, *Dpto. Ciencias Biológicas, Univ. de los Andes, Colombia*, GUSTAVO A. BRAVO, ROBB T. BRUMFIELD, *Dept. Biol. Sci. and Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA*, and MORTON L. ISLER, *Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC.*
- 434 Cooperative breeding in the Yucatan Jay: social organization varies with environmental conditions. FLAVIA TERMIGNONI GARCIA, C. C. M. BAKER and P. P. ESCALANTE, *Instituto de Biología, Departamento de Zoología, UNAM, Mexico City, Mexico*
- 436 Reduced total genetic diversity following translocations? A metapopulation approach. AMALI H. THRIMAWITHANA, *Bioinformatic Inst., School Biol. Sci., Univ. Auckland, Auckland, New Zealand*, LUIS ORTIZ-CATEDRAL, *Inst. Nat. Sci., Massey Univ., Albany, New Zealand*, ALLEN RODRIGO, *Dept. Biol., Duke Univ. and Natl. Evol. Synthesis Center, NSF, Durham, NC* and MARK E HAUBER, *Animal Beh. and Conserv. Prog., Dept. Psychol., Hunter Coll. and Grad. Center, City Univ. New York, New York, NY.*
- 438 Using building strikes in Chicago to compare the relative influence of endogenous and environmental factors on breeding preparation in migrating Ovenbirds. CHRISTOPHER M. TONRA, PETER P. MARRA, *Smithsonian Conserv. Biol. Inst., Washington, DC*, DAVID WILLARD, *Field Mus., Chicago, IL*, and REBECCA L. HOLBERTON, *Univ. Maine, Orono, ME.*
- 439 Morning flights of migrating birds relate to density of nocturnal migration and direction and speed of nocturnal winds aloft. BENJAMIN M. VAN DOREN, WESLEY M. HOCHACHKA, *Lab. Ornithol., Cornell Univ., Ithaca, NY*, JED IRVINE, *Dept. Computer Sci., Oregon State Univ., Corvallis, OR*, KEVIN W. WEBB, *Lab. Ornithol.*, JEFFREY GEEVARGHESE, DANIEL SHELDON *Dept. Computer Sci., Univ. Massachusetts, Amherst, MA*, and ANDREW FARNSWORTH, *Lab. Ornithol.*
- 440 * Apparent adult survival estimates for seventeen songbird species in northeast Kansas. BRAM H. F. VERHEIJEN and BRETT K. SANDERCOCK, *Div. Biol., Kansas State Univ., Manhattan, KS.*
- 441 Developing a genetic hybrid index for Saltmarsh and Nelson's Sparrows. JENNIFER WALSH and ADRIENNE I. KOVACH, *Univ. New Hampshire, Durham, NH.*

- 442 * Personality trait development and relationships to learning in Zebra Finches. MATTHEW WASELIK and JENNIFER L. GRINDSTAFF, *Dept. Zool., Oklahoma State Univ., Stillwater, OK.*
- 443 American Goldfinch courtship feeding relationship to male characteristics: do younger males try harder and earlier? DORIS WATT, MARGARET BECKER and JENNA IBERLE, *Saint Mary's Coll., Notre Dame, IN.*
- 444 Production of variable microsatellites and application on a species of cooperatively breeding wren. MICHAEL T. WELLS and F. KEITH BARKER, *Dept. Ecol. Evol. & Behav., Univ. Minnesota, St Paul, MN.*

INDEX OF AUTHORS

Symposium papers are prefixed by "s"; general papers are numbered 1 - 228 and poster numbering begins with 301.

Abolins-Abols, M	103	Arendt, W J	341	Barker, F K	s1.6
Adams, E M	109	Arnett, E B	149	Barker, F K	s1.8
Adams, E M	203	Arnold, T W	87	Barranco, M D L N	417
Aguilar, M A	s7.4	Arnold, T W	422	Barron, D G	38
Aguillon, S A	301	Arns, R A	303	Barrowclough, G F	137
Akcakaya, R	s3.3	Arntzen, J M	304	Bart, H	s10.13
Akcay, C	20	Aron, C	131	Bartlow, A W	s7.5
Albrecht-Malinger, D	18	Astie, A	355	Bateman, B L	s3.3
Albright, T P	s3.3	Atkins, G	146	Bateman, P W	16
Aldinger, K	s4.10	Atwell, J W	210	Bates, J M	94
Aldinger, K	s4.5	Atwell, J W	305	Bates, J M	152
Aldinger, K	s4.8	Augustine, J K	101	Bates, J M	323
Aldinger, K	s4.9	Augustine, J K	212	Bates, J M	s6.3
Aldredge, J	18	Augustine, J K	371	Bates, J M	s6.6
Aldredge, R A	48	Augustine, J K	402	Bates, J M	s7.2
Aleixo, A	141	Augustine, J K	413	Bateson, Z W	22
Aleixo, A	152	Aycrigg J	24	Baumann, M J	308
Aleixo, A	s7.2	Aycrigg, J	431	Bayne, E	389
Alexandrino, E R	23	Bçkony, V	86	Beatty, W S	110
Allan B F	327	Badami, S B	307	Beauvais, G	431
Alvarado-Castro, J A	45	Badia, R	333	Bebus, S	16
Alza, L	355	Bahmani, L	387	Bebus, S	309
Alza, L A	382	Bailie, S K	13	Beck, M L	10
Ambardar, M	37	Baillie, S K	12	Becker, D A	31
Andersen, D E	s4.1	Baker, A J	54	Becker, M	443
Andersen, D E	s4.11	Baker, A J	144	Belant, J L	329
Andersen, D E	s4.12	Baker, A J	177	Bell, D A	191
Andersen, D E	s4.13	Baker, C A	s2.8	Bellinger, M R	204
Andersen, D E	s4.15	Baker, C C M	434	Bennett, R	s4.7
Andersen, M J	142	Bakermans, M	s4.5	Bensch, S	P3
Anderson D J	388	Bakermans, M	s4.8	Benson, T J	77
Anderson, D J	117	Balakrishnan, C N	s6.5	Benson, T J	78
Anderson, K	425	Baldassarre, D T	67	Benson, T J	160
Anderson, T K	165	Baldassarre, D T	68	Benson, T J	193
Andrews, D M	44	Banks, M A	204	Benson, T J	360
Anich, N M	302	Barber, J R	34	Benson, T J	383
Appelt, C W	s2.8	Barker Swarthout, S	s4.3	Benz, B W	136
Arcese, P	187	Barker Swarthout, S	s4.4	Bergeon Burns, C M	310
Archer, H	378	Barker, C	230	Bergner, L	141
Ardia, D R	84	Barker, F K	444	Bierregaard, R	184

Billerman, S M	192	Bubac, C M	147	Chalfoun A D	33
Bingman, V P	205	Buchanan, A E V	319	Chalkowski, K	s10.12
Bitton, R-P	s5.3	Buehler, D A	55	Chandler, C R	116
Blakesley, J A	217	Buehler, D A	200	Chandler, C R	306
Bloch, N I	s5.7	Buehler, D A	407	Chandler, R	s4.2
Block, N L	s6.3	Buehler, D A	s4.1	Chandler, R	s4.6
Bloom, D	s10.13	Buehler, D A	s4.15	Chang, B S W	s5.7
Blundell, M A	s8.6	Buehler, D A	s4.2	Chastel, O	86
Blustein E C	307	Buehler, D A	s4.5	Chavez, A N	92
Boarman, W I	191	Buehler, D A	s4.8	Chesser, R T	141
Bocetti, C	366	Buitrago, D	405	Cheviron, Z A	41
Bohall Wood, P	s4.10	Buler, J J	157	Cheviron, Z A	74
Bohrer G	158	Buler, J J	161	Cheviron, Z A	104
Bohrer, G	171	Bump, J	s4.7	Cheviron, Z A	348
Bonisoli-Alquati A	32	Buranek, S C	191	Cheviron, Z A	s9.13
Bonter, D N	172	Burke, A D	321	Chiavacci, S J	77
Bonter, D N	206	Burke, T	86	Chilson, P B	226
Bostwick, K S	s10.3	Burleigh, J G	138	Chua, V L	326
Bostwick, K S	s10.4	Burness G	197	Chutter, C M	19
Bowers, E K	312	Burns, K J	139	Cicero, C	72
Bowie, R	378	Burns, K J	151	Cicero, C	352
Bowie, R C K	185	Burns, K J	s1.8	Cicero, C	s10.13
Bowie, R C K	s6.2	Burns, K J	s10.5	Claramunt, S	95
Bowie, R C K	s6.9	Burns, L	322	Claramunt, S	s1.2
Bowlin, M S	111	Burtt, E H	166	Claramunt, S	s10.10
Bowman, R	18	Bush, S E	s7.4	Claramunt, S	s10.6
Boyce, W	230	Butler, M W	s5.1	Clark, C J	188
Boyd, K M	313	Buxton, V L	78	Clark, R	42
Boykin, K	431	Bystrak D	307	Clarke, J	s1.0.
Boyle, W A	25	Cadena, C D	355	Clarke, J A	144
Brady, A	134	Cadena, C D	382	Clarke, J A	P1
Brady, M L	314	Cadena, C D	433	Clarke, J A	s1.1
Brandt, J S	29	Campbell, S	324	Clayton, D H	s7.4
Brasso, R L	163	Canals Mora, M	341	Clayton, D H	s7.5
Brauch, J E	315	Cardiff, S W	314	Cleeton, S H	327
Braun, E L	138	Carling M D	104	Clinchy, M	s8.2
Braun, E L	s6.7	Carling, M D	70	Cochran J	111
Bravo, G	433	Carling, M D	74	Cochran W W	111
Bravo, G A	141	Carling, M D	155	Cochran, W W	160
Brawn, J D	165	Carling, M D	192	Cohen, E B	62
Brawn, J D	s9.13	Carling, M D	348	Cohen, J B	173
Brennan, C L	97	Carling, M D	386	Cohen, J B	195
Bridge, E S	21	Carlisle, J	34	Cohen, J B	337
Bridge, E S	205	Carlson, R D	s2.4	Cohen, J B	373
Bridge, E S	226	Carmi, O	325	Collins M D	307
Bridge, E S	316	Carter, E W	334	Commons, K A	s2.4
Bridge, E S	s2.7	Carter, E W	343	Condon, E	328
Brooks, D M	317	Castillo-Guerrero, J A	148	Confer, J	s4.5
Brown, C E	318	Catanach, T A	140	Confer, J	s4.8
Brumfield, R T	95	Catlin, DH	131	Conkling, T J	329
Brumfield, R T	143	Caton, J L	114	Contina, A	21
Brumfield, R T	433	Cavaghan, S	429	Conway, C J	24
Brumfield, R T	s10.6	Celis-Murillo, A	160	Conway, C J	76

Conway, C J	162	Deppe, J L	160	Engel, J	s6.6
Cooper, C E	84	Derryberry, E	s10.6	Engle D M	336
Cooper, N W	61	DeSante, D	207	English, P A	126
Cooper, S J	6	DeVault, T L	329	Enright, J M	s5.6
Corbo, J C	s5.6	Diamant, E S	334	Enriquez, L M	148
Cordeiro, N J	s9.3	Diamant, E S	343	Enstrom, D A	111
Cornel, A J	167	Dickinson, J L	20	Escalante, P P	434
Correa, G D	88	Diehl, R H	160	Espinosa-Garrido, G	339
Correll, M	331	Dillon, K G	76	Essian, D A	340
Cousineau, C J	6	Dinsmore, S J	215	Etterson, M	328
Couto, H T Z	23	Dinsmore, S J	224	Etterson, M A	47
Covino, K M	113	Dinsmore, S J	421	Etterson, M A	127
Cox, A S	75	DiSciullo, R A	190	Evans, W R	380
Cox, W A	26	Dodge, S	158	Faaborg, J	60
Cox, W A	75	Dodge, S	171	Faaborg, J	75
Cox, W A	89	Dolan, A C	19	Faaborg, J	304
Cox, W A	341	Dornak, L L	24	Faaborg, J	321
Cracraft J L	390	Douglas, D	171	Faaborg, J	341
Cracraft, J	414	Dow, P	316	Faaborg, J	369
Cracraft, J	s1.2	Drey, K	335	Faaborg, J R	350
Crawford, D	s4.3	Driver, R J	7	Fahrig, L	27
Crawford, D L	s4.4	Duchamp, J	s4.10	Faircloth, B	s10.8
Creager, M	427	Duchardt, C J	336	Faircloth, B C	143
Crouch, N M	184	Duckles, J M	316	Fairhurst, G D	42
Cruz, A	8	Duckworth R A	354	Fang, Z D	29
Culbert, P D	90	Duckworth, B	364	Farnsworth, A	353
Cunningham, J A	58	Duckworth, R A	83	Farnsworth, A	439
Curry, C M	69	Duckworth, R A	301	Feo, T J	189
Curry, R L	12	Dudash, M R	81	Fernandez, G	148
Curry, R L	13	Dumbacher, J P	325	Fernandez-Juricic, E	s9.11
Curry, R L	71	Dumbacher, J P	370	Ferraroni, A	342
Curry, R L	338	Dunn, P O	22	Ferraz, K M P M B	23
Curry, R L	347	Dunning, J B	362	Ferretti, V	12
DaCosta, J M	s6.5	Dunning, J B	s2.5	Fesenmyer, K A	372
Dakin, R	s5.5	Durkin, M M	173	Fesnock A I	191
Dale, C A	20	Durkin, M M	337	Fetcher, N	425
Dallas, T R	193	Duro, D	27	Fife, I	233
Daniel, I J	334	DuVal, E H	66	Filadelfo, T	82
Daniel, I J	343	DuVal, E H	122	Fink, D	s3.5
Danner, J E	332	DuVal, E H	182	Fischer, J	359
Danner, R M	186	Eaton, M D	53	Fischer, J D	s2.6
Danner, R M	223	Edwards, S V	54	Fischer, R A	407
Dauphine, N S	333	Edwards, S V	144	Fjeldsa, J	s6.12
Dauphine, N S	s9.2	Edwards, S V	410	Flamm, J C	s2.3
Davidson, S	316	Elbin S B	373	Flannery, M	370
Davidson, S C	158	Elderbrock, E K	39	Flaspohler, D	s4.14
Davidson, S C	171	Eldredge, C L	338	Flather, C H	90
Deaner, L	116	Eliason, C M	s5.3	Flather, C H	s3.2
Debinski D M	336	Ellis, V A	2	Flather, C H	s3.3
Delaney, D K	222	Ellis, V A	s7.6	Fleischer, R C	332
Deleon, E	432	Elmore, R D	194	Fleischer, R C	s7.8
Delmore, K E	159	Emmons, G	191	Fleischer, R C	s8.4
DeMatteo, K	s7.3	Emslie, S D	163	Foerster, K	437

Fonda, C L	334	Graham, C H	P2	Harms, T M	224
Fonda, C L	343	Grande, L	s1.0.	Harper R G	428
Fonseca, R D	134	Gratto-Trevor, C L	131	Harper, R G	312
Fontaine, J J	78	Green, D J	126	Harris, M R	15
Fowler, J	14	Green, M C	392	Harris, M R	367
Francis, C D	8	Green, R	328	Harris, M R	377
Francis, C D	98	Green, R E	134	Harrison, E H	s5.6
Franco, C	148	Greenberg, J	219	Hartland, R	359
Frantz, M W	s4.10	Greenberg, R	186	Harvey, M G	143
Fraser, K C	344	Greenberg, R	223	Harvey, T A	s10.3
Fredericks P L	327	Greenberg, R	365	Haslerig, J M	60
Frick, W F	226	Gregory, A J	169	Hathorn, G	196
Fristoe, T S	345	Gregory, A J	170	Hauber, M	436
Frohnapple, K J	125	Gregory, T R	s10.9	Hauber, M E	s8.7
Fudickar, A M	346	Greig, E	s10.12	Hawkins, L R	s8.1
Fuhlendorf, S D	194	Greig, E I	67	Hawley, D M	10
Fujita, M K	410	Griffiths, E T	353	Hayward, J	146
Fulton, T L	134	Grindstaff, J L	37	Hayward, J L	73
Gaffney, A M	348	Grindstaff, J L	394	Hayward, J L	150
Galen, S C	92	Grindstaff, J L	442	Heath, J A	232
Galen, S C	164	Groth, J G	137	Heglund, P	s3.3
Galen, S C	s7.7	Grove, L	432	Heins, L E	176
Galla S	135	Grundel, R	125	Helton, LW	129
Garcia, V	91	Grunst, A S	105	Heming, N M	79
Gawin, D F	93	Grunst, M	17	Heming, N M	88
Gawne, C E	349	Grunzel, D P	123	Hennig, J D	360
Geevargehese, J	439	Grunzel, D P	203	Henschen, A E	22
Gehring, J L	128	Guaraldo, A C	208	Henson, S	146
George, A D	350	Guralnick, R	s10.13	Henson, S M	73
Gerson, A R	231	Guralnick, R P	51	Henson, S M	150
Ghalambor, C K	85	Gurguis, C I	354	Herkert, J R	130
Ghalambor, C K	178	Gutierrez-Pinto, N	355	Herkert, J R	130
Gibbons, R E	314	Gutierrez-Ruacho, O G	45	Hernandez-Banos, B	415
Gilbert, M T P	134	Gutzwiller, K J	132	Hess, S C	209
Gill, D E	332	Gutzwiller, K J	s3.2	Hethcoat M G	33
Gillespie, L M	351	Hackett, S J	s10.11	Hill, G E	54
Girard, J	27	Hackett, S J	s6.3	Hill, G E	107
Gjershaug, J O	356	Hahn, D C	43	Hite, J	s10.12
Gleditsch, J	363	Hahn, S	316	Hobson, K A	s4.14
Glenn, T G	143	Hale, J A	101	Hochachka, W M	439
Glowacki, G A	125	Hall, E K	43	Hochachka, W M	s3.5
Gobbert, M	387	Hallagan, J J	10	Hockman, E V	200
Goldberg, T L	165	Hamer, G L	165	Hockman, E V	407
Goldizen, A W	s9.5	Han, L X	29	Hodgman, T P	331
Golecki, A	425	Hane, M E	149	Hogan, B M	s2.3
Gonzalez, J-C T	s6.11	Hanni, D J	217	Holberton, R L	438
Goodman, S M	s6.3	Hanni, D J	227	Holoubek, N S	361
Gordillo-Martinez, A	339	Hanser, S E	357	Holt, S M	303
Gorzo, J	s3.3	Hanser, S E	372	Homoya, W T	362
Gotthardt, T	431	Hanson, M	323	Hood, W	211
Gould, W	431	Hardie, B E	334	Hopkins, W A	10
Gowen, F C	352	Hardie, B E	343	Horn, D J	s2.1
Grace, J K	117	Hargrove, L	358	Horn, D J	s2.3

Horn, D J	s2.4	Johnson K	366	Ketterson, E D	103
Horn, D J	s2.5	Johnson, A E	52	Ketterson, E D	210
Horton, K G	161	Johnson, D H	133	Ketterson, E D	305
Hosner, P	390	Johnson, J A	22	Keuler, N S	90
Hosner, P A	s6.10	Johnson, J D	107	Keyes, T	36
Hosner, P A	s6.8	Johnson, J R	149	Khan, M Z	371
Hostetler, J A	62	Johnson, K P	140	Kilner, R	s5.2
Hovick, T J	194	Johnson, K P	s7.1	Kim, D	s7.4
Hruska, J	s10.12	Johnson, T R	175	Kimball, R T	138
Hubble, C N	s2.3	Jones, A W	97	Kimball, R T	s6.7
Huber, S J	s2.3	Jones, B	s2.8	King, D	27
Hudon, J	7	Jones, B C	16	King, D	s4.6
Hudson, E J	376	Jones, J	74	King, M	40
Hui, A E	225	Jones, J A	367	Kirchman, J J	30
Hull, S D	22	Jones, L R	190	Kirchman, J J	419
Humburg, D D	110	Jones, M A	368	Kirschel, A N G	s6.11
Hunt, L M	170	Jones, M R	104	Kitron,U D	165
Hurley, G	429	Jones, R	s6.8	Klasing, K C	s2.2
Hyde, E J	406	Joos, C J	369	Kleist, N J	8
Ibarra-Manriquez, G	417	Jukema, J	362	Klicka, J	374
Iberle, J	443	Jurich P	111	Klicka, J	s1.8
Iliff, M	s3.5	Kabra, S	356	Klicka, L B	151
Irvine, J	439	Kahindo, C	s6.6	Knick, S T	357
Irwin, D E	159	Kahle, L	370	Knick, S T	372
Irwin, D E	429	Kaiser, R	425	Knott, M H	s2.3
Iseri, V J	s2.2	Kaiser, S A	11	Knutie, S A	s7.5
Isler, M L	141	Kamioki, M	120	Kocek, A R	195
Isler, M L	433	Kapoor, J	s10.12	Kocek, A R	373
Iwaniuk, A N	375	Kawaji, N	120	Kolani, Z	s9.2
Jackson, B P	10	Kays, R	158	Koo, M	s10.13
Jacobsen, F	387	Kays, R	171	Koop, J A H	s7.3
Jaeckle W B	428	Kearns, A	401	Kopuchian, C	355
Jaeckle, W B	312	Keen, S C	353	Kovach, A I	441
Jaeckle, W B	430	Kelemen, E P	12	Kraushaar, B S	196
James, H F	65	Kelemen, E P	13	Krebs, B L	165
James, H F	s10.2	Kellam, J S	9	Kreun, L M	374
James, H F	s10.7	Kelley, J P	66	Krilow, J M	375
James, H F	s5.9	Kelley, J P	s9.7	Kroll, A J	149
Janosov, J	425	Kelling, S	s3.5	Kronenberg, Z	134
Jaramillo, A	325	Kelly, J F	21	Ksepcka, D	s1.10
Jawor, J	364	Kelly, J F	208	Kus B E	151
Jawor, J M	113	Kelly, J F	226	Kvalnes, T	86
Jawor, J M	351	Kempenaers, B	182	Kyser, T K	20
Jedlicka, J A	365	Kendall, W B	207	Lai, J E	137
Jensen, H	86	Kendrick, S W	60	Laman, T G	s10.3
Jensen, W E	361	Kent, C M	166	Lanctot, R B	58
Jescavage, K	425	Kerr, K C R	177	Langin, K M	178
Jiang, Z	s10.11	Kesler, D C	57	Lanyon, S M	s1.8
Jimenez, J E	119	Kesler, D C	58	Lanzone, M	353
Jimenez, R A	72	Kesler, D C	174	Lanzone, M	432
Johansen, S M	s2.1	Kesler, D C	198	Lapp, H	51
Johnsen, A	401	Kesler, D K	110	Larkin, J	s4.15
Johnson J A	135	Kesler, D K	222	Larkin, J	s4.5

Larking, J	s4.10	MacDougall-Shackleton, E	102	McCormick, M	146
Larking, J	s4.8	A		McCracken K G	355
Laskowski, J	78	MacDougall-Shackleton, S	102	McCracken, K	382
Latimer, P A	377	A		McDermott, M E	56
Laughlin, A J	318	Machin, K L	42	McGoverin, C M	s5.9
Lauron, E J	378	Macias-Duarte, A	45	McGovern, P G	46
Laxson, T	431	Mackin, W A	384	McGowan, C P	131
Lee, J	152	MacLean, S A	172	McGraw, K J	s10.2
Lehman, C P	198	Maddox, D	s8.8	McGraw, K J	s5.1
Leighton, G M	124	Maddox, J D	179	McGraw, K J	s5.6
Lendvai, A Z	86	Mager, J N	385	McGraw, K J	s5.9
Leonard, J B K	340	Maia, R	s5.3	McKay, B D	154
Leonard, M	379	Maia, R	s5.4	Mckechnie, A E	231
Leopold, C R	209	Maley, J M	386	McKellar, A E	222
Lepage, D	51	Malloy, J	387	McKelvy, A O	35
Lerner, H R L	356	Malpass, J S	216	McKenna, A L	71
Leu, M	357	Maness, T J	380	McKerrow, A	431
Leu, M	372	Maness, T J	388	McKinnon, E A	202
Li, J	121	Manne, LL	35	McLarty, M	146
Lightfoot, H L	201	Manthey, J D	153	McNew, L B	28
Liker, A	86	Manthey, J D	374	McNew, L B	169
Lincecum, V C	380	Marchant, T A	42	McNew, L B	170
Lindsay, K	27	Marini, M	79	McNew, S M	106
Lipp, D	333	Marini, M	88	McNew, S M	s7.5
Lisovski, S	316	Marini, M	208	Megna, L C	73
Literacki, J	s8.3	Marini, M A	82	Megna, L C	150
Literacki, J C	s8.5	Marks, B	s6.1	Menachery, M G	407
Lituma, C L	55	Marra P P	61	Mendez-Aranda, D	339
Liu, M	381	Marra, P P	62	Mennill, D J	100
Liu, Y	121	Marra, P P	81	Mercadante, A N	46
Lock, J	s8.7	Marra, P P	220	Milinevsky G	32
Loegering, J	s4.5	Marra, P P	438	Miller J R	327
Loegering, J	s4.8	Marra, P P	438	Miller, D A	221
Loegering, J	s4.9	Marschner S	s10.3	Miller, J R	336
Lohr, B	332	Marsh, A	389	Miller, J R	359
Loiseau, C	378	Martin K J	302	Miller, J R	s2.6
Loman, Z G	221	Martin, A	141	Miller, J R	405
Lombardo, M P	44	Martin, J A	329	Miller, M J	405
Lonneker, J	431	Martin, J A	335	Miller-Rushing, A J	203
Lorenz, T J	175	Martin, T E	391	Millican, D M	46
Lovette, I J	74	Martinez, J	417	Millsbaugh, J J	198
Lovette, I J	s1.8	Marzuff J M	401	Mitchell, A	391
Low, K A	71	Masco, C	99	Mitchell, J	s1.11
Lowe, C B	144	Mason, N A	139	Mitchell, R J	222
Lowe, J D	s4.3	Mason, N A	s10.5	Mitchell, S	27
Lowe, J D	s4.4	Masters, B	332	Mock, D	86
Lozano-Jaramillo, M	382	Mauck, W M	390	Moglia, M C	172
Lundblad, C J	162	Mays, H L	154	Mohan, D	s6.4
Lundstrom, L A	s2.4	McCabe, J D	203	Moller A P	32
Lutz, H	s10.11	McCarty, J P	26	Moncrieff, A E	73
Lutz, H L	s7.2	McClure, C J W	34	Montano, E L	106
Lv, L	121	McCormack, J	s10.8	Montgomerie, R	s5.5
MacDougall-Shackleton, E	214	McCormack, J E	96	Moore F R	112
		McCormack, J E	143	Moore F R	113
		McCormack, J E	352		

Moore, A A	392	Oguchi, Y	399	Percy, K	s4.9
Moore, F R	160	Okahisa, Y	400	Peterson, A T	352
Moore, J W	362	Oleiro, P C	174	Peterson, S M	s4.11
Moore, S D	102	Oliveros, C H	s6.10	Peterson, S M	s4.12
Moradi, H V	s9.4	Oliveros, C H	s6.8	Peterson, S M	s4.13
Morimoto, G	400	Olsen, A M	181	Pham, T T	s5.8
Morris, D L	60	Olsen, B J	47	Phillipps, Q	326
Morris, S R	113	Olsen, B J	109	Phillips, J L	404
Morris, T	211	Olsen, B J	123	Piacentini, V Q	50
Morrison, S A	178	Olsen, B J	203	Pidgeon, A	s3.3
Morrow, J M	s5.7	Olsen, B J	331	Pidgeon, A M	29
Mousseau T A	32	Omland, K	324	Pidgeon, A M	90
Moyle R G	142	Omland, K	387	Pidgeon, A M	s3.2
Moyle R G	390	Omland, K E	401	Pier, H N	406
Moyle, R G	326	O'Neill, J J	231	Pike, C	425
Moyle, R G	s6.10	Ornelas, F	72	Pinney, T A	132
Moyle, R G	s6.11	Ortega, C P	196	Podgorski, L	312
Moyle, R G	s6.8	Ortega, J C	196	Pollock, H S	s9.13
Murphy B J	111	Ortiz-Catedral, L	436	Poltio, M J	163
Murphy J P	428	Orzechowski, S	s10.12	Pope, T L	63
Murphy, M A	192	Ostrom, P H	s10.7	Porneluzi, P A	60
Murphy, M T	19	Oswald, J A	s1.5	Possingham, H P	s9.5
Murphy, T G	s5.8	Otegui, J	s10.13	Potter, B A	406
Murray, L D	393	Owen, J	366	Powell, L L	s9.6
Musser, J M	180	Owen, J	399	Power, M L	85
Naka, L N	141	Owen, J C	114	Prevost, S C	407
Navara, K J	408	Owen, J C	157	Price, J J	52
Navarro-Siguenza, A G	339	Owen, J C	349	Price, J J	53
Naylor, L W	110	Oxenrider K J	212	Price, T D	376
Naylor, M F	394	Oxenrider, K J	402	Price, T D	s5.7
Nell, C S	333	Oyler-McCance, S	43	Price, T D	s6.4
Nelson, A	395	Parchman T L	70	Prince, K	229
Nelson, D A	101	Pardieck, K	s3.1	Projecto-Garcia, J	92
Nelson, D A	347	Parker, P G	2	Proudfoot, G A	320
Neudorf, D L H	319	Parker, P G	s7.3	Pruett, M S	18
Neudorf, D L H	409	Parkes, P S	343	Pruett-Jones, S	52
Newbrey, J L	s5.10	Patane, J S L	152	Pruett-Jones, S	99
Newman, C M	165	Patricell, G L	404	Prum, R	188
Newtoff, K N	396	Patten, M A	69	Prum, R O	180
Niemi, G	328	Patten, M A	s9.12	Prum, R O	189
Nishiumi, I	154	Patterson, T A	125	Ptaschinski, J S	343
Nocedal, J	108	Pavlacky, D C	217	Pugh, S A	s4.4
Nocera J J	197	Pavlacky, D C	227	Puiu, D	134
Nocera, J J	20	Pavlacky, D C, Jr	s9.5	Purdy C	111
Nocera, J J	126	Pavlovic, N B	125	Pusch, E A	408
Noel, B L	36	Paxton, K L	112	Pyle, P	333
Nolan, P M	54	Peer, B D	303	Queller, P S	s5.8
Noon, B R	315	Peer, B D	s8.1	Rabosky, D L	s1.8
Nott, M P	35	Peer, B D	s8.4	Radeloff, V	s3.3
Novak, B J	134	Pegan, T	s10.12	Radeloff, V C	29
Novy, S A	118	Pepe-Ranney, C P	43	Radeloff, V C	90
Nuttle, T	s4.10	Percy, K	s4.5	Raedeke, A H	110
Oguchi, Y	349	Percy, K	s4.8	Raherilalao, M J	s6.3

Raimondi, P	365	Rosenberg, K V	s4.3	Sari, E H R	2
Raipar, M N	s9.4	Ross, E J	206	Sarquis-Adamson, Y	214
Rakhimberdiev, E	316	Ross, J C	353	Saucier, J R	155
Ramarez-Barrera, M	415	Ross, J D	205	Saucier, J R	386
Rand, G J	197	Rota, C T	198	Sauer, J	s3.6
Randall, C A	409	Rotenberry, J	17	Savit, A Z	94
Ratcliffe, L M	20	Rotenberry, J T	105	Sayago, R	417
Reboreda, J C	418	Rotenberry, J T	372	Scardamaglia, R C	418
Reddy, S	323	Roth, A	s4.14	Schmaljohann, H	316
Reddy, S	s6.1	Roth, A	s4.3	Schmidt, K L	102
Redmond, L J	19	Roth, A	s4.4	Schmitt, C J	106
Ree, R	s1.7	Roth, A	s4.5	Schneider, K J	419
Reed, W L	s5.10	Roth, A	s4.7	Schoech, S J	16
Reidy, J L	89	Roth, A	s4.8	Schoech, S J	39
Relyea G E	307	Roth, A	s4.9	Schoech, S J	309
Remsen, J V	314	Rothstein, R I	s8.6	Schoech, S J	313
Renton, K	80	Rothstein, S I	s8.4	Schoech, S J	s2.7
Renton, K	145	Rowan, E	333	Scholes, E	s10.3
Rheindt, F E	410	Rowse, L	168	Schroeder, J	86
Rice, N H	7	Roy, C M	327	Schwabl, H	38
Rice, R J	210	Royle, J A	62	Schwagmeyer, P L	86
Ricklefs, R	184	Rozmarynowycz, M J	205	Schwartz, S J	s5.6
Ricklefs, R E	s7.6	Rozzi, R	119	Seavy, N E	316
Riedl, K M	s5.6	Rubino, M	431	Seddon, N	s10.6
Riehl, C	YPA2	Rueda-Hernandez, R	145	Seeholzer, G F	95
Riffell, S K	221	Ruiz, M O	165	Sehgal, R	395
Riffell, S K	335	Ruiz-Sanchez, A	80	Sehgal, R N M	167
Rigby, E A	133	Rumble, M A	198	Sehgal, R N M	378
Rios, N	s10.13	Rushing, C S	81	Sekercioglu, C H	s9.1
Rios-Munoz, C A	339	Ruskin, K J	47	Seo, K	420
Risch, T S	129	Russell, L	s10.13	Shaffer, T L	131
Risch, T S	330	Ryder, T B	332	Shah, S S	172
Rivera-Caceres, K D	411	Sackinger, N J	413	Shapiro, B	134
Rivers, J	s8.4	Sager-Fradkin, K	220	Shawkey, M D	s5.3
Rivers, J W	s8.6	Sakaluk, S K	312	Shawkey, M D	s5.4
Rochelle M	149	Salgado-Ortiz, J	105	Shearer J A	414
Rodewald, A	168	Salik, F	s2.3	Sheldon F H	93
Rodewald, A D	56	Salinas, M A	417	Sheldon, D	439
Rodewald, A D	216	Salinas-Melgoza, A	218	Sheldon, F H	318
Rodrigo, A	436	Salzberg, S L	134	Sheldon, F H	326
Rogers, C M	412	Sanchez A E	404	Sherry T W	61
Rogers, C M	423	Sanchez, C	155	Shizuka, D	183
Rohrbaugh, R	s4.15	Sandercock, B K	28	Shreve, S M	s7.1
Rohrbaugh, R	s4.3	Sandercock, B K	169	Shriver, W G	161
Rohrbaugh, R W	s4.4	Sandercock, B K	170	Shufflebarger, E F	334
Rois, L	2	Sandercock, B K	440	Shufflebarger, E F	343
Rojas-Soto, O	80	Sandler, A	146	Shultz, A J	54
Rolland, V	14	Sanin, C	414	Shultz, A J	s10.5
Roman, I	119	Sanin, C	s1.2	Shultz, A S	139
Rompre, G	s2.2	Santiago-Garcia, S	415	Shustack, D P	7
Rompre, G	s2.5	Saracco, J F	207	Shutler, D	201
Rosenberg, K V	s3.5	Sardell, J M	416	Siefferman, L	211
Rosenberg, K V	s4.2	Sardell, R J	182	Siefferman, L	367

Siefferman, L M	15	Spellmeyer, A J	423	Takushi, S	430
Sieffermen, L	377	Spicer, G	378	Tarr, N M	431
Sigel, B J	25	Spitzer, M D	65	Tarvin, K A	s5.8
Sigel, B J	322	Spottiswoode, C N	s6.5	Tarwater, C E	187
Sillett, T S	11	Stafford, J D	360	Tarwater, C E	s9.7
Sillett, T S	85	Stager, M	41	Taylor, P D	201
Sillett, T S	178	Stager, M	s10.12	Taylor, R	333
Silva, W R	23	Stanback, M T	46	Taylor, S	74
Silveira, L F	50	Stanback, M T	334	Taylor, S S	310
Silveira, L F	342	Stanback, M T	343	Tedeschi D J	32
Silveira, M B	82	Stanton, R A	57	Tegeler, A K	432
Simmons, T	s4.10	Steadman, D W	s1.5	Tenorio, E	433
Skeen, H R	s10.11	Steele, A	s10.13	Terhune, T	s4.5
Skrade, P D B	215	Stenger, J M	64	Terhune, T	s4.8
Skrade, P D B	421	Stevens, M	s5.2	Termignoni, G F	434
Slowinski, S	18	Stewart, I R K	86	Terrill, R S	4
Small, D M	332	Stoddard, M C	s5.2	Thogmartin, W	s3.3
Small, T	313	Stodola, K W	360	Thogmartin, W	s4.2
Small, T W	39	Stodola, KW	424	Thomas, A D	28
Small, T W	309	Storz, J	92	Thomas, D B	s10.2
Small, T W	s2.7	Stouffer, P C	310	Thomas, D B	s5.9
Smalling, C	s4.5	Stouffer, P C	s9.10	Thompson, C F	312
Smalling, C	s4.6	Stouffer, P C	s9.6	Thompson, F R	57
Smalling, C	s4.9	Strager, M P	31	Thompson, F R	60
Smalling, C	s4.8	Stratford, J A	425	Thompson, F R	75
Smiley, A	3	Stratford, J A	s9.10	Thompson, F R	89
Smit, B E	231	Strausberger, B M	s8.3	Thompson, F R	304
Smith, A	s3.4	Strausberger, B M	s8.7	Thompson, F R	321
Smith, B T	143	Strausberger, B M	s8.8	Thompson, F R	350
Smith, B T	s1.2	Streby, H	YPA1	Thompson, F R	369
Smith, D R	407	Streby, H M	s4.1	Thompson, J	408
Smith, E K	231	Streby, H M	s4.11	Thorpe, P A	44
Smith, N A	s1.4	Streby, H M	s4.12	Thrimawithana, A H	436
Smith, N D	176	Streby, H M	s4.13	Title, P O	139
Smith, R J	157	Streby, H M	s4.15	Tobias, J A	s10.6
Smith, T B	378	Strenger, J M	166	Toms, J D	341
Smith, V S	s7.2	Stryjewski, K F	s6.5	Tonra, C M	220
Smith-Patten, B D	s9.12	Stutchbury B J M	344	Tonra, C M	438
Smolinsky, J A	157	Stutchbury, B J M	202	Toomey, M B	s5.6
Smolinsky, J A	160	Sullivan, B	s3.5	Town, C	s5.2
Soencer, C	s10.13	Sullivan, K A	427	Townsend, A K	230
Sofaer, H R	85	Sullivan, S M	219	Tranquillo, K	333
Solomon, M	191	Sumner, M D	316	Tsai, W	s10.8
Soos, C	42	Sutherland, J M	212	Tsang, S M	137
Sorci, G	86	Swan, D	s8.2	Tubaro, P	355
Sorenson, M D	s6.5	Swanson, D L	5	Ueda, K	120
Sosa-Lopez, J R	100	Swanson, D L	40	Ueda, K	420
Sousa, B F	199	Swanson, D L	41	Unitt, P	358
Sparks, R A	227	Swanson, D L	381	Uy, J A C	416
Specht, H M	422	Swanson, M T	428	Vaidya, G	51
Spellman, G M	147	Szabo, I	429	Vallender, R	s4.14
Spellman, G M	153	Taff, C C	115	Valqui, H	106
Spellman, G M	374	Takagi, K	400	Valqui, T	s7.2

Van Doren, B M	439	Weiskerger, C J	125	Wonder, E E	232
Van Wilgenburg, S L	s4.14	Wellicome, T	389	Wood, C	s3.5
Vargas Campos, W	106	Wells, M T	444	Wood, E M	29
Vavrus, S J	s3.3	Westneat, D F	86	Wood, E M	90
Vazquez-Lopez, M	415	Westneat, M W	181	Wood, P B	31
Vazquez-Miranda, H	156	Wheeler, S S	230	Wootton, J T	179
Venkatraman, M X	96	White, A	312	Worland, M	302
Vergara, P	119	White, G	s2.2	Worley, S K	407
Verheijen, B H F	440	White, G L	s2.5	Wotherspoon, S J	316
Vieglais, D	s10.13	Whiteman, N K	s7.3	Wright, N A	3
Vierling, K T	175	Whitfield, M C	231	Wright, N A	s10.9
Villarruel-Sahagun, L	45	Whitney, B M	141	Wright, S G	347
Visco, D M	s9.9	Whittingham, L A	22	Wright, T F	218
Vitz, A	432	Wieczorek, J	s10.13	Wynia, A L	330
Vitz, A	s4.10	Wikelski, M	158	Yandell, M	134
Voelker, G	185	Wikelski, M	171	Yao, C-T	154
Voelker, G	s6.9	Wilcoxen, T E	s2.1	Yetter, A P	360
Voss, M A	406	Wilcoxen, T E	s2.3	Young, E I	320
Wadleigh, R	356	Wilcoxen, T E	s2.4	Zakaria, M H	s9.4
Wagner, G P	180	Wiley, A E	s10.7	Zamudio-Beltran, L E	415
Wagner, S K	196	Wilkerson, J B	407	Zanette, L	s8.2
Walker, B L	315	Will, T	s4.2	Zaya, D N	125
Walker, E D	165	Will, T	s4.6	Zdravkovic, M	173
Walsh, J	441	Willard, D	438	Zenzal, T J	160
Walters, J R	91	Williams, G	3	Zhang, Y	5
Walters, J R	222	Wilton, P R	410	Zhang, Y	40
Walters, J R	223	Winder, V L	169	Zhang, Z	121
Walther, E L	167	Winder, V L	170	Zimmerman, J A	306
Wan, D	154	Winger, B	s1.1	Zollner, P A	s2.5
Wang, J M	84	Winger, B	s1.7	Zuckerberg, B	206
Wang, Y	121	Winger, B M	s1.8	Zuckerberg, B	229
Ward, M P	77	Wingert, A K	383		
Ward, M P	160	Winkler, D	s10.12		
Ward, M P	165	Winkler, D W	84		
Ward, MP	424	Winkler, D W	316		
Ware, H	34	Winkler, D W	318		
Waselik, M	442	Winn, B	36		
Wassenhove, S J	s2.3	Wisely, S M	169		
Watt, D	443	Wisely, S M	170		
Webb W C	401	Witt C	92		
Webb, E B	110	Witt, C C	3		
Webb, K	439	Witt, C C	106		
Webster, M	s10.1	Witt, C C	164		
Webster, M S	11	Witt, C C	325		
Webster, M S	38	Witt, C C	s10.9		
Webster, M S	67	Witt, C C	s5.6		
Webster, M S	68	Witt, C C	s7.7		
Weckstein, J D	152	Wogan, G O U	185		
Weckstein, J D	s7.2	Wolf B O	308		
Weckstein, J D	s10.11	Wolf, B O	231		
Weinzierl, R	158	Wolfenbarger, L L	26		
Weinzierl, R	171	Woltmann, S	310		
Weir, J T	s1.9	Woltmann, S	s9.8		