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PROCEEDINGS OF THE

ONE HUNDRED AND FIFTEENTH STATED MEETING

OF THE

AMERICAN ORNITHOLOGISTS' UNION

13-16 August 1997

UNIVERSITY OF MINNESOTA
Minneapolis-St. Paul, Minnesota, USA

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**PROCEEDINGS OF THE
ONE HUNDRED AND FIFTEENTH STATED MEETING
OF THE
AMERICAN ORNITHOLOGISTS' UNION**

M. Victoria McDonald, *Secretary*

The One Hundred and Fifteenth Stated Meeting of the American Ornithologists' Union was held 13-16 August 1997 at the University of Minnesota in downtown Minneapolis-St. Paul, Minnesota, USA. Local Hosts included the University of Minnesota, Bell Museum of Natural History, Department of Ecology, Evolution and Behavior, Department of Fisheries and Wildlife, Conservation Biology Program, Gabbert Raptor Center, and the Minnesota Ornithologists' Union. The Chair of the Committee on Local Arrangements was Francesca Cuthbert, and Co-Chairs were Scott Lanyon and Robert Zink. The Program Coordinator and Chair of the Committee on the Scientific Program was Peter E. Lowther. Financial donations that helped sponsor this meeting were made by the Minnesota Ornithologists' Union, the U.S. Fish and Wildlife Service, and 14 individuals.

Business and scientific sessions, committee meetings, and other organizations' meetings were held in the Coffman Union, Bell Museum Conference Room, Nolte Center, Northrop Auditorium, and Moos Tower Auditorium. Most participants were accommodated in UM dormitories and nearby hotels.

BUSINESS SESSIONS

The Council met the evening of 12 Aug, and the morning and afternoon of 13 Aug 1997 in the Nolte Center Room 140. The Fellows met late in the afternoon of 13 Aug in the Coffman Union Room 320. (Detailed minutes of these meetings were prepared by the Secretary and distributed to Council members and to Fellows in separate mailings.) On the morning of 14 Aug members met for the Welcome and Opening of Sessions, followed by a Plenary Speaker, in the Northrop Auditorium. The AOU was welcomed by the University's Dennis Cabrad, and President Ned K. Johnson responded for the AOU. The Business Meeting of the Members was held during the late afternoon of 14 Aug in the Moos Tower Auditorium Room 2-650 (Minutes follow). Important actions taken at the various meetings are summarized below.

MINUTES OF THE 1997 BUSINESS MEETING OF MEMBERS
115th STATED MEETING OF THE AMERICAN ORNITHOLOGISTS' UNION

The Business Meeting of the Members was held in the Moos Tower Auditorium Room 2-650, University of Minnesota, Minneapolis-St. Paul, Minnesota, USA on Thursday, 14 August 1997. President Ned K. Johnson brought the meeting to order at 17:10. Members attending numbered 170.

1. *Minutes*. Minutes from the 114th Stated Meeting at Boise State University were approved.
2. *President's Report and Announcements*. The President discussed briefly issues of concern to the AOU. Announcements related to meeting logistics were made.
3. *Secretary's Report*. Secretary McDonald highlighted important actions of the Fellows' and Council meetings held earlier in the week. Membership numbers have increased slightly, and the AOU is in good shape financially. Recently deceased members, and newly elected Elective Members and Fellows were announced.
4. *Treasurer's Report*. Treasurer Frederick H. Sheldon reported briefly on the financial affairs of the AOU. A detailed financial account appears at the end of the published Proceedings.
5. *Editor's Report--Ornithological Monographs*. Editor John M. Hagan, III reported on the *Ornithological Monographs*. Three monographs are forthcoming. Hagan has submitted a letter of resignation, effective after publication of the aforementioned monographs.
6. *Editor's Report--The Auk*. Editor Thomas E. Martin reported. A new cover has been proposed.
7. *Birds of North America project*. Frank B. Gill discussed this project.
8. *Ornithological Societies of North America*. Fred E. Lohrer reported on OSNA. Lohrer, the current OSNA Director, and Kevin J. McGowan, the current OSNA Newsletter Editor, have submitted letters of resignation.
9. *Resolutions*. Committee chair David E. Blockstein presented the five resolutions previously approved by Council. All passed. An additional Resolution of Appreciation to the 1997 Local Committee was approved unanimously at the annual Banquet, 16 Aug 1997.
10. *Election of Officers and Council Members*. Printed statements from the nominees were available for members. President Johnson called for comments from the members, and nominees were excused during the comment period. In one round of ballots the following were elected or re-elected: Vice President Scott M. Lanyon; Secretary Mary Victoria McDonald; Treasurer Frederick H. Sheldon; and Elective Councilors (three-year terms) Irene M. Pepperberg, Carol M. Vleck, and David W. Winkler.
11. *Future Meetings*:
 - a) 1998 AOU Meeting. The next meeting of the AOU will be held in early April 1998, in conjunction with the North American Ornithological Conference, Regal Riverfront Hotel, St. Louis, Missouri, USA. Local Committee Co-chairs are Bette Loiselle and John G. Blake.
 - b) 1999 AOU Meeting. The 117th Stated Meeting will be held in mid-August 1999 at Cornell University. Kevin J. McGowan, David W. Winkler, and John W. Fitzpatrick are Local Committee Co-Chairs.
 - c) 2000 AOU Meeting. President Johnson reported that tentative plans are being made to hold the 118th Stated Meeting jointly with the BOU in St. John's, Newfoundland, in 2000.
12. *New Edition of the AOU Check-list*. Chair of the Committee on Classification and Nomenclature, Richard C. Banks, announced the 7th Edition of the Check-list is expected to be published in February 1998.

The meeting was adjourned by President Johnson at 17:57.

M. Victoria McDonald, *Secretary*

OTHER BUSINESS

Awards. --JOHN C. AVISE was selected by the Council as the recipient of the **William Brewster Award**. CHANDLER S. ROBBINS received the **Elliott Coues Award**. These awards were announced at the Banquet, the evening of 16 Aug. Citations appear in *The Auk*, Vol. 115, No. 1. The Marion Jenkinson Service Award, established by Council in 1996, was not conferred in 1997.

The AOU Research Awards Committee, chaired by Paul J. DuBow, announced formally at the joint Banquet the award recipients determined earlier in the year. The 1997 AOU **Research Awards** winners were as follows: F. KEITH BARKER, University of Chicago, Field Museum The Evolution of Cooperative Breeding in *Campylorhynchus* Wrens: A Comparative Approach; NIRMAL K. BHAGABATI, SUNY Albany Genetic Variation and Possible Hybridization among Some Populations of Mexican Jays (*Aphelocoma ultramarina*) and Western Scrub-jays (*A. californica*); CURTIS ROBERT CHONG, Harvard University Does Serum Uric Acid Protect Hummingbirds from Free Radical Damage Related to Glucose Metabolism?; JESSICA REESE EBERHARD, Smithsonian Tropical Research Institute Phylogeny and Biogeography of the *Amazona ochrocephala* (Psittacidae) Species Complex; GRISELDA ESCALONA-SEGURA, University of Kansas Mangrove Avifaunas of Mexico and Central America; CALEB E. GORDON, University of Arizona Movement Patterns and Habitat Selection in Grassland Sparrows Wintering in Southeast Arizona; MEMUNA Z. KHAN, Virginia Polytechnic Institute and State University Ultimate and Proximate Explanation for Helping Behavior in the Red-cockaded Woodpecker (*Picooides borealis*); JOSEPH LIPAR, Indiana University The Effects of Yolk Testosterone on Nestling Growth and Survival in the Red-winged Blackbird, *Agelaius phoeniceus*; HEATHER L. McGUIRE, Louisiana State University Genetic, Morphologic, and Behavioral Analysis of Florida Bay's Blue and White *Ardea*; LAURA E. MOLLES, University of California, San Diego Repertoire Use in the Banded Wren, *Thryothorus pleurostictus*; LINDA S. W. PEZZOLESI, SUNY Binghamton Foraging for Nestling House Wrens: the Role of Prey Morphological Characteristics of Parental Prey Choice; KEVIN PILZ, Cornell University Effects of Maternally Derived Egg Yolk Testosterone on Nestling Behavior and Life History in Tree Swallows (*Tachycineta bicolor*); and GRACE P. SERVAT University of Missouri--St. Louis, Foraging Ecology of Birds in *Polylepis* Woodlands: Impacts of Local and Regional Processes on Foraging Patterns and Community Organization.

Winners of the 1997 **Marcia Brady Tucker Travel Awards** were announced at the Banquet. These were determined by the Committee on Student Awards, chaired by Carla Cicero. The names and institutions of the recipients follow: COURTNEY J. CONWAY, Univ. Montana, Effects of ambient temperature on avian incubation strategies; RUSSELL D. DAWSON, Univ. Saskatchewan, Parasites and color expression of American Kestrels: A test of competing hypotheses; KRISTA L. DE GROOT, Univ. British Columbia, The effects of longterm removal of Brownheaded Cowbirds on communities of breeding songbirds; DAVID J. DELEHANTY, Univ. Nevada Reno, Dietary xanthophyll induces the onset and magnitude of reproductive effort in female Mountain Quail; ANDREW S. DOLBY, Ohio State Univ., Benefits of satellite membership in a mixed species flock; CHRIS S. ELPHICK, Univ. Nevada Reno, Tradeoffs in conservation biology: Effects of flooding rice fields for waterbirds on nontarget species; KATHRYN P. HUYVAERT, Wake Forest Univ., Postfledging survival in Galapagos boobies; LAURA R. LEE, Univ. Illinois at Urbana Champaign, Effects of food availability and nest predation risk on the reproductive ecology of Eastern Bluebirds: An experimental approach; CHRISTOPHER A. LEPCZYK, Michigan State Univ., Digestive responses to changes in food intake by nestling House Sparrows; PETER P. MARRA, Dartmouth College, Population consequences of sexual habitat segregation in a migrant passerine during the nonbreeding season; HECTOR C. MIRANDA, JR., Univ. Cincinnati, The phylogenetic placement of *Mimizuku gurneyi* (Aves: Strigidae) inferred from mitochondrial DNA; SCOTT F. PEARSON, Univ. Washington, Relative competitive abilities of territorial Hermit and Townsend's warblers in a narrow, moving hybrid zone; OCTAVIO R. ROJASSOTO, Univ. Nacional Autonoma de Mexico, Geographic variation in the Curvebilled Thrasher (*Toxostoma curvirostre*) complex; SCOTT A. TAROF, Queen's Univ., Does breeding density covary with extrapair paternity in Hooded Warblers?; DANIEL G. WENNY, Univ. Florida, Directional seed dispersal by Threewattled Bellbirds in Costa Rica.

Also at the Banquet, the joint Committee on Student Awards announced awards for **Best Student Paper and Poster Presentations**. No rankings among these were made, and the specific (named) award given to a certain recipient was determined randomly. Three awards were granted: (1) 1997 Nellie Johnson Baroody Award: Peter P. Marra, Dartmouth College, "Population consequences of sexual habitat segregation in a migrant passerine during the non-breeding season." (2) 1997 AOU Council Award #1: Andrew S. Dolby, Ohio State University, "Benefits of satellite membership in a mixed-species flock." (3) 1997 AOU Council Award #2: Joshua J. Tewksbury, Univ. Montana, "Breeding productivity of bird populations in western riparian forests: effects of landscape fragmentation."

Membership.--The Director of the Ornithological Societies of North America (OSNA), Fred E. Lohrer, reported to the Council that as of 31 May 1997 AOU membership had increased slightly from a year ago, and now totaled 4058 individuals and families.

The following **Deaths** of AOU members were reported at the AOU Business Meeting held 14 Aug 1997: HONORARY FELLOW: Copner Wynne-Edwards; CORRESPONDING FELLOWS: Edward K. Barth, Holger Holgerson, Dioscoro S. Rabor; FELLOWS: Emmet R. Blake, Martin H. Moynihan; ELECTIVE MEMBERS: Frederick M. Baumgartner, Samuel A. Grimes, Donald W. Lamm, Hustace H. Poor, Allen W. Stokes, Charles M. Weise; MEMBER AND GUARANTOR: Beatrice Wetmore; MEMBERS: Helen Lapham, Peter C. Petersen, Jr., Helen Quilliam, W. Ray Salt, and Claudia P. Wilds.

At the Fellows Meeting on 13 Aug 1997, the Fellows elected three new **Fellows**: Francesca J. Cuthbert, Frederick H. Sheldon, and Spencer G. Sealy. There were no nominees presented for Honorary and Corresponding Fellows in 1997.

New Elective Members were elected earlier in the year by mail ballots cast by Fellows and Elective Members. The names of the following new **Elective Members** were announced for the first time at the members' Business Meeting on 14 Aug 1997: Michael I. Avery, John M. Bates, Angelo P. Capparella, James P. Dean, Janis L. Dickinson, Peter J. Ewins, Erick P. Greene, Shannon J. Hackett, Gary H. Heinz, Dennis G. Jorde, Emily Dale Kennedy, Patricia L. Kennedy, John R. Sauer, David A. Wiedenfeld, and Marcia H. Wilson.

Finances.--Details and closing balances appear at the end of these Proceedings. Treasurer Frederick H. Sheldon was Chair of the Finance Committee. John W. Fitzpatrick, Howard P. Brokaw, and Edward E. Crawford served as 1996-1997 Investing Trustees and were re-elected by Council at its 13 Aug 1997 meeting.

Publications.--Editor of *The Auk*, Thomas E. Martin reported to Council and members that publication of *The Auk* continues on schedule. Proposed changes in *The Auk* format were discussed with Council. Council re-elected Martin Editor of *The Auk*. Editor of the *Ornithological Monographs*, John M. Hagan, III, reported to the Council no manuscripts had been published during the previous year. Three manuscripts destined to be *Ornithological Monographs* No. 48, 49, and 50 were near completion. Hagan submitted a letter of resignation to Council, effective as soon as a new editor can be found to replace him. The *Ornithological Newsletter*, editor Kevin J. McGowan (as well as OSNA Director Fred E. Lohrer) submitted letters of resignation to Council, effective as soon as replacements can be found. (Lohrer indicated that he would serve through the 1998 meeting.) The Council re-elected the incumbent AOU Representatives to the Managing Board, *Birds of North America*: Erica H. Dunn, Frederick H. Sheldon, and Glen E. Woolfenden.

Bylaws.--The 1997 AOU Committee on Bylaws, chaired by Edward H. Burt, Jr., proposed Bylaws changes considered at the First and Second Meetings of the Fellows held 13 and 14 Aug 1997, respectively, and also by the Council at its third meeting held 14 Aug 1997.

The Fellows voted to give initial approval to a set of amendments that would simplify the Bylaws by removing specific references to the names of the *Auk* and *Ornithological Monographs* and to add an amendment to Article VII of the Bylaws that describes the procedure to be used if a name change is proposed. According to Burt, the intent of these changes was to "keep the focus of our Bylaws on procedure rather than on specifics."

The proposed changes (underlined) given initial approval by Fellows and Council in 1997 follow:

- a) Article II. Section 1. "nine Elective Councilors, the editor of the journal, the editor of the monograph series,..."
- b) Article IV. Section 7. "The Editor of the journal, the Editor of the monograph series,..."
- c) Article V. Section 4. "...the serial publication of the Union (delete 'entitled the AUK')."
- d) Article V. Section 5. "...of each issue of the journal."
- e) Article VII. Section 1. "..., a serial journal of ornithology (delete 'called the AUK'), and such reports, ..."
- f) Article VII. The new Section 2.
At least two months before a meeting the Secretary shall send to each Fellow and Elective Member any proposed change of name of the journal or monograph series. The name can be changed only by a vote of the majority of Council members present at the Council meeting and vote of two-thirds of the Fellows and Elective Members present at the meeting of the Fellows and Elective Members.
- g) Article VII. The current Section 2 will be renumbered Section 3.

The Committee on Bylaws emphasized that "these amendments focus the Bylaws on process and provide a clear procedure for change that is contained in a single section." The proposed changes presume the current names *The Auk* and *Ornithological Monographs* are the names of the journal and the monograph series.

Future meetings.--The next meeting of the AOU will be in early April 1998, in conjunction with the North American Ornithological Conference, a joint meeting of North American ornithological societies. The meeting will be in St. Louis, Missouri, at the invitation of the University of Missouri-St. Louis. Co-Chairs of the Committee on Local Arrangements will be Bette A. Loiselle and John G. Blake. The 1999 meeting will be held in August at Cornell University in Ithaca, New York.

ATTENDANCE

About 625 attended, representing the U.S., Canada, United Kingdom, Mexico, France, and S. Africa.

SPECIAL EVENTS

A No-host dinner for AOU Council and Fellows and their guest was held the evening of 13 Aug at the Weisman Art Museum on the University of Minnesota campus. Later the same the Committee on Local Arrangements hosted an icebreaker reception for all members in the Courtyard of the Bell Museum of Natural History. The Bell Museum of Natural History was also the site of Mixer for University of Minnesota Alumni and Friends during the late afternoon of 14 Aug. Members attended a Reception later that evening in the Weisman Art Museum. The Canadian/American softball game was held early in the evening of 15 Aug, as was a reception in the Bell Museum of Natural History for the Women in Ornithology Resource Group. Also on 15 Aug a Reception was held in conjunction with the Poster Session on the evening of 15 Aug in the Great Hall of the Coffman Memorial Union. The 5 km All-out Ostrich Uproar foot race was run early 16 Aug. The Annual Banquet was held on the evening of the last day of papers, 16 Aug, in the Radisson Metrodome Hotel Ballroom. During the Banquet Program the winners of the AOU's Brewster Medal and Coues Award were announced. Recipients of these and other AOU awards are listed elsewhere in these Proceedings. A dance was held at the conclusion of the Banquet.

FIELD TRIPS AND TOURS

Early morning guided and self-guided bird walks in the vicinity were offered each day. Other regional scheduled field trips and tours included a Birding Tour to Western Minnesota, Boundary Water Wilderness Canoe Camping, Isle Royale National Park, Itasca State Park, and the International Wolf Center.

COMMITTEE MEETINGS AND OTHER ORGANIZATIONS' MEETINGS

The AOU Committee on Classification and Nomenclature met in the Bell Museum Conference Room on 12 Aug. The AOU Student Awards Committee in Coffman Union Room 315, Partners in Flight in Nolte Center Room 140, and BBIRD in Coffman Union Room 351-352 met on 13 Aug. On 14 Aug the AOU Collections Committee met in Coffman Union Room 355, the AOU Membership Committee met in Coffman Union Room 310, and the Current Ornithology Editorial Board met in Coffman Union Room 315. On 15 Aug the following groups met in various third-floor rooms in the Coffman Union: *Auk* Editorial Board, Recent Ornithological Literature Committee, AOU Conservation Committee, North American Shrike Group, OSNA, and North American Loon Fund--Status and Regional Reports. The Geographic Distribution of Birds/NAFTA group met on 16 Aug in Coffman Union Room 346, and the North American Loon Fund Business Meeting was held 17 Aug in the Nolte Center Room 140.

SCIENTIFIC SESSIONS

The 1997 Scientific Program consisted of an opening session Plenary Lecture by Peter R. Grant, four special symposia, and other contributed oral and poster presentations. Peter E. Lowther served as Program Coordinator and chaired the Committee on the Scientific Program.

The complete scientific program appears on the following pages.

**SCIENTIFIC PROGRAM LISTING FOR THE 115TH STATED MEETING
OF THE AMERICAN ORNITHOLOGISTS' UNION**

**UNIVERSITY OF MINNESOTA
MINNEAPOLIS - ST. PAUL, MINNESOTA
13-16 August 1997**

Peter E. Lowther, Scientific Program Coordinator

THURSDAY, 14 AUGUST 1997

Keynote Speaker

Speciation and hybridization in Darwin's Finches. PETER R. GRANT, Dept. Ecol. & Evol. Biol., Princeton, Univ., Princeton, NJ.

Symposium I.

Dispersal behavior: An ornithological frontier

Conveners: Peter B. Stacey and Jeff Walters

Dispersal and the dynamics of metapopulations. PETER STACEY, Univ. Nevada, Reno, NV.

Dispersal and philopatry in birds: Going where no bird has gone before. WALT KOENIG, Hastings Res., Univ. California-Berkeley, Carmel Valley, CA.

Dispersal patterns of North American passerines. CHARLES M. FRANCIS, Long Point Bird Obs., Port Rowan, ON.

Hormonal correlates of natal dispersal in birds. ALFRED M. DUFTY, Jr.* and JAMES R. BELTHOFF, Dept. Biol., Boise State Univ., Boise, ID.

Migration and dispersal: A comparison of genetic population structure in migratory and sedentary Grasshopper Sparrows. NIDIA ARGUEDAS* and PATRICIA G. PARKER, Dept. Zool., Ohio State Univ., Columbus, OH.

Dispersal and habitat selection in the Kittiwake. E. CAM*, Institut Ecologie, Univ. Paris, France; T. BOULINIER, Patuxent Wildl. Res. Center, Laurel, MD; E. DANCHIN, Institut Ecologie; and J. Y. MONNAT, Dept. Biol., Univ. Bretagne Occidentale, France.

Dispersal in grouse: The low costs of travel. KATHY MARTIN*, Canadian Wildl. Ser. and Dept. For. Sci., Univ. British Columbia, Vancouver, BC.

Dispersal by Florida Scrub-Jays in continuous versus fragmented habitat. JOHN W. FITZPATRICK*, Cornell Lab. Ornithol., Ithaca, NY; GLEN E. WOOLFENDEN, Dept. Biol., Univ. South Florida, Tampa, FL; and REED BOWMAN, Archbold Biol. Sta., Lake Placid, FL.

Dispersal and inbreeding in the Red-cockaded Woodpecker. SUSAN J. DANIELS* and JEFFREY R. WALTERS, Dept. Biol., Virginia Polytechnic Inst., Blacksburg VA.

Lecture Session 1A. Nesting Ecology.

Chair: Gerald J. Niemi.

*Nesting ecology of Wood Thrushes in relation to prescribed burning of oak-hickory forest. VANESSA L. ARTMAN, Dept. Zool., Ohio State Univ., Columbus, OH.

Wood Thrush nesting success at two sites in western New York. GIAN DODICI*, MELINDA S. LaBRANCHE, Dept. Biol., SUNY Coll. Fredonia, Fredonia, NY.

*Avian life history variation along altitudinal gradient: An example with cardueline finches. ALEXANDER V. BADYAEV, Div. Biol. Sci., Univ. Montana, Missoula, MT.

Influence of alternate host densities on Brown-headed Cowbird parasitism rates in Black-capped Vireos. DAVID R. BARBER*, Arkansas Coop. Fish & Wildl. Res. Unit, Univ. Arkansas, Fayetteville, AR; THOMAS E. MARTIN, US Biol. Res. Div., Montana Coop. Wildl. Res. Unit, Univ. Mont., Missoula, MT.

Predation on artificial nests in Iowa roadsides: An evaluation at different spatial scales. TIMOTHY M. BERGIN*, LOUIS B. BEST, Dept. Animal Ecol., Iowa State Univ., Ames, IA; and KATHYRN E. FREEMARK, Nat. Wildl. Res. Centre, Environ. Canada, PQ.

Nesting response of roadside prairie birds to prescribed burning. DONALD H. WOLFE, DAN L. REINKING and DAVID A. WIEDENFELD, Sutton Avian Res. Center, Bartlesville, OK.

Nest success of Least Flycatchers in forested areas of Minnesota. GERALD J. NIEMI*, JOANN M. HANOWSKI, Nat. Resource Res. Inst., Univ. Minnesota, Duluth, MN; MARKKU KUITUNEN and PIRJO KUITUNEN, Dept. Biol., Univ. Jyväskylä, Finland.

Lecture Session 1B. Breeding Biology.

Chair: Janis L. Dickinson

Cloacal microbes of adult Tree Swallows. MICHAEL P. LOMBARDO*, PATRICK A. THORPE and TAMARA K. ZELLER, Dept. Biol., Grand Valley St. Univ., Allendale, MI.

Some slips in the use and interpretation of nest history data for passerine birds. JOSEPH A. GRZYBOWSKI, Coll. Math. Sci., Univ. Cent. Oklahoma, Edmond, OK; and CRAIG M. PEASE, Dept. Zool., Univ. Texas, Austin, TX.

Experimental evidence of reproductive costs in Galapagos Masked Boobies. DAVID J. ANDERSON*, Biol. Dept., Wake Forest Univ., Winston-Salem, NC; CECILIA BETANCOURT, ILONKA VON LIPPKE, Dept. Biol., Univ. Catolica, Quito, Ecuador; and LYNN LOUGHEED, Biol. Dept., Wake Forest Univ.

Predation on Song Thrush and Blackcap nests near forest edges in Lower Austria. BENJAMIN B. STEELE*, Dept. Nat. Sci., Colby-Sawyer Coll., New London, NH; CRISTINE KURZMAN and HANS WINKLER, Lorenz Inst. Vergleich. Verhaltenforsch., Vienna, Austria.

*The effect of food supplementation on nesting success and allocation of parental effort in Brown Thrashers. JOHN F. CAVITT, Div. Biol., Kansas State Univ., Manhattan, KS.

*Effects of food availability and nest predation risk on the reproductive ecology of Eastern Bluebirds: An experimental approach. LAURA R. LEE, Dept. Ecol., Ethol., & Evol., Univ. Illinois, Urbana, IL.

Provisioning by replacement male Western Bluebirds: Mating effort or parental effort? JANIS L. DICKINSON, Mus. Vert. Zool., Univ. California, Berkeley, CA.

Lecture Session 2A. Habitat

Chair: Bill McMartin

Movements and habitat use of adult Wood Thrushes during molt. JORGE H. VEGA RIVERA*, Dept. Fish. & Wildl. Sci., Virginia Tech., Blacksburg, VA; BILL McSHEA, JOHN H. RAPPOLE, Smithsonian Conser. Center, Front Royal, VA; and CAROLA A. HAAS, Dept. Fish & Wildl. Sci., Virginia Tech.

Association of forest birds and cover type: If you provide it, will they come? JOANN M. HANOWSKI*, GERALD J. NIEMI and ANN R. LIMA, Nat. Res. Research Inst., Univ. Minnesota-Duluth, Duluth, MN.

Population changes and habitat associations of forest birds after gypsy moth outbreak. JENNIFER L. BELL* and ROBERT C. WHITMORE, Div. Forestry, West Virginia Univ., Morgantown, WV.

Familiarity breeds death: Can foraging tactics of predators cause partitioning of nesting habitat? WESLEY M. HOCHACHKA, Montana Coop. Wildl. Res. Unit, Univ. Montana, Missoula, MT.

Effects of prescribed burning on the foraging ecology of breeding songbirds. SARAH C. HARTUNG* and JEFFREY D. BRAWN, Dept. Nat. Res. & Env. Sci., Champaign, IL.

*Diet differentiation and diet shifts within the breeding season by three boreal forest warbler species. BILL McMARTIN, Fac. Forestry, Univ. Toronto, Toronto, ON.

Lecture Session 2B. Behavioral Ecology

Chair: Mercedes S. Foster

An ecological classification of the guild of foliage-gleaning insectivorous birds of an oak-pine woodland in western Mexico. JORGE NOCEDAL, Inst. de Ecol., Durango, Durango, Mexico.

*Benefits of satellite membership in a mixed-species flock. ANDREW S. DOLBY, Dept. Zool., Ohio State Univ., Columbus, OH.

Interspecific aggression in Formicarius antthrushes? The view from central Amazonian Brazil. PHILIP C. STOUFFER, Dept. Bio. Sci., Southeastern Louisiana Univ., Hammond, LA.

*Directional seed dispersal by Three-wattled Bellbirds in Costa Rica. DANIEL G. WENNY, Dept. Zool., Univ. Florida, Gainesville, FL.

Relative competitive abilities of territorial Hermit and Townsend's warblers in a narrow, moving hybrid zone. SCOTT F. PEARSON*, Coll. For. Res., Univ. Washington, Seattle, WA; and SIEVERT ROHWER, Burke Mus. & Dept. Zool., Univ. Washington, Seattle, WA.

Use of mimetic seeds of three species of Ormosia (Leguminosae) by birds: Mutualism or scam? LINDA S. DELAY, New Mexico Nat. Heritage Prog., Univ. New Mexico, Albuquerque, NM; and MERCEDES S. FOSTER*, Biol. Res. Div., USGS, Natl. Mus. Nat. Hist., Washington, D.C.

Lecture Session 3A. Ecology

Chair: David J. Delehanty

*Digestive responses to changes in food intake by nestling House Sparrows. CHRISTOPHER A. LEPCZYK, Dept. Fish. & Wild., Michigan State Univ., East Lansing, MI.

*Nest attentiveness and prey delivery rates of Mexican Spotted Owls in New Mexico. DAVID K. DELANEY, Northern Arizona Univ., Southwest For. Sci. Complex, Flagstaff, AZ.

Sex roles, parental experience and breeding success in Eastern Kingbirds. JASON D. WOODARD* and MICHAEL T. MURPHY, Dept. Biol., Hartwick Coll., Oneonta, NY.

Resource competition among nestling Red-winged Blackbirds. BARB C. GLASSEY, Dept. Zool., Univ. Manitoba, Winnipeg, MB; and L. SCOTT FORBES*, Dept. Biol., Univ. Winnipeg, Winnipeg, MB.

Male Mountain Bluebirds increase their provisioning to male-biased broods but sons do not get more. DANIELA S. MONK, Dept. Biol. and Progr. Anim. Behav., Indiana Univ., Bloomington, IN.

*Dietary xanthophyll induces the onset and magnitude of reproductive effort in female Mountain Quail. DAVID J. DELEHANTY, Ecol., Evol. & Conser. Biol. Prog., Univ. Nevada, Reno, NV.

Historical and seasonal variation in the composition of mixed-species bird flocks at a lowland tropical forest. BRUCE E. YOUNG* and ANYA E. ILLES, La Selva Biol. Sta., Organ. Trop. Stud., Costa Rica.

Lecture Session 3B. Miscellaneous

Chair: B. L. Woodworth

Skeletal development at the time of fledging in House Wrens. L. SCOTT JOHNSON, CHAITALI DUTTA, DAVE LARKIN and LUZ MANGURIAN, Depts. Biol. & Chem., Towson Univ., Towson, MD.

Geographic variation in House Wren demography. ELISE VERNON SCHMIDT* and BRIAN A. MAURER, Dept. Zool., Brigham Young Univ., Provo, UT.

Population structure on a continental scale in a neotropical migrant bird, the Yellow Warbler based on microsatellite DNA markers. H. LISLE GIBBS, ROBERT J.G. DAWSON, Dept. Biol., McMaster Univ., Hamilton, ON; and KEITH A. HOBSON, CWS, Saskatoon, SK.

*Local and geographic variation in sex-related habitat use in wintering American Kestrels. DANIEL R. ARDIA, Coll. Environ. Sci. & For., SUNY, Syracuse, NY.

*Parasites and color expression of American Kestrels: A test of competing hypotheses. RUSSELL D. DAWSON, Dept. Biol., Univ. Saskatchewan, Saskatoon, SK.

Plumage variation and mitochondrial DNA patterns in the Rough-winged Swallows. M. JOSEPHINE BABIN, Mus. Nat. Sci., Louisiana State Univ., LA.

Demography of the endangered Hawaii Creeper in a wet forest refuge on Mauna Kea, Hawaii. B. L. WOODWORTH*, J. T. NELSON, M. P. MOORE, S. G. FANCY, E. J. TWEED and M. S. COLLINS, Biol. Res. Div., USGS, Pacific Islands Ecosys. Res. Center, Hawaii Nat. Park, HI.

FRIDAY, 15 AUGUST 1997

Lecture Session 4A. Systematics

Chair: Carla Cicero

*Phylogeny and biogeography of the genus *Coccyzus* (Cuculidae). JANICE M. HUGHES, Dept. Zool., Univ. Toronto, Toronto, ON.

Morphological convergence obscures evolutionary history in the waterfowl (family Anatidae). MICHAEL D. SORENSON, Mus. Zool., Univ. Michigan, Ann Arbor, MI; and KEVIN P. JOHNSON, Bell Mus. Nat. Hist. & Dept. Ecol., Evol. & Behav., Univ. Minnesota, St. Paul, MN.

Molecular phylogenetics and plumage evolution of tanagers in the genus *Tachyphonus*. KEVIN J. BURNS, Dept. Ornithol., Amer. Mus. Nat. Hist., New York, NY.

Phylogenetic relationships within the penguins inferred from cytochrome b and cytochrome oxidase I sequences. ALLAN J. BAKER, Centre for Biodiversity & Cons. Biol., Royal Ontario Mus., Toronto, ON; and KERRI-ANNE EDGE, Dept. Zool., Univ. Otago, Dunedin, New Zealand.

Evidence for essential reproductive isolation of Oak and Juniper Titmice. CARLACICERO, Mus. Vert. Zool., Univ. Calif., Berkeley, CA.

Lecture Session 4B. Non-passerine Ecology

Chair: Julie A. Robinson

Dispersal and population dynamics of Ruffed Grouse in a heterogeneous landscape: Developing a spatial model. JAMES M. YODER*, Ohio Coop. Fish & Wildl. Unit, Dept. Zool., Ohio State Univ., Columbus, OH; DAVID A. SWANSON, Waterloo Wildl. Res. Sta., Ohio Div. Wildl., New Marshfield, OH; and ELIZABETH A. MARSCHALL, Dept. Zool., Ohio State Univ.

Positive researcher impact on nesting success of Brown Pelicans. BONNIE J. PLOGER, Dept. Biol., Hamline Univ., St. Paul, MN.

Breeding biology of Marbled Godwits versus Western Willets in southern Alberta. CHERI L. GRATTO-TREVOR, Canadian Wildlife Service, Saskatoon, SK.

*Survival and reproductive success of Wild Turkeys in the pinelands of New Jersey. CATHERINE M. DEVLIN, Dept. Ecol., Evol. & Nat. Res., Rutgers Univ., NJ.

*How do predation and the length of the breeding season constrain the optimal clutch sizes of precocial birds? GEORGE L. FARNSWORTH, Dept. Zool., North Carolina State Univ., Raleigh, NC.

Population regulation, semicolonial nesting, and shorebird conservation: What can we learn from American Avocets?. JULIE A. ROBINSON*, Dept. Biol., Univ. Houston, TX; JIANGUO WU; Dept. Life Sci., Arizona State Univ. West, Phoenix, AZ; and LEWIS W. ORING, Dept. Environ. Res. Sci., Univ. Nevada, Reno, NV.

Lecture Session 4C. Brood Parasitism

Chair: Donald C. Dearborn

Host selection by the Brown-headed Cowbird: Evidence from a nest-monitoring study. THOMAS B. FORD, Biol. Dept., Indiana Univ., Bloomington, IN.

Brown-headed Cowbird density, host density, and level of parasitism. DONALD WINSLOW, Dept. Biol., Indiana Univ., Bloomington, IN.

Can small cowbird hosts prevent the parasitic act? DAVID R. CURSON* and NANCY E. MATHEWS, Dept. Wildl. Ecol., Univ. Wisconsin, Madison, WI.

Evolution of begging behavior: Lessons from a brood parasite. DONALD C. DEARBORN, Div. Biol. Sci., Univ. Missouri, Columbia, MO.

Temperature, egg mass and incubation time: A comparison of Brown-headed Cowbirds and Red-winged Blackbirds. BILL M. STRAUSBERGER, Univ. Illinois at Chicago, Chicago IL.

Behavior development in brood-parasitic indigo birds Vidua. ROBERT B. PAYNE, Mus. Zool. & Dept. Biol., Univ. Michigan, Ann Arbor, MI.

Lecture Session 4D. Vocalizations

Chair: Douglas A. Nelson

Open communication: Consistency is the key. TIMOTHY J. BROWN* and PAUL HANDFORD, Dept. Zool., Univ. Western Ontario, London, ON.

Geographic variation of Black-capped Chickadee songs and singing behavior. DONALD E. KROODSMA, BRUCE E. BYERS*, Dept. Biol., Univ. Massachusetts, Amherst, MA; SYLVIA L. HALKIN, Central Connecticut State Univ., New Britain, CT; and numerous others.

Why do Grasshopper Sparrows sing different songs? An experiment to test song function. W. GREGORY SHRIVER,* Dept. For. & Wildl., Univ. Massachusetts, Amherst, MA; and PETER D. VICKERY, Massachusetts Audubon Soc., Center for Biol. Cons., Lincoln, MA.

Functional geographic variation in Fiscal Shrike song: Implications for conservation. CLAIRE DEVEREUX and ROBERT SLOTOW*, Dept. Biol., Univ. Natal, Durban, South Africa.

Why do Warbling Vireos breeding in the Cypress Hills sing a different tune? JONC. BARLOW*, PETER BOYD, Royal Ontario Mus., Toronto, ON; and W. BRUCE MCGILLIVRAY, Prov. Mus. Alberta, Edmonton, AB.

Geographic variation in songs of Gambel's White-crowned Sparrow. DOUGLAS A. NELSON, Dept. Zool., Ohio State Univ., Columbus, OH.

Lecture Session 5A. Ecology

Chair: Lise A. Hanners

*Breeding productivity of bird populations in western riparian forests: Effects of landscape fragmentation. JOSHUA J. TEWKSBURY, Dept. Biol. Sci., Univ. Montana, Missoula, MT.

A technique for sampling flying insects associated with neotropical flycatchers. DAVID J. FLASPOHLER, Dept. Wildl. Ecol., Univ. Wisconsin, Madison, WI.

Habitat use by migrating Wilson's Warblers in the Middle Rio Grande. JEFFREY F. KELLY, DEBORAH M. FINCH, USDA For. Serv., Rocky Mtn. For. & Range Exp. Sta., Albuquerque, NM; and WANG YONG, Dept. Nat. Res. Sci., Univ. Rhode Island, Kingston, RI.

Abundance of feather-degrading Actinomycete bacteria in avian plumage. EDWARD H. BURTT, Jr. *, KRISTIN K. WENGER, Dept. Zool., Ohio Wesleyan Univ., Delaware, OH; and JANN M. ICHIDA, Dept. Bot./Microbiol., Ohio Wesleyan Univ.

A comparison of the composition, relative abundance, and diversity of the breeding forest bird community in old growth and second growth sites in Great Smoky Mountains National Park. S. A. SHRINER*, Dept. Zool., and THEODORE R. SIMONS, Coop. Fish & Wildl. Res. Unit, North Carolina State Univ., Raleigh, NC.

Drought induced changes in community structure of aspen parkland birds. ERIC T. LINDER* and BRIAN A. MAURER, Dept. Zool., Brigham Young Univ., Provo, UT.

Organochlorine pesticide contamination in Neotropical migrant passerines. R. G. HARPER, Dept. Biol., Illinois Wesleyan Univ., Bloomington, IL; J. A. FRICK, Dept. Chem., Illinois Wesleyan Univ.; A. P. CAPPARELLA*, Dept. Biol. Sci., Illinois State Univ., Normal, IL; B. BORUP, Dept. Chem., Illinois Wesleyan Univ.; M. NOWAK, Dept. Chem., Illinois Wesleyan Univ.; D. BIESINGER, Daily Analytical Laboratories, Peoria, IL; and C. F. THOMPSON, Dept. Biol. Sci., Illinois State Univ.

Lecture Session 5B. Habitat

Chair: John Rappole

Age and motivational asymmetries influence priority access to food in migratory Red-eyed Vireos. MARK WOODREY, Mus. Nat. Sci., Jackson, MS; and FRANK R. MOORE*, Dept. Biol. Sci., Univ. Southern Mississippi, Hattiesburg, MS.

Winter abundance and habitat selection of Henslow's Sparrows in Louisiana. N. ROSS CARRIE*, KENNETH R. MOORE, ERIC L. KEITH, JEFF C. SPARKS and CHRIS A. MELDER, Env. & Nat. Res. Man. Div., Ft. Polk, LA.

*Status of Dickcissels and Henslow's Sparrows in southwestern Missouri prairie fragments. MAIKEN WINTER, Div. Biol. Sci., Univ. Missouri, Columbia, MO.

Winter ecology of the Cerulean Warbler in modified Venezuelan landscapes. JASON JONES* and RALEIGH J. ROBERTSON, Dept. Biol., Queen's Univ., Kingston, ON.

*Population consequences of sexual habitat segregation in a migrant passerine during the non-breeding season. PETER P. MARRA, Dept. Biol. Sci., Dartmouth Coll., Hanover, NH.

Winter habitat delineation of the Golden-cheeked Warbler in Honduras. JOHN RAPPOLE*, Conser. & Res. Center, Smithsonian Inst., Front Royal, VA; DAVID KING, Dept. Wildl. & Fish., Univ. Massachusetts, Amherst, MA; PETER LEIMGRUBER, Dept. Biol., Univ. Oklahoma, Norman, OK; SHERRY THORN, Biol. Dept., Univ. Honduras, Tegucigalpa, Honduras; and WYLIE BARROW, Biol. Resource Div., Southern Sci. Center, Lafayette, LA.

Populations of Neotropical migrant and resident landbirds on Cayo Coco, Cuba, before and after Hurricane Lili. GEORGE E. WALLACE, Div. Biol. Sci., Univ. Missouri, Columbia, MO; ELIZABETH A. H. WALLACE, Portland, ME; ELISER SOCARR STORRES, Centro de Investigaciones de Ecosistemas Costeros, Cayo Coco, Cuba; and JOHN FAABORG, Div. Biol. Sci., Univ. Missouri.

Lecture Session 5C. Brood Parasitism (end); Woodpecker Biology

Chair: Stephen I. Rothstein

Rapid radiation of brood parasitic indigo birds associated with the colonization of new hosts. MICHAEL D. SORENSON* and ROBERT B. PAYNE, Mus. Zool., Univ. Michigan, Ann Arbor, MI.

Phylogeny, specialization, and brood parasite-host coevolution. STEPHEN I. ROTHSTEIN*, Dept. Ecol., Evol. & Marine Biol., Univ. California, Santa Barbara, CA; MICHAEL A. PATTEN, Dept. Biol., Univ. California, Riverside, CA; and ROBERT C. FLEISCHER, Nat. Zool. Park, Smithsonian Inst., Washington, DC.

Can Red-bellied Woodpeckers limit Red-cockaded Woodpecker populations by taking over their nest cavities? FRANCES C. JAMES*, BART C. KICKLIGHTER, Dept. Biol. Sci., Florida State Univ., Tallahassee, FL; CHARLES A. HESS, USDA Forest Service, Bristol, FL; ERIC WALTERS and NANCY JORDAN, Dept. Biol. Sci., Florida State Univ.

Red-cockaded Woodpecker nest cavity selection as related to cavity age and pineresin production. RICHARD N. CONNER*, DANIEL SAENZ, D. CRAIG RUDOLPH, Southern Res. Sta., Nacogdoches, TX; WILLIAM G. ROSS and DAVID L. KULHAVY, Coll. For., Stephen F. Austin State Univ., Nacogdoches, TX.

Seasonal variation in territorial behavior of the Golden-fronted Woodpecker. MICHAEL S. HUSAK, Dept. Biol., Angelo State Univ., San Angelo, TX.

Interspecific interactions with foraging Red-cockaded Woodpeckers in south-central Florida. DAVID L. LEONARD*, REED BOWMAN, LESLIE K. BACKUS and ALLISON R. MAINS, Archbold Biol. Sta., Lake Placid, FL.

Factors that influence cavity placement by Red-naped Sapsuckers in Trembling Aspen. ERIC L. WALTERS*, Dept. Biol. Sci., Florida State Univ., Tallahassee, FL; and EDWARD H. MILLER, Biol. Dept., Memorial Univ. Newfoundland, St. John's, NF.

Lecture Session 5D. Paternity

Chair: Mark Stanback

Extra-pair fertilizations in Eastern Kingbirds, revealed by DNA fingerprinting. DIANE L. ROWE*, Dept. Wildl. & Fish. Sci., Texas A&M Univ., College Station, TX; MICHAEL T. MURPHY, Hartwick Coll., Oneonta, NY; ROBERT C. FLEISCHER, Molecular Gen. Lab, Nat. Zool. Park, Washington, DC; and PAUL G. WOLF, Dept. Biol., Utah State Univ., Logan, UT.

Does breeding density covary with extra-pair paternity in Hooded Warblers? SCOTTA. TAROF*, Dept. Biol., Queen's Univ., Kingston, ON; BRIDGET J. STUTCHBURY, Dept. Biol., York Univ., North York, ON; WALTER H. PIPER and ROBERT C. FLEISCHER, Molecular Genetics Lab., Nat. Zool. Park, Washington, DC.

Do males trade extrapair copulations against parental care? TREVOR E. PITCHER* and BRIDGET J. M. STUTCHBURY, Dept. Biol., York Univ., North York, ON.

Extra-pair mate choice produces intense sexual selection in Superb Fairy-Wrens. PETER DUNN* and ANDREW COCKBURN, Div. Bot. & Zool., Aus. Nat. Univ., Canberra, Australia.

Male parental effort and paternity in the variable mating system of White-browed Scrubwrens. LINDA A. WHITTINGHAM* and PETER O. DUNN, Dept. Biol. Sci., Univ. Wisconsin, Milwaukee, WI.

Genetic monogamy in Monteiro's Hornbills: The wages of sin is death? MARK STANBACK*, Dept. Biol., Davidson Coll., Davidson, NC; DAVID RICHARDSON, Dept. Zool., Leicester Univ., UK; CHRISTIAN BOIX, Fitz Patrick Inst., Univ. Cape Town, RSA; JOHN MENDELSON, Res. & Info. Serv. of Namibia; and TERRY BURKE, Dept. Zool., Leicester Univ.

An individually-based model of the California Condor. DIANE L. BERES, Conserv. Biol. Prog. Univ. Minn., St. Paul, MN.

Symposium II.

Loons: Old history and new findings

Conveners: Judith W. McIntyre and David C. Evers

Sponsor: North American Loon Fund

Introduction and overview of loons (Gaviidae). JUDITH W. MCINTYRE, Utica Coll. of Syracuse Univ., Utica, NY.

Why do loons have fewer parasites than grebes? ROBERT W. STORER, Mus. Zool., Univ. Michigan, Ann Arbor, MI.

Causes of Common Loon mortality in Minnesota, 1992-1996. JIMMY PICHNER, Minnesota Zool. Garden, Apple Valley, MN.

What's killing New England Loons? ROSE MICONI, MARK POKRAS, INGA SIDOR, CHRISTOPHER JORDAN, Tufts Univ., Sch. Vet. Med., North Grafton, MA; and ANDRE W MAJOR, US Fish. & Wildl. Ser., Concord, NH.

Patterns of Common Loon mercury exposure, reproduction, and survival in Wisconsin. MICHAEL W. MEYER, Wisconsin Dept. Nat. Res., Rhineland, WI; DAVID C. EVERS, BioDiversity Inc, Yarmouth, ME; JERRY J. HARTIGAN, Univ. Wisconsin-Stevens Point, WI; and PAUL W. RASMUSSEN, Wisconsin Dept. Nat. Res., Monona, WI.

Local variation in foraging strategies employed by wintering Common Loons. LUCYS. VLIETSTRA, SUNY Coll. Environ. Sci. & For., Syracuse, NY.

Individuality in yodel calls recorded from a banded population of Common Loons. CHARLES WALCOTT*, Sec. Neurobiol. & Behav., Cornell Univ., Ithaca, NY; and DAVID EVERS, BioDiversity, Inc., Freeport, ME.

Good news and bad news for Common Loon enthusiasts: Genetic monogamy but a high divorce rate. WALTER H. PIPER*, Dept. Biol., George Mason Univ., Fairfax, VA; DAVID EVERS, Dept. Fisheries & Wildl., Univ. Minnesota, St. Paul, MN; MICHAEL W. MEYER, Dept. Nat. Res., Rhineland, WI; KEREN TISCHLER, Chilton, WI; and MARGARET KLICH, Guelph, ON.

Incubating roles and patterns in Common Loons. JAMES D. PARUK, Dept. Biol., Idaho State Univ., Pocatello, ID.

Influence of brood size and chick age toward parental care in Common Loons. JAYMAGER*, Dept. Zool., Miami Univ., Oxford, OH.

Comparison of Common Loon populations, based on long term monitoring, in Kejimikujik National Park, Nova Scotia and La Maurice National Park, Quebec. DENNIS MASSE, La Mauricie Nat. Park, PQ; and JOSEPH KEREKES*, Canadian Wildl. Ser., Dartmouth, NS.

Using implanted satellite transmitters to identify Common Loon migration routes, staging areas, and wintering range: An update. KEVIN P. KENOW*, Upper Mississippi Sci. Center, La Crosse, WI; MICHAEL W. MEYER, Wisconsin Dept. Nat. Res., Rhineland, WI; DAVID C. EVERS, PETER S. REAMAN, BioDiversity, Inc., Freeport, ME; and JEFF HINES, Minnesota Dept. Nat. Res.

Population dynamics of color-marked Common Loons breeding in the Upper Great Lakes. DAVID C. EVERS, Univ. Minn., St. Paul, MN, and BioDiversity, Inc., Freeport, ME; JOSEPH D. KAPLAN, PETER S. REAMAN and JAMES D. PARUK, BioDiversity.

Lecture Session 6A. Ecology

Chair: Elizabeth P. Mallory

Does food abundance limit winter density of migrant warblers? MATTHEW D. JOHNSON* and THOMAS W. SHERRY, Dept. EEO Biol., Tulane Univ., New Orleans, LA.

The Influence of CRP on Grasshopper Sparrow population trends in themid-continental United States. JAMES R. HERKERT, Illinois Endangered Species Protection Board, Springfield, IL.

Site-dependent regulation of population size: A density-free mechanism. NICHOLAS L. RODENHOUSE, Dept. Biol. Sci., Wellesley Coll., Wellesley, MA; THOMAS W. SHERRY*, Dept. EEO Biol., Tulane Univ., New Orleans, LA; and RICHARD T. HOLMES, Dept. Biol. Sci., Dartmouth Coll., Hanover, NH.

Long-term population trends and potential regulatory mechanisms for a Nearctic-Neotropical migrant songbird, the Black-throated Blue Warbler. T. SCOTTSILLETT* and RICHARD T. HOLMES, Dept. Biol. Sci., Dartmouth Coll., Hanover, NH.

Can we predict dispersal patterns from source-sink models? An empirical testusing the Florida Scrub-Jay. NATHALIE J. HAMEL*, REED BOWMAN and LARRY RIOPELLE, Archbold Biol. Sta., Lake Placid, FL.

Monitoring birds in a subtropical forest: Biases in mist net capture rates due to species height distribution and behavior. ELIZABETH P. MALLORY* and NICHOLAS V. L. BROKAW, Manomet Center for Conser. Sci., Manomet, MA.

Lecture Session 6B. Conservation

Chair: Stanley E. Senner

The Ornithological Council, your representative in Washington, DC: Activities and accomplishments. E. A. SCHREIBER, Alexandria, VA.

*Trade-offs in conservation biology: Effects of flooding rice fields for water birds on non-target species. CHRIS S. ELPHICK, Ecol. Evol. & Cons. Biol., Univ. Nevada, Reno, NV.

Potential effects of global warming on waterfowl populations breeding in the Northern Great Plains. LISA G. SORENSON*, TERRY L. ROOT, School Nat. Res. & Envir., Univ. Michigan, Ann Arbor, MI; and MICHAEL G. ANDERSON, Inst. for Wetlands & Waterfowl Res., Winnipeg, MB.

*The Eskimo Curlew: End of the century report and prospects for the next millennium. EVE IVERSEN, Agri. Edu., Dept. Agron. & Range Sci., Univ. California, Davis, CA.

Changes in the subarctic avifauna at Churchill, Manitoba: 1930-1997. JOSEPH R. JEHL, Jr., Hubbs-Sea World Res. Inst., San Diego, CA.

Restoration of marine birds following the Exxon Valdez oil spill. STANLEY E. SENNER, Exxon Valdez Oil Spill Trustee Council, Anchorage, AK.

Lecture Session 6C. Habitat

Chair: Patricia J. Heglund

Is it costly for adult Tufted Titmice to keep young on their winter territory? ELENA V. PRAVOSUDOVA and THOMAS C. GRUBB, Jr., Dept. Zool., Ohio State Univ., Columbus, OH.

Use of ground pine (*Lycopodium obscurum*) patches as nest sites by the Hermit Thrush and Ovenbird in northern Wisconsin. DAVID J. FLASPOHLER*, STANLEY A. TEMPLE, Dept. Wildl. Ecol., Univ. Wisconsin, Madison, WI; and ROBERT N. ROSENFELD, Univ. Wisconsin, Stevens Point.

Nest site selection by female Black-capped Chickadees. SCOTT M. RAMSAY*, LAURENEM. RATCLIFFE, Dept. Biol., Queen's Univ., Kingston, ON; and KEN OTTER, Dept. Biol., Tabor College, Hillsboro, KS.

Testing nest-site selection models for six species of cavity nesting birds. JOSHUA J. LAWLER*, THOMAS C. EDWARDS, Jr., Dept. Fish. & Wildl., Utah State Univ., Logan, UT; and KIMBERLY A. SULLIVAN, Dept. Biol., Utah State Univ.

Avian use of American Woodcock habitat in West Virginia. PAMELA DENMON* and PETRA B. WOOD, West Virginia Coop. Res. Unit, West Virginia Univ., Morgantown, WV.

Habitat relations among land birds in managed forests of northern Idaho. PATRICIA J. HEGLUND*, Turnstone Ecol. Res. Assoc., Ltd., Moscow, ID; CHRISTOPHER J. WILLIAMS, Div. Stat., Univ. Idaho, Moscow, ID; RITA DIXON, Turnstone Ecol. Res. Assoc.; BILL WALL, Potlatch Corp., Lewiston, ID; and DAN DAVIS, U.S. For. Ser., Clearwater Nat. For., Orofino, ID.

Lecture Session 7A. Systematics

Chair Kevin E. Omland

When distributional models fail: Mirroring ecology and history in geographic distributions. A. T. PETERSON*, S. L. EGBERT and K. P. PRICE, Nat. Hist. Mus., Univ. Kansas, Lawrence, KS.

Molecular systematics of the grackles and allies. KEVIN P. JOHNSON* and SCOTT M. LANYON, Bell Mus. Nat. Hist., St. Paul, MN.

*Geographic variation in the Curve-billed thrasher (*Toxostoma curvirostre*) complex. OCTAVIO ROJAS-SOTO R., Museo de Zoología "Alfonso L. Herrera", Fac. Ciencias, UNAM. Mexico.

Evolution of thrashers (*Toxostoma*). ROBERT M. ZINK*, RACHELLE C. BLACKWELL, Bell Mus., Univ. Minnesota, St. Paul, MN; and DONNA L. DITTMANN, Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA.

A cytochrome-b phylogeny for the orioles (*Icterus*): A framework for studying plumage evolution. KEVIN E. OMLAND* and SCOTT M. LANYON, Bell Mus. Nat. Hist., Univ. Minnesota, St. Paul, MN.

*Nucleotide diversity and multiple Pleistocene refugia: The colonization of North America by Song Sparrows. ADAM J. FRY, Bell Mus. Nat. Hist., Univ. Minnesota, St. Paul, MN.

Lecture Session 7B. Waterfowl Biology

Chair: Michael G. Anderson

Evaluation of indicated pair indices of breeding Mallard populations. SCOTT C. BARRAS* and TERRY A. MESSMER, Dept. Fish. & Wildl., Utah State Univ., Logan, UT.

Macro-habitat comparisons of foraging effort in Mallards - a test of the Nutrient Limitation Hypothesis. BRUCE D. DUGGER*, Gaylord Mem. Lab., Univ. Missouri, Columbia, MO; and MARK J. PETRIE, School Nat. Res., Univ. Missouri, Columbia, MO.

Long-term foraging optimization in Northern Shovelers. PAUL J. DuBOWY, Dept. Wildl. & Fish. Sci., Texas A&M Univ., College Station, TX.

The relationship between intermittent organ morphology and mating strategy in water fowl. CHRIS R. COKER*, KIMBERLY M. CHENG, Dept. Anim. Sci., Univ. British Columbia, Vancouver, BC; HELEN HAYS, Dept. Ornithol., Mus. Nat. Hist., New York, NY; and FRANK MCKINNEY, Dept. Ecol., Evol. & Behav., Univ. Minnesota, St. Paul, MN.

Density dependence in bird populations: Paradoxes of scale and problems of detection. MICHAEL G. ANDERSON*, IWWR, Ducks Unlimited, Stonewall, MB; and MARKS. LINDBERG, IWWR, Ducks Unlimited, Memphis, TN.

Lecture Session 7C. Charadriiform Biology

Chair: Abby N. Powell

Compensation for osmoregulatory stress: Behavioral responses of hatchling American Avocets and Black-necked Stilts to salt loading. MARGARET A. RUBEGA* and LEWIS W. ORING, Dept. Environ. & Res. Sci., Univ. Nevada, Reno, NV.

Sub-adult movement patterns of the endangered Hawaiian Stilt. J. MICHAEL REED*, Dept. Biol., Tufts Univ., Medford, MA; MICHAEL SILBERNAGLE, U.S. Fish & Wildl. Serv., Haleiwa, HI; KAREN EVANS, U.S. Fish & Wildl. Serv., Honolulu, HI; ANDRE WENGILIS, Jr., Ducks Unlimited, Cordova, CA; and LEWIS W. ORING, Ecol., Evol. & Cons. Biol. Prog., Univ. Nevada, Reno.

Effects of habitat type and California Least Terns on nesting success of Western Snowy Plovers. ABBY N. POWELL* and JILL M. TERP, USGS-BRD, Dept. Biol., San Diego State Univ., San Diego, CA.

Differences in foraging habitats between years of poor and good reproductive success in the California Least Tern. DAN ROBINETTE* and PAT HERRON BAIRD, Dept. Biol. Sci., California State Univ., Long Beach, CA.

Seabirds as indicators of fish distribution; an observational study of prey caught by California Least Terns, with a warning about dropped fish as diet indicators. PAT HERRON BAIRD, Dept. Biol. Sci., California State Univ., Long Beach CA.

The relevance of avian systematic methodology to conservation biology: Defining endangered subspecies of the Least Tern. NED. K. JOHNSON*, Mus. Vert. Zool. & Dept. Integrative Biol., Univ. California, Berkeley, CA; J. V. REMSEN, Mus. Nat. Sci., Louisiana State Univ., Baton Rouge, LA; and CARLA CICERO, Mus. Vert. Zool., Univ. California, Berkeley, CA.

SATURDAY, 16 AUGUST 1997

Symposium III.

Molecular genetics, taxonomy, and avicultural needs of the zoo community and ornithology.

Conveners: I. Lehr Brisbin, Jr., and David Blockstein

Jointly sponsored by AOU and AZA.

Welcoming remarks. DAVID BLOCKSTEIN, Ornithol. Council, Washington, DC.

Molecular genetics, taxonomy, and conservation biology. Do these support real conservation? DONALD BRUNING, Wildlife Conservation Society, Bronx, NY.

Study skins and molecular genetics as tools for defining conservation concerns for the Red Jungle fowl - At last, something to crow about! I. LEHR BRISBIN, Jr.,* Savannah River Ecol. Lab., Aiken, SC; A. TOWNSEND PETERSON, Nat. Hist. Museum, Univ. Kansas, Lawrence, KS; and GEORGE AMATO, Wildlife Conserv. Soc., Bronx, NY.

Using molecular genetic tools and museum specimens to address current conservation concerns of Whooping Cranes. TRAVIS C. GLENN, Dept. Biol., Univ. South Carolina, Columbia, SC.

Utility of RAPDs and microsatellite loci in the conservation of Curassows. COLINHUGHES and ERIK D. LARSON, Dept. Biol., Univ. North Dakota, Grand Forks, ND.

Using genetic parameters to evaluate strategies for Bald Eagle restocking. J.R. AIKIN,* San Francisco Zoo, San Francisco, CA; I. L. BRISBIN, JR., Savannah River Ecol. Lab., Aiken, SC; W. E. GERGITS, N. J. CASNA, Therion Corp., Troy, NY; and K. B. WILLIS, AZA Conservation Ctr., Bethesda, MD.

Occurrence of mixed mating strategies in two species of monogamously breeding colonial birds Waldrapp Ibis (*Geronticus eremita*) and Scarlet Ibis (*Eudocimus ruber*) and the potential effect on their captive management. SUSAN B. ELBIN*, Sci. Resource Center, Wildlife Conservation Society, Bronx, NY; and JOANN A BURGER, Dept. Biol. Sci., Rutgers Univ., Piscataway, NJ.

Lecture Session 8A. Conservation

Chair: Gene S. Fowler

Setting conservation priorities: How valuable are threatened species? DOUGLAS F. STOTZ, Field Mus., Chicago, IL.

Are humans creating a homogeneous avifauna? A study of bird communities on urban gradients in California and Ohio. ROBERT B. BLAIR, Dept. Zool., Miami Univ., Oxford, OH.

Landscape context influences the presence of breeding birds within forest stands. GERALD J. NIEMI*, JOANN M. HANOWSKI, PETER WOLTER, ANN R. LIMA, Nat. Resource Res. Inst., Univ. Minnesota, Duluth, MN; and DAVID J. MLADENOFF, Dept. Forestry, Univ. Wisconsin, Madison, WI.

Taxonomy, bird conservation, and molecular data: Potential problems with prioritization using biological species. JOHN M. BATES, Field Mus., Chicago, IL.

Speciation in Plio-Pleistocene Andean birds. JAIME GARCIA-MORENO, Dept. Pop. Biol., Univ. Copenhagen, Denmark.

Responses to and recovery from human disturbance in Magellanic Penguins under conditions of moderate vs. low levels of visitation. GENE S. FOWLER, Dept. Biol., Pomona Coll., Claremont CA; ESTEBAN FRERE and PATRICIA GANDINI, Univ. Nac. Patagonia Austral, Santa Cruz, Argentina.

Lecture Session 8B. Systematics

Chair: Nathan H. Rice

Phylogenetic relationships of the ovenbirds (Furnariidae). ROBERT J. RAIKOW and ANTHONY H. BLEDSOE*, Dept. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA.

A molecular phylogeny of the Charadriidae (plovers). MARK K. PECK and ALLAN J. BAKER, Centre for Biodiv. & Cons. Biol., Royal Ontario Mus., Toronto, ON.

Two gene trees and the evolutionary history of woodpeckers. WILLIAM S. MOORE, THOMAS PRYCHITKO, DAVID WEBB, VICTOR DEFILIPPIS and AAMINA AHMED, Dept. Biol.Sci., Wayne State Univ., Detroit, MI.

Phylogeny of the antbirds (Formicariidae and Thamnophilidae). CHARLES J. WELSH, Dept. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA.

Recent Ice Age origins for North American songbirds: A failed paradigm. JOHN KLICKA* and ROBERT M. ZINK, Bell Mus. Nat. Hist., Univ. Minnesota, St. Paul, MN.

Phylogeny of the Formicariidae. NATHAN H. RICE*, Nat. Hist. Mus. and Dept. Syst. & Ecol., Univ. Kansas, Lawrence, KS.

Lecture Session 8C. Migration

Chair: Theodore R. Simons

Stopover ecology of spring migrants along the Missouri and Platte Rivers in eastern Nebraska. JOSEPH GUBANYI* and JULIE SAVIDGE, Dept. For., Fish. & Wildl., Univ. Nebraska, Lincoln, NE.

Temporal changes in size of fall-migrant Sharp-shinned Hawks. HELMUT C. MUELLER*, NANCY S. MUELLER, D. D. BERGER, G. ALLEZ, W. R. ROBICHAUD and J. L. KASPAR, Cedar Grove Ornithol. Sta., Cedar Grove, WI.

Migratory behavior of Semipalmated Sandpipers at a spring stopover site: The importance of synoptic weather conditions. DAVID S. MIZRAHI, Dept. Biol. Sci., Clemson Univ., Clemson, SC.

Sex-ratios of wintering populations of White-throated Sparrows determine using a PCR based sexing technique. JEANINE A. FERRENCE*, PAUL L. LEBERG, Dept. Biol., Univ. Southwestern Louisiana, Lafayette, LA; and CLINTON W. JESKE, Nat. Wetlands Res. Center, Lafayette, LA.

Correlates of spatial pattern in the stopover ecology of trans-Gulf migrants. THEODORE R. SIMONS*, Coop. Fish & Wildl. Res. Unit, North Carolina State Univ., Raleigh, NC; SCOTT M. PEARSON, Dept. Biol., Mars Hill Coll., Mars Hill, NC; and FRANK R. MOORE, Dept. Biol. Sci., Univ. S. Mississippi, Hattiesburg, MS.

Lecture Session 9A. Owl Systematics (mostly)

Chair: Hector C. Miranda, Jr.

Coalescence of mtDNA haplotypes in Strix owls. I. Barred Owl. GEORGE F. BARROWCLOUGH* and JEFFREY G. GROTH, Dept. Ornithol., Amer. Mus. Nat. Hist., New York, NY.

Coalescence of mtDNA haplotypes in Strix owls. II. Spotted Owl. JEFFREY G. GROTH*, GEORGE F. BARROWCLOUGH, Dept. Ornithol., Amer. Mus. Nat. Hist., New York, NY; and R. J. GUTIÉRREZ, Dept. Wildl., Humboldt State Univ., Arcata, CA.

The Forest Owlet *Heteroglaux (Athene) blewitti*: Systematic status and biology in light of a major specimen fraud. PAMELA C. RASMUSSEN*, Div. Birds, Smithsonian Inst., Washington, DC; and NIGEL J. COLLAR, Bird Life International, Cambridge, UK.

Evolutionary history of the Burrowing Owl: A genetic perspective. MARTHA J. DESMOND*, Dept. For., Fish., & Wildl., Univ. Nebraska, Lincoln, NE; THOMAS J. PARSONS, Armed Forces DNA Ident. Lab, Rockville, MD; THOMAS O. POWERS, Dept. Plant Path., Univ. Nebraska; and JULIE A. SAVIDGE, Dept. For., Fish., & Wildl., Univ. Nebraska.

The phylogenetic placement of *Mimizuku gurneyi* (Aves: Strigidae) inferred from mitochondrial DNA. HECTOR C. MIRANDA, Jr.,* Dept. Biol. Sci., Univ. Cincinnati, Cincinnati, OH; ROBERT S. KENNEDY, Cincinnati Mus. Center, Cincinnati, OH; and DAVID P. MINDELL, Univ. Michigan, Ann Arbor, MI.

Molecular phylogeny of the Cathartidae: Protein structure and evolution of protein-coding genes. CAROLE S. GRIFFITHS, Dept. Ornithol., Amer. Mus. Nat. Hist., New York, NY.

Changing patterns of owl deaths: Automobiles and electrocution. C. STUART HOUSTON,* Saskatoon, SK; and JOSEF K. SCHMUTZ, Dept. Biol., Univ. Saskatchewan, Saskatoon, SK.

Lecture Session 9B. Methodology

Chair: David A. Wiedenfeld

Songbird abundance and viability at multiple scales on the Monongahela National Forest, West Virginia. THOMAS E. DEMEO*, USDA For. Ser., Elkins, WV; and PETRAB. WOOD, Coop. Fish & Wildl. Res. Unit, West Virginia Univ., Morgantown, WV.

Validation of a GIS coverage of potential breeding bird distribution on the Upper Mississippi. EILEEN M. KIRSCH*, CARL E. KORSCHGEN, USGS, Upper Mississippi Sci. Center, La Crosse, WI; and CAROL D. LOWENBERG, USGS, Environ. Manage. Tech.Center, Onalaska, WI.

Use of topographic features in the development of wildlife-habitat relation models for land birds. NANCY WRIGHT, P. J. HEGLUND*, JASON KARL, J. MICHAELSCOTT, Coop. Fish & Wildl. Res. Unit, Gap Analysis Lab., Univ. Idaho, Moscow, ID; and FRANCIS CASSIER, Idaho Dept. Fish & Game, Lewiston, ID.

Play backs of Black-capped Chickadee mobbing calls as a method to estimate nesting success of forest birds. JOHN S. GUNN*, Dept. Biol., Univ. New Brunswick, Fredericton, NB; ANDRE DESROCHERS, Dept. Biol., Univ. Laval, Sainte-Foy, PQ; MARC-ANDRE VILLARD, Dept. Biol., Univ. Moncton, Moncton, NB; and JACQUESIBARZABAL, Dept. Biol., Univ. Laval, Sainte-Foy, PQ.

Modeling relative abundance from count data. JOHN R. SAUER* and WILLIAM A. LINK, Patuxent Wildl. Res. Center, Laurel, MD.

Reliability of using of geostatistics to map bird distributions from point count data. C. A. WEAKLAND*, P. B. WOOD, West Virginia Coop. Res. Unit, West Virginia Univ., Morgantown, WV; and A. LIEBHOLD, U.S. For. Serv. Lab., Morgantown, WV.

Are more-recently established BBS routes different from older ones? DAVID A. WIEDENFELD, Sutton Avian Res. Center, Bartlesville, OK; CHARLES E. McCULLOCH, Biometrics Unit, Cornell Univ., Ithaca, NY; and FRANCES C. JAMES, Dept. Biol. Sci., Florida St. Univ., Tallahassee, FL.

Lecture Session 9C. Corvid Biology

Chair: Joseph M. Wunderle, Jr.

Routes to breeding in Eastern American Crows. KEVIN J. MCGOWAN, Ecol. & Sys., Cornell Univ., Ithaca, NY.

Using corvids to analyze avian terrestrial locomotion: Species differences and multiple gaits within a species. JACK P. HAILMAN*, Dept. Zool., Univ. Wisconsin, Madison, WI; GLEN E. WOOLFENDEN, Dept. Biol., Univ. South Florida, Tampa, FL; and ELIZABETH D. HAILMAN, Dept. Dairy Science, Univ. Wisconsin.

Oddity discrimination by two Aphelocoma jays. ARLA G. HILE and RUSSELL P. BALDA*, Dept. Biol. Sci., Northern Arizona Univ., Flagstaff, AZ.

The genetic mating system of the Mexican Jay. SHOU-HSIEN LI* and JERRAM L. BROWN, Dept. Biol. Sci., SUNY, Albany, NY.

Recovery of cached food by captive Blue Jays. PAUL A. CALLO*, Dept. Zool., Univ. Maryland, College Park, MD; and CURTIS S. ADKISSON, Dept. Biol., Virginia Tech, Blacksburg, VA.

The relationship between habitat-specific density and reproduction in Blue Jays. KEITH A. TARVIN, Dept. Biol., Univ. South Florida, Tampa, FL.

Symposium IV.

The use of models in avian conservation.

Conveners: Steven R. Beissinger and Jeffrey R. Walters
AOU Conservation Committee

Introduction to the use of models in avian conservation. STEVEN R. BEISSINGER, Dept. Environ. Sci., Policy & Manage., Univ. California, Berkeley, CA; and JEFFREY R. WALTERS, Dept. Biol. Virginia Tech. Univ., Blacksburg, VA.

The use of models in policy decisions. BARRY NOON, Dept. Fish. & Wildl. Biol., Colorado State Univ., Ft. Collins, CO.

The use of demographic models of population viability in endangered species management. STEVEN R. BEISSINGER, Dept. Environ. Sci., Policy & Manage., Univ California, Berkeley, CA.

The role of genetics in conservation modelling and management. SUSAN M. HAIG, Forest & Rangeland Ecosys. Sci. Center, Oregon State Univ., Corvallis, OR.

Predicting species occurrence using vegetation models in GAP analysis. DONALD G. CATANZARO* and KIMBERLY G. SMITH, Dept. Biol. Sci., Univ. Arkansas, Fayetteville, AR.

Simulating dispersal in metapopulation models. BRADLEY M. STITH*, Dept. Wildl. Ecol. & Cons., Univ. Florida, Gainesville, FL; JOHN W. FITZPATRICK, Cornell Lab. Ornithol., Ithaca, NY; and GLEN E. WOOLFENDEN, Archbold Biol. Sta., Lake Placid, FL.

Use of spatially explicit models in avian ecology and conservation. JOHN B. DUNNING, Jr., Dept. For. & Nat. Res., Purdue Univ., West Lafayette, IN.

Role of models in avian conservation: Concluding remarks. JEFFREY R. WALTERS*, Dept. Biol., Virginia Polytech. Inst. & State Univ., Blacksburg, VA; and STEVEN R. BEISSINGER, Envir. Sci., Policy & Manage., Univ. California, Berkeley, CA.

Lecture Session 10A. Breeding Biology

Chair: David W. Winkler

Aggregated nesting in the Least Flycatcher in north-central Minnesota. ETHAN F. PERRY* and DAVID E. ANDERSEN, Minnesota Coop. Fish & Wildl. Res. Unit, Dept. Fish. & Wildl., Univ. Minnesota, St. Paul, MN.

Effects of ambient temperature on avian incubation strategies. COURTNEY J. CONWAY* and THOMAS E. MARTIN, Montana Coop. Wildl. Res. Unit, Univ. Montana, Missoula, MT.

The function of early onset of nocturnal incubation in Red-winged Blackbirds. ETHAN D. CLOTFELTER, Dept. Zool., Univ. Wisconsin, Madison, WI; and KENYASUKAWA, Dept. Biol., Beloit Coll., Beloit, WI.

Ecological stochasticity and partial brood loss in Red-winged Blackbirds. LISAEARLE*, BARB GLASSEY and SCOTT FORBES, Dept. Biol., Univ. Winnipeg, Winnipeg, MB.

Why do parent birds play favorites? SCOTT FORBES*, BARB GLASSEY, SUZANNE THORNTON, MARGARET FORBES and NEIL J. BUCKLEY, Dept. Biol., Univ. Winnipeg, Winnipeg, MB.

Why do Tree Swallows breed at different times? DAVID W. WINKLER, Sec. Ecol. & Syst., Cornell Univ., Ithaca, NY.

Lecture Session 10B. Breeding Biology

Chair: Michael Carey

Filial imprinting and leadership among chicks in family integration of the Domestic Fowl. NICHOLAS E. COLLIAS, Dept. Biol., Univ. California, Los Angeles, CA.

Temporal variation in Eastern Bluebird offspring sex-ratios. SETH B. ISENBERG, Dept. Biol., Univ. Missouri-St. Louis, St. Louis, MO.

Who recruits? -- Fledge dates and natal brood effects in Song Sparrows. CHRISTINE A. HOWELL*, Div. Biol. Sci, Univ. Missouri-Columbia, Columbia, MO; NADAV NUR and GEOFFREY R. GEUPEL, Point Reyes Bird Obs., Stinson Beach, CA.

Clutch size variation in an obligately siblicidal species, the Masked Booby. LESLIE D. CLIFFORD* and DAVID J. ANDERSON, Dept. Biol., Wake Forest Univ., Winston-Salem, NC.

Post-fledging survival in Galapagos boobies. KATHRYN P. HUYVAERT* and DAVID J. ANDERSON, Dept. Biol., Wake Forest Univ., Winston-Salem, NC.

Intergenerational costs of reproduction in the Eastern Kingbird. MICHAEL T. MURPHY, Dept. Biol., Hartwick Coll. Oneonta, NY.

Lecture Session 10C. Vocalizations

Chair: JoAnn Hanowski

Responses to playback of long-range and short-range songs by Dark-eyed Juncos. RUSSELL C. TITUS, Dept. Biol., Indiana Univ., Bloomington, IN.

Individuality in Pair Bond/High Intensity calls of Five-striped Sparrows. KATHLEEN GROSCHUPF, Tempe, AZ.

Lecture Session 11A. Systematics

Chair: D. Brent Burt

A revision of the *Aulacorhynchus* "prasinus" species complex. KEVIN WINKER, Univ. Alaska Mus., Fairbanks, AK.

Systematics of cardueline finches (Carduelinae) as reconstructed from morphology: A progress report. PHILIP C. CHU, Carnegie Mus., Pittsburgh, PA.

Null model analysis of passerine species diversity. ANTHONY H. BLEDSOE* and ROBERT J. RAIKOW, Dept. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA.

Phylogenetic relationships among select avian orders based on mtDNA. DAVID P. MINDELL, Dept. Biol. and Mus. Zool., Univ. Michigan, Ann Arbor, MI; MICHAEL D. SORENSON, Mus. Zool., Univ. Michigan; CHRISTOPHER J. HUDDLESTON, Lab Mol. Syst., Nat. Mus. Nat. Hist., Smithson. Inst., Washington, DC; HECTOR C. MIRANDA, Dept. Biol. Sci., Univ. Cincinnati, Cincinnati, OH; and TAMAKI YURI, Mus. Zool., Univ. Michigan.

Phylogenetic and ecological aspects of cooperative breeding in the bee-eaters (Aves: Meropidae). D. BRENT BURT, Dept. Biol., Stephen F. Austin State Univ., Nacogdoches, TX.

Relationships within the family Troglodytidae, with comments on the placement of *Donacobius*. F. KEITH BARKER, Comm. Evol. Biol., Univ. Chicago and Div. Birds, Field Mus., Chicago, IL.

Lecture Session 11B. Physiology

Chair: Carol M. Vleck

The role of daily energy expenditure on the biogeography of the Mountain Chickadee and the Plain Titmouse. SHELDON J. COOPER, Dept. Biol., Utah State Univ., Logan, UT.

A test of Rubner's compensation hypothesis in Verdins. M. D. WEBSTER, Dept. Biol., St. John's Univ., Collegeville, MN.

Continuous egg laying by active immunization against vasoactive intestinal peptide in wild Mallards. CYNTHIA K. BLUHM*, Delta Waterfowl Res. Sta., Dept. Zool., Univ. Manitoba; JANET L. SILSBY, GILBERT R. PITTS and MOHAMED E. ELHALAWANI, Dept. Anim. Sci., Univ. Minnesota, St. Paul, MN.

Adrenocortical responses in a migratory bird exhibiting sexual habitat segregation during the non-breeding period. PETER P. MARRA*, Dept. Biol. Sci., Dartmouth Coll., Hanover, NH; and REBECCA L. HOLBERTON, Dept. Biol., Univ. Mississippi, University, MS.

The effect of testosterone upon parental care, prolactin levels and brain receptors in male Dark-eyed Juncos. STEPHAN J. SCHOECH*, ELLEN D. KETTERSON, VALNOLAN, Jr., Dept. Biol. and CISAB, Indiana Univ., Bloomington, IN; PETER J. SHARP, Roslin Inst., Midlothian, Scotland; and JOHN D. BUNTIN, Dept. Biol. Sci., Univ. Wisconsin-Milwaukee, Milwaukee, WI.

Prolactin and parental care in Adelie Penguins. LORI L. ROSS*, CAROL M. VLECK, THERESA L. BUCHER, DAVID VLECK, ASRUN Y. KRISTMUNDSDOTTIR and WENDY L. REED, Dept. Zool & Genetics, Iowa State Univ., Ames, IA.

Adelie Penguin aggressive behavior and testosterone during courtship and nest defense. CAROL M. VLECK*, DAVID VLECK and THERESA L. BUCHER, Dept. Zool. & Genetics, Iowa State Univ., Ames, IA.

FRIDAY, 15 AUGUST 1997

Poster Papers

Fur or feathers? *Sinosauroptryx prima*. ALAN H. BRUSH, Acad. Nat. Sci. & Univ. Connecticut.

Tail molt in the family Icteridae. KENNETH C. PARKES, Carnegie Mus. Nat. Hist., Pittsburgh, PA.

A teaching laboratory demonstration of counter-current heat exchange in the avian leg. JERALD J. DOSCH, Dept. Biol., Benedictine Univ., Lisle, IL.

Pellet egestion in owls: The physiological mechanism. GARY E. DUKE, Dept. Vet. PathoBiol., Univ. Minn., St Paul, MN.

A new non-invasive method for color marking birds, with an emphasis on marking California Least Terns. SCOT HINK* and PAT HERRON BAIRD, Dept. Biol. Sci., California State Univ., Long Beach, CA.

Flow cytometry as a tool for sexing Wood Thrushes. ROBYN McLAIN and ROLANDROTH*, Dept. Entomol. & App. Ecol., Univ. Delaware, Newark, DE.

A minimal disturbance method for extracting blood for DNA analysis from bird embryos. GARY L. NUECHTERLEIN* and DEBORAH BUITRON, Dept. Zool., North Dakota State Univ, Fargo, ND.

An experimental examination of predatory pressures on Piping Plovers nesting at Breezy Point, New York. BROOK LAURO, Dept. Computer Sci., Math. & Sci., St. Vincent's Coll., St. John's Univ., Jamaica, NY.

Impact of Laughing Gull food kleptoparasitism on nesting terns. CATHERINE M.DEVLIN, Island Res. Center, Coll. of Atlantic, ME.

Mate association patterns in incubating Red-faced Warblers: Effect of predators or intruding conspecifics? PATRICIA M. BARBER, Montana Coop. Wildl. Res. Unit, Univ. Mont., Missoula, MT.

Parasitism of nestling American Kestrels by *Carnus hemapterus*, a hematophagous dipteran. RUSSELL D. DAWSON* and GARY R. BORTOLOTTI, Dept. Biol., Univ. Saskatchewan, Saskatoon, SK.

Landscape-scale nest-site selection by Florida Scrub-Jays. ROBERT L. CURRY*, Dept. Biol., Villanova Univ., Villanova PA; GLEN E. WOOLFENDEN, Dept. Biol., Univ. South Florida, Tampa, FL; and JOHN W. FITZPATRICK, Cornell Lab. Ornithol., Ithaca, NY.

Nest success and risk of nest predation for songbirds in Christmas tree plantations. MICHELLE J. SOLENSKY* and PAULA K. KLEINTJES, Dept. Biol., Univ Wisconsin-Eau Claire, Eau Claire, WI.

Spatial and temporal patterns of nest occupancy and clutch size of Tree Swallows during nine breeding seasons in Michigan: A GIS approach. DONALD L. BEAVER*, Dept. Zool., Michigan State Univ., East Lansing, MI; MARGARET A. BEAVER, Off. Budget & Pers., Michigan State Univ.; RICHARD W. HILL and PATRICK E. LEDERLE, Dept. Zool., Michigan State Univ.

Incubation onset and hatching synchrony in the Eastern Bluebird. PATRICIA BLAIR BOLLINGER* and ERIC K. BOLLINGER, Dept. Zool., Eastern Illinois Univ., Charleston, IL.

What makes a duck nest successful? JAIME E. JIMENEZ, RICHARD L. KING, MICHAEL R. CONOVER and TERRY A. MESSMER, Dept. Fish. & Wildl., Berryman Inst., and Ecol. Center, Utah State Univ., Logan, UT.

Nesting and foraging activities of two sympatric species of *Larus* gulls in Jamaica Bay, New York - The Herring and Great Black-backed Gulls. JULIA L. TIMS, MILO E. RICHMOND and KEVIN M. BROWN, New York Coop. Fish & Wildl. Res. Unit, Cornell Univ., Ithaca, NY.

Effects of pair-bond duration and pre-breeding behavior on clutch initiation date in the Florida Scrub-Jay. ELIZABETH M. BORST*, ROBERT L. CURRY, Dept. Biol., Villanova Univ., Villanova, PA; and GLEN E. WOOLFENDEN, Dept. Biol., Univ. South Florida, Tampa, FL.

Low frequency of extra-pair copulations in a population of Yellow Warblers in northeastern Pennsylvania. MICHAEL CAREY*, KAREN ZOLNOWSKI and STEPHEN BEKANICH, Dept. Biol., Univ. Scranton, Scranton, PA.

Variation in foraging behavior among nesting stages of female Red-faced Warblers. ROBERT C. DOBBS*, Montana Coop. Wildl. Res. Unit; and THOMAS E. MARTIN, U.S. Biol. Res. Div., Montana Coop. Wildl. Res. Unit, Univ. Montana, Missoula, MT.

Wood Thrush parental behaviors in Chautauqua County, New York. PETER J. CERNY*, GIAN DODICI and MELINDA S. LaBRANCHE, Dept. Biol., SUNY Coll. at Fredonia, Fredonia, NY.

Factors influencing the intensity of nest defense in American Robins. REBECCA K. JANSEN, Dept. Biol. Sci., Univ. Wisconsin-Milwaukee, Milwaukee, WI.

The colonization of southern San Francisco Bay by the California Gull from 1980 to 1997. THOMAS P. RYAN* and JANET T. HANSON, San Francisco Bay Bird Obs., Alviso, CA.

Factors affecting home range size of Red-cockaded Woodpeckers in south-central Florida. LESLIE K. BACKUS, REED BOWMAN, DAVID L. LEONARD and ALLISON R. MAINS, Archbold Biol. Sta., Lake Placid, FL.

The effect of microclimate and perceived predation risk on nest attentiveness in the Yellow Warbler and American Redstart. J. WAJID JENKINS* and JOSHUA J. TEWKSBUURY, Montana Coop. Wildl. Res. Unit, Univ. Montana, Missoula, MT.

Scanning behavior in Northern Mockingbirds. DIRK E. BURHANS, Archbold Biol. Sta., Lake Placid, FL.

Pepper, palatability, and pedagogy: Seed choice and competition in campus birds. MARK STANBACK* and KATIE LANNON, Dept. Biol., Davidson Coll., Davidson, NC.

Multiple functions of aerial courtship displays in American White Pelicans. ROGER M. EVANS, Dept. Zool., Univ. Manitoba, MB.

Trapping Sora and Virginia Rails during the breeding season. JENNIFER SKOLODA* and CHRISTINE A. RIBIC, Dept. Wildl. Ecol., Univ. Wisconsin, Madison WI.

Your tape collection is valuable: Please organize and archive it. DONALD E. KROODSMA*, Dept. Biol., DAVID W. STEMPLE, Dept. Computer Sci., Univ. Massachusetts, Amherst, MA; and GREGORY F. BUDNEY, Lib. Nat. Sounds, Lab. Ornithol., Cornell Univ., Ithaca, NY.

A characterization of the vocal ontogeny of chicks in the Northern Rough-winged Swallow. CHAD E. BRASSIL* and MICHAEL J. DEJONG, Dept. Biol., Univ. St. Thomas, St. Paul, MN.

Comparing degradation in the Eastern Towhee's song introduction and trill. HITESH KHANNA, Dept. Zool., Ohio State Univ., Columbus, OH.

The acoustic signals of male and female Red-bellied Woodpeckers: Description and causation. H. DAWN WILKINS*, Dept. Biol. Sci., Mississippi State Univ., Mississippi State, MS; and GARY RITCHISON, Dept. Biol. Sci., Eastern Kentucky Univ., Richmond, KY.

The relationship between range size and abundance: Testing a new species-area theory. WADE A. LEITNER, Dept. Ecol. & Evol. Biol., Univ. Arizona, Tucson, AZ.

Analysis of mtDNA D-loop sequences to detect gene flow in the Bicknell's Thrush. WALTER G. ELLISON, Biol. Sci., SUNY at Albany, Albany, NY.

A different tempo of mitochondrial evolution in birds and their parasitic lice. RODERIC D. M. PAGE, RICHARD GRIFFITHS, Div. Envir. & Evol. Biol., Univ. Glasgow, Scotland; PATRICIA L. M. LEE, S. ANETTE BECHER, Dept. Zool., Oxford Univ, England; and DALE H. CLAYTON*, Dept. Biol., Univ. Utah, Salt Lake City, UT.

An ecomorphological analysis of community structure in three old world tropical passerine assemblages. DONALD B. MILES, CLAY E. CORBIN*, Dept. Biol. Sci., Ohio University, Athens, OH; and DAVID L. PEARSON, Dept. Zool., Arizona State University, Tempe, AZ.

Reproduction and climatic variation in a southwestern bird. JERRAM L. BROWN* and SHOU-HSIEN LI, Dept. Biol. Sci., SUNY Albany, NY.

Variation in mass, wing chord and culmen with age, sex and season in the Mexican Jay. NIRMAL K. BHAGABATI* and JERRAM L. BROWN, Dept. Biol., State Univ. NY, Albany, NY.

Contaminant levels vary with body condition and migration in Eared Grebes. JOSEPH R. JEHL, Jr, Hubbs-Sea World Res. Inst., San Diego, CA; and BARNETT A. RATTNER, Patuxent Wildl. Res. Center, Laurel, MD.

Thermal and energetic consequences of roost-site selection in seasonally acclimatized Mountain Chickadees and Plain titmice. SHELDON J. COOPER, Dept. Biol., Utah State Univ., Logan, UT.

The relationship between lake chemistry parameters and Common Loon blood mercury concentrations at selected sites across North America. OKSANA PITERMANLANE*, PETER S. REAMAN, BioDiversity, Inc., Freeport, ME; and DAVID C. EVERS, Univ. Minnesota, St. Paul, MN and BioDiversity.

The effects of 6-N-propyl-2-thiouracil (PTU) on the development of thermoregulation in neonatal Japanese Quail (*Coturnix japonica*). ANGELA B. McMELLAN, KIM V. SNIPES and WAYNE MEYER, Biol. Dept. Austin College, Sherman, TX.

Thyroid development in relation to the development of endothermy in the Red-winged Blackbird. J. M. OLSON, D. V. FERRIS, M. S. JABLONSKI, Dept. Biol., Villanova Univ., Villanova, PA; and F. M. A. McNABB, Dept. Biol., Virginia Tech, Blacksburg, VA.

Use of covariates to reduce variance in migration counts. CHARLES M. FRANCIS, Long Point Bird Observatory, Port Rowan, ON.

Features of Great Gray and Barred Owl winter mortality in Minnesota. BENJAMIN D. MARKS and THOMAS P. GNOSKE, Field Mus., Chicago, IL.

2700 birds dead on Lake Michigan beaches -- Is the lake a major migration hazard? JOHN M. BATES, THOMAS P. GNOSKE, DAVID E. WILLARD, DOUGLAS F. STOTZ, Field Mus., Chicago, IL; and MARY HENNEN, Chicago Acad. Sci., Chicago, IL.

Seasonal differences in the composition and distribution of migrant flocks along the shoreline of northern Lake Huron, Michigan. MICHAEL J. HAMAS*, Dept. Biol., Central Michigan Univ., Mt. Pleasant, MI; DAVID N. EWERT, The Nature Conservancy, East Lansing, MI; ROBERT J. SMITH, Dept. Biol. Sci., Univ. Southern Mississippi, Hattiesburg, MS; and DOUGLAS J. GUALTIERI, Dept. Biol., Central Michigan Univ.

Density of breeding Swallow-tailed Kites on the Lower Suwannee ecosystem, Florida. PAUL W. SYKES, Jr.*, CAMERON B. KEPLER, USGS-Biol. Res. Div., Patuxent Wildl. Res. Center, Athens, GA; and KEN LITZENBERGER, Lower Suwannee Natl. Wildl. Refuge, Chiefland, FL.

Winter ecology of Hermit Thrush in Louisiana. DAVID R. BROWN, GENA M. DWYER, CHERYL M. STRONG and PHILIP C. STOUFFER, Dept. Biol. Sci., Southeastern Louisiana Univ., Hammond LA.

Use of Atlantic coast beach habitat by birds in east-central Florida. ERIC D. STOLEN, Dynamac Corp., Kennedy Space Center, FL.

Landscape utilization by the Brown-headed Cowbird in western Montana. MICHAEL L. JOHNSON*, JEREMY F. WHEELER, TIMOTHY S. REDMAN and JOSHUA J. TEWKSBURY, Montana Coop. Wildl. Res. Unit, Univ. Montana, Missoula, MT.

*The effects of long-term removal of Brown-headed Cowbirds on communities of breeding songbirds. KRISTA L. DE GROOT, Dept. Zool., Univ. British Columbia, Vancouver, BC.

The impacts of riparian grazing on grassland birds. ROSALIND B. RENFREW* and CHRISTINE A. RIBIC, Wisconsin Coop. Res. Unit, Dept. Wildl. Ecol., Univ. Wisconsin, Madison, WI.

Breeding bird survey in Cleveland Metroparks. ANNA KOZLENKO, Cleveland Metroparks, Cleveland, OH.

A simple method for measuring and testing the significance of nonlinear population trends. DAVID J. T. HUSSELL, Ministry of Natural Resources, Peterborough, ON.

Breeding bird census methods: A comparison of point counts and mist net sampling to results from a demographic study. LISE A. HANNERS and STEPHEN R. PATTON, The Nature Conservancy, Weston, CT.

A comparison of avifaunal monitoring using point count and random area search methods. KELLY J. MCKAY*, Midwest Raptor Research Fund, Moline, IL; JAMES P. QUINLIVAN and MICHAEL S. BORNSTEIN, U.S. Fish & Wildl. Serv., Mark Twain Nat. Wildl. Refuge, Wapello, IA.

Influence of foraging-perch habitat on Bald Eagles in west-central Illinois. KELLY J. MCKAY, Midwest Raptor Research Fund, Moline, IL; and GREGORY M. QUARTUCCI, Northern Indiana Pub. Serv. Co., Hammond, IN.

Influence of ice cover on Bald Eagle distribution within the Upper Mississippi River region. KELLY J. MCKAY*, Midwest Raptor Research Fund, Moline, IL; and GREGORY M. QUARTUCCI, Northern Indiana Pub. Serv. Co., Hammond, IN.

Avian foraging behavior in Dominican shade coffee plantations. JOSEPH M. WUNDERLE, Jr.*, and STEVEN C. LATTA, Internat. Inst. Trop. For., US For. Ser., Palmer, PR.

Relationship between the abundance of foliage insects and wintering warblers in the U.S. Virgin Islands. DAVID N. EWERT, The Nature Conservancy, East Lansing, MI; and ROBERT A. ASKINS, Connecticut Coll., New London, CT.

A dynamic programming approach to optimizing the balance between conservation and economic gain. PAUL F. DOHERTY, Jr., ELIZABETH A. MARSCHALL and THOMAS C. GRUBB, Jr., Dept. Zool., Ohio State Univ., Columbus, OH.

Setting priorities for Canada's birds. ERICA H. DUNN, Canadian Wildlife Service, Hull, PQ.

Habitat use and long-term population trends in an interior forest community. KERRI L. CORNELL* and MICHAEL T. MURPHY, Dept. Biol., Hartwick Coll., Oneonta, NY.

Riparian ecosystems of southeastern Minnesota: Does trout habitat improvement affect Louisiana Water thrush populations. JENNIFER K. HATHAWAY* and FRANCESCA J. CUTHBERT, Dept. Fish. & Wildl. Conserv., Univ. Minnesota, St. Paul, MN.

Nest site fidelity: Costs and benefits of parasite avoidance. KATIE LANNON, MARK STANBACK, and ANNE FORD, Dept. Biol., Davidson Coll., Davidson, NC.

Phylogenetic relationships among Paruline warblers and the effects of taxon and character sampling on tree topology. NEDRA K. KLEIN, Dept. Zool., Univ. Wisconsin, Madison, WI and Amer. Mus. Nat. Hist., New York, NY.

Evolutionary determinants of incubation strategies in cavity nesting passerines: Testing the role of body size and nest predation. CAMERON K. GHALAMBOR* and THOMAS E. MARTIN, Wildl. Res. Unit, Univ. Montana, Missoula, MT.

Cowbird brood parasitism of the Black-throated Sparrow in the Verde Valley of central Arizona. MATTHEW J. JOHNSON and CHARLES VAN RIPER, III, Dept. Biol., Univ. Northern Arizona, Flagstaff, AZ.

Effects of forest harvest edges on nesting success of songbirds innorth-central Minnesota. JAMES C. MANOLIS*, DAVID E. ANDERSEN and FRANCESCA J. CUTHBERT. Dept. Fish. & Wild., Univ. Minnesota, St. Paul, MN.

Stopover habitat use by fall migrant birds in the central Appalachians of Pennsylvania. MARK S. MONROE and LAURIE J. GOODRICH, Hawk Mountain Sanctuary, Kempton, PA.

Modified BBS and off-road counts for landscape planning in Guatemala. CHANDLERS. ROBBINS, BARBARA A. DOWELL, Patuxent Wildl. Res. Ctr., Laurel, MD; JACK BUCKLIN and INGRID ARIAS, FUNDAECO, Guatemala.

Phylogenetic patterns and rates of molecular evolution in the jays of the genus *Aphelocoma*. NATHAN H. RICE and A. TOWNSEND PETERSON, Dept. Syst. & Ecol. and Nat. Hist. Mus., Univ. Kansas, Lawrence, KS.

The effect of spatial auto correlation on rarefaction estimates. MICHAEL D. COLLINS, Dept. Biol. Sci., Florida State Univ., Tallahassee, FL, and Dept .Ecol. & Evol. Biol., Univ. Tennessee, Knoxville, TN; and R. TODD ENGSTROM, Tall Timbers Research Station, Tallahassee, FL.

Effects of selection timber harvest on a Red-cockaded Woodpecker population: Transition from even- to uneven-aged silviculture. R. TODD ENGSTROM, B. MacCULLOCH, S. CRAFTS, Tall Timbers Res. Station, Tallahassee, FL; and C. A. HESS, Apalachicola Nat. For., Bristol, FL.

A search for mechanisms behind spatial association learning in Rufous Hummingbirds. CHRISTIANNE WILHELMSON, Dept. Zool., Univ. British Columbia, Vancouver, BC.

Morphological differentiation in three species of birds introduced to Miami, Florida. ERIK P. ROTHACKER, and JOHN M. BATES, Field Museum, Chicago, IL.

The sexual division of parental care in the Belted King(Queen?)fisher. DANIELJ. ALBANO, Dept. Biol., Univ. Massachusetts, Amherst, MA.

RESOLUTIONS

Six resolutions approved by members follow. David E. Blockstein was Chair of the 1996-1997 Committee on Resolutions.

PROTECTION OF MIGRATORY BIRDS AND THEIR HABITAT

WHEREAS, despite nearly 80 years of protection under the Migratory Bird Treaty Act (MBTA) as well as four bi-national migratory bird conventions, many populations and species of migratory birds are experiencing significant population declines; and

WHEREAS the viability of migratory bird populations is determined by environmental conditions in many nations; and

WHEREAS most population losses of migratory birds are unintended consequences of economic activities such as logging, agriculture and development; and

WHEREAS habitat conservation is necessary for effective conservation of migratory birds, as habitat provides the basic requirements necessary to sustain wild populations of birds and other animals and plants; and

WHEREAS U.S. Fish and Wildlife Service's implementation and enforcement of the MBTA has emphasized regulatory activities, including bird banding, scientific collecting, and salvage of dead birds, all of which have minimal impacts on bird populations; and

WHEREAS the MBTA does not explicitly address the major factors causing population declines - habitat loss and modification; and

WHEREAS recent court decisions and Clinton administration itself have stated that MBTA does not apply to federal agencies; and

WHEREAS these rulings have raised the profile of MBTA and provide an opportunity for a dialogue on how best to achieve the goal of conservation of migratory birds that underlies MBTA, bi-national migratory bird conventions, the Fish and Wildlife Conservation Act of 1980 as amended in 1988, and other legislation; and

WHEREAS regional "Flight Plans" developed under the cooperative Partners in Flight program offer an opportunity for collective action to protect and restore migratory bird populations; and

WHEREAS a considerable body of scientific knowledge exists to guide bird population and habitat management;

THEREFORE BE IT RESOLVED that the American Ornithologists' Union calls upon the U.S. government, particularly the Department of the Interior and the U.S. Fish and Wildlife Service to: (1) Make conservation of migratory birds and their habitats a priority. (2) Redirect its resources, including personnel and funding, to implement this priority. (3) Take a risk-based approach, emphasizing habitat loss and other serious threats to bird populations. (4) Work with all relevant agencies of other national governments, the U.S. federal government, States, tribes, and the private sector, including the scientific community to develop and implement a proactive migratory bird conservation strategy incorporating Partners in Flight flight plans, the Western Hemisphere Shorebird Reserve Network, and related initiatives. (5) Convene an international forum on the conservation of migratory birds to assess the status of this shared international resource, threats to their populations, current measures to reduce and reverse these threats, and to develop a new joint initiative for conservation of migratory birds in the hemisphere.

(6) Provide opportunities for the American Ornithologists' Union and other ornithological societies to apply scientific expertise towards conservation and restoration of migratory birds.

CONTROL AND MANAGEMENT OF FERAL AND FREE-RANGING CATS

WHEREAS free-ranging pet cats and feral domestic cats (*Felis catus*) are non-native predators in all habitats in which they occur; and

WHEREAS feral and free-ranging domestic cats exist in significant densities throughout most areas populated by humans, with reliable estimates in the millions for the U.S. and in the billions globally; and

WHEREAS feral and free-ranging domestic cats are exceptional and prolific predators of small mammals, song birds, small reptiles, large amphibians and large insects; and

WHEREAS feral and free-ranging domestic cats are estimated to kill hundreds of millions of native birds and other small animals annually in the United States; and

WHEREAS birds represent 20-30% of the prey of free-ranging pet cats and feral domestic cats; and

WHEREAS feral cat colony programs, wherein feral cats are captured, trapped, vaccinated, neutered, released and fed, do not eliminate predation on native wildlife or reduce the size of feral cat colonies; and

WHEREAS bites, scratches, and fecal contamination from free-ranging pet cats and feral domestic cats pose a risk to the general public through transmission of diseases such as toxoplasmosis, roundworm, and rabies; and

WHEREAS government wildlife agencies are charged with the management, conservation and preservation of native fauna, but few governments have regulations or public policies that restrictor control feral and free-ranging domestic cats; and,

THEREFORE BE IT RESOLVED that the American Ornithologists' Union supports programs to neuter and license pet cats and encourage owners to keep pet cats indoors, and strongly opposes programs to maintain feral cat colonies; and

THEREFORE BE IT FURTHER RESOLVED that the American Ornithologists' Union urges local, state, and federal wildlife agencies, public health organizations, and legislative bodies to entities to: (1) prohibit the feeding and caring of feral cats and their colonies; and (2) ban and eliminate feral cat colonies through humane capture of feral cats, particularly the members of feral cat colonies, by animal control officers, humane societies and others; and (3) restrict and regulate the range of movement of domestic cats out of doors, and (4) work with the ornithological and bird conservation communities to educate the public about the dangers that cats pose to birds and other native wildlife.

MAINTENANCE OF POPULATION VIABILITY REQUIREMENT

WHEREAS healthy, diverse national forest ecosystems require viable, well-distributed populations of species, and

WHEREAS this nation's national forest lands are vital refuges for species whose other habitat has been degraded or lost, and

WHEREAS the loss of subpopulations from national forest areas can reduce the likelihood of species' persistence and overall functioning of the ecosystem, and

WHEREAS ecosystem management and protecting individual species are conservation tools that must both be used;

WHEREAS the National Forest Management Act instituted a committee of scientists, who drew up regulations to restore and maintain biodiversity on U.S. national forests;

THEREFORE BE IT RESOLVED that the American Ornithologists' Union urges that the species viability regulation 36 C.F.R. 219.19, adopted in 1982 to implement the National Forest Management Act and protect fish, wildlife, their habitat and biodiversity on this nation's national forests, should be fully supported and not weakened or repealed.

WHEREAS the American Ornithologists' Union is a long time supporter of the idea of a National Institute for the Environment (NIE),
and

WHEREAS less than 5% of federal research spending is directed towards environmental topics, and

WHEREAS this allocation is out of touch with the science needs of the nation and the world for the 21st century, and

WHEREAS there is a need for a significant increase in funding of competitive extramural research on environmental issues,
particularly relating to biodiversity and the environmental effects of human population growth, and

WHEREAS much of the needed science does not fit well within the traditional structure of the National Science Foundation (NSF) and
other funding agencies, and

WHEREAS the National Science Board's 1989 report, Loss of Biological Diversity: A Global Crisis Requiring International
Solutions, has still not been fully implemented, and

WHEREAS the U.S. House of Representatives in its funding of the National Science Foundation (NSF) for fiscal year 1998 directed
the NSF to study and report on how it would establish and operate a National Institute for the Environment (NIE),

THEREFORE BE IT RESOLVED that the American Ornithologists' Union encourages the NSF to take advantage of the unique
opportunity provided by Congress to project a new and significant role in science for the environment and encourages NSF to
challenge Congress by presenting a bold vision for the future of a National Institute for the Environment to be established in
association with NSF.

RESOLUTION OF COMMENDATION

WHEREAS the American Ornithologists' Union has held its One Hundred and Fifteenth Stated Meeting in Minneapolis, Minnesota,
on the campus of the University of Minnesota, at the invitation of the University of Minnesota, in cooperation with the Bell
Museum of Natural History, Department of Ecology, Evolution and Behavior, Department of Fisheries and Wildlife,
Conservation Biology Program, Gabbert Raptor Center, and the Minnesota Ornithologists' Union, and

RECOGNIZING that the Local Committee on Arrangements, under the outstanding direction of Francesca J. Cuthbert, Robert M.
Zink, and Scott M. Lanyon provided us with an exceptionally diverse assemblage of exhibits, special events, field trips, and
evening social events, and

RECOGNIZING that the Committee on the Scientific Program under the equally capable direction of Peter Lowther arranged
outstanding scientific lecture sessions, workshops, and poster sessions, and

WHEREAS all those who have attended this meeting have been enriched by it,

THEREFORE BE IT RESOLVED that the American Ornithologists' Union commends the Committee on Local Arrangements and the
Committee on the Scientific Program for their efforts toward this memorable meeting, and

THEREFORE BE IT FURTHER RESOLVED that the American Ornithologists' Union also thanks the Sponsors of this meeting,
namely the University of Minnesota, the Minnesota Ornithologists' Union, the U.S. Fish and Wildlife Service, and
individuals including six Anonymous donors, Carla Cicero, Rebecca Holberton, Robert Zink, Scott Lanyon, Francesca
Cuthbert, Frank and Meryl McKinney, John Sauer, and Theresa Bucher.

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1996-1997**

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