

2015
Joint Meeting
of the



The American
Ornithologists'
Union

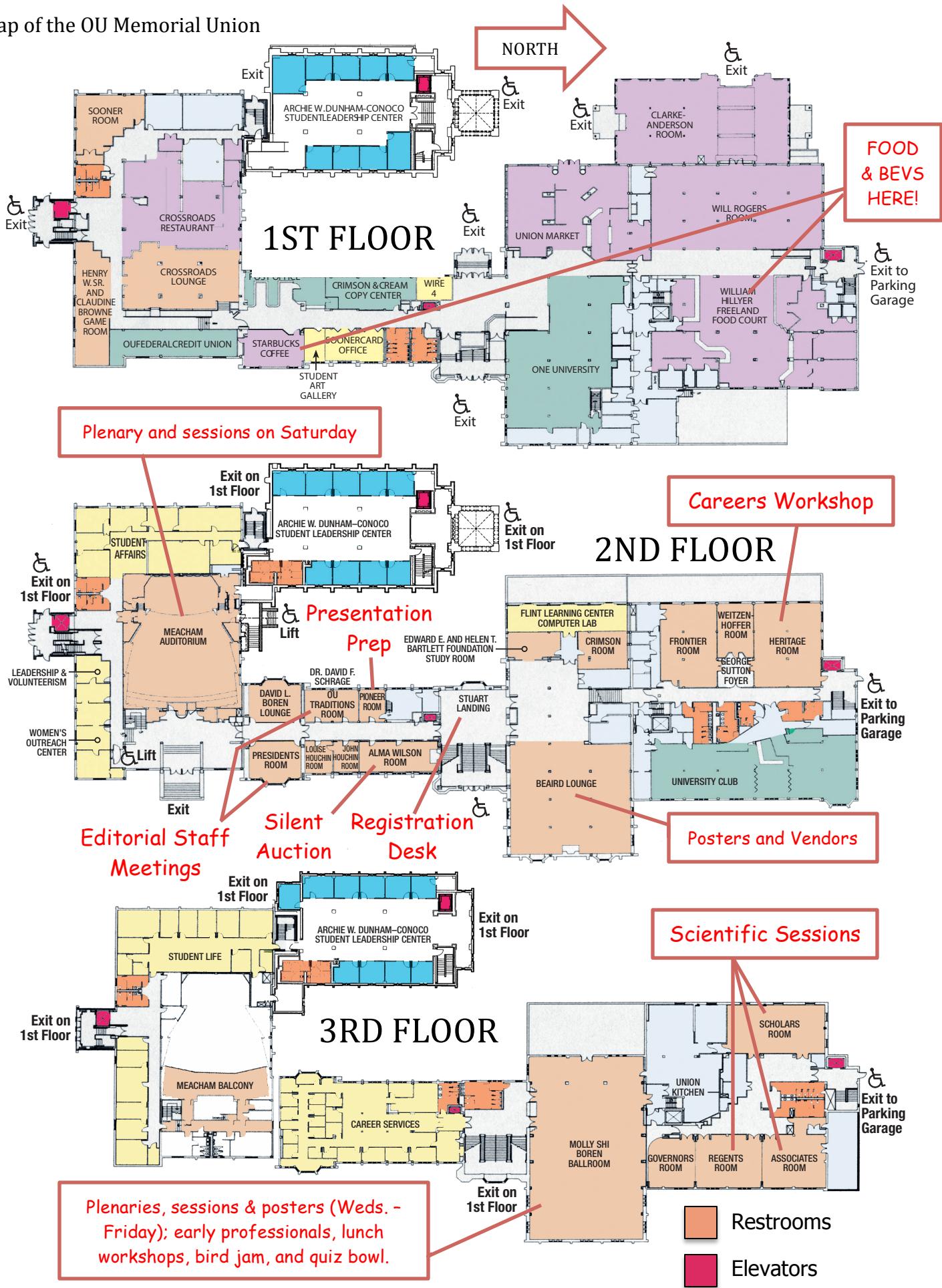
The Cooper
& Ornithological
Society



University of Oklahoma
July 28 to August 2, 2015



Map of the OU Memorial Union



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New Books in Ornithology & Natural History from COMSTOCK PUBLISHING ASSOCIATES

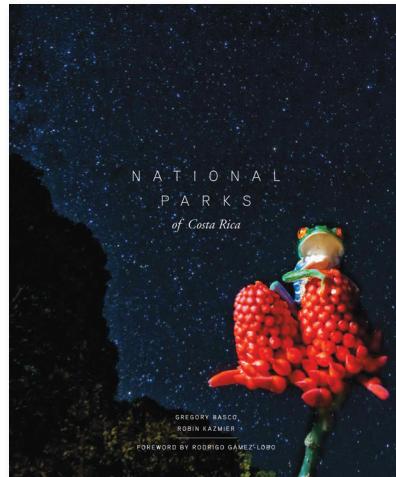
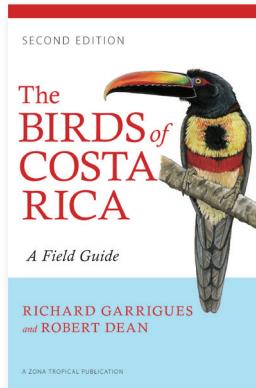
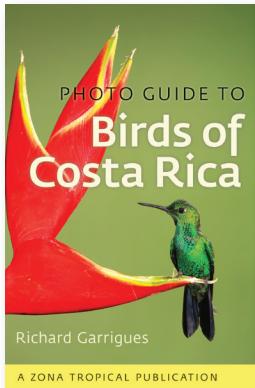


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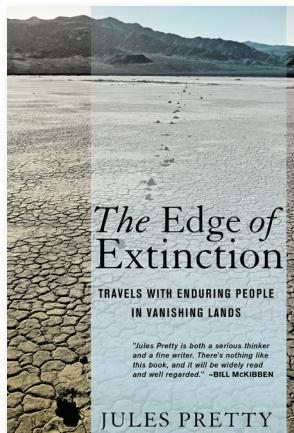
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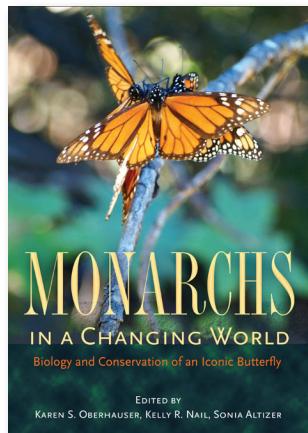
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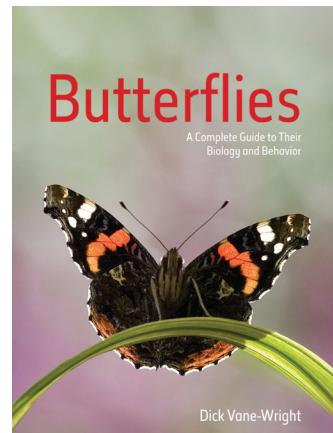
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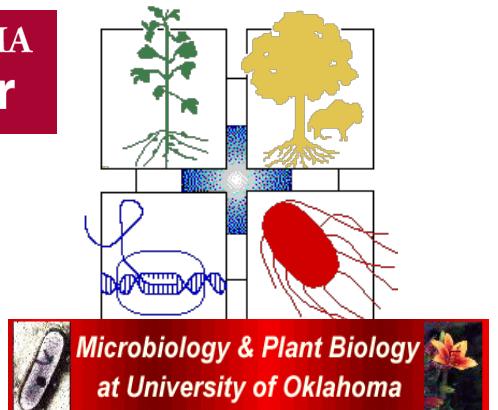


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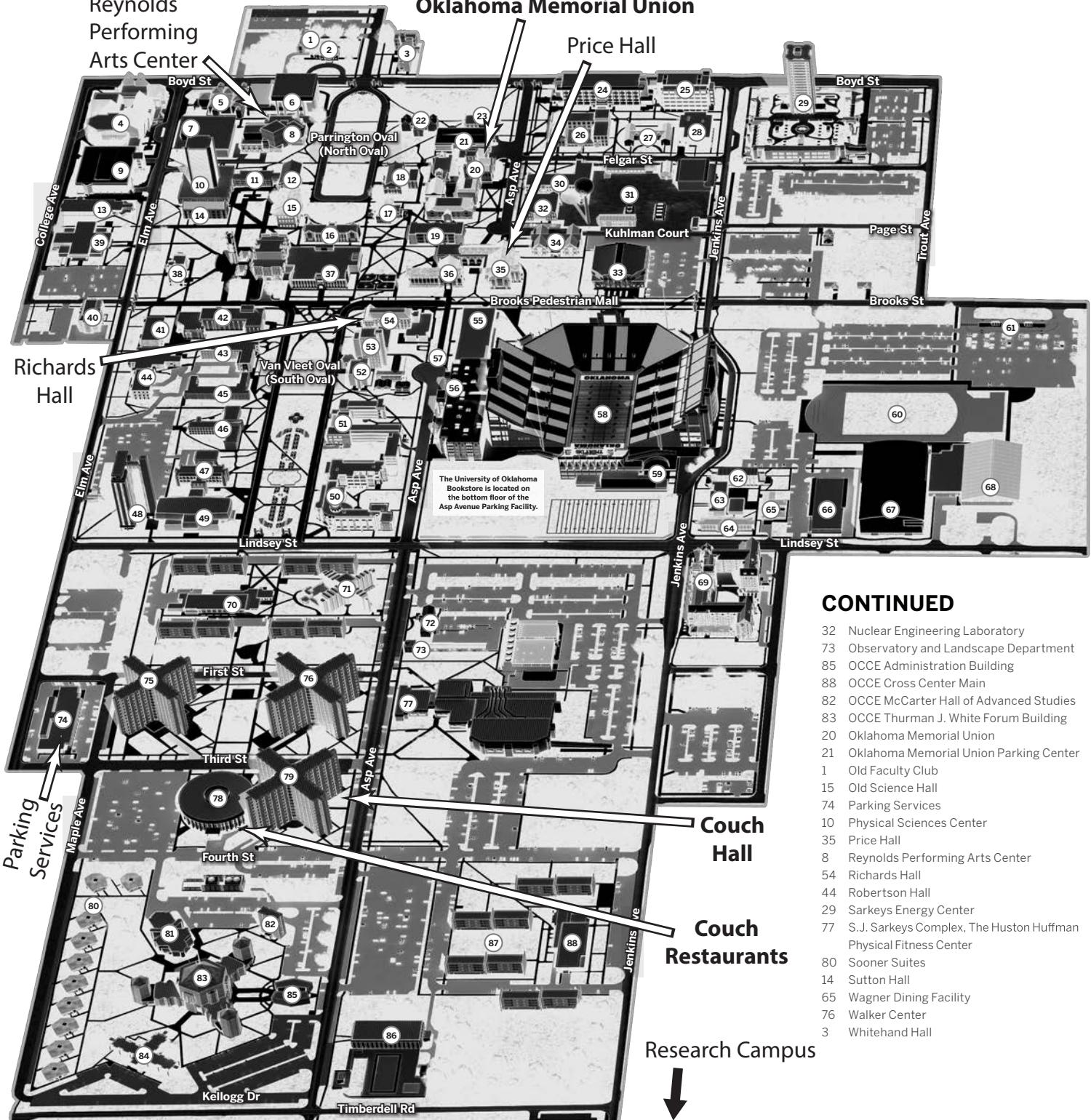
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CAMPUS BUILDINGS - ALPHABETICAL

75 Adams Center	61 CART Brooks St Transfer Station	48 Dale Hall Tower	5 Fred Jones Jr. Museum of Art	81 Jim Thorpe Multicultural Center
36 Adams Hall	57 CART Campus Depot	71 David L. Boren Hall	58 Gaylord Family-Oklahoma Memorial Stadium	62 Jones House
40 Anne and Henry Zarrow Hall	70 Cate Center	25 Devon Energy Hall	50 Gaylord Hall	45 Kaufman Hall
55 Armory	4 Cattlett Music Center	38 Ellison Hall	53 George Lynn Cross Hall	34 Lissa and Cy Wagner Hall
56 Asp Avenue Parking Facility	11 Chemistry Annex	9 Elm Avenue Parking Facility	43 Gittinger Hall	Student Academic Services Center
59 Barry Switzer Center	12 Chemistry Building	30 Engineering Laboratory	39 Goddard Health Center	33 McCasland Field House
37 Bizzell Memorial Library	46 Collings Hall	16 Evans Hall	51 Gould Hall	18 Monnet Hall
84 Boomer Outreach Building	66 Collums Building	67 Everest Training Center	69 Headington Hall	68 Mosier Indoor Athletic Facility
2 Boyd House	47 Copeland Hall	28 ExxonMobil/Lawrence G. Rawl Engineering Practice Facility	72 Henderson-Tolson Cultural Center	86 Murray Case Sells Swim Center
19 Buchanan Hall	79 Couch Center	31 Facilities Management Complex	41 Hester Hall	42 Nielsen Hall
63 Bud Wilkinson House	78 Couch Restaurants	26 Felgar Hall	60 Jacobs Track and Field Facility	52 Noble Electron Microscopy Laboratory (2nd floor)
13 Burton Hall	27 Craddock Hall, Air Force ROTC	7 Fine Arts Center	22 Jacobson Hall, Visitor Center	
17 Carnegie Building	87 Cross Center	6 Fred Jones Jr. Art Center	64 Jefferson House	
23 Carpenter Hall	49 Dale Hall			
24 Carson Engineering Center				

Oklahoma Memorial Union



RESEARCH CAMPUS BUILDINGS - ALPHABETICAL

112 Al Velie Rugby Football Complex	120 Five Partners Place	116 Landscaping Department	105 Sam Viersen Gymnastics Center	101 Theta M Dempsey Transportation Operations Center
104 Archeological Survey	123 Four Partners Place	115 Lloyd Noble Center	109 Soccer Complex/John Crain Field	122 Three Partners Place
103 Biological Survey	113 Gregg Wadley Tennis Pavilion	127 National Weather Center	111 Soccer Practice Field	94 Traditions Square East
98 Bruce Drake Golf Clubhouse	110 Headington Family Tennis Center	124 One Partners Place	93 Softball Complex/Marita Hynes Field	108 Traditions Square West
117 Ceramics Department	97 Jimmie Austin University of Oklahoma Golf Course	114 OU Rowing Training Center	119 Stephenson Life Sciences Research Center	125 Two Partners Place
99 Charlie Coe Golf Learning Center	100 Joseph K. Lester Oklahoma Police Department	126 Radar Innovations Laboratory	121 Stephenson Research Center	90 University of Oklahoma Foundation Building
118 Chilled Water Plant	106 KinderCare @ OU	96 Reaves Park Building (City of Norman)		
89 Coats Hall, Law	95 Kraettli Apartments	91 Recreational Tennis Courts		
102 Fears Structural Engineering Lab	107 L. Dale Mitchell Baseball Park	92 Sam Noble Oklahoma Museum of Natural History		

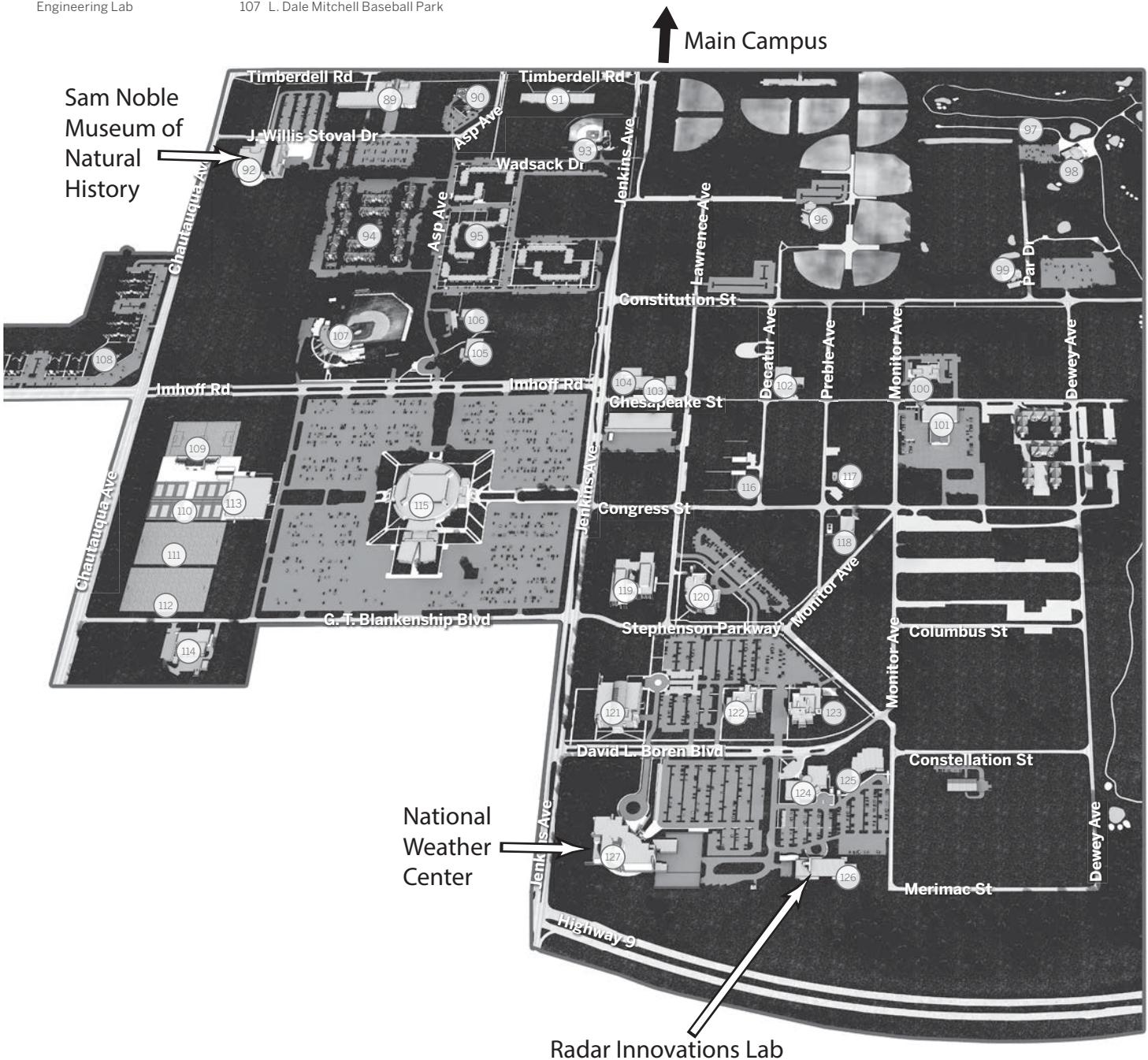


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AOU/COS 2015 logo designed by Jeremy D. Ross



WELCOME FROM THE CO-CHAIRS

To those of you brave enough to face high temperatures, the threat of tornadoes, the peril of earthquakes, and the ever looming shadow of fly-over-state politics, we thank you for coming to the 2015 Joint Meeting of the American Ornithologists' Union and the Cooper Ornithological Society. You won't regret it. The 400 or so of you who made the trip to Norman are in for an intimate and intense conference. Some of the highlights this year include ground-breaking symposia, an all-star cast of plenary speakers, a barbecue dinner at the National Weather Center, a mixer at the Sam Noble Museum of Natural History, a keynote lecture by renowned science writer David Quammen, and a special invitation-only screening of *The Messenger*, a new documentary about songbirds and the people who study them. We invite you to take

in all that you can while you are here, and we hope that you will leave exhausted and inspired.

The setting for this year's conference on the University of Oklahoma campus offers a return to our academic roots. Every aspect of the meeting from lodging in the dorms to lectures in the student union is linked directly to the OU campus and its facilities. On-campus meetings are rare these days thanks to the convenience offered by hotels and conference centers, but we are proud to be the exception. This year's conference is also exceptional as one of the smallest joint AOU/COS meetings in recent history with perhaps the highest percentage of students ever (about 52%). With this smaller group we can really foster a sense of community and shared purpose with our younger members, and we call upon all of you to make this happen. Students, be bold and introduce yourselves! Professionals, be gracious and give your time and attention to the students! Let's use this meeting to empower the next generation of ornithologists.

The local committee has worked hard to make this a memorable meeting, and we are dedicated to ensuring that you are not just satisfied, but truly moved by your experiences here. If a problem should arise, just find someone with a red border around the name tag. He or she will make things right.

Sincerely,
Eli Bridge and Jeff Kelly

Meeting Committees

The Locals

Jeff Kelly (Co-Chair)
Eli Bridge (Co-Chair)
Michael A. Patten (Science Program Editor)
Joe Gryzbowski (Field Trip Coordinator)
Tamaki Yuri (Sam Noble Museum Liaison)
Jeremy Ross (Social Events, Film, Logo)
Elizabeth Ross (Swag Master & Promotion)
Brenda D. Smith-Patten (Meeting Program & Facilities)
Dan Hough (Webpage)
Randy Soto (Restaurants, Program, Field Trips, & City of Norman Liaison)
Phil Chilson (National Weather Center Liaison)
Kyle Broadfoot (Social Events)
Kyle Horton (Symposia, Social Events, & Field Trips)
David Hille (Silent Auction, Posters)
Charlotte Wainwright (Registration)
Nate DeAngelis (Facilities)
Phil Stepanian (Registration)
Diane Roeder (Field Trips)
Jonathan Kruk (Transportation, Field Trips, & Social Events)
Emily Hjalmarsen (Field Trips & Registration)
Kristen Trammel (OU Conference Services)
Jacob Maurer (OU Conference Services)
David K Lanham (OU Registration & Records)
James Pesek (OU Registration & Records)
Ashley Robinson (OU Registration & Records)

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AOU/COS Student and Post-doc Travel Awards Committee

Matthew Carling
Rolf Koford
Ben Zuckerberg
Zac Chevron
Jill Deppe

COS Early Professionals Committee

Michael Butler (Chair)
Andrea Alquati
Than Boves
Nancy Chen
Emily Cohen
Melanie Colon
Andrew Cox
Graham D. Fairhurst
Emma Greig
Sara Kaiser
Heather Mathewson
Sara Morris
Amber Roth
Viviana Ruiz-Gutierrez
Clark Rushing
Scott Taylor
Christopher Tonra

Student Activities Committee

Nick Mason (Co-Chair)
Valerie Steen (Co-Chair)
Shawn Billerman (Quiz Bowl)
Nick Sly (Quiz Bowl)
Rebecca Harris
Ashley Long
Mike McCloy
Phred Benham
Kristen Covino (R workshop)
Lynnette Dornak (R workshop)
David Hille (Silent Auction)
Emily Williams (Student-Professional Social)

THE OU CAMPUS: GENERAL INFORMATION

The Venue

This year's conference will take place at the main campus of the University of Oklahoma (OU), located in the city of Norman. The university was founded in 1890 by the Oklahoma Territorial Legislature. By 1895 the university had taken form with four faculty and 100 students. Today OU is a doctoral-degree granting institution that enrolls more than 30,000 students and is considered a top-tier research university.

Couch Hall and Couch Restaurants:

On-campus housing and dining is provided at Couch Hall for the conference. Couch Restaurants is right next door and is the place where your breakfast will be served (breakfast was included in the price of your room). Most conference activities will take place at the Memorial Union, a map of which can be found on the inside front cover of this program. A map of the OU campus is provided at the front of this program, so that you may find all of the buildings in which other activities will occur. All facilities are within walking distance (less than a mile; 15 minutes by foot at a leisurely pace), but it may be hot outside, so please dress appropriately.

The Sam Noble Museum of Natural History:

The opening reception for AOU/COS 2015 will be held in the Sam Noble Museum of Natural History as will the AOU Fellows meeting and the AOU Fellows Dinner. This museum, one of the highlights of the OU campus, was recently awarded the National Medal for Museum and Library Service, the nation's highest honor conferred on museums. The museum is an easy walk to the south from Couch Hall (see campus map), but be aware of some construction on Timberdell Road. You may have to go south along Maple Avenue and Chautauqua Avenue instead of using Asp Avenue.

Oklahoma Memorial Union: Most of our activities will occur in the University of Oklahoma Memorial Union (OUMU), located at 900 Asp Avenue, on the north end of the campus. This historic building will host the entirety of the science program as well as almost all of our social events from 29–31 July. The Molly Shi Boren Ballroom will serve as our center of operations for most of the conference; however, due to preparations for the next event in the Memorial Union, we cannot use the ballroom on Saturday, August 1. Saturday's plenary and one of the oral presentation sessions will be held down the hall in Meacham Auditorium. Please refer to the building layout on the inside cover of this program when making your way from room to room. We will have signs and ushers on Wednesday morning to help guide our guests from Couch Hall to the Memorial Union.

Reynolds Performing Arts Center:

This magnificent concert hall dates back to 1918 and will host our Keynote Lecture by David Quammen. The Reynolds Performing Arts Center is a block west of the Oklahoma Memorial Union, just across a landscaped lawn known as the North Oval.

National Weather Center:

The closing banquet will be held at the National Weather Center, located within the Research Campus on the south end of OU. This state-of-the-art research facility hosts a unique confederation of university, state, and federal organizations that work to improve our understanding of atmospheric phenomena. The facility houses the National Severe Storms Laboratory (NSSL), which serves as the primary information hub for severe weather occurring throughout the United States. Because the NSSL helps ensure national security, you will pass through a security checkpoint when you enter the National Weather

Center. We will have bus service between Couch Hall and the National Weather Center before and after the banquet.

Campus Amenities and Transportation

Parking: A parking permit is required for almost all parking lots on the OU campus. If you need to park a car, we strongly suggest that you purchase a weekly parking permit (\$11) or a one-day permit (\$3.50). Parking permits are available at the Parking Services Office on the west edge of campus near the intersection of Elm and Third St (see campus map at the front of this program). Note that ***the parking lot associated with the Oklahoma Memorial Union is not controlled by OU Parking Services.*** You have to pay separately to use that lot and it is often not available to the public. The best place to park to access the Memorial Union is the parking garage on the west side of the football stadium.

Road construction on the OU Campus: If you plan to drive to or on campus, be aware that portions of important roads—Lindsay Street and Timberdell Road—will be closed during the conference due to construction. Lindsey Street is the primary east-west conduit across campus and is located just to the north of the dorm facilities. Timberdell Road is a block south of the Dorm Facilities, and will not likely be used by most meeting attendees.

CART (local bus service): The local bus system (CART, or the Cleveland [county] Area Rapid Transit) offers an alternative to walking around campus and Norman. CART has several routes on Campus, Most of which converge on the CART Campus Depot, which is about 1 block south of the Memorial Union. The cost to ride is \$0.75 or \$0.35 for seniors (age 60+). For more information, visit www.ou.edu/cart.html.

Fitness facilities: If you can somehow find some time during the conference for a workout or a swim, you can use the OU Houston Huffman Fitness Center (HHFC; 1401 Asp Avenue) and The Murray Case Sells Swim Complex (MCSSC; 1701 Asp Avenue), open weekdays 6am-9pm; weekends 10:00 am to 6:00pm. The HHFC features eight basketball/volleyball/badminton courts, five racquetball courts, a squash court, 1/6th-mile indoor track, two large multi-purpose activity rooms, two weight rooms, and a large cardio workout room. The MCSSC has indoor and outdoor pools each with 25-yard lap lanes. There are also diving boards and a kiddy pool. Daily charges apply: \$7.50/person for the HHFC and \$5/person for the MCSSC. Conference badge and photo ID required for admission. Visit www.ou.edu/content/far/facilities-programs.html for more information.

Bookstore: The OU bookstore, located at 1185 Asp Avenue (underneath the football stadium's western bowl), provides a selection of books, office supplies, apparel, and gifts. Summer hours are Monday through Friday, 9:00 am to 5:00 pm.

Computer/Technology needs: The One University store, in the OU Memorial Union, should have everything to meet your technology needs. Store hours are Monday through Friday, 9:00 am to 5:00 pm, and Saturday, 11:00 am to 3:00 pm.

University of Oklahoma Policies

Emergencies: For all urgent police, fire, and/or medical emergencies, call 911 from any phone. For outdoor emergencies, OU has installed special telephones at various outdoor locations in academic and housing areas on campus that are connected directly to the OU police (no money or dialing is necessary). These phones can be located by watching for a blue light and a blue sign or blue pole with the word: "Emergency."

Police non-emergency:

Call (405) 325-2864

Appropriate behavior: Visitors to the OU campus are expected to behave in a professional and courteous manner. Both the sponsoring societies and the University of Oklahoma reserve the right to eject conference attendees who demonstrate threatening or vulgar behavior. Moreover, any property damage resulting from unreasonable conduct will be the responsibility of the offending individual. Restitution for such damages must be made to OU. The University of Oklahoma is a smoke-free campus, meaning that smoking is forbidden on campus property both inside and outside all buildings and structures. OU also forbids consumption of alcohol at sanctioned activities. We have permission to serve alcoholic beverages at conference events, but we ask that conference attendees do not take open containers of alcohol outside of an event venue.

Policy statement of the American Ornithologists' Union and the Cooper Ornithological Society - Professional Conduct at Stated Meetings and Society-Sponsored Events:

The AOU and COS annual meetings are intended to advance our understanding of birds, their

management and conservation through the open and honest communication of research and the exchange of ideas. As scientists and practitioners we work to ensure that the information we communicate at meetings is accurate and reliable and acknowledges the contributions of our colleagues. We understand that effective communication requires that we treat each other with respect and courtesy in face-to-face, written and electronic interactions and that we respect the intellectual property of our colleagues. We represent the field of ornithology and need to behave as professionals to each other, volunteers, society employees, vendors and meeting venue staff. Meeting participants should be able to engage in open discussions free of discrimination, harassment and retaliation.

If the occasion arises, that an individual's behavior interferes with the intent of the societies' annual meetings, then their actions may be reported to the leadership of the AOU or COS and the society leadership will take appropriate action.

Liability and risk management: If a situation arises that may involve a claim against this policy, those involved should contact the Office of Risk Management at (405) 325-298

MEETING INFORMATION

Registration/Information Desk: The registration/information desk will be open from 12:00 pm to 8:00 pm on Tuesday, 28 July at Couch Hall. All other days of the conference the desk will be located at the Stewart Landing in the Oklahoma Memorial Union.

Message/Job Board: A board for posting meeting announcements and job listings will be available near the registration desk.

Presentation Preparations

Poster setup

Posters should be set up on Wednesday, 29 July, between 8:00 am and 5:00 pm, and can be left up for display through the rest of the conference. Posters will be mounted on

foam board (48" x 36") held by easels located throughout the Beard Lounge and the Molly Shi Boren Ballroom in the OU Memorial Union. Poster locations are numbered. Find your poster number in this program, go to the board with the corresponding number, and then attach your poster to the foam board with pins or tape. These materials will be available at the registration desk.

Oral presentation setup Oral presentations are generally scheduled in 15-minute time slots (aim for 12-minute presentations with 2-3 minutes for questions). Please have your PowerPoint file saved to some sort of portable media (USB thumb drive or a CD) that will allow you to transfer it to a PC. **Several laptop PCs are available in the Pioneer Room in the OU Memorial Union.** There, you can do a quick run through of your PowerPoint presentation using the same software installed on the computers used in the presentation rooms. You may also load your PowerPoint presentation onto one of these computers and it will be transferred to the computer in the presentation room during the break before your session begins. Note that each of the computers in the Pioneer Room are assigned to a different presentation room. To upload your talk, use only the computer associated with your presentation room and save the PowerPoint file into the appropriate folder on the PC's desktop. The folders are labeled with the titles and times of the sessions. If you load your talk into the wrong folder it may not make it to the presentation room!! As a backup, please keep a copy of your presentation with you on a thumb drive on the day of your presentation. If you do not wish to use the computers in the Pioneer Room, you can use a thumb drive to load your presentation onto the PC in the appropriate presentation room during the breaks between sessions. Again, be sure to save your file in the appropriate folder on the PC's desktop.

Coffee/Tea Breaks: Refreshment breaks for conference attendees will be held daily at 10:15 am and 3:00 pm. Tables will be in the OU Memorial Union within the Molly Shi Boren Ballroom and the Beard Lounge.

Meals: Lunch will be on your own. The OU campus, campus corner, and Norman in general provide a variety of local, regional, national, and international dining options. The campus corner area begins about 1 block north of the Oklahoma Memorial Union. See the registration/information desk for assistance or visit http://aoucos2015.ou.edu/?page_id=911 for some suggestions.

Students, please refer to the student lunch voucher section below for the student-mentor lunch option.

ATMs and Banks: Automated Teller Machines (ATM) are located within the OU Memorial Union and at Campus Corner. The nearest bank to the venue is MidFirst Bank, located at 315 W Boyd Street in Campus Corner.

Internet, Post Office, Copying: WiFi is available at the venue. An official US Post Office is located in the OU Memorial Union, as is a copy shop, Crimson & Cream Copy Shop. See the registration/information desk for assistance.

Taxis and Airport Shuttles: For transport to/from the airport, we recommend Airport Express. Their flat rate from the OKC airport to the OU campus is \$38 for the first person plus \$3 for each additional person. They can take up to five people at once. For more information visit www.airportexpressokc.com or call (405) 681-3311. Local cab companies include A1Taxi Service, (405) 366-2214 or (405) 321-3111; Checker Cab, (405) 329-3335; and Boomer Cab, (405) 309-9599.

ADA Statement/Special needs: If you have a disability or limitation that may require special consideration in order to

STUDENT ACTIVITIES

The combined student affairs committees of the AOU and COS are holding several events this meeting to promote students getting to know each other and to provide opportunities for students and professionals to interact in relaxed settings. In addition, they will hold events to raise funds supporting student travel and activities at future meetings.

Student Presentation Awards

AOU will present four awards for outstanding student presentations:

- 2 AOU Council Awards
- The Nellie Johnson Baroody Award
- The Robert B. Berry Award

COS will also present four awards for outstanding student presentations:

- 2 COS Board Awards
- The Frances F. Roberts Award
- The A. Brazier Howell Award

These awards will be decided upon during the conference and presented at the closing banquet.

2015 Post-doc Travel Awardees

AOU presented post-doctoral travel awards to nine awardees:

- Nicole Creanza, Stanford University
- Ray Danner, George Mason University and Tulane University
- Daniel Hanley, Palacky University
- Jesse Krause, University of California, Davis
- Matt Miller, Villanova University
- Beth E. Ross, Kansas State University
- Scott Taylor, Cornell University
- David Toews, Cornell University
- Emily Weiser, Kansas State University

2015 Student Travel Awardees

Seventy-seven students received travel awards to attend this year's meeting. We extend our congratulations to the following award recipients:

- Virginia Abernathy, Australian National University
- Megan Ahrns, The Ohio State University at Lima
- Kevin Archibald, University of Delaware
- Shawn Billerman, University of Wyoming
- Patricia Bollinger, Indiana State University
- Matthew Boone, University of Delaware
- Sinead Borchert, Louisiana State University
- Alyssa Borowske, University of Connecticut
- Annie Bracey, University of Minnesota
- Rebecca Bracken, Texas State University
- Jessica Burnett, University of Florida
- Shannon Butler, Purdue University
- Amber Carver, University of Colorado, Denver
- Jenna Cava, University of New England
- Antonio Celis-Murillo, University of Illinois at Urbana, Champaign
- Edgar Chávez-González, Universidad Autónoma del Estado de Hidalgo
- Jacob Cooper, University of Kansas Biodiversity Institute
- Philip Coppola, University of West Florida
- Kristen Covino, University of Southern Mississippi
- Alexandria Crawford, The Ohio State University at Lima
- Alexander Davis, The Ohio State University at Lima
- Sylvia de la Parra Martínez, Universidad Nacional Autónoma de México
- Jenna Dodson, Virginia Commonwealth University
- Douglas Eddy, University of Wyoming
- Mike Ellis, Oregon State University
- Auriel Fournier, University of Arkansas
- Ye Gong, Northeast Normal University
- Oscar Gonzalez, University of Florida
- Jessica Gorzo, University of Wisconsin, Madison
- Kin-Lan Han, University of Florida

6:00 am – 7:00 am	Morning Bird Walk, (Couch Hall parking lot)
6:00 am – 7:00 am	All Out Ostrich Uproar 5K, (meet in Couch Hall Lobby)
8:00 am – 6:00 pm	Registration/Information desk open
8:30 am – 10:15 am	Announcements, COS Young Professional Award presentations, & COS Business Meeting
10:30 am – 12:00 pm	Concurrent Sessions and Symposia (OUMU)
12:00 pm – 1:30 pm	Lunch (on your own)
12:30 pm – 1:30 pm	Lunch Workshop: Raising your chicks as an Ornithologist
1:30 pm – 5:00 pm	Concurrent Sessions and Symposia (OUMU)
4:00 pm – 5:00 pm	AOU Early Professional Symposium
5:00 pm – 6:30 pm	AOU Early Professional Reception
6:00 pm – 10:00 pm	Oklahoma City trip
7:00 pm – 10:00 pm	Student Quiz Bowl

Friday, 31 July 2015

6:00 am – 7:00 am	Morning Bird Walk, (Couch Hall parking lot)
8:00 am – 6:00 pm	Registration/Information desk open
8:30 am – 10:15 am	Announcements, Plenary Address, & AOU/COS Senior Award Presentations
10:30 am – 12:00 pm	Concurrent Sessions and Symposia (OUMU)
12:00 pm – 1:30 pm	Lunch (on your own)
12:00 pm – 1:30 pm	<i>The Auk: Ornithological Advances</i> Editorial Board Lunch (OUMU, Schrage Traditions Room)
12:00 pm – 1:30 pm	<i>The Condor: Ornithological Applications</i> Editorial Board Lunch (OUMU, Presidents Room)
1:30 pm – 5:00 pm	Concurrent Sessions and Symposia (OUMU)
3:00 pm – 4:00 pm	<i>Auk</i> and <i>Condor</i> Managing Editors Meeting (OUMU, Presidents Room)
4:30 pm – 6:00 pm	Workshop — Careers in Ornithology (OUMU, Heritage Room)
4:30 pm – 6:00 pm	Bird Jam rehearsal
5:00 pm – 6:00 pm	Joint Publications Advisory Committee Meeting (OUMU, Presidents Room)
6:00 pm – 7:00 pm	COPO Meeting (OUMU, Presidents Room)
7:00 pm – 8:30 pm	Keynote Address (Reynolds Performing Arts Center)
9:00 pm – 12:00 am	Bird Jam and Poetry Slam

Saturday, 1 August 2015

6:00 am – 7:00 am	Morning Bird Walk, (Couch Hall parking lot)
8:00 am – 6:00 pm	Registration/Information desk open
8:30 am – 10:15 am	Announcements & Plenary Address (OUMU, Meacham Auditorium)
10:30 am – 12:00 pm	Concurrent Sessions and Symposia (OUMU)
12:00 pm – 1:30 pm	Lunch (on your own)
1:30 pm – 3:00 pm	Concurrent Sessions and Symposia (OUMU)
3:30 pm – 5:30 pm	Documentary Sneak Preview (OUMU, Meacham Auditorium)
6:00 pm – 9:00 pm	Closing Banquet, Reception, and Awards Ceremony, National Weather Center Atrium

Sunday, 2 August 2015

Field Trips (meet in Couch Hall Parking Lot)

- Wichita Mountains Wildlife Refuge – 5:00 am – 5:00 pm
- Great Salt Plains NWR – 5:30 am – 6:00 pm
- Tall Grass Prairie Preserve – 3:00 am – 5:00 pm

STUDENT ACTIVITIES

The combined student affairs committees of the AOU and COS are holding several events this meeting to promote students getting to know each other and to provide opportunities for students and professionals to interact in relaxed settings. In addition, they will hold events to raise funds supporting student travel and activities at future meetings.

Student Presentation Awards

AOU will present four awards for outstanding student presentations:

- 2 AOU Council Awards
- The Nellie Johnson Baroody Award
- The Robert B. Berry Award

COS will also present four awards for outstanding student presentations:

- 2 COS Board Awards
- The Frances F. Roberts Award
- The A. Brazier Howell Award

These awards will be decided upon during the conference and presented at the closing banquet.

2015 Post-doc Travel Awardees

AOU presented post-doctoral travel awards to nine awardees:

- Nicole Creanza, Stanford University
- Ray Danner, George Mason University and Tulane University
- Daniel Hanley, Palacky University
- Jesse Krause, University of California, Davis
- Matt Miller, Villanova University
- Beth E. Ross, Kansas State University
- Scott Taylor, Cornell University
- David Toews, Cornell University
- Emily Weiser, Kansas State University

2015 Student Travel Awardees

Seventy-seven students received travel awards to attend this year's meeting. We extend our congratulations to the following award recipients:

- Virginia Abernathy, Australian National University
- Megan Ahrns, The Ohio State University at Lima
- Kevin Archibald, University of Delaware
- Shawn Billerman, University of Wyoming
- Patricia Bollinger, Indiana State University
- Matthew Boone, University of Delaware
- Sinead Borchert, Louisiana State University
- Alyssa Borowske, University of Connecticut
- Annie Bracey, University of Minnesota
- Rebecca Bracken, Texas State University
- Jessica Burnett, University of Florida
- Shannon Butler, Purdue University
- Amber Carver, University of Colorado, Denver
- Jenna Cava, University of New England
- Antonio Celis-Murillo, University of Illinois at Urbana, Champaign
- Edgar Chávez-González, Universidad Autónoma del Estado de Hidalgo
- Jacob Cooper, University of Kansas Biodiversity Institute
- Philip Coppola, University of West Florida
- Kristen Covino, University of Southern Mississippi
- Alexandria Crawford, The Ohio State University at Lima
- Alexander Davis, The Ohio State University at Lima
- Sylvia de la Parra Martínez, Universidad Nacional Autónoma de México
- Jenna Dodson, Virginia Commonwealth University
- Douglas Eddy, University of Wyoming
- Mike Ellis, Oregon State University
- Auriel Fournier, University of Arkansas
- Ye Gong, Northeast Normal University
- Oscar Gonzalez, University of Florida
- Jessica Gorzo, University of Wisconsin, Madison
- Kin-Lan Han, University of Florida

Taylor Hannah, Mississippi State University
Kevin Hawkins, Wright State University
Max Henschell, University of Wisconsin, Madison
Angela Hsiung, University of Georgia
Ping Huang, University of Florida
Jerry Huntley, Texas A&M University
Erik Iverson, Tulane University
Binab Karmacharya, University of Louisiana at Lafayette
Chie-Jen Ko, National Taiwan University
Nicole Krauss, Washington State University
Eunbi Kwon, Kansas State University
Alan Leach, University of Nevada, Reno
Gavin Leighton, University of Arizona
William Lewis, University of Southern Mississippi
I-Hsing Liu, National Chiayi University
Matthew Louder, University of Illinois at Urbana, Champaign
Sarah MacLean, University of California, Berkeley
Nicholas Mason, Cornell University
Alix Matthews, Arkansas State University
Shannon Mendoza, Humboldt State University
Elizabeth Messick, Stephen F. Austin State University
Nathan Michael, University of Akron
Nicholas Moy, Virginia Commonwealth University
Nadje Najar, University of Northern Colorado
Joel Nelson, Wright State University
Claire Nemes, Ball State University
Daniel Newhouse, East Carolina University
Karan Odom, University of Maryland, Baltimore County
Thomas Riecke, University of Nevada, Reno
Rafael Rueda, Universidad Nacional Autónoma de México
Angelina Ruiz Sanchez, Universidad Nacional Autónoma de México
Rebekah Rylander, Texas State University
Katherine Sasser, University of Kentucky
Paul Schilke, University of Wisconsin, Madison
Tim Schreckengost, University of Delaware
Benjamin Sedinger, University of Nevada, Reno
Amie Settlesowski, Tulane University

Morgan Slevin, Arkansas State University
Nicholas Sly, University of Illinois
Lauren Solomon, Eastern Illinois University
Kalli Trahan, Louisiana State University
Brian Trevelline, Duquesne University
Mitchel Trychta, Rhodes College
Bram Verheijen, Kansas State University
Emily Williams, Kansas State University
Meredith Wilson, Stephen F. Austin State University
Theodore Zenzal, University of Southern Mississippi

Quiz Bowl

Thursday, 30 July, 7:00 pm – 10:00 pm
OU Memorial Union, Molly Shi Boren Ballroom

This event is organized by the joint Student Affairs Committee. In this Jeopardy-style quiz bowl—always one of the most popular events at the meeting—self-assembled teams of three will first compete in a “pub-trivia” style round of ornithology and bird-influenced pop-culture trivia, ranging from categories like taxonomy to avian anagrams. The winning teams from the open, pub-style round will then play in the head-to-head championship round for great prizes. Faculty and other professionals are encouraged to participate as well! Drinks and light snacks will be available.

Student Lunch Vouchers: To foster new relationships between student attendees and established scientists, we are providing a lunch voucher to any registered student who requested one on registration. The voucher is meant to cover two lunches at a list of participating restaurants and food vendors at or near the OU Memorial Union. Students with vouchers are encouraged to contact professionals who are attending the meeting and arrange to take them out to lunch on whatever day works best. If you are having trouble tracking down a particular mentor or if you have reservations about approaching someone you do not know, come see us at the registration desk, and we will gladly help you make arrangements.

SOCIAL EVENTS

Opening Reception

Tuesday, 28 July, 7:00 pm – 9:00 pm
Sam Noble Museum of Natural History

Join us at the Sam Noble Museum to catch up with old friends, meet some new people, have a finely-crafted Oklahoma beer, and browse the galleries of one of the nation's finest natural history museums. This year's opening reception will feature hor d'oeuvres from Legends, a renowned local restaurant, and a selection of fine beers available only in Oklahoma, including those of Anthem Brewery, our official beverage sponsor.

COS Young Professionals Award Reception

Wednesday, 29 July, 5:00 pm – 6:00 pm
Invitation only

Poster Session Reception

Wednesday, 29 July, 6:00 pm–9:00 pm
OU Memorial Union, Molly Shi Boren Ballroom and the Beard Lounge

Join us for free food and drink while taking in reports of some of the latest research activities of our colleagues. The conference's one and only poster session will feature more than 70 presenters covering a wide range of topics (a list of poster presentations starts on page 34).

AOU Early Professionals Symposium and Reception

Thursday, 30 July, 4:00 pm to ~6:30 pm
OU Memorial Union, Molly Shi Boren Ballroom

Following up on the overwhelming success of last year's Young-Professionals Symposium, we are offering a second round of mini-talks this year. If you are on a hiring committee or in the market for a new post-doc, here's a chance to see some new faces putting their best efforts into a five minute

mini-talk. It will be a fast and furious hour followed by a leisurely reception with free food and drink. The lineup of talks can be found in the oral presentation schedule.

Oklahoma City Trip

Thursday, 30 July, 6:00 pm – 10:00 pm
Meet at Couch Hall

A trip to Oklahoma City is scheduled so that conference participants can witness a veritable tornado of Purple Martins returning to roost; then visit Bricktown, Riverwalk, and other areas of interest. See the registration/information desk for more information and the sign-up sheet.

Quiz Bowl

Thursday, 30 July, 7:00 pm – 10:00 pm
See the Student Activities section for more details.

Bird Jam and Poetry Slam

Friday, 31 July, 9:00 pm – midnight
OU Memorial Union, Molly Shi Boren Ballroom

Once again, it is time for the ornithologists to take to the stage. Join us for free drinks, poetry, and a glimpse into the musical careers your colleagues left behind.

Closing Reception and

Banquet Saturday, 1 August, 6:00 pm - 9:00 pm
National Weather Center Atrium
(Bus service from Couch Hall parking lot)

The National Weather Center (NWC) at the University of Oklahoma is the world leader in atmospheric research, and this institution has graciously accommodated our request to hold our closing banquet in the NWC atrium. During your visit to the NWC you will have the chance to see a 3D

global weather projection system, the original “Dorothy” sensor deployment modules (the inspiration for the movie *Twister*), and some amazing weather-inspired photographs. You can also take a trip seven floors up to check on the weather yourself from an enclosed observation deck. On the menu this year is one of the things we do best in Oklahoma: Barbeque! The banquet will be catered by Ray’s Smokehouse Barbeque, which is a family owned and operated establishment that all of us here in Norman know and love. The

mainstays of this meal will be St. Louis cut ribs, brisket, and smoked sausage, with sides of potato salad, fried okra, and coleslaw. No, this is not a very vegetarian friendly spread, but we will have salad and baked potatoes for our veggie devotees. And of course, we will offer a selection of wine and Oklahoma’s finest beers. Like any true Oklahoma Barbeque, the banquet will be an indoor/outdoor event. The atrium opens onto a back patio and lawn which we will have available for Frisbees and frolicking.

SPECIAL EVENTS

All Out Ostrich Uproar 5K

Thursday, 30 July, 6:00 am – 7:00 am
Meet in the Couch Hall lobby

Drop your binoculars and grab your socks and running shoes. It’s time for another 5K Ostrich Run. If you liked the altitude in Colorado, you’ll love the humidity in Oklahoma. This year’s race will circulate around the OU campus. Runners will compete in two divisions for one of four prizes, which are, of course, ostrich eggs (compliments of the Oklahoma City Zoo).

Documentary Sneak Preview & Panel Discussion: *The Messenger*

Saturday, 1 August, 3:15 pm – 5:30 pm
OU Memorial Union, Meacham Auditorium

“Without a doubt, *The Messenger* is the most outstanding film I’ve seen on birds.”

--**Steven Price**, President, Bird Studies Canada,

The Messenger is a documentary film about songbirds and the scientists who work to conserve them. The filmmakers and the George Miksch Sutton Avian Research Center have extended a special invitation to all attendees of the 2015 AOU/COS joint conference to attend a pre-release screening of this amazing new film. *The Messenger* combines striking cinematography with a

profound conservation story, and features many names and faces that are familiar to all of us.

Silent Auction

Wednesday, 29 July, 8:00 am until Friday, 31 July, 6:00 pm
OU Memorial Union, Alma Wilson Room

Support our students by taking part in this year’s silent auction, either as a contributor or a bidder. Donations and bids help fund student activities including workshops, student-professional socials, and the quiz bowl. Good items to donate include books and other media, field gadgetry, jewelry, art, services, gift certificates, and bird/nature paraphernalia. If you have something to contribute, bring it to the registration desk and we will add it to the auction immediately. Please make sure your bids are in by 6:00 pm on Friday!

Morning Bird Walks: For those of you who like to get up early, we will have two vans shuttling folks to some good local birding spots for a quick look at the local birds. The outings will leave from the Couch Hall Parking Lot at 6:00 am on the mornings of July 29, 30, 31, and August 1. Those of you who have access to a vehicle are encouraged to caravan behind the guides and help transport other folks if

necessary. Here's the list of destinations:

- July 29: **Sutton Urban Wilderness** - Wooded urban upland setting with landbirds such as Scissor-tailed Flycatcher, Bewick's Wren, and Painted Bunting.
 - July 30: **Saxon Park** - Open mix of pasture and cedar with buntings, sparrows, meadowlarks, thrashers, and gnatcatchers.
 - July 31: **South Jenkins** - Mixed-habitat river flats with Interior Least Tern, several woodpeckers, Yellow-throated Warbler, and Bell's Vireo possible.
 - Aug 1: **Ten-mile Flats** – Pastures and agricultural fields with species such as Dickcissels, Grasshopper Sparrows, and Upland Sandpipers.
-

FIELD TRIPS

We have four post-conference field trips on offer. *All field trips will leave on 2 August from the Couch Hall Parking lot at the times noted below.* We will travel in vans with limited room for luggage. We will provide a modest breakfast and lunch for all trips.

Tallgrass Prairie Nature Preserve – Full day

Start and end time: 3:00 am – 5:00 pm

Cost: \$40/person

Description: Approximately 2 1/2 hours travel from Norman to the tallgrass prairie areas of north-central Oklahoma. The Tallgrass Prairie Preserve is the largest protected remnant of tallgrass prairie left on earth. Originally spanning large areas from Texas to Minnesota, urban sprawl and conversion to cropland and ranchland have left less than 10% of this magnificent American landscape intact. The Preserve, operated by The Nature Conservancy, is the southern extension of a broader, but largely unprotected area of prairie to the north in central and eastern Kansas. This tour will enter the preserve in early morning (thus the pre-dawn departure from Norman) to note some of the special bird species occurring there, and end with a descriptive tour on the natural history of the area, including bison viewing and prairie grasses and wildflowers. This will be an opportunity to experience one of the great North American landscapes. *Expected species:* Grassland species such as Sedge Wrens (that are nesting at this time), Henslow's and Grasshopper Sparrows, Dickcissels, and Upland Sandpipers. Greater Prairie-Chickens are common here, and might also be observed. Bison occur on the Preserve and will be expected. *Recommended gear and caution:* Weather in mid-summer is usually quite hot. A wide-brim hat, sunglasses, and sunscreen are recommended, and staying hydrated is very important. There will be some hiking into the prairie, so please wear appropriate footwear. Remember to bring your binoculars and camera. Be rattlesnake aware.

Salt Plains National Wildlife Refuge – Full day

Start and end time: 5:30 am – 6:00 pm

Cost: \$40/person.

Description: Approximately 2 1/2 hours travel from Norman to the Salt Plains National Wildlife Refuge. Designated as the "largest such saline flat in the central lowlands of North America," the 11,200-acre salt flat is essential to wildlife, and has been home to breeding Snowy Plovers, American Avocets, and Least Terns, a major migratory shorebird and waterfowl staging area in the central Plains, and a stopover for part of the migratory flocks of American White Pelicans, Sandhill and endangered Whooping cranes in spring and fall. Migrating shorebirds begin to build up in late July on the salt flats. Normally closed to the public, this tour will allow access to the shore edges where migratory shorebirds, gulls, terns, herons and egrets tend to concentrate. Unique in North America, the flats produce selenite crystals; the group can be allowed a brief period to sample. *Expected species:* The Salt Plains manages for nesting Snowy Plovers, American Avocets, and Interior Least Terns. The beginning of the shorebird

migrations season in late July can produce hundreds to several thousands of shorebirds, including Baird's and Stilt Sandpipers, Long-billed Dowitchers, Wilson's Phalaropes, and some less common species such as Long-billed Curlews, Buff-breasted Sandpipers, and (possible) Red Knots, in addition to migrating Black Terns, and locally breeding herons and egrets. Peregrines frequent the flats beginning in late July. Local ponds can provide opportunity for herons, ibises, and, depending on water conditions, some waterfowl and rails. *Recommended gear and caution:* Weather in mid-summer is usually quite hot. We will be hiking and walking out onto the Salt Flats. There is usually a breeze, but temperatures will exceed 90°F. Keeping hydrated is extremely important. Wide-brim hats, sunscreen, and sunglasses are recommended. Footwear can be casual sneakers; wading will be allowed. Do not forget to bring your binoculars and a camera.

Wichita Mountains Wildlife Refuge – Full day

Start and end time: 5:00 am – 5:00 pm

Cost: \$40/person

Description: Approximately 2 hours travel from Norman to the rugged granite outcrops of the Wichita Mountains in southwestern Oklahoma. Established in 1901, the 59,020-acre refuge hosts a rare piece of the past—a remnant mixed grass prairie, interfaced with granitic uplifts forming the 540-mya-old Wichita Mountains themselves. It is a habitat island where the natural grasslands escaped destruction because the rocks underfoot defeated the plow. It is home to American Bison, Rocky Mountain elk, and prairie dogs. The refuge is also boasts an historic herd of Texas longhorn cattle, one of the largest populations of Black-capped Vireos (over 4,000 pair), and one of the most colorful forms of Eastern Collared Lizards. *Expected species:* The scrubland and rocky habitat should provide opportunity to see Black-capped Vireos, and local species such as Rock and Canyon Wrens, Rufous-crowned Sparrows, and Painted Buntings. Grassland species such as Grasshopper Sparrows and Dickcissels are present, and (most years) nesting Burrowing Owls can be found. As it heats up, an interpretive tour of the Refuge will be provided. The Wichita Mountains are a unique and mystical island of habitat in a largely developed landscape. *Recommended gear and caution:* Weather in mid-summer is usually quite hot. A wide-brim hat, sunglasses, and sunscreen are recommended, and staying hydrated is very important. There will be some hiking with some modest elevational-changes. The rocky terrain make footwear with ankle support highly recommended. Remember to bring your binoculars and camera. Be rattlesnake aware.

WORKSHOPS

There are seven workshops slated for AOU/COS 2015. Four are scheduled to take place prior to the scientific program and the other three will occur during the conference proper. Here is a brief description of each:

Pre-conference Workshops

Weather Radar Ornithology 101

Tuesday, 28 July, workshop 8:00 am – 12:00 pm; facilities tour 1:30pm – 3:30pm

Instructors: Jeff Buler (jbuler@udel.edu), Jaclyn Smolinsky, Robert Diehl, Kyle Horton, Dan Sheldon, and Andrew Farnsworth

Description: This workshop will provide a primer and basic training for ornithologists to understand, access, visualize, screen, and process weather data from the USA weather radar network using various open source and freely-available custom software (e.g., software developed by University of Delaware, University of Oklahoma, and University of Massachusetts). Participants will learn the basics of identifying biological radar signatures from other sources (i.e., precipitation and clutter) and current approaches for distinguishing

birds from insects. Participants will learn and practice data analysis techniques to derive bird flight speed and direction and to adjust for biases in radar measures for mapping bird distributions near the ground and determining bird densities aloft. The goal of the workshop is to leave participants equipped with a better understanding of how to use weather radar as a scientific research tool to answer questions in ornithology. Our target audience includes ornithologists (professionals and students) interested in using weather radar data as part of their research toolkit. Basic familiarity with weather radar is preferred. Note that this workshop will complement a symposium entitled "*Recent scientific applications of weather radar for advancing ornithology*," which will be part of the conference's scientific program.

Introduction to R

Tuesday, 28 July, 8:00 am – 12:00 pm

Instructors: Nick Mason (nicholas.albert.mason@gmail.com), Melany Colón, and Michael Butler

Description: This workshop is a reprise of our course offered at Estes-Park in 2014 that introduces attendees to the R programming environment. R is a free, open-source programming tool with an excellent capacity for doing statistics and dealing with unwieldy data sets. The workshop is aimed at students, post-doctoral researchers, and early-career professionals who have little or no experience with R. The main objective will be to confer a basic familiarity and understanding of what R is, what it is capable of, and learning how to perform some basic tasks and functions using rudimentary data structures. Attendees will be asked to bring their own laptops and have R installed prior to attending the workshop. Participants will generate their own code and also follow scripts that have been provided by the instructors.

Taking R to the Next Level: Programming, manipulation, and graphing in R

Tuesday, 28 July, 8:00 am – 5:00pm

Instructors: Matthew Boone and Auriel Fournier (amvander@uark.edu)

Description: This workshop will help those who already know how to use R gain new skills and allow them to use R more effectively. We will focus on five topics that are not easily self-taught or included in Intro to R courses but are instead frequently learned through trial and error. Each topic will include a lecture portion, followed by working through problems as a group, discussing the code and answering questions. The target audience includes undergraduate and graduate students interested in increasing their R skills, and we are especially interested in helping those who work at institutions where instructional materials for learning R are not readily available. Non-students are also welcome.

Light-level Geolocation with Open-Source Tools

Two-day workshop

Monday, 27 July, 9:00 am – 5:00 pm and Tuesday, 28 July, 8:00 am – 5:00 pm

Instructors: Nat Seavy (nseavy@pointblue.org), Simeon Lisovski, Eldar Rakhimberdiev, Jonah Duckles, and Eli Bridge

Description: Light-level geolocation has tremendous potential for generating information about bird migration, but the reconstruction of reliable locations from light-level data can be challenging. This workshop will provide participants with hands-on training (ideally using their own data) with several analysis packages within the R environment that can generate locations from light-level data. Participants will compare different approaches to filtering and smoothing their data to understand how these methods work and how they can be used to

address a variety of scientific questions. We will begin with simple thresholding methods and accessory analyses (e.g., GeoLight and KFtrack) and progress through some recent, more advanced analysis packages (e.g., SGAT and FlightR). The workshop will enable participants to make the most of their geolocator data and derive not just location estimates but also uncertainty metrics for those estimates. We will also present helpful techniques for assessing migration phenologies, categorizing stationary and migratory periods, and graphically presenting results.

This two-day workshop will convene the morning of Monday, 27 July, and will continue throughout the next day. We will begin with an introduction to preliminary tasks such as importing and formatting raw data, manual editing, and initial data visualization. Late arrivals may miss out on these preliminaries and still get a lot out of the workshop, especially if they are advanced R users or have conducted their own geolocator analyses in R.

Mid-conference Workshops

Editor's workshop: Focusing on Peer-Reviews

Wednesday, 29 July, 12:30 pm – 1:30 pm

Led by Mark Hauber (Editor-in-Chief of *The Auk: Ornithological Advances*, mark.hauber@hunter.cuny.edu) and Philip Stouffer (Editor-in-Chief of *The Condor: Ornithological Applications*)

Description: This workshop will focus on providing advice to beginning-stage scientists about what, when, and how to peer-review, including specifics about the society's journals, *The Auk: Ornithological Advances* and *The Condor: Ornithological Applications*. The editors-in-chief will discuss the perspectives of referees, authors, and editors in the peer-review process.

Raising Your Chicks as an Ornithologist

Thursday, 30 July, 12:30 pm – 1:30 pm

Led by Kim Sullivan (kim.sullivan@usu.edu)

Description: This interactive, lunchtime workshop is for experienced and new parents as well as those considering parenthood. Ornithologists produce few children compared to other academic disciplines. Many ornithologists cite the difficulties of combining field work with family formation. This workshop will allow participants to share information on what works in combining their professional life with parenting. We will discuss what to say when applying for jobs, negotiating parental leave, child care strategies and resources, field work solutions, and organizing your life to get your work done.

Careers in Ornithology

Friday, 31 July, 4:30 pm – 6:00 pm

Led by Nick Mason (nicholas.albert.mason@gmail.com), Melany Colón, and Michael Butler

Description: This workshop will be an open discussion about the opportunities, pitfalls, resources, contacts, havens, and predators that await young ornithologists venturing into the job market. The target audience consists of graduate students, recent graduates, and post-docs. However we also welcome the participation of senior ornithologists who are concerned for the future of their discipline and who have some wisdom and/or job offers to impart.

SCIENTIFIC PROGRAM

Poster Session

Wednesday, 29 July, 6:00 pm

OU Memorial Union, Molly Shi Boren Ballroom and the Beaird Lounge

Enjoy the collegial atmosphere of poster presenters and colleagues discussing a variety of topics presented by the more than 70 posters that will on display. Free food and drinks will be provided.

Symposia

Recent scientific applications of weather radar for advancing ornithology

Wednesday, 29 July, 10:30 am – 5:00 pm

OU Memorial Union, Molly Shi Boren Ballroom

Organizer: Jeff Buler

Description: Radar ornithology is experiencing a renaissance due to recent technological and computing advancements. Presentations will be about cutting-edge research studies that use weather surveillance radar as a tool to investigate questions about the ecology, abundance, and airborne movement of birds over large spatial and temporal domains. An underlying theme of the symposium is the synergies between weather radar and other remote-sensing and field data collection methods to advance ornithology.

North American Breeding Bird Survey: Management and Analysis of Stop-level Data

Wednesday, 29 July, 10:30 am – 2:00 pm

OU Memorial Union, Regents Room

Organizers: John Sauer and David Ziolkowski

Description: The North American Breeding Bird Survey is conducted along roadside survey routes composed of 50 counting locations (stops) and surveyed over a single morning by a single observer. Generally, very small sample sizes of individual birds of any species are encountered at a stop, and logistical issues of data management and analysis largely imposed the route as a sample unit on BBS analyses for the first 3 decades of the survey. However, the inherently hierarchical nature of the BBS sampling clearly extends to stops; stops are the natural sample unit of the BBS. Unfortunately, stops are vaguely located; critical geographic information about stop locations may not be available. We describe efforts underway to increase the availability of stop level bird and location information, and we survey the wide range of uses scientists and conservationists are finding for BBS stop-level data. Primary among these uses are documenting habitat associations and assessing detectability; these issues can only be reasonably explored at the stop level. By providing a mixture of presentations oriented toward management of stop data, consideration of appropriate scales for analyses of BBS data, and analyses of BBS data at stop and route scales, we hope to achieve a better understanding of how to manage and present BBS data to best serve the scientific and management communities.

Avian Conservation in Mexico

Thursday, 30 July, 10:30 am – 2:30 pm
OU Memorial Union, Regents Room
Organizer: José Luis Alcantara

Description: Mexico is one of the top ten bird megadiverse countries. In recent years, however, in order to encourage economic growth, the government has stimulated the building of a wider road network, tourist resorts and other infrastructure megaprojects, with little regard towards wildlife impacts. At the same time, problems with security have made field work dangerous, and social discontent has caused the government to focus on alleviating human problems at the expense of environmental issues. Within this scenario, many scientists are making intensive efforts to implement successful conservation research and practices. This symposium will show some of these initiatives that deal with bird conservation in Mexico.

Severe Weather Impacts on Birds: Past, Present, and Future

Thursday, 30 July, 10:30 am – 5:00 pm
OU Memorial Union, Scholars Room
Organizer: Jeremy D. Ross

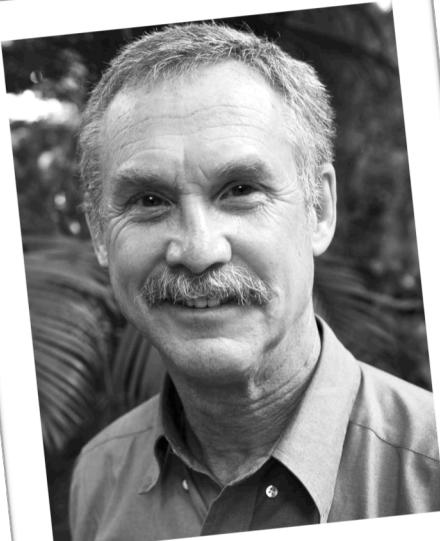
Description: Under various climate change scenarios the probability of increasingly strong, frequent, widespread, and lasting weather anomalies is predicted to rise globally. Whether wild bird populations will be able to persist through this upheaval will depend on their evolutionary tool chest, their adaptability, and humanity's ability to mitigate the impacts, either directly or indirectly. This symposium will cover how weather extremes have impacts on birds that can be: a) ecologically and evolutionarily relevant, b) quantified beyond one-off anecdotes, c) modeled as semi-predictable events, and d) actively countered through conservation planning.

Ecology and Conservation of Grassland Birds: A Tribute to the work of Fritz L. Knopf

Friday, 31 July, 10:30 – 5:00 pm
OU Memorial Union, Molly Shi Boren Ballroom
Organizers: Stephen J. Dinsmore, Victoria Dreitz, Susan Skagen, and Michael Wunder

Description: Of all North American bird assemblages, grassland-breeding bird populations have experienced the slowest growth and largest declines. Threats to grassland birds occur on the breeding grounds, during migration, and on the wintering grounds. Research stimulated in response to these threats has led to a greater understanding of their life history patterns, which in turn has promoted additional conservation efforts for grassland birds. Given the magnitude of these threats and the rapid research advances, there is a need to discuss the future of grassland birds in North America. Dr. Fritz L Knopf shepherded in a new era of grassland bird research that revealed the importance of heterogeneity in grassland structure to bird communities. Dr. Knopf mentored many young scientists and stimulated ideas among his colleagues. Through the research and conservation work presented in this symposium, we will actively honor the career of Dr. Fritz L Knopf

Keynote Address by David Quammen: Friday, 31 July, 7:00 pm at the Reynolds Performing Arts Center



David Quammen is a renowned journalist and author of fifteen books including *The Reluctant Mr. Darwin*, *The Song of the Dodo*, *Spillover*, and most recently *Ebola*. His shorter works have won him three National Magazine Awards as well as regular appearances in The Best American Science and Nature Writing series. With painstaking research and perseverance, he takes on large complex topics such as zoonotic disease, extinction, and the culture of modern science, and he renders his subjects in a manner that makes them transparent but not oversimplified. His work highlights the connections between natural systems and human societies, and he calls upon readers to take note of the many ways we have disrupted the ecosystems that sustain us, before it is too late.

Ebola and beyond: Scary viruses in a globalized world

One year after the Ebola outbreak in West Africa exploded, causing vast misery in three countries and terrifying the world, infectious diseases caused by strange new viruses are still a critical issue for public health. They are also a focus of urgent and fascinating scientific research. The latest such problem is MERS, caused by a lethal but little-understood virus that has emerged from the Arabian Peninsula to spread among hospital patients in South Korea. Next year it will be something else—a new influenza, a new coronavirus syndrome, or who knows what. These diseases have one thing in common: They are all zoonoses—that is, animal infections transmissible to humans. They are novel and potentially devastating in human populations because they come to us from other creatures—from bats, from rodents, from primates, from birds. The critical transfer event, when such a bug passes from its usual host into its first human victim, is known as spillover. Every outbreak begins with a spillover, and every spillover is a medical and ecological mystery to be solved. David Quammen, author of the 2012 award-winning book *Spillover*, will discuss the dynamics and implications of this phenomenon in a world where we are all interconnected, humans and other beings, at the speed of an airplane and the distance of a sneeze.

Plenaries: We have a fantastic line up of plenary speakers this year who will start off each day with presentations that span the field of ornithology, taking us from physiology to phylogenetics. Wednesday's plenary time slot is reserved for this year's winners of the Cooper Young Professional Award.



Plenary 1: Ellen Ketterson: Wednesday, 29 July, 8:45 am at the OU Memorial Union in the Molly Shi Boren Ballroom.

Ellen Ketterson is a Distinguished Professor of Biology and Gender Studies at Indiana University. Although her research program has largely been focused on a single species, the Dark-eyed Junco, the scope of her research has been enormous, spanning four decades and ranging from natural history to genomics. Last year she received the Loya and Alden Miller Research Award from the Cooper Ornithological Society.

Seasonal timing and population divergence: When to migrate, when to breed

Co-authors: Adam M. Fudickar, Jonathan W. Atwell, Mark P. Peterson, Abigail A. Kimmitt, Eli S. Bridge, Borja Milá , and Timothy G. Greives

As climate warms in the northern hemisphere, selection appears to be acting broadly and strongly on plasticity in relation to the timing of the annual cycle, causing some populations to breed earlier in the year. Similarly, distances and incidence of migration are in decline, as formerly migratory populations become sedentary. Despite the broad occurrence of such events, little is known about the behavioral, physiological, and evolutionary mechanisms giving rise to these changes. Closely related populations that differ in seasonal timing and strategy provide a remarkable opportunity to study the regulatory and evolutionary mechanisms underlying plasticity in reproductive and migratory biology. Particularly interesting are polytypic species that co-exist during winter and breed allopatrically in a distribution pattern known as heteropatry. Why and how do co-existing, closely related populations respond differentially to the same environment to pursue divergent phenology or migratory strategies? What are the physiological mechanisms that initiate reproduction or maintain migration? Do recently diverged populations exhibit greater plasticity by being more responsive to supplementary cues, while longer diverged populations are more fixed and more responsive to photoperiod? How do differences in timing influence mating preferences? These are issues that matter to theory, conservation, and human health. This contribution will review mechanisms underlying differences in the onset and duration of seasonal behavior and physiology with a focus on allelic variation, differential gene expression, and variation in neuroendocrine networks in relation to divergent phenology. It will place special emphasis on two sedentary versus migratory pairs of populations of the polytypic dark-eyed junco.



Plenary 2: Elizabeth Derryberry:

Friday, 31 July, 8:45 am at the OU Memorial Union in the Molly Shi Boren Ballroom.

Elizabeth P. Derryberry is an Assistant Professor at Tulane University in New Orleans. She received her B.S. from Princeton University, where her senior thesis focused on costs of parasites to fitness of the White-crowned Sparrow. She completed her Ph.D. with Steve Nowicki at Duke University, where she studied the evolution of bird song. She went on to Louisiana State University for her postdoc, with Robb Brumfield. There she became involved in questions of phylogenetics of the Neotropical ovenbirds (Furnariidae).

Currently Liz collaborates on several projects that explore factors, both proximate and ultimate, that account for variation in avian communication. Her work has appeared in *Nature*, *Science*, *Evolution*, and *American Naturalist*, among other publications.

Singing in the city: Urban dependent selection on bird songs.

Cities are evolutionarily recent environments that impose novel selection pressures on organisms. A recent surge of interest in acoustic communication in urban contexts has found that birds change their vocalizations in the presence of human generated noise. Description of this potential adaptation has raised several fundamental questions, which have global applications to studies of animal communication and mate selection. These questions include (1) how are birds adjusting their song to the urban environment?; (2) are urban songs adaptive?; (3) how has song urbanization affected vocal performance?; and (4) what other behaviors or communication systems might have diverged in cities? To address how birds are adjusting their song, we explore the relative roles of cultural evolution and behavioral plasticity, as well as the potential synergy between these two mechanisms, as a critical missing component of our understanding of how urbanized landscapes affect acoustic communication systems. To test whether song adjustments to noise are or are not adaptive, we evaluate a feasible and novel approach for studying the factors that underlie song evolution using computer simulation. Adaptive or not, song adjustment in response to urban noise may affect signal salience as songs are used to repel rivals and attract mates. We demonstrate that song adjustments to local noisy backgrounds affect song potency in functional contexts, highlighting a previously unconsidered impact of urban noise on song performance. In addition, we explore previously undiscovered differences between urban and rural populations in other behavioral and morphological traits, such as territory size, population density, and plumage.



Plenary 3: Frank Moore : Saturday, 1 August, 8:45 am at the OU Memorial Union in Meacham Auditorium.

Frank Moore , a Distinguished Professor at the University of Southern Mississippi, is one of the most respected and beloved figures in ornithology today. Renowned for both his research and his mentorship, Dr. Moore has established migratory stopover biology as a key sub-field in ornithology. His work has had profound impacts on both our understanding of seasonal behaviors and on the conservation of migratory animals.

Stopover biology of migratory songbirds: Response to en route challenges

Although many migratory birds are capable of making spectacular, non-stop flights over

ecological barriers, few actually engage in nonstop flights between points of origin and destination, rather they stopover periodically between migratory flights. Indeed, the cumulative amount of time spent at stopover sites far exceeds time spent in flight and determines the total duration of migration. Likewise, energy expenditure during stopover exceeds that during flight by more than 2:1 for an entire migration. When a migratory bird stops en route, she almost invariably finds herself in unfamiliar surroundings at a time when energy demands are high, often faced with the need to acquire food in a short period of time, while balancing conflicting demands between predator avoidance and food acquisition, competition with other migrants and resident birds for limited resources, unfavorable weather, exposure to parasites and pathogens, lost sleep, not to mention the need to make accurate orientation decisions upon departure. How well she meets these challenges will determine the success of her migration, while a successful migration is measured in terms of survival and reproductive performance. My presentation is organized around the challenges migrants face when they stop over during migration, how migrants meet those challenges, the consequences of their response to en route challenges, and how a comprehensive understanding of the biology of migratory species requires knowledge of seasonal interactions between phases of the entire annual cycle.

Cooper Young Professional Awardee Presentations

Thursday, 30 July, 8:45 am, OU Memorial Union, Molly Shi Boren Ballroom



Elizabeth A. Gow, Killam Postdoctoral Research Fellow, University of British Columbia

Dr. Gow's research interests span the fields of ecology, demography, conservation, behavioral ecology, and ecophysiology. During her M.Sc. at York University, she examined the relative timing of molt and breeding in thrushes and helped conduct the first geolocator study on passerines. For her Ph.D. research at the University of Saskatchewan, she combined radio telemetry and field

endocrinology to examine sex-related patterns of foraging, habitat use and parental care in a species with reversed sex roles, the Northern Flicker (*Colaptes auratus*). She also used geolocators on these birds to examine migration and cavity use throughout the annual cycle. As a postdoc at the University of British Columbia, Dr. Gow is now examining parental care and stress physiology in Song Sparrows (*Melospiza melodia*) using a 40+ year dataset from a pedigree island population, and she is developing occupancy models to identify critical habitat of Olive-sided Flycatchers (*Contopus cooperi*).

Sex differences in parental care: Who cares?

Co-authors: Karen L. Wiebe, Rebecca J. Sardell, Jane M. Reid, and Peter Arcese

Life history theory predicts that current reproduction is traded off with survival. Although biparental care is widespread in birds, how much care or how long parents provide care can be influenced by brood sizes, perceived parentage, probability of re-mating, and the body condition or intrinsic quality of the parent. Using radiotelemetry of a sex role reversed species, the Northern Flicker (*Colaptes auratus*), we examined sex differences in both the length and amount of parental care during the nestling and post-fledging care periods. In addition, my colleagues and I used a long-term dataset from an island population of a socially monogamous but genetically polygynandrous species, the Song Sparrow (*Melospiza melodia*) to examine how parental care can influence condition and survival of offspring, and lifespan and future reproductive success of parents. Here, we show that both male and female flickers were unable or unwilling to increase feeding effort or alter foraging behavior in response to short-term increases in brood demands. However, life history trade-offs were strongest during the post-fledging period as about one third of female flickers deserted their brood. Reduced levels of male parental care, in sparrows, in response to lower brood paternity resulted in lower brood quality and probability of survival to independence. Males benefitted from reducing parental care through a higher future reproductive success and longer lifespan. Our findings show how life history trade-offs differ for each sex across the breeding period yet are centrally based on certainty of parentage. Even in different mating systems it appears that one sex is able to take advantage of their mate to increase their personal long-term gains and as our sparrow model suggests at the cost of reduced offspring fitness and survival.



Jared Wolfe, US Forest Service

Dr. Wolfe received his Ph.D. at Louisiana State University in 2014 where his studies of habitat and climate change on Amazonian forest birds revealed not only sensitivity to fragmentation, but a reliance on regenerating second growth for successful recolonization. Further research into overwater dispersal led Jared to the important conclusion that forest fragments in his study region are recolonization driven systems whereas islands are extinction driven systems. Jared now works for the United States Forest Service and studies bottom-up effects of climate change on birds and their food resources. He is also a co-founder of the Louisiana Bird Observatory and conducts bird banding courses in North America, Africa, and Brazil.

Effects of forest fragmentation and a regenerating matrix on the behavior, survival and biogeography of birds in the Amazon

Co-Authors: Philip C. Stouffer, Karl Mokross, Luke L. Powell, and T. Brandt Ryder

Balance between extinction, recolonization, and survival drives species persistence in fragmented and regenerating Amazonian landscapes. Thus, determining the ecological value of fragmented and regenerating forest to Amazonian birds is a necessary step towards an informed conservation strategy. In this study, we assessed the ecological value of Amazonian forest fragments and second growth in three ways. First, we used network models to measure changes in the cohesiveness of mixed-species flocks across primary forest, fragments of varying sizes and second growth. Second, we estimated the survival of six bird species residing in primary and fragmented forests, taking into consideration age of the surrounding matrix. And third, we tested the capacity of island biogeography to predict species loss on the mainland by comparing bird communities among primary forest, fragmented forest, and islands bounded by water. We found that flocks were species rich with a high-degree of attendance in primary and fragmented forest when compared to species depauperate flocks found in second growth. The survival analyses revealed fragmentation influenced foraging guilds differently, where forest-dwelling insectivores showed precipitous declines in survival associated with fragmentation and second growth, and were nearly absent on true islands. Conversely, gap-specialists and frugivorous species exhibited no decline in survival when subjected to fragmentation, and were most common in forest fragments and islands. Despite a striking influence of fragmentation on estimates of survival, forest fragments were found to be species rich and islands species poor, suggesting that a developing matrix can mitigate extinction through recolonization processes. Our findings reinforce that true islands are extinction-driven systems with distinct, depauperate communities while forest fragments at our study site are colonization-driven systems with species rich bird communities.

ORAL PRESENTATION SCHEDULE

Wednesday, July 29, 2015

8:30 | Opening remarks

8:45 Plenary 1 (Ballroom): Ellen D. Ketterson - Seasonal timing and population divergence: When to migrate, when to breed

9:45 AOU Business Meeting

10:15

	Symposium: Weather Radar (Buler) - Ballroom		Symposium: Breeding Bird Survey (Sauer and Ziolkowski) – Regents Room			
					Distributions (Steadman) – Associates Room	Evolution (Peters) – Scholars Room
10:30	Pixel-based ornithology on "weather" radars Ronald Lankin	Challenges with curating BBS stop-level data: Can historical data meet modern analytical needs? David Ziolkowski, Jr.*; Keith Pardieck	Changes in the Bahamas bird communities since the last Ice Age David Steadman*, Janet Franklin		Parallel molecular evolution on the Z-chromosome in species of ducks with parallel transitions in sexual dichromatism/ monochromatism Kevin Hawkins*; Philip Lavetsky; Joel Nelson; Jeffrey Peters	
10:45	WSR-88D dual-polarization signatures of known birds Sidney A. Gauthreaux, Jr.	Method and application developments for migrant flight orientation profiles using polarimetric radars Doren; Andrew Farnsworth; Jeffrey F. Kelly	Island and continental biogeography dynamics in the assembly of the Western Ghatas Sushma Reddy*, V.V. Robin; C. K. Vishnudas; Pooja Gupta; Uma Ramakrishnan		Speciation genomics in mallards and American Black Ducks Jeffrey Peters*; Philip Lavetsky	
11:00	Choosing geographic scales for analyses of North American Breeding Bird Survey data John Sauer*, Frank Rivera-Milan; Jason Hill; William Link	Eeny, meeny, miny, moe: What will my model show? Cassandra Walker*, Mona Papes	Modeled impacts of climate and land-use change to waterbirds in the Prairie Pothole Region Valerie Stein*; Susan Skagen; Barry Noon; Helen Sofiaer		Genomics of speciation in the globally distributed shoveler Joel Nelson*, Kevin G. McCracken; Jeffrey Peters Leonardo Campagna*; Ilan Gronau; Luis Fabio Silveira; Adam Siepel; Irby J. Lovette	
11:15	Comparing acoustic and radar monitoring of nocturnal bird migration: Past, present, and future Andrew Farnsworth*, Justin Salamon; Matt Robbins; Sara Keen; Juan Bello; Steve Kelling	Migratory bird conservation planning and assessment using spatial models developed from stop-level BBS data Neal Niemuth*, Michael Estey; Sean Fields; Andy Bishop; Brian Wangler; Adam Ryba	Testing stacked species distribution models Predicting species richness and community composition in hummingbirds (Aves: Trochilidae) Jacob Cooper		Speciation reversal in Common Ravens: Genomic evidence of the collapse of cryptic lineages in western North America Kevin Omland*, Anna Kearns; Marco Restani; Ildiko Szabo; Arild Johnsen	
11:30	BirdCast perspectives: Autumn nocturnal bird migration in the Northeastern U.S. Andrew Farnsworth*, Daniel Sheldon; Benjamin Van Doren; Wesley Hochachka; Frank La Sorte; Kevin Winner; Garrett Bernstein; Steve Kelling	Breeding Bird Survey derived species distribution models drive habitat delivery in Nebraska's Rainwater Basin Joint Venture Andrew Bishop*, Roger Gross; Christopher Jorgensen	White-tipped Dove occupancy and distribution in the Lower Rio Grande Valley, Texas Thomas Enright*, T. Wayne Schwertner; Jeff Breeden; Heather Mathewson		Songbirds conserved sites of MHC class I molecules reveal a unique evolution in vertebrates Antonio Arnaiz-Villena*, Valentín Ruiz-del-Valle; Cristina Areces; Ester Muñiz; Mercedes Enriquez-de-Salamanca	
11:45	Patterns of spring and fall migration observed along the US east coast using weather radar: Impacts for wind energy Phillip Chilson*, Evan Adams; Kate Williams; Jeffrey F. Kelly			Lunch		
12:00					Symposium: Breeding Bird Survey (Sauer and Ziolkowski) – Regents Room	Distributions (Fournier) - Associates Room
						Evolution (Toews) – Scholars Room
13:30	Polarimetric radar observations of spring migration in Nebraska and Oklahoma Matthew Van Den Broeke	Challenges and opportunities in the use of BBS data for ecological condition assessments Timothy O'Connell	Combining citizen science derived species distribution models and stable isotope analysis reveals migratory connectivity in a secretive species, the Virginia rail (<i>Rallus limicola</i>) Auriel Fournier**; Alexis R. Sullivan; Joseph K. Bump; Marie Perkins; Mark C. Shieldsdale; Sammy L. King		Extensive biogeographic introgression and weak genomic divergence between phenotypically distinct wood warblers David Toews*, Scott Taylor; Rachel Vallender; Bronwyn Butcher; Irby J. Lovette	
13:45	Migrating birds reorient towards land at dawn over the Great Lakes Kevin Archibald**; Robert Smith; Jacklyn Smolinsky; Jennifer Owen; Jeffrey Buler	Estimating occupancy and detection of birds using stops along Breeding Bird Survey routes as replicates James Hines	Genetic and isotopic population assignments reveal limited connectivity between coastal and inland populations of rails Laurie Hall*, Steven R. Beissinger		Does ecological divergence explain the position and narrowness of the MacGillivray's/Mourning Warbler (<i>Geothlypis tolmiei/philadelphica</i>) hybrid zone? Alison Porter*; Julie Lee-Yaw; Christine Grossen; Darren E. Irwin	

*Presenter

**Student award candidate

		Reverse movement of birds during fall migration in a coastal landscape Robb Diehl*; Rachel Bolus; Frank Moore; Eben Paxton; Jill Deppe; Antonio Celis-Murillo; Michael Ward; Ti Zenal; Jaclyn Smolinsky; Lynn Schofield; Todd Preston	Use of a directed occupancy study and North American Breeding Bird Survey data to understand grassland bird habitat relationships in the Southeastern U.S. Patrick Farrell*, Conor McGowan; James Grand; Eric Lonsdorf; Wayne Thogmartin	American Woodcock migratory connectivity as indicated by hydrogen isotopes Daniel Sullins*; Warren Conway; David Haukos; Keith Hobson; Leonard Wassenaar; Christopher Comer	A comparative transcriptomic approach for understanding hybrid breakdown in three closely related North American parids Scott Taylor*; Matthew D. Carling; Irby J. Lovette; Zac Cheviron
14:00	14:15	Towards large-scale studies of animal movement: The European Network for the Radar surveillance of Animal Movement (ENRAM) Adriaan Dokter*, Jose Alves; Silke Bauer; Jason Chapman; Hans van Gasteren; Omnoo Hippop; Jarmo Koistinen; Felix Liechti; Don Reynolds; Judy Shamoun-Baranes	Grassland bird response to weather in the Badlands and Prairies of the U.S. Jessica Gorzo**, Anna Pidgeon; Wayne Thogmartin; Andrew Alstadt; Volker Raceloff	Population dynamics of Northern Cardinal and Carolina Wren in an urban forest: Safe refuge or ecological trap? Binab Karmacharya**; Erik Johnson; Jeffrey Hostetler; Jared Wolfe; Scott Duke-Sylvester	Genetic structure of a sapsucker hybrid zone Shawn Billerman**, Matthew D. Carling
14:30	14:45	Assessing the effects of Hurricane Sandy on migratory bird stopover using weather surveillance radar Matt Boone*; Jeffrey Buler; Deanna Dawson	Systematic ID biases in citizen science, and implications in research databases Joseph Grzybowski	Speciation via adaptive divergence in mitonuclear respiratory genes Geoffrey E. Hill	Wintering Dark-eyed Juncos carry recognized plant pathogens and beneficial bacteria on their feathers John. W. Dille; Christopher M. Rogers*; Mark A. Schneeberg
15:00	Symposium: Weather Radar (Buler) - Ballroom		Diet (Dodson) – Regents Room	Conservation Genetics (Han) – Associates Room	Evolution (Clark) – Scholars Room
15:30		Modeling stopover habitat relations for landbirds in the western Gulf of Mexico region Lori Randall	Prothonotary Warbler nestling diet and growth in response to variation in aquatic and terrestrial food availability Jenna Dodson**; Lesley Bulluck	Genetic distinctiveness of the Galápagos Short-eared Owl and implications for its conservation Sarah Schulwitz*, Paula Castano; Karl Campbell; Jeff Johnson	"Harmonic hopping" and non-linear evolution of sounds made by the tails of Allen's and Calliope Hummingbirds Chris Clark
15:45		When is the best time to sample migrating birds in the air with weather surveillance radar to determine their stopover density at the ground? Tim Schreckengost*, J. Andrew Arnold; Matt Boone; Deanna Dawson; Jaclyn Smolinsky; Eric Walters; Jeffrey Buler	The lateral export of an algal bloom toxin from aquatic ecosystem into the Prothonotary Warbler via emerging aquatic insects Nicholas Moy**; Lesley Bulluck; Paul Balkaveckas	A pedigree gone bad: Increased offspring survival using DNA-based relatedness to minimize inbreeding in a captive population Susan Hamerly*; David de la Cerdá; Hannah Bailey; Jeff Johnson	Evolutionary rate heterogeneity of learned and innate vocal displays among two prominent clades of Neotropical passersines (Thraupidae and Furnariidae) Nicholas Mason**; Kevin Burns; Nathalie Seddon; Joseph Tobias; Santiago Claramunt; Elizabeth Derryberry
16:00		Predictive models of stopover incidence by migrant landbirds James D. McLaren*; Jeffrey J. Buler; Deanna K. Dawson; Jaclyn Smolinsky; Matt Boone	Response of forest birds to inputs of emergent aquatic insects across a regional scale Paul Schilke**; Mireia Bartrons; Jake Vander Zanden; Robert Howe; Anna Pidgeon	Changes in population genetics of Red-cockaded Woodpeckers over time Julia Vilstrup*, Mark Miller; Thomas Mullins; Jeff Walters; Susan Haig	Quantifying the phylogenetic and cultural content of learned song Nicole Creanza*; Fernando Nottebohm
16:15		Interannual consistency of Purple Martin roost phenology Jeffrey F. Kelly*, Sandra Pletschet; Eli S. Bridge; Kyle Broadfoot; Kyle Horton; Phillip Chilson	Purple Martins, flight altitudes and fire ants: Using aerial predators to study atmospheric animal communities Jackson Helms	Inheritance, variability, and validation of single nucleotide polymorphisms for noninvasive monitoring of Golden Eagles (<i>Aquila chrysaetos</i>) Jacqueline Doyle*, Todd E. Katzner; Pete H. Bloom; J. Andrew DeWoody	Niche and song divergence for hybridizing and non-hybridizing passersines Libby Megna*; Matthew D. Carling
16:30		Estimating stopover duration of ducks using weather radar and aerial surveys Benjamin O'Neal*, Joshua Stafford; Ronald Larkin	Varying levels of individual foraging specialization among populations of the endangered Hawaiian Petrel (<i>Pterodroma sandwichensis</i>): Gauging sensitivity to changes in prey availability Anne Wiley*; Peggy Ostrom; Christine France; Jay Penniman; Helen James	Genetic identification of <i>Architoichus</i> hybrids for comparison of three ecological niche models Erica Judd*, Christopher J. Butler	Urbanization alters molt dynamics in a common desert songbird Kevin McGraw*; Pierce Hutton
16:45		Determining relative stopover duration for migrating forest birds by integrating ground surveys and weather radar observations Jeffrey Buler*, Deanna Dawson; Jaelyn Smolinsky; Timothy Schreckengost; Matthew Boone; J. Andrew Arnold; Eric Walters	Flower-eating behavior in Cedar Waxwings: A chemical analysis Emily Webb	Birds in space: Genetic consequences of habitat fragmentation in Brown-headed Nuthatches (<i>Sitta pusilla</i>) Kin-Lan Han**, Jim Cox; Rebecca T. Kimball	

Thursday, July 30, 2015

8:30	Announcements			
8:45	Cooper Young	Elizabeth Gow - Sex differences in parental care: Who cares?		
9:15	Professionals Awardee Presentations (Ballroom)	Jared Wolfe - Effects of forest fragmentation and a regenerating matrix on the behavior, survival and biogeography of birds in the Amazon		
9:45	COS Business Meeting			
10:15	Migration (Condon) - Ballroom	Symposium: Conservation in Mexico (Alcantara) - Regents Room	Disease and Parasites (Callo) - Associates Room	Symposium: Severe Weather (Ross) - Scholars Room
10:30	The effect of urbanization on the stopover ecology of Neotropical migrant songbirds on the western shore of Lake Michigan Elisabeth Condon	A Mexican avian thematic network (MATNet) for conservation Jose Luis Alcantara*; Raul Ortiz-Pulido	Diversity waiting in the wings: A long-term study of avian malaria in a Neotropical migratory passerine Paul Callo	Severe weather impacts on birds: Past, present, and future Jeremy D. Ross*; Eli S. Bridge
10:45	Full-service hotels, convenience stores, or fire-escapes: Evaluating fall stopover sites for Neotropical migrants in the northern Yucatan Peninsula Lauren Solomon**, Jill Deppe, Antonio Celis-Murillo; Michael Ward	Reintroduction of Scarlet Macaws in Los Tuxtlas, Veracruz Patricia Escalante	Avian malaria diversification across contrasting regions of Africa Johanna Harvey	Effects of tropical cyclones on bird populations and their habitats Joseph M. Wunderle, Jr.
11:00	Characterization of the gut microbiota of migratory passersines in relation to the Gulf of Mexico William Lewis**, Frank Moore ; Shiao Wang	Treecavity nest-site selection by the large-bodied Military Macaw Sylvia Margarita de la Parra Martinez*, Katherine Renon; Alejandro Salinas-Melgoza; Luis Guillermo Munoz Lacy	Avian malaria and body condition in four species of North American songbirds Carolina Grantham*, Dean Williams	Evacuation migration: Tornadic storm avoidance behavior in breeding warblers Henry Streby*, Gunnar Kramer; Sean Peterson; Justin Lehman; David Buehler; David Andersen
11:15	Migratory birds and bird flu, a dreadful alliance? Simeon Lisovskii*, Silke Bauer	Bird conservation experiences in Mexico Juan Martinez-Gomez	Occurrence and prediction of avian disease outbreaks in Kansas Thomas Becker*, Peg McBea, David Haukos	Bald Eagle nest destruction relative to tornadic wind conditions Lena C. Larsson*, Cheryl Cavert; Jeremy D. Ross
11:30	Sex biased hormonal response in en route migrants: Do males anticipate arrival more than females? Kristen Covino**; Jeffrey F. Kelly; Jodie M. Jawor; Frank Moore	National strategy for monitoring and conservation of the Golden Eagle in Mexico Ricardo Rodriguez-Estrella	Host associations and diversity of two suborders of avian chewing lice from South Africa Ona Takano*, Preston Mitchell; Gary Voecker; Jessica E. Light	The influence of severe weather and climate change on the productivity of American White Pelicans at a large nesting colony in the northern Great Plains Lawrence Ig*, Marsha Sovada; Pamela Petz, Alisa Bartos
11:45	Searching for genes associated with migratory performance: Is MYH7 a novel candidate migration gene? Andrea Contina*; Eli S. Bridge; Jeremy D. Ross; Jeffrey F. Kelly	A contrast in bird conservation: California Condor and Masked Bobwhite Horacio de la Cueva*, Robert Mesta	Does blood hematology correlate with ectoparasite load and reproductive success in House Wrens? Jacqueline Augustine*, Alexandria Crawford; Jacqueline Smith	Severe weather impacts on an unpredictable system: Wetland dynamics and shorebird stopover decisions in a highly-altered landscape Caitlyn Gillaspie*, Joseph J. Fontaine
12:00	Migration (Winkler) - Ballroom	Symposium: Conservation in Mexico (Alcantara) - Regents Room	Physiology (Grindstaff) - Associates Room	Symposium: Severe Weather (Ross) - Scholars Room
13:30	Migration and local movements of Crab Plover <i>Dromas ardeola</i> wintering in Barr Al Hikman, Sultanate Oman Andy Kwarteng*, Roeland Bon, Ian van Gilis	Potential effects of climate change on distributions of six endangered Mexican hummingbird species Teresa Feria*; Carlos Lara; Jon Dale; Mayra Oyervides	Testing models of energy cost and tradeoffs for malaria infection in Dark-eyed Juncos Doug Eddy**; Matthew D. Carling	The hazard of nesting in a hail-prone area for shortgrass steppe birds Amber Carver**
13:45	Age and sex dependent stopover biology of Ruby-throated Hummingbirds (<i>Archilochus colubris</i>) during autumn migration Theodore Zenjal**, Frank Moore	Monitoring the over-winter survival of Neotropical migrants in Mexico: History of the MoSI Program, and a plan for the future Steven Albert	The songbird transcriptome in response to West Nile Virus Daniel Newhouse*, Erik Hofmeister; Christopher Balakrishnan	Global patterns of avian extinction risk attributable to severe hailstorms Jeremy D. Ross*; Eli S. Bridge
14:00	Use of hydrogen stable isotopes to infer the annual migration patterns of Gray Catbirds (<i>Dumetella carolinensis</i>) visiting a Florida Gulf Coast spring migratory stopover site Alan Kneidell; Mariana Gutierrez Ramirez, Lori A. Lester; Christopher M. Heckscher	Recommendations to the proposed mitigation and compensation of the impact of the construction of the new international airport of Mexico City in the Important Bird Area Lake Texcoco Jose Luis Alcantara*; Elfrain Castillejos; Salvador Gomez; Laura Gonzalez; Alejandro Melendez; Eduardo Morales; Patricia Ramirez; Edith Caballero; Gabriela Monroy; Alejandra Salazar	Stress responses of corticosterone and plasma metabolites during different breeding stages in male Eurasian Tree Sparrow, <i>Passer montanus</i> Dongming Li*, Weiwei Zhu; Xuelu Liu; Yao Yao; Mo Li; Yanfeng Sun; Yuefeng Wu	Using weather radar to monitor the response of birds to abrupt natural hazards Philip Chisholm*, Victoria Ford; Alexander Broom; Eric Jacobsen; Jeffrey F. Kelly

*Presenter

**Student award candidate

14:15	Comparison of individual and population estimates of migration for Tree Swallows Eldar Rakhamberdiev*; Ryan Norris; Daniel Fink; David Winkler	CIPAMEX contribution to avian conservation in México Raúl Ortiz-Pulido; Fernando Villaseñor	Increased perceived predation risk increases maternal yolk androgens in migratory passerine Nicole Krauss* [†] ; Hubert Schwabl	Polarimetric radar observations of bioscatter transport by tropical cyclones Matthew Van Den Broek
14:30	A new population and a new migratory route: Evidence for rapid change in migratory biology in Argentinean Barn Swallows (<i>Hirundo rustica</i>) David Winkler*; Facundo Gandy; Ignacio Areta; Marshall Iliff; Eldar Rakhamberdiev; Kevin Kardynal; Keith Hobson		Behavioral and reproductive correlates of within-individual variation in testosterone levels in Eastern Bluebirds (<i>Sialia sialis</i>) Medhavi Ambardar*, Jennifer Grindstaff	Breeding in an extreme environment: physiological and morphological responses to inter-annual environmental variation, snow storms, and range distribution Jesse Krause* [†] ; Jonathan Perez; Helen Chmura; Laura Gough; Natalie Boehman; John Wingfield
14:45			Imperfect past and present progressive: Developmental and adult conditions are reflected in a secondary sexual ornament Jennifer Grindstaff*, Madeleine Naylor; Loren Merrill	Drought impacts on nesting ecology of early-successional breeding bird species in a bottomland hardwood forest of east Texas Meredith Wilson* [†] ; Christopher Comer; Warren Conway; Christopher Farrell; Scott Bosworth
15:00			Break	
Migration (Horton) - Ballroom		Habitat Selection (Coppola) – Regents Room	Anthropogenic Effects (Loss) – Associates Room	Symposium: Severe Weather (Ross) – Scholars Room
15:30	Influence of atmospheric properties on detection of wood-warbler nocturnal flight calls Kyle Horton*, Phillip Stepanian; Charlotte Wainwright; Amy Tegeler	Factors influencing avian habitat selection between oak-hickory and mesic forests Kevin Sierega*, Michael Eichholz	Avian interactions with energy infrastructure in the context of other manmade mortality sources Scott Loss	Sensitivity to heat stress varies widely across avian orders Blair O. Wolf*, Andrew E. McKechnie; Todd J. McWhorter; Alexander R. Gerson; Eric. K. Smith; W. A. Talbot; Ben Smit; M.C. Whitfield; J.J. O'Neil
15:45	Migration and movement ecology of Golden-winged Warblers derived from light-level geolocators Gunnar Kramer*; Henry Streby; Sean Peterson; Justin Lehman; David Buehler; Petra Wood; David Andersen	Effects of point-count duration on estimated probabilities of detection and occupancy of breeding birds Erica Fleishman* [†] ; Matthias Leu; Matt Farnsworth; David S. Dobkin	Building facade characteristics affect bird-window collision rates Corey Ridings* [†] ; Timothy O'Connell; Scott Loss	Mapping and modeling lethal dehydration in desert passerines: Conservation and climate change implications Thomas Albright
Early Professionals Mini Symposia		Mismatch between daytime home ranges and roosting areas in the Wood Thrush: Why are males sleeping around? Vitek Jirinec; Christina Varian; Chris Smith; Matthias Leu*	Trails, and trail use, change avian species assemblages in forested protected areas Max Henschel**; Anna Pidgeon	The effects of extreme weather on birds: Data, tools, and insights for conservation Anna Pidgeon* [†] ; Brooke Bateman; Andrew Allstadt; Ana Maria Venegas; Steve Vauras; Volker Radloff; Wayne Thogmartin; Patricia Heglund
16:00	Welcome – Michael Butler 16:05 Evolution of learned behaviors: Insights from birds and humans – Nicolle Creanza 16:10 Projecting the effects of landscape change on connectivity of bird communities – Laune Hall	Development and application of an avian index of biotic integrity habitat model Danny Allen	Songbird demographic consequences of herbicide application in an early-serial forest Jim Rivers* [†] ; Matthew Betts; Andrew Kroll; Carl Schwarz; lake Verschuy	
16:15	16:15 At the intersection between perception, behavior, and evolution: How I study nature's colors – Daniel Hanley 16:20 Behavioral interactions in patrols provide insight into social and cognitive skills – Elizabeth Hobson 16:25 Integrative responses to environmental change – Sara Kaiser	Assessing Black Rail occupancy and habitat along the Texas Gulf Coast Jeffrey B. Tibbets*, Christopher J. Butler; Jennifer K. Wilson	Elucidating the diet of the riparian-obligate Louisiana Waterthrush (<i>Parkesia motacilla</i>) in impacted aquatic systems Brian Trevelline* [†] ; Steven C. Latta; Brady Porter; Timothy Nuttle	Roundtable discussion about the formation of a Severe Weather Ecology working group
16:30	16:30 Historical demography of European Green Woodpecker: Evidence of extra-Mediterranean refugia – Ulku Perktas 16:35 Evolutionary machinery of rapid body-size decline in a migratory bird – Eldar Rakhamberdiev 16:40 Quantifying drivers of avian population dynamics – Beth E. Ross	Quantifying habitat and apple snail density effects on prey availability to Snail Kites Philip Coppola*, Michel Therrien; Philip Darby	Functionally significant sensitivity to ultraviolet wavelengths in the Pileated Woodpecker (<i>Dryocopus pileatus</i>): Implications for woodpecker interactions with wood decay fungi and anthropogenic structures Sean O'Daniel* [†] ; Scott Werner; Dylan Kester; Lisa Webb; Jeannie Mihail	
16:45	16:45 Spatial ecology, migration, and zoonotic disease transmission in crows across an urban to rural landscape – Conor Taff 16:50 The genomic consequences of avian hybridization – David Toews 16:55 Improving avian conservation and ecological research with quantitative tools – Emily Weiser			

Friday, July 31, 2015

8:30	Announcements			
8:45	Plenary 2 (Ballroom): Elizabeth Derryberry - Singing in the city: Urban dependent selection on bird song			
9:45	AOU & COS Award Presentations			
10:15	Grassland Bird Symposium (Dinsmore et al.) - Ballroom	Behavior (Parker) – Regents Room	Reproductive Biology (Loman) – Associates Room	Conservation (Verheyen)– Scholars Room
10:30	Singing through the urban racket: Functional consequences of decreased vocal performance Jennifer N. Phillips*, Elizabeth Derryberry James Martin	Analyzing community-level nest survival using a hyperprior-based hierarchical approach Zachary Loman*, Adrian Monroe; Samuel Riffell; Darren Miller; Francisco Vilella; Scott Rush; James Martin	Effects of habitat heterogeneity on grassland songbird fecundity in an experimental landscape Bram Verheyen*, Brett K. Sandercock Andrew George*; Dana Morris; Paul Porneluzzi; Janet Hasleberg; John Fabborg	Breeding bird response to experimental forest management in the Missouri Ozarks
10:45	Understanding ecological drivers and natural disturbances: The key to effective grassland bird conservation, except when it isn't Robert Askins	Bird song along regional and site-specific noise gradients: Roles for cultural evolution, plasticity, and performance limits Raymond Danner*, Julie Danner; Jennifer N. Phillips; Katie Gentry; Sarah Lipschutz; Graham Derryberry; Catherine Rochefort; David Luther; Elizabeth Derryberry	Unusual patterns of nestling loss in House Sparrows: Infanticide or neglect? Katherine Sasser	Investigating the influence of stand and landscape-scale factors on priority bird occupancy to aid in open pine restoration Taylor Hannah*, John Tipak; Zachary Loman; Greg Wathen; Scott Rush
11:00	Mountain Plover ecology on prairie dog colonies in Montana Stephen Dinsmore	Complexity in the songs of Cassin's Vireos: Markov properties and higher-order dependencies in song sequences Richard Hedley	Comparative reproductive biology of co-occurring endangered and common shrubland birds Daniel Kovar*, Jinelle Sperry; David Cimprich Adam Betuel*, Elaina Tuttle; Rusty Gonser	How do long-lived birds respond to latitudinal variation in fitness? Thomas Reicke**, Alan Leach; James Sedinger; David Ward; Sean Boyd
11:15	Female song in New World wood-warblers (Parulidae) Nadje Najjar*, Lauryn Benedict	Parental investment strategies in a polymorphic species with alternative reproductive strategies	Patterns of extraterritorial foray behavior, extra-pair mating and paternity in the Field Sparrow (<i>Spizella pusilla</i>) Antonio Celis-Murillo**, Thomas Benson; Jeffrey Bravni; Wendy Schelsky; Michael Ward Breeding Biology of House Crow (<i>Corvus splendens</i>) at Hazara University, Garden Campus, Mansehra, Pakistan Muhammad Awais	Does occupancy monitoring capture population trends for a sparsely distributed species? Ouresh Latif*, Martha Ellis; Victoria Saab; Kim Mellen-McLean
11:30	Geographic structure of population dynamics in Mountain Plover Michael B. Wunder*, Allison K. Pierce; Craig A. Stricker; Fritz L. Knopf	A meta-analysis of response to playback of foreign songs: Reduced response to unfamiliar stimuli or adaptive reaction to weak threats? Timothy Parker	Applications of behavioral and community research on Golden-winged Warbler conservation John A. Jones*, Maria H. Bakermans; Jeffery L. Larkin; Curtis G. Smalling; Lynn Siefferman	Lunch
11:45				
12:00	Grassland Bird Symposium (Dinsmore et al.) - Ballroom	Behavior (Butler) – Regents Room	Reproductive Biology (Grond) – Associates Room	Conservation (Crawford) – Scholars Room
13:30	Investigating migration and divergence in Mountain Plover using genomic methods Sara Oyler-McCance*, Scott Comman; Jennifer Fike	Experimental tests of the function and flexibility of song consistency in a wild bird Conor Taft*, Corey Freeman-Gallant Lijin Zeng; John T. Rotenberry*, Martene Zuk; Thane Pratt	Genetics illuminates reproductive patterns in a cooperatively breeding precocial species, Kalij Pheasants (<i>Lophura leucomelanos</i>) in Hawai'i Lijin Zeng; John T. Rotenberry*, Martene Zuk; Thane Pratt	Inconsistent recovery: The local decline of Least Tern colonies and nesting habitat and in central Oklahoma. Priscilla Crawford
13:45	Avian assemblages on altered grasslands revisited James A. Herkert	Social feedback and the emergence of rank in avian society Elizabeth Hobson*, Simon DeDeo Jacqueline Dillard	Monogamy, ecology, and the evolution of cooperative breeding in birds Jacqueline Dillard	Effects of climate variables on Lesser Prairie Chicken vital rates: A meta-analysis Julia Earl*; Samuel D. Fuhlendorf

*Presenter

**Student award candidate

14:00	Landscape metrics and Missouri prairie birds: How real are the results? John Faaborg*; Maiken Winter	Group composition and dynamics in American Crows Carolee Caffrey*, Charles C. Peterson	Body condition and survival throughout the annual cycle in tidal marsh sparrows Alyssa Borowske**; Chris S. Elphick	Landscape characteristics of home ranges of Lesser Prairie-chickens John Kraft*; Samantha Robinson; Reid Plumb; David Hawkos
14:15	Landscapes, grassland birds, and agroecosystems, a Wisconsin perspective Christine Ribic*; David W. Sample	A sassy soap opera: An examination of family flocking dynamics of the Black-crested Titmouse Rebekah Rylander	The response of a mature forest dependent species to silvicultural treatments Claire Nemes**, Kamal Islam	Space use by nonbreeding Lesser Prairie-Chickens Samantha Robinson*; Reid Plumb; Joseph Lautenbach; David A. Haukos; Scott Carleton; Andrew Meyers; Jonathan Reitz
14:30	Manging plague in prairie dogs: Effects on bird communities associated with colonies Reesa Conney*, Daniel Tripp; Michael Antolin; Erin Youngberg; Arvind Panjabi	Do House Wrens signal predator type in their alarm calls? Alexander Davis**, Jacqueline Augustine	Demography of the American Kestrel lends insight into potential causes of population declines and suggests future research needs Christopher McClure*; Jessi Brown; Karen Steenhof; Julie Heath	Demography of the American Kestrel lends insight into potential causes of population declines and suggests future research needs Christopher McClure*; Jessi Brown; Karen Steenhof; Julie Heath
14:45	Breeding ecology of the Arizona Grasshopper Sparrow (<i>Ammodramus savannarum ammolegus</i>) Janet Ruth	Vigilance copying in European Starlings Shannon Butler*; Claire Hosinski; Esteban Fernandez-Juricic	Pre-hatch gut microbiota of shorebird chicks: Sterile or not? Kirsten Grond*; Richard B. Lanctot; Ari M. Jumpponen; Brett K. Sanderson	Using abundance and occurrence data to evaluate avian trends from Breeding Bird Survey data in Taiwan I-Hsing Liu**; Kai-Chuan Chang; Chie-Jen Ko; Meng-Wen Fan; Ruey-Shing Lin; Pei-Fen Lee; Jo-Szu Tsai
15:00	Grassland Bird Symposium (Dinsmore et al.) - Ballroom		Break	
		Behavior (Leighton) – Regents Room	Reproductive Biology (Bonter) – Associates Room	Conservation (Hewett Ragheb) – Scholars Room
15:30	Vulnerability of shortgrass prairie birds to climate change Susan Skagen*, Victoria J. Dreitz; Reesa Yale Conrey; Amy A. Yackel Adams	Behavioral syndrome variation across rural and urban habitats in Northern Cardinals (<i>Cardinalis cardinalis</i>) Ping Huang**, Colette St. Mary; Rebecca Kimball	Kin-biased conspecific brood parasitism in a native mandarin duck population Ye Gong**	Why come back home? Investigating the factors that influence natal philopatry in migratory passerines Jenna Cava**; Noah Perlut; Steven Travis
15:45	The evolution of rangeland conservation thanks to one man's elegant figure Samuel D. Fuhlendorf*; Craig A. Davis; R. Dwayne Elmore; David M. Engle; Torre J. Hovick	Are forager responses to different types of novelty part of a behavioral syndrome? David Moldoff; David F. Westneat*	Coevolution in action: Defenses against brood parasitism in new and old hosts of the Eastern Koei Virginia Abemathy**, Naomi Langmore	Effectiveness of predator guards on nest boxes for House Wrens Megan Ahrens**, Jacqueline Augustine
16:00	Aggregation of Grasshopper Sparrow (<i>Ammodramus savannarum</i>) territories: A test of the extra pair mating and cooperative care hypotheses Sarah Winnicki*, Alice Boyle	Out on their own: Brown-headed Cowbirds and the avoidance of mis-imprinting on the host Matthew Louder**, Jeffrey Hoover; Michael Ward; Wendy Schelsky; Mark Hauber	Site-specific habitat and landscape associations of Rusty Blackbirds wintering in Louisiana Sinead Borchert**	To everything there is a season: The role of prescribed fire seasonality on nest survival and renesting potential of the endangered Florida Grasshopper Sparrow Erin Hewett Ragheb*, Karl Miller
16:15	Grasslands protection in the Great Plains of North America: Progress, future needs, and context Chris Pague; Jan Slaats; Matt Siliviera; Terri Schulz	Sociable Weavers use aggression to induce cooperative nest construction Gavin Leighton**	Bond at first sight: Examining the effects of synthetic estrogen on male zebra finch courtship behaviors and pair bond formation Madeleine Naylor*, Jennifer Grindstaff	Grasshopper Sparrows on the move: What explains variation in within-season breeding dispersal in a declining grassland songbird? Emily J. Williams**, Alice Boyle
16:30				
16:45				

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14:00	Landscape metrics and Missouri prairie birds: How real are the results? Crows	Group composition and dynamics in American Crows	Landscape characteristics of home ranges of Lesser Prairie-chickens	

*Presenter

**Student award candidate

	Melanosome shape and color diversity in palaeognathous birds Chad M. Eliason*; Liliana D'Alba; Matthew D. Shawkey; Julia Clarke	Genetic and phenotypic evidence for species-level differences between Martinique and St. Lucia populations of an Endangered mimid (<i>Ramphocinclus</i> sp.) Matthew J. Miller*, Jennifer L. Mortensen; Katherine Freeman; J. Michael Reed; Robert L. Curry	Population demographic sensitivity for the threatened Lesser Prairie-chicken Daniel Sullins*; David A. Haukos; Brett K. Sandercock	Avian species loss and persistence in Amazonian slash-and-burn mosaics Jacob Socular
14:00				
14:15		Harlan's Hawk, a subspecies of Red-tailed Hawk? Or not? William Clark	Indirect effects of power lines on Greater Sage-Grouse demographic rates are driven by Common Ravens Daniel Gibson	Impacts of specialists on mixed-species associations: Do obligate antbirds alter the structure of bird flocks army ant raids (Thamnophilidae)? Sean O'Donnell
14:30			A review of the impacts of corvids on bird productivity and abundance Arjun Amar*; Christine Madden; Beatriz Arroyo	Thirty-year dynamics of tidal flats and land reclamation in the coastal zones of Shanghai and Jiangsu, China Ying Chen
14:45			How climate influences demography through bottom-up processes in Hawaiian forest birds C. John Ralph*, Jared Wolfe	
15:00		Break – End of Concurrent Sessions		

POSTER PRESENTATIONS

(Alphabetical by first author)

67. To bond or not to bond: Impact of social structure on pair bonding in avian species

Justin Agan*; Madeleine Naylor; Ashley Love

66. Influences of community structure on behavioral plasticity across geographic regions in eastern bluebirds

Alexandra Albers*; John A. Jones; Lynn Siefferman

4. Carduelini new systematics: New groups and splits showed by mitochondrial DNA and Bayesian phylogeny

Antonio Arnaiz-Villena*; Valentin Ruiz-del-Valle; Pablo Gomez-Prieto; Cristina Areces; Diego Rey; Mercedes Enriquez-de-Salamanca; Lucian Basile; Manuel Martin-Villa; Narcisa Martinez-Quiles; Ester Muñiz

65. Effects of prescribed burning on brood parasitism and predation rates for two vireo species

Karen Bagne*; Kathryn Purcell

61. Annual survival and breeding dispersal in Scissor-tailed Flycatchers: Associations with sex and reproductive success?

Adam Becker*; Diane Landoll

12. The effects of early incubation on eggshell microbial loads in Eastern Bluebirds

Patricia Bollinger; Eric K. Bollinger*; Steven Daniel; Rusty Gonser; Elaina Tuttle

62. Local and regional patterns of breeding dispersal and habitat selection in a declining grassland bird

Alice Boyle

22. Identifying migration and wintering locations of Common Terns (*Sterna hirundo*) breeding in the Laurentian Great Lakes using light level geolocation

Annie Bracey*; David Moore; Sumner Matteson; Fred Strand; Cynthia Pekarik; Jeffrey Costa; Gerald Niemi; Francesca Cuthbert

47. Remote population estimation of a migratory aerial insectivore through the use of weather radar

Kyle Broadfoot*; Jeffrey F. Kelly

27. Comparative Transcriptomics Of Avian Migration: Gene Expression In The Brains Of Tree Swallows (*Tachycineta bicolor*) Staging For Migration

Clare E. Brown*; Frederick. H Sheldon; David W. Winkler; Joseph P. Brown; Maheshi Dassanayake

59. Nesting associations of orioles and becards in Yucatan, Mexico

Timothy Brush*; John Brush

51. House Sparrow declines in north central Florida

Jessica Burnett**; Michael Moulton

28. Nocturnal singing in diurnal birds: Finding mates and repelling intruders?

Antonio Celis-Murillo*; Michael Ward ; Roberto Sosa Lopez; Thomas Benson

1. Molecular systematics of swifts of the genus *Chaetura*

Terry Chesser*; Haley Vaseghi; Laura Bergner; Nandadevi Cortes-Rodriguez; Andreanna Welch; Charles Collins

15. Thermoregulatory use of heat increment of feeding in Northern Saw-whet Owls

Sheldon Cooper*

13. Combined effect of abrasion and bacterial degradation on feathers

Kyle Davis*; Edward Burtt

73. Aerodynamic asymmetry. Sources, costs, and (dis)advantages

Horacio de la Cueva*; Mónica Jaramillo González; Adriana Cáceres

*Presenter

**Student award candidate

- 14. Does captivity influence immune responses, stress endocrinology, and organ size in House Sparrows (*Passer domesticus*)?**
Sarah DuRant*; Ashley Love; Matthew Lovern
- 18. Is Lake Erie a coastal ecological barrier to migratory songbirds?**
David Gesicki
- 29. Adaptive significance of aberrant song in chickadees in Illinois**
Evan Glynn*; Patrick Enstrom; Eric K. Bollinger
- 42. Olive-sided flycatcher occurrence in relation to habitat in British Columbia, Canada**
Elizabeth A. Gow*; Richard Schuster; Michael Laforge; Peter Arcese
- 17. Are the large bills of Asian canopy birds an adaptation to high solar heat loading?**
Eric Gulson*; David Winkler
- 2. Phylogeography of the Velvet-browed Brilliant (*Heliodoxa xanthogonys*), a Hummingbird endemic to the Pantepui Region**
Michael Hanson*; Kristof Zyskowski
- 71. How to make an egg shine: A nanostructural basis for gloss of avian eggshells**
Mark Hauber*; Brani Igic; Daphne Fecheyr-Lippens; D Chan; Daniel Hanley; Patricia Brennan; Tomáš Grim; Geoff Waterhouse; Matt Shawkey
- 49. Assessing habitat change as a driver of psittacid population trends**
David Hille*; Donald Brightsmith; Michael A. Patten
- 41. Effects of habitat fragmentation on habitat use in an endangered grassland bird**
Emily Hjalmarson*; Don H. Wolfe; Michael A. Patten
- 36. Resolving an avian enigma; natural history and ecology of the *Sapayoaa***
Johnathan Hruska*; Sarah Dzielski; Benjamin Van Doren
- 24. Altitudinal Migration of Long-tailed Manakins (*Chiroxiphia linearis*) in an agricultural landscape in Costa Rica**
Angela Hsiung*; Richard Chandler
- 33. Modeling the current and potential future distribution of Henslow's Sparrow (*Ammodramus henslowii*) by the 2050s and 2070s**
Katrina Hucks*; Christopher J. Butler
- 60. Nesting home ranges of Scissor-tailed Flycatchers in Oklahoma: Preliminary analysis of factors affecting size**
Michael Husak*; Diane Landoll; Jessica Roy
- 69. A Taxonomy of vagrancy: Causes, mechanisms, and terminology**
Marshall Iliff
- 3. Phenotypic diversification of New World oscine passerines**
Tyler Imfeld
- 9. Analysis of parasite transmission between summer and wintering grounds in a common migratory songbird**
Kim Jackuchan
- 63. Evaluating effects of nest parasitism on postfledging *Seiurus aurocapilla* in central Missouri**
Juliana Jenkins*; John Faaborg
- 31. Determinants of reliance upon heterospecific alarm calls in a winter bird community**
Harrison Jones*; Kathryn Sieving
- 70. What is a shrubland bird?: A review of regional variation in habitat use of shrub-breeding birds in the eastern US**
Cara Joos
- 46. After a century of human population growth in a sub-tropical lowland**
Pei-Fen Lee

- 5. The role of domestication in genotypic divergence of the two subspecies of Zebra Finch (*Taeniopygia guttata*)**
Allison Lansverk*; Sonal Singhal; Simon Griffith; Molly Przeworski; Christopher Balakrishnan
- 19. Are males in a hurry? Differential migration in songbirds**
Laura Leggett; Kristen Covino; Theodore J. Zenjal*; Frank Moore
- 30. Patterns of dawn singing by Western Wood-Pewees (*Contopus sordidulus*)**
Scott Lovell*; M. Ross Lein
- 34. Review and meta-analysis of species traits as predictors of variation in range shifts under climate change**
Sarah MacLean*; Steven R. Beissinger
- 38. The influence of watershed condition on avian use of dry playa wetlands**
Willow E. A. Malone*; David A. Haukos
- 11. Feather mite and Parulid associations**
Alix Matthews**; Than Boves; Ashley Dowling
- 68. Sexual ornaments as indicators of foraging propensity in a socially monogamous seabird, the Brown Booby (*Sula leucogaster*)**
Nathan Michael*; Roxana Torres; Andreanna Welch; Daniel Thomas; Anne Wiley
- 10. Host associations of avian chewing lice (Phthiraptera: Amblycera) from South Africa**
Preston Mitchell; Oona M. Takano; Gary Voelker; Jessica E. Light
- 54. Causes and consequence of multiple breeding in Japanese tits *Parus minor* focusing on individual quality**
Daisuke Nomi*; Teru Yuta; Itsuro Koizumi
- 37. Response of grassland passerine communities to tallgrass prairie restoration with summer fire and sheep grazing**
Sarah Ogden*; David Haukos; KC Olson; Jack Lemmon
- 20. Tracking of males and females: Investigating protandry throughout the annual cycle in a small migratory songbird**
Lykke Pedersen
- 25. Movement, life history and wing shape in the pittas (Aves: Pittidae)**
Teresa Pegan*; Sophie Orzechowski; David Winkler
- 53. Historical demography of European green woodpecker: An evidence of extra-Mediterranean refugia**
Utku Perktas
- 21. Effects of geolocators on annual return rates, nestling provisioning, and reproductive success of Cerulean Warblers**
Doug Raybuck*; Than Boves; Scott Stoleson; Jeff Larkin
- 26. Post-fledging movements of Oklahoma Bald Eagles**
Dan L. Reinking*; Steve K. Sherrod; Ryan A. VanZant; Lena C. Larsson
- 52. Importance of woodpeckers and snags for secondary cavity-nesting birds in cloud forest fragments in central Veracruz**
Rafael Rueda-Hernández**; Angelina Ruiz-Sánchez; Katherine Renton
- 64. Woodpecker nest survival and densities in relation to a mountain pine beetle epidemic**
Victoria Saab; Quresh Latif*; Matthew Dresser; Jay Rotella
- 16. A balancing act: Zebra Finches may trade-off between behavioral and immunological strategies to avoid infection**
Katharina Schreier*; Jennifer Grindstaff
- 58. Testing for year-round territoriality in a tropical oriole: Quantifying territorial behavior of male and female troupials (*Icterus icterus*)**
Evangeline Shank*; Karan J. Odom; Michael Hallworth; Kevin E Omland

- 56. Assumed density dependence proved absent in Prothonotary Warblers (*Protonotaria citrea*) breeding in east central Arkansas**
Morgan Slevin**; Than Boves
- 72. Modularity in the evolution of avian plumage patterns**
Nicholas Sly*; Zachary Cheviron
- 32. Exploring temporal sound-space partitioning in bird communities emerging from inter- and intra-specific variations in behavioral plasticity using a microphone array**
Reiji Suzuki*; Richard Hedley; Martin L. Cody
- 6. Latitudinal geographical variation in sexual dimorphism in an Andean forest bird (Furnariidae: *Pseudocolaptes boissonneautii*)**
Kalli Trahan**
- 35. Flamingos and climate change: A tale of two species**
Huyen Tran
- 8. Avian haemosporidian prevalence and its relationship to host life history**
Mitchel R. Trychta**; Emma G. Jackson; John B. Selman; Michael D. Collins
- 55. The influences of human structures on occupancy dynamics of Russet Sparrow in Zengwen region, Taiwan**
Jo-Szu Tsai*; Chung-Hong Liao; Wei-Jia Wen; Ruey-Shing Lin
- 43. Population history of an insular, island species: *Aphelocoma insularis***
Madhvi Venkatraman
- 44. Survival of hen Eastern Wild Turkey in the Ouachita National Forest**
Robert Vernoccy
- 57. Territorial aspects of the Painted Bunting (*Passerina ciris*) in the Texas cross timbers**
Wesley Wiegreffe*; James Giocomo; Heather Mathewson; Allan Nelson; Philip Sudman
- 39. The importance of time when measuring habitat characteristics: Implications for avian nest survival studies**
Jennifer Wilcox*; Than Boves
- 40. Habitat use by secretive marsh birds in moist-soil managed wetlands in eastern Kansas**
Eric Wilson*; William Jensen; Richard Schultheis
- 23. Sexual differences and female reproductive status in spring migration of American Woodcocks**
Max Witynski*; David E. Willard
- 48. Saturation surveys for Lesser Prairie-Chickens in Oklahoma, USA**
Don H. Wolfe*; Lena C. Larsson; Jeremy D. Ross
- 7. Successful interspecific nesting between a Scissor-tailed Flycatcher and Western Kingbird and evidence of a unique sympatric peripheral hybrid zone**
Alexander Worm*; Than Boves
- 50. Population trends of the endangered Mariana Common Moorhen in the Northern Mariana Islands**
Lainie Zarones
- 45. Assessing changes in species composition and phylogenetic structure of Florida bird communities using historical species lists**
Zoe Zelazny*; Gordon Burleigh; Judit Ungvari-Martin

SPONSORING SOCIETIES

American Ornithologists' Union

Founded in 1883, the American Ornithologists' Union is one of the oldest organizations in the world devoted to the scientific study of birds. The AOU is the largest and most diverse ornithological society in the New World. Although primarily an organization for professional ornithologists, it welcomes to its ranks many students, conservationists, birders and others who cherish the birds of the world. The mission of the AOU is to advance the scientific understanding of birds, to enrich ornithology as a profession, and to promote a rigorous scientific basis for the conservation of birds. Its publications are the heart and soul of the AOU and are actively overseen by a committee of scientists, which ensures scientific integrity, professional management, and fiscal health.

Cooper Ornithological Society

The Cooper Ornithological Society is one of the largest ornithological societies in the world. COS has been in existence since 1893 and the name commemorates an early California naturalist, Dr. James G. Cooper. The Cooper Ornithological Society seeks to advance the scientific study of birds and their habitats through its meetings, its sponsorship of symposia and workshops, and its publications. The objectives of the COS are: to encourage and support the scientific study of birds; to disseminate ornithological knowledge through publications, meetings, and direct communication among ornithologists; to encourage and spread interest in the study of birds; and to encourage and support the conservation of birds and wildlife in general.

For more information about the societies, visit <http://www.americanornithology.org>.

AOU Professional and Service Awards

The AOU will present five awards for exceptional research and outstanding service to the society.

The William Brewster Memorial Award for an exceptional body of work on birds of the Western Hemisphere.

The Elliott Coues Award for outstanding and innovative contributions to ornithological research.

The Ralph W. Schreiber Conservation Award for extraordinary scientific contributions to the conservation, restoration, or preservation of birds and/or their habitats.

The Ned K. Johnson Young Investigator Award for work that shows distinct promise for future leadership in ornithology.

Marion Jenkinson AOU Service Award for continued extensive service to the AOU.

COS Senior Awards

The COS will present three awards for outstanding scholarship in ornithology.

The Loye and Alden Miller Research Award for lifetime achievement in ornithological research.

The Harry R. Painton Award for an outstanding paper published in the four preceding years in *The Condor: Ornithological Applications*.

The Katma Award for imparting new ideas that could change the course of thinking about the biology of birds.

These awards will be presented on Friday, 31 July, at 9:45 am, immediately following the plenary.

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