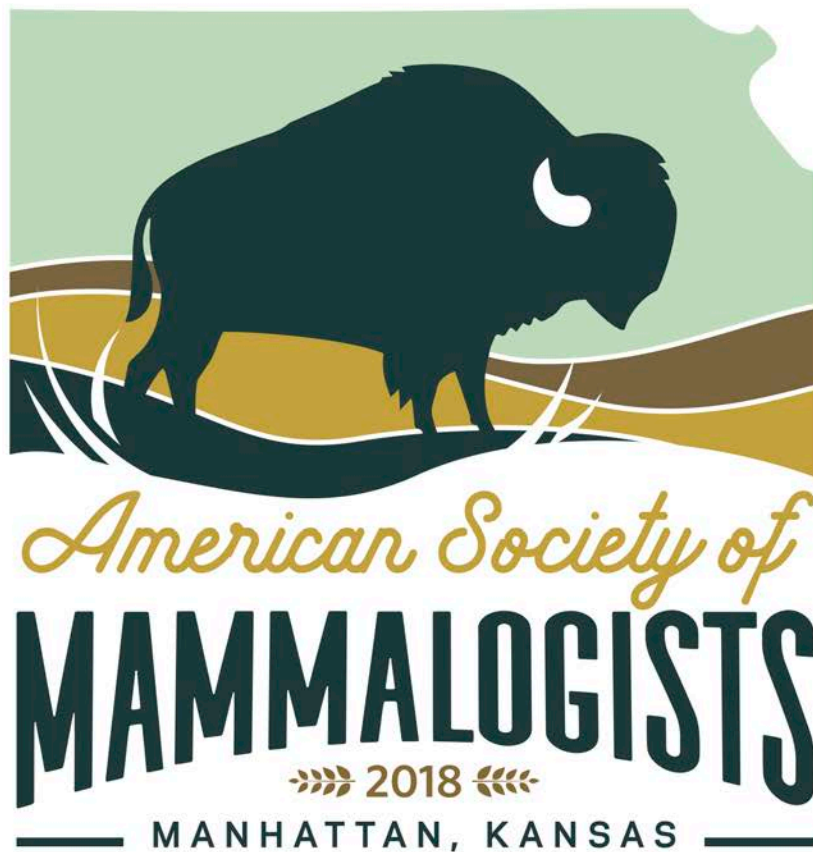


**98TH ANNUAL MEETING
OF THE
AMERICAN SOCIETY OF MAMMALOGISTS
25-29 JUNE 2018
KANSAS STATE UNIVERSITY
-MANHATTAN, KANSAS-**



PROGRAM

The 2018 American Society of Mammalogists Annual Meeting logo was designed by Haley Ahlers. It features the American bison (*Bison bison*), the national mammal of the United States of America, overlaid on the state of Kansas.

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AMERICAN SOCIETY OF MAMMALOGISTS (ASM)

The American Society of Mammalogists (ASM) was established in 1919 for the purpose of promoting interest in the study of mammals.

AN OVERVIEW

In addition to being among the most charismatic of animals, mammals are important in many disciplines from paleontology to ecology and evolution. We, of course, are mammals and thus are in the interesting position of studying ourselves in quest of a greater understanding of the role of mammals in the natural world.

The ASM is currently composed of thousands of members, many of who are professional scientists. Members of the Society have always had a strong interest in the public good, and this is reflected in their involvement in providing information for public policy, resources management, conservation, and education.

The Society hosts annual meetings and maintains several publications. The flagship publication is the *Journal of Mammalogy*, a journal produced 6 times per year that accepts submissions on all aspects of mammalogy. The ASM also publishes *Mammalian Species* (accounts of individual species) and *Special Publications* (books that pertain to specific taxa or topics), and we maintain a mammal images library that contains many exceptional photographs of mammals.

We encourage you to peruse the ASM web site for information about mammals and the American Society of Mammalogists. Check out our interesting history by clicking on the Our History tab on the Archives Committee page. We hope it will stimulate your interest in mammals and further your appreciation of their importance.

ASM LEADERSHIP

The ASM is led by a group of scientists who are elected by the membership.

ASM COMMITTEES

Much of the work that the ASM does is accomplished through a large number of volunteer committees. These committees work to further the aims of the Society and the science of mammalogy as a whole.

ASM ENDORSES HUMAN DIVERSITY

The ASM is dedicated to ensuring the opportunity for active, equal participation in all ASM functions by all members, regardless of gender, race, ethnic background, age, physical disabilities, or sexual orientation.

<http://www.mammalsociety.org/>

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WELCOME

Dear ASM Attendee,

Welcome to the 98th annual meeting of the American Society of Mammalogists!

As we return to Manhattan for our annual meeting this summer, I think back to when we last met there in 1991. The Konza Prairie and the Flint Hills provided a gorgeous backdrop for our meeting and I look forward to returning. Our Program Committee and Local Hosts have made sure that we will see the Konza site again, so old and new members alike will have an opportunity to experience this wonderful environment. Judging from registration and abstract submissions, our members are certainly eager to visit, so whether you are a long-term member or have just joined, you are sure to find talks of interest about species you know well and about those with which you just becoming familiar. Perhaps even more important, you can establish and deepen friendships with colleagues who share your interests.

A look at our program shows content covering all aspects of mammalogy. You will find contributed papers arranged in topical technical sessions; one symposium that covers the breadth of the Cenozoic era and a second on major issues in bat conservation; workshops on holistic specimen collection, biological applications for UAVs, and on new software for modelling species niches and distributions, and then we have two additional workshops geared specifically for students and early career mammalogists—one on non-academic careers for mammalogists, and a second on interviewing strategies. Our first plenary session showcases work by recipients of our student awards and the second plenary gives recipients of our senior a platform to address the membership. We have two poster sessions designed to facilitate one-on-one interactions, and we end the scientific presentation components of our meeting with a capstone presentation on carnivores across the ages.

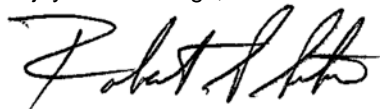
Keeping abreast of new advances in mammalogy brings us to the meeting, but I will remind attendees that ours is a working society and members have responsibilities. For example, you are responsible for important decision regarding our governance of our organization. Your vote matters so I urge you to attend our two Member's Meeting to participate in these important decision-making events. Members have an additional opportunity to participate in ASM work by joining one of our committees. These committees are active throughout the year, so if you have a particular interest in the focus of one of these, I encourage you to introduce yourself to the chair or other committee members.

Yes, the work of mammalogy is hard and appears never-ending, but all work and no play would never fly at an ASM meeting, so we have sprinkled in plenty of opportunities for socializing. These include the various socials, our picnic on the Konza Prairie, an auction, the Run for Research, a student mixer, mammal crawl, and a karaoke contest that surely will attract the attention of talent scouts from Hollywood.

I can say with absolute certainty that ours is an organization that welcomes new members and new ideas and encourages participation and interactions among all attendees. The only prerequisites are an interest in mammals and a willingness to walk up and engage individuals who share these same interests in conversation. For those of you who are new members or are attending your first meeting, please make the most of this opportunity to meet fellow mammalogists, share in the latest findings, and learn about upcoming opportunities. Indeed, for many of us, the camaraderie at these meetings makes it as much a reunion of an extended family as an opportunity to stay current on great science, so I welcome you to the reunion!

I thank you all for attending and making the ASM a priority in your lives. I especially thank our sponsors, exhibitors and advertisers, whose support is critical to so many of our annual functions. Please take some time during the breaks and socials to visit their tables and displays and let them know how much you appreciate their participation and their support.

Enjoy the meetings,



Robert Sikes
President, American Society of Mammalogists

ACKNOWLEDGEMENTS

PROGRAM COMMITTEE

Adam A. Ahlers (2018 Co-Host)

Kayce C. Bell

Brad R. Blood

Elmer J. Finck (2018 Co-Host)

John D. Hanson

Andrew Hope (2018 Co-Host)

Sharon A. Jansa

Jessica E. Light

Ryan A. Long

Jesus Maldonado (2019 Co-Host)

Verity L. Mathis

R. Neal Platt

Janet L. Rachlow

Andrew Ricketts (2018 Co-Host)

Zachary P. Roehrs

Luis A. Ruedas

James M. Ryan

Steven R. Sheffield

Winston P. Smith

Kelly A. Speer

Cody W. Thompson (Chair)

Don Wilson (2019 Co-Host)

Neal Woodman (2019 Co-Host)

KANSAS STATE UNIVERSITY CONFERENCE PLANNING SERVICES

Joshua Hilbrand & John Murray

2018 LOGO DESIGN

Haley Ahlers

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PRINCETON
UNIVERSITY
PRESS



GENERAL MEETING INFORMATION

REGISTRATION DESK

The ASM Registration Desk, located on the 2nd floor of the Student Union, will be open for registration from 7:00 am – 5:00 pm throughout the entirety of the meeting.

PARKING INFORMATION

Permits are required to park on Kansas State University campus from 7 a.m.-5 p.m. Monday through Friday, except for resident hall lots which are patrolled 24 hours and metered lots. Visitor permits can be purchased for five dollars a day or twenty dollars a week. Visitor permits may be obtained from the Information Kiosk on 17th Street adjacent to the garage from 7:30 am - 4:30 pm M-F, from the Parking Services Office at 1 KSU Parking Garage at the corner of 17th and Anderson from 7:30 am to 5 pm M-F, and are available 24/7 from the KSU Police Dispatch located in Edwards Hall. They can also be purchased online and printed out by clicking on **K-State Online Parking** (<https://ksu.t2hosted.com/>). Participants with a permit may park in general lots designated by letters D, GM, J, O, R, T, W and Z, excluding reserved and other restricted stalls. Contact Parking Services (785-532-7275 or <http://www.k-state.edu/parking>) for additional information.

MEETING ROOM INFORMATION

Auction & Social — Student Union, Grand Ballroom
Board of Directors Meeting I — Alumni Center, Boardroom
Board of Directors Meeting II — Student Union, Room 227
Capstone — Student Union, Forum Hall
Closing Social & Awards Ceremony — Alumni Center
Committee Meetings — Student Union (rooms – 202, 203, 204, 205, 207, and 208)
Exhibit Area — Student Union, Grand Ballroom
Field Trip I — Tuttle Creek Reservoir (meet 30 minutes before at registration desk)
Field Trip II — Konza Prairie Biological Station (meet 30 minutes before outside Student Union, 17th Street Circle)
Mammal Crawl – Aggieville
Meeting Social & Karaoke Contest – 1115 Event Space (1115 Moro Street)
Members Meetings — Student Union, Forum Hall
Officers & Plenary I Speakers Lunch — Student Union, Union Station
Opening Social — Flint Hills Discovery Center (shuttles will leave from Student Union, 17th Street Circle)
Picnic — Konza Prairie Biological Station (buses will leave from Student Union, 17th Street Circle)
Plenary I — Student Union, Forum Hall
Plenary II — Student Union, Forum Hall
Poster Session I — Student Union, Grand Ballroom
Poster Session II & Social – Student Union, Grand Ballroom
Refreshment Breaks — Student Union, Grand Ballroom
Registration — Student Union, 2nd Floor
Run for Research — Kansas State University campus
Student Mixer — 1115 Event Space (1115 Moro Street)
Symposia — Student Union, Forum Hall
Technical Sessions — Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)
Thematic Sessions — Student Union, Flint Hills Room
Wildlife Acoustics Lunch & Learn Workshop — Student Union, Room 227
Workshop I — Konza Prairie Biological Station (meet 30 minutes before at registration desk)
Workshop II — Trotter Hall, Room 204
Workshop III — Student Union, Bluemont Room
Workshop IV — Student Union, Bluemont Room
Workshop V — Student Union, Bluemont Room

INTERNET ACCESS

Internet access is free to all ASM participants at Kansas State University. To access the complimentary WiFi, select “KSU Guest” on your device. There is no password required.

BUSINESS CENTER

University Printing, located in the Student Union on the ground floor, is your on-campus partner to meet all of your printing needs. Their high-speed color and black-and-white digital printers are capable of scanning, copying and printing documents faster than normal office photocopiers. You get competitive prices, quick turn-around and guidance on how to make your project the best that it can be.

MESSAGES & JOB ANNOUNCEMENTS

Message boards are located near the Registration Desk on the 2nd Floor of the Student Union. Participants may post messages or job announcements for friends and colleagues.

FOOD & BEVERAGE

Morning and afternoon refreshment breaks will be served in the Student Union Grand Ballroom. Breakfast and lunch is on your own each day. There are a number of restaurants, from casual to fine dining, on-site or nearby. In addition, breakfast and lunch will be served at the Union Station in the Student Union. Dorm room patrons can use their meal plans at Kramer Dining Center. A list of local restaurants is on page 15.

Host and/or cash bars will be available during:

- Opening Social, 7:00 – 10:00 pm, Monday, June 25th
- Student Social, 7:00 – 8:30 pm, Tuesday, June 26th
- Karaoke Contest & Fundraiser, 8:30 – 11:00 pm, Tuesday, June 26th
- Picnic, 6:30 – 9:30 pm, Wednesday, June 27th
- Poster Session II & Social, 7:00 – 9:00 pm, Thursday, June 28th
- Auction & Social, 9:00 – 11:00 pm, Thursday, June 28th
- Closing Social & Awards Ceremony, 6:00 – 9:00 pm, Friday, June 29th

NAME BADGE COLOR SCHEME

Award Recipient – White
Board of Directors – Emerald Green
Committee Chair – Royal Blue
Editor – Turquoise
Honorary Member – Emerald Green
Membership Committee – Lavender
Mentor – Red
Past President – Black
President – Emerald Green
President-Elect – Emerald Green
Program Committee – Red
Recording Secretary – Emerald Green
Secretary Treasurer – Emerald Green
Sponsors – Turquoise
Trustee – Emerald Green
Vice President – Emerald Green

20TH ANNUAL GORDON L. KIRKLAND GRAND RUN/WALK FOR RESEARCH

Date and Race Start Time—Wednesday, June 27th, 6:00 am

Start Location—Meet at the intersection of Claflin Road and Mid-Campus Drive

Race Course—The route makes a clockwise loop around campus heading east from the starting location to North Manhattan Avenue, and then south to Petticoat Lane. The route then goes west through campus to North 17th Street and back east on Claflin Avenue. Twice around the loop is 5K. The 2K walk will start and end at the same location. See map on the meeting website for details.

Sign-up—Register on-line or during Registration hours at the Registration Desk on the 2nd floor of the Student Union.

Entry Fee—\$20 (no t-shirt); \$35 (includes tech t-shirt). **All proceeds go to the ASM Future Mammalogists Fund!!!**

OFFICE OF THE OMBUDSPERSON

The Office of the Ombudsperson (Drs. Enrique Lessa and Jessica Light) are available if any meeting participants have concerns about professional conduct. We direct participants to the Ombudsperson webpages (<http://www.mammalogy.org/committees/office-ombudsperson#tab1>) to read about ASMs Statement of Inclusion, Professional Conduct, and Course of Action for Potential Misconduct. Please contact Enrique in person or by email (enrique.lessa@gmail.com) or Jessica by email (jlight2@tamu.edu) during the meeting if assistance is needed.

PRESENTATION INFORMATION

ORAL PRESENTERS

Equipment—The computers provided in the session rooms will be Windows based PCs (Windows 7) with Microsoft Office 2010. Your presentation must be created in, or converted to, Microsoft's PowerPoint (.ppt or .pptx) format or Adobe PDF (.pdf) format. PowerPoint files created on Macintosh computers should be previewed on a PC to ensure cross-platform compatibility. Laser pointers will be available.

Length & Format—Oral presentations will be allotted 12 minutes for the talk and 3 minutes for questions. If you use the provided computers, your presentation must be created in, or converted to, Microsoft's PowerPoint (.ppt or .pptx) format or Adobe PDF (.pdf) format. PowerPoint files created on Macintosh computers should be previewed on a PC to ensure cross-platform compatibility. Please bring your presentation either on a USB Flash "thumb" drive or on your computer to the assigned session at least 15 minutes prior to the start time of the session.

Moderators—Session moderators will be designated to facilitate each session. The names of the moderators are noted in the session schedule. The session moderator will provide technical assistance with displaying your presentation.

POSTER PRESENTERS

Poster session dates and times are as follows:

Poster Session I: Tuesday, June 26th, 1:00-3:00 pm

Poster Session II & Social: Thursday, June 28th, 7:00-9:00 pm

At least one author must be present during the entire poster session time period.

Poster Size—Maximum poster size is 36 inches high x 48 inches wide in landscape format (86.36 x 121.92 cm). Pushpins and display boards will be provided.

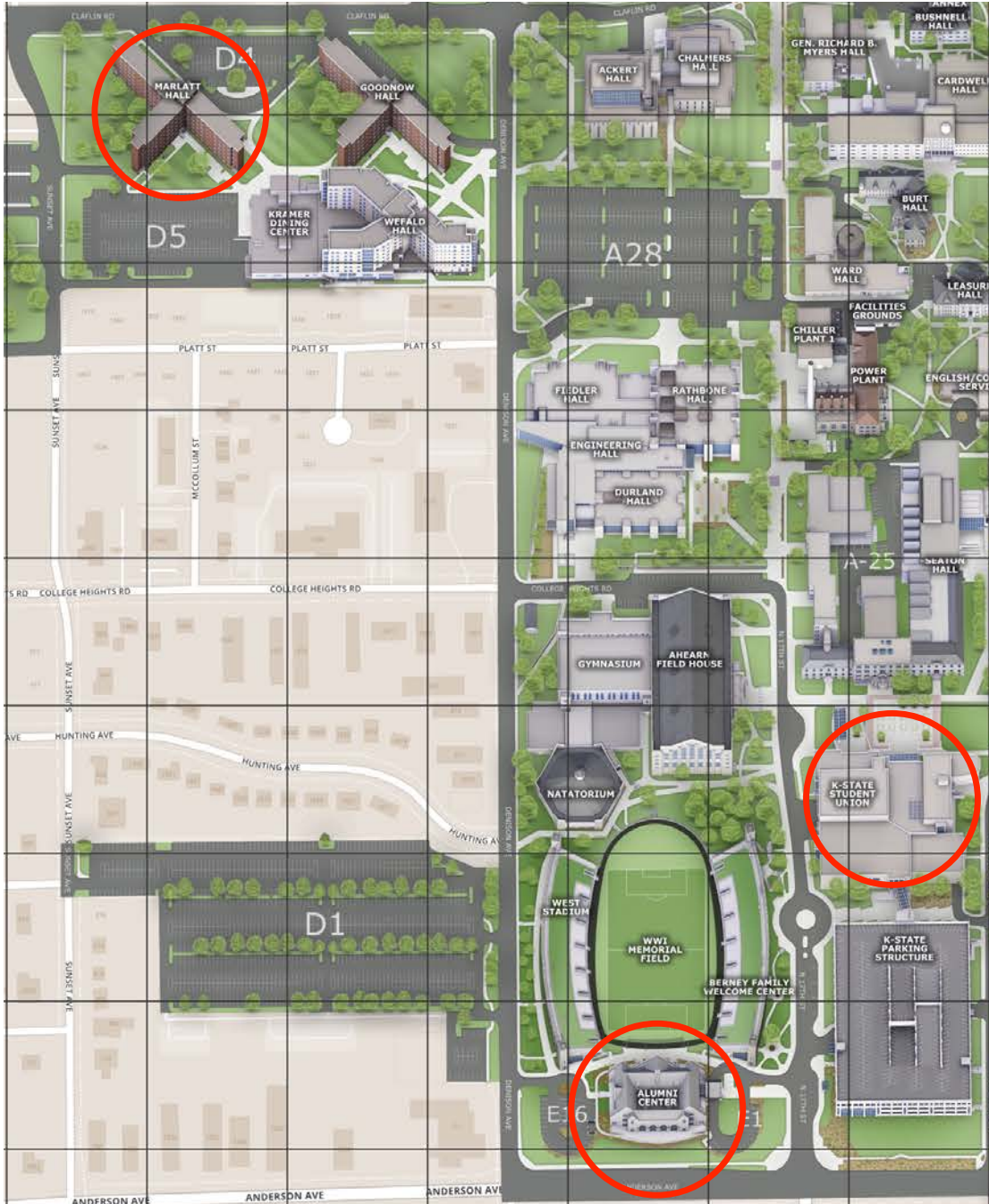
Poster Board Assignments—All poster boards will be numbered. Because some posters are being evaluated, please make sure that you place your poster in the correct location.

Poster Board Set-up and Take-down—All posters should be displayed beginning at 12:00 pm on Tuesday, June 26th and removed by 10:00 pm following the Auction & Social on June 28th. If your poster is not removed or claimed by the end of Auction, it will be discarded.

CONFERENCE VENUE & MAPS

Kansas State University is recognized as the nation's first operational land-grant university. K-State is beautifully positioned in the far northern portion of The Flint Hills, which is one of North America's last substantial areas of tallgrass prairie, and one of the world's most endangered ecosystems. Accessible just off of Interstate 70, Manhattan is easily driveable from any location in the lower 48 states of the US. Manhattan is also accessible via three airports and Amtrak train service. Manhattan Regional Airport is less than a 10-minute drive from campus, and both Kansas City International and the Dwight D. Eisenhower National Airport in Wichita are both two hours away. An interactive campus map can be found at the following website (<https://www.k-state.edu/maps/>).

DETAILED CAMPUS MAP WITH AVAILABLE PARKING LOTS



LOCAL RESTAURANTS & BREWERIES

There is a diverse array of restaurants and breweries that are on and around the Kansas State University campus and Manhattan. Here are a few suggestions.

LOCAL RESTAURANTS

AJ's Pizzeria	Popeyes Louisiana Kitchen
Bluestem Bistro	Rock-A-Belly Deli
Buffalo Wild Wings	So Long Saloon
Coco Bolos	Taco Lucha
McAlister's Deli	Tanner's Bar & Grill
Noodles & Company	Wahoo Fire & Grill
Pepper Jax Grill	Wingstop
Pie Five Pizza Co.	

BARS AND BREWERIES

Aggie Lounge	dellaVoce
Auntie Mae's Parlor	Little Apple Brewing Co.
Bluemont Lounge	Tallgrass Taphouse
Bourbon & Baker	

COFFEE SHOPS

Panera Bread	Starbucks
Radina's Coffeehouse	

VENDOR SHOW

Exhibitors are located on the during the following hours:

Tuesday, June 26th	8:00 am – 5:00 pm
Wednesday, June 27th	8:00 am – 5:00 pm
Thursday, June 28th	8:00 am – 5:00 pm, 7:00 – 9:00 pm (optional)
Friday, June 29th	8:00 am – 12:00 pm

EXHIBITORS

Advanced Telemetry Systems provides researchers and managers in ecology and biology with animal tracking and monitoring products of the highest quality and reliability.

Canadian Science Publishing is an independent, not-for-profit scholarly publisher dedicated to serving the needs of researchers and their communities

Delta Designs Ltd. specializes in the design and professional manufacture of quality museum storage equipment.

Fort Hays State University is the fastest growing of the Kansas Board of Regents universities. It is located in Hays, Kansas, and is a state, tax-assisted institution.

The Johns Hopkins University Press publishes books, journals, and online collections for students, professionals, and general readers.

Kansas State University is the nation's first operational land-grant university and is committed to serving the state's 2.9 million residents.

Lane Science Equipment Corp. are specialists in specimen cabinets that preserve and conserve your valuable natural history collections.

Oxford University Press is the world's largest university press with the widest global presence.

RTLGenomics (A Division of Research and Testing Laboratory) offers services in the evaluation of microbial diversity, sequencing, bioinformatics, and biostatistics.

Skulls Unlimited International provides natural bone osteological specimens, as well as the finest replica specimens to the educational, medical, and research communities.

Titely Scientific specializes in the design and manufacture of wildlife tracking and bat acoustic monitoring equipment to researchers across the world.

Wildlife Acoustics is the leading provider of bioacoustics monitoring technology for scientists, researchers, and government agencies all over the world.

LITERATURE ONLY

All Packaging Company provides custom rigid set-up boxes, slipcases, retail packaging, custom corrugated packaging, stock boxes, and packaging supplies.

Bone Clones, Inc. produces skulls and skeletons that are "virtually indistinguishable from the original"TM.

Fastec Imaging Corporation is dedicated to designing and manufacturing high-speed digital imaging solutions that are powerful, robust, and cost effective.

Forestry Suppliers carries thousands of quality products for the forestry, environmental science, surveying/engineering, horticulture, grounds maintenance, educational professionals and more.

H.B. Sherman Sherman Traps, Inc. has been the worldwide standard in live-animal traps since 1955.

Princeton University Press is an independent publisher with close connections to Princeton University.

Tomahawk Live Trap offers hundreds of animal and pest control products used by professionals.

BOARD OF DIRECTORS, MEMBERS, AND COMMITTEE MEETINGS

-All meetings will occur in the Student Union unless otherwise noted-

MONDAY, JUNE 25TH

8:00 am – 5:00 pm Board of Directors Meeting I – Alumni Center, Tadtman Board Room
(refreshments & lunch provided)

TUESDAY, JUNE 26TH

11:30 – 12:30 pm Conservation Committee – Room 208
11:30 – 12:30 pm Informatics Committee – Room 204
11:30 – 12:30 pm Mammal Images Library – Room 202
11:30 – 12:30 pm Public Education Committee – Room 203
11:30 – 12:30 pm Systematic Collections Committee – Room 207
12:00 – 1:00 pm International Relations Committee – Room 205
1:00 – 3:00 pm Publications Advisory Board – Room 207
3:30 – 5:00 pm Members Meeting I – Forum Hall

WEDNESDAY, JUNE 27TH

10:30 am – 12:15 pm Members Meeting II – Forum Hall
11:00 am – 12:00 pm 100th Anniversary Publication – Room 203
12:30 pm – 1:30 pm Membership Committee – Room 203
12:30 – 2:00 pm Grants-in-Aid Committee – Room 208
1:00 – 2:00 pm Education & Graduate Students Committee – Room 204
1:00 – 2:00 pm Honoraria & Travel Awards Committee – Room 205
1:30 – 2:30 pm Mammal Biodiversity Committee – Room 203
1:30 – 3:30 pm Publications Advisory Board – Room 207
3:30 – 5:00 pm Development Committee – Room 202

THURSDAY, JUNE 28TH

11:00 am – 12:00 pm African Graduate Student Research Fund – Room 203
12:00 – 1:30 pm Board of Directors Meeting II – Student Union, Room 227 (lunch not provided)
12:00 – 1:30 pm Program Committee – Room 204
1:00 – 2:00 pm Animal Care & Use Committee – Room 207
2:30 – 3:30 pm Nomenclature Committee – Room 202
3:30 – 5:00 pm Jackson Award Committee – Room 203

COMMITTEE MEETINGS NOT SCHEDULED

Archives Committee
Conservation Awards Committee
Coordination Committee
Grinnell Award Committee
Honorary Membership Committee
Human Diversity Committee
Latin American Fellowship Committee
Legislation & Regulations Committee
Marine Mammals Committee
Merriam Award Committee
Office of Ombudsperson
Planning & Finance Committee
Resolutions Committee
Student Science Policy Award Committee

MEETING FIELD TRIPS

Field Trip I: Flint Hills Fossil Hunt

Field Trip Leader: Mark Everhart

Monday, June 25th, 8:00 am – 12:00 pm – Tuttle Creek Reservoir

Group Meeting Location: Meet 30 minutes before at Registration Desk (Student Union, 2nd Floor)

Come explore the ancient ocean sea bottom that underlies the scenic Flint Hills of Kansas. Local paleontologist and author of “Oceans of Kansas” Mike Everhart (<http://oceansofkansas.com/>) will lead participants through the Tuttle Creek Reservoir spillway and other local exposures of rocks from the Permian Period that were laid down under an ancient ocean more than a quarter billion years ago. Organizer: Elmer J. Finck.

Field Trip II: Konza Bison Tour (Post-Meeting)

Field Trip Leaders: Don & Glennis Kaufman

Saturday, June 30th, 8:00 am – 12:00 pm – Konza Prairie Biological Station

Group Meeting Location: Meet 30 minutes before at Student Union, 17th Street Circle

The Konza Prairie Biological Station (<http://kpbs.konza.k-state.edu/>) has been home to an active mammalogy program for several decades. Much of the research has been through the efforts of long-time ASM members Don (<https://www.k-state.edu/biology/people/tenure/kaufman/>) and Glennis Kaufman (<http://lter.konza.ksu.edu/people/dr-glennis-kaufman>). Through their research and that of other biologists, the Konza Prairie has been a critical component in the development of our understanding of the tallgrass prairie ecosystem. Don will provide a firsthand experience with the Konza Prairie and one of its most well-known residents, the American bison, as well as an overview of the mammals of this prairie. Organizer: Elmer J. Finck.

WORKSHOPS

Workshop I: Biological Applications with Unmanned Aerial Vehicles

Instructors: Travis Balthazor & Kurt Carraway

Monday, June 25th, 8:00 am – 5:00 pm — Konza Prairie Biological Station

Group Meeting Location: Meet 30 minutes before at Registration Desk (Student Union, 2nd Floor)

Unmanned Aircraft Systems (UAS) are one of the most talked about new technologies of the 21st century. Recent advances in UAS technology have enabled us to utilize UAS to gather and analyze data in a way that was previously not possible or too expensive. From agriculture to package delivery; pipeline inspection to search and rescue, UAS has been pushing the boundaries of technology and what we know to be possible. UAS technology has had a tremendous expansion over the last decade and has found many setbacks in regulatory constraints and technological limits. Federal regulations now permit the commercial use of UAS and research for the next implantation to expand UAS regulations is underway. With the UAS industry booming, it is continually growing and expanding our horizons on what this technology can do for us in the future. Organizer: Drew Ricketts.

Workshop II: Holistic Specimen Collection: Small Mammal Parasite Sampling, Preservation, and Identification

Instructors: Ralph Eckerlin, Kurt Galbreath, Stephen Greiman, Andrew Hope, and Agustin Jimenez

Monday, June 25th, 8:00 am – 5:00 pm — Trotter Hall, Room 204

Wild mammals support a high diversity of associated parasites and pathogens that are beginning to reveal, through integrated cross-disciplinary research, the inherent complexity of ecological and evolutionary dynamics within inter-related communities. Modern field collecting of mammals includes a variety of techniques for extracting samples that may provide more holistic perspectives of associated biodiversity. This workshop will summarize major area of mammal-parasite research, provide hands-on experience with field sampling protocols, and train participants in proper long-term preservation of parasites and in identification methods for major parasite groups. Participants will be taught methods that have been refined by mammalogists and parasitologists to maximize efficiency in the field and to ensure

curation of high-quality specimens and associated data. This workshop on integrated biodiversity sampling should be of interest to many ASM attendees and provide useful training that can be immediately incorporated into active research programs. The workshop is designed to take place over the course of a full day (8 hours) so that it can address the topic of parasites of wild mammals with sufficient detail to give participants a solid foundation in the methods that will be taught. The workshop instructors have broad experience in field and laboratory parasitology and experience teaching the value of a holistic host-parasite perspective for increasing the impact of eco-evolutionary research. Organizers: Kurt Galbreath and Andrew Hope.

Workshop III: Non-Academic Careers for Mammalogists

*Instructors: Brad Blood, Daniel Greene, John Hanson, and Ann Johnston
Monday, June 25th, 1:00 – 5:00 pm — Student Union, Bluemont Room*

The purpose of the workshop is to provide ASM graduate and undergraduate students with an understanding of career opportunities outside of academics. With limited academic positions available, many students in mammalogy finish their degrees and then leave mammalogy and the ASM. Many opportunities exist outside of academics where students in mammalogy can continue in the field of biology and mammalogy and put the skills they have learned to good use. The positive to this is hopefully they will then remain as contributing members to ASM. Organizers: Brad Blood and John Hanson.

Workshop IV: Professional Interview Strategies – Crafting Your Message

*Instructors: Brad Blood, John Koprowski, Susan Loeb, and Karen Munroe
Tuesday, June 26th, 5:00 – 7:00 pm — Student Union, Bluemont Room*

This workshop will provide attendees an overview of different types of interview processes, what to expect, what search committees are looking for, and what attributes make a candidate stand out both in person and on applications and cover letters. The workshop will also address how to prepare for the various presentations and seminars an interviewee may be asked to give, what works, and what doesn't. Our aim is to make the workshop useful to undergraduate, M.S., and Ph.D. students as well as post-docs. We envision that topics such as search committees and potential hires will be of interest to students and early career professionals alike. The workshop will end with a round-table, informal question and answer session where attendees will be able to ask about specific details of interest to them or applicable to their particular job searches. Our four confirmed speakers bring different perspectives to the table – from a seasoned interviewee and participant in many faculty search committees, a mid-career professor at a Primarily Undergraduate Institution (that landed her first tenure-track position after enduring the grueling application and interview process and has now hired over a dozen candidates), and a USDA Forest Service Research Ecologist operating in an academic setting, and a Wildlife Biologist with years of experience working in the realm of private ecological/environmental consulting firms. This workshop complements the workshop on non-academic jobs organized by Brad Blood and John Hanson. Organizers: Melissa Merrick and Karen Munroe.

Workshop V: Wallace: A New Modular GUI Software for Modeling Species Niches and Distributions

*Instructors: Jamie M. Kass, Gonzalo E. Pinilla-Buitrago, and Robert P. Anderson
Thursday, June 28th, 12:00 – 1:30 pm — Student Union, Bluemont Room*

This workshop will introduce attendees to *Wallace*, a new modular software for modeling species niches and distributions. Currently, many analyses in ecology are implemented with: (1) “black box” graphical user interfaces that lack flexibility; or (2) via command-line interfaces that are infrequently used by non-specialists. *Wallace* helps remedy this situation. It is an open-source modular application with a richly documented graphical user interface to underlying R scripts that is flexible and highly interactive. *Wallace* guides users from acquiring and processing data to building models and examining predictions. Additionally, it is designed to grow via community contributions to new modules to expand functionality. All results are downloadable, along with code to reproduce the analysis. *Wallace* builds upon the long tradition of biodiversity informatics fostered by ASM, providing an example of an innovative platform to increase access to cutting-edge methods and encourage plurality in science and collaboration in software

development. In this workshop, instructors will present the overview and qualities of *Wallace*, followed by the run-through of an analysis using the software. Participants will not conduct analyses on their own during the workshop, but rather will leave oriented and aware of the software and associated resources (CRAN package, Github repository, software note, webpage, google users group, *Wallace* email, and forthcoming vignette). Organizers: Jamie M. Kass and Robert P. Anderson.

SYMPOSIA

Symposium I: Mammals Across the Ages

Presenters: Jessica Blois, Greg McDonald, Cory Redman, Stephanie Smith, and Mark Uhen
Thursday, June 28th, 10:00 am – 12:00 pm — Student Union, Forum Hall

The Cenozoic is the “Age of Mammals”, made possible by the opening of niches following the sudden mass extinction of Mesozoic reptiles. From that pivotal moment in earth’s history, mammals diversified across land, sky, and sea. In this symposium, we explore the evolution and ecology of mammals throughout their fossil history. The full scope of research on mammals extends over broad geologic time scales. And, paleontological perspectives have been critical in informing current and future study on the conservation and evolution of mammal species. Organizers: Melissa Pardi and Felisa Smith.

Symposium II: Critical Issues in Bat Conservation

Presenters: Erin Baerwald, Tina Cheng, Yvonne Dzal, Cris Hein, Susan Loeb, and Rodrigo Medellin
Friday, June 23rd, 10:00 am – 12:00 pm — Student Union, Forum Hall

Over the last decade, bats across North America have seen unprecedented mass mortality events and population declines (O’Shea et al. 2016). Species that overwinter in cave hibernacula have been ravaged by White Nose Syndrome (WNS), a disease caused by fungal pathogen (*Pseudogymnoascus destructans*) discovered in upstate NY in 2006. Since its discovery, WNS has killed several million bats, leading to the endangerment of multiple formerly common species (Frick et al. 2016). Tree-roosting species that seasonally migrate long-distances do not appear to be affected by WNS, but instead are frequently killed by wind-energy generating turbines. An estimated 0.84 and 1.7 million bats have been killed at wind turbines in the U.S. and Canada from 2000-2011, and this number increases by over 500,000 fatalities annually due to increased wind energy production. Some 78% of wind energy fatalities are of 3 species of migratory tree-roosting bats (Arnett and Baerwald 2013). These threats are especially concerning given the slow life-histories of bats, the limited ability of populations to respond to declines, and the many important ecosystem services provided by bats. Organizers: Erin Baerwald and Joe Cook.

UNDERGRADUATE HONORARIA AWARD RECIPIENTS

Connor J. Burgin, Undergraduate Honoraria Award

The continued increase in our knowledge of mammalian biodiversity
Thursday, June 28th, 8:45 – 9:00 am – Student Union, Cottonwood Room

The recipient of the 2018 Undergraduate Honoraria Award is Connor R. Burgin. Connor is completing his Bachelor’s degree in Biology at Boise State University and is currently working in a Community Ecology Lab focusing on Bioacoustics at BSU. His main focus however is on the systematics of the world’s mammals and he is currently working under Nathan Upham with Jocelyn Colella to keep track of mammalian diversity and systematic changes by examining publications and compiling data. Through this research, their ultimate goal is to close the gap between taxonomic changes and when they are implemented in the scientific community, as well as to analyze mammalian diversity in a modern and updatable way using their recently created database, the Mammal Diversity Database. He plans on starting his Masters degree in a year and continuing into a Ph.D. program pursuing the systematics, biogeography, and evolution of various mammals, particularly those that have not been well documented.

Sydney R. Stephens, Undergraduate Honoraria Award

*Chiseling away dogmas of saltbush specialization and investigating local diet shifts in *Dipodomys microps**
Friday, June 29th, 2:00 – 2:15 pm – Student Union, Bluemont Room

The recipient of the 2018 Undergraduate Honoraria Award is Sydney R. Stephens. Sydney is an undergraduate at the University of Utah. She studies wildlife biology as part of the Bachelor of Undergraduate Studies program which allows for a custom-designed degree to best fit her goals of mitigating human-wildlife conflict through research involving ecology, behavior, and philosophy/communication of science. She conducts research in two different ecologically-focused labs. In Denise Dearing's lab she studies specialization and temporal diet shifts of the chisel-toothed kangaroo rat in relation to environmental change. She will be giving an oral presentation on this research at this year's American Society of Mammalogists (ASM) meeting. Additionally, in the lab of Çağan Şekercioğlu she investigates the diet, range and distribution of American black bears near Moab, Utah as they expand their range from neighboring populations. Both of these projects are accomplished through stable isotope analysis of hair. The black bear project is supplemented by the use of camera traps and collaboration with Division of Wildlife Resources efforts in GPS collaring of individual bears. Preliminary results from this ongoing project will be presented at the 2018 ASM poster session. Currently, Sydney is writing up her work in the Dearing lab and continuing her field work through the Şekercioğlu lab in southeastern Utah. Additionally, she volunteers with an India-based nonprofit, Wildlife SOS, on GIS-focused Asian elephant and sloth bear projects that aid in alleviating issues that arise in their proximity to local farms and villages. Following graduation in December 2018, she intends to take a year off to volunteer and work with rehabilitation and research efforts on large mammals and to conduct outreach with underdeveloped international communities. She is currently seeking such opportunities for 2019. She hopes to refine her approach to research by gaining more field and outreach experience before applying to PhD programs mammalian behavior and conservation ecology.

PLENARY I SPEAKERS

Emily M. Beasley, Annie M. Alexander Award

Applying island biogeography to small mammals in the Ozark glades while accounting for imperfect detection

Tuesday, June 26th, 8:15 – 8:35 am — Student Union, Forum Hall

The 2018 recipient of the Annie M. Alexander Award is Emily Beasley. Emily grew up in the suburbs of Kansas City, where a mild obsession with *The Lord of the Rings* soon grew into a deep appreciation for nature and maps. After completing her B.S. at Missouri State University, Emily started her Master's at the same institution, combining her childhood interests in her biogeography-oriented thesis. Throughout the course of her undergraduate and graduate programs she also developed an interest in applying novel analytical tools to questions in the fields of community and disease ecology. Emily will start her Ph.D. research in Dr. Nick Gotelli's lab at the University of Vermont in August 2018, where she will focus on small mammal community ecology, host-ectoparasite interactions, and infectious disease modeling.

Erin R. Siracusa, Anna M. Jackson Award

Does the social environment matter to solitary animals? Fitness benefits of familiarity in red squirrels

Tuesday, June 26th, 8:35 – 8:55 am — Student Union, Forum Hall

The 2018 recipient of the Anna M. Jackson Award is Erin Siracusa. Erin is a behavioral ecologist, particularly interested in how the social environment shapes individual changes in behaviour and fitness as well as the collective outcomes of groups. She is currently finishing her PhD in Integrative Biology at the University of Guelph where she works with Dr. Andrew McAdam. Her research uses red squirrels as a model system and combines long-term data analysis, behavioral observations, and field experiments to investigate the importance of the social environment for behavior and fitness in a solitary, territorial species. Erin's research is part of the Kluane Red Squirrel Project, a long-term collaborative research initiative located in the southwest Yukon. Erin has always been a mammalogist at heart. Before working with squirrels, she wrangled porcupines with Dr. Erika Barthelmess at St. Lawrence University. When not chasing furry critters around the forest, you can almost always find her hiking or enjoying a good book.

Casey C. Day, A. Brazier Howell Award

Individual based modeling of an endangered carnivore can be simultaneously pragmatic and paradigmatic

Tuesday, June 26th, 8:55 – 9:15 am — Student Union, Forum Hall

The 2018 recipient of the A. Brazier Howell Award is Casey Day. Casey is currently finishing his PhD in the Department of Forestry and Natural Resources at Purdue University under advisor Patrick Zollner. His dissertation research utilizes individual-based modeling and population genetics to answer questions about movement ecology and functional landscape connectivity for reintroduced populations of American martens in Wisconsin. More broadly, Casey is interested in combining traditional field techniques with simulation modeling to answer questions about animal behavior and conservation. He finds simulating stimulating because simulation models provide a forum for the experimental testing of alternate mechanisms of landscape processes and animal behaviors that are difficult or impossible to reproduce in the field. In the near term, Casey is moving from working on mammals to working on their prey, as he is starting a postdoc at the University of Montana on the genetics and movement ecology of trout in the Pacific Northwest. He is confident that he can develop a mammalian predator component in his new modeling paradigm.

Jesyka Meléndez-Rosa, Elmer C. Birney Award

Immunogenetics of mating behavior in Peromyscus: a genomic approach

Tuesday, June 26th, 9:15 – 9:35 am — Student Union, Forum Hall

The 2018 recipient of the Elmer C. Birney Award is Jesyka Meléndez-Rosa. Jesyka is currently finishing her Ph.D. in Integrative Biology at the University of California Berkeley, where she is advised by Dr. Eileen A. Lacey. She is broadly interested in animal behavior, particularly in the fields of mate choice and mating systems. Her dissertation work used emerging genomic techniques to study the immunogenetics of mating behavior in wild deer mice with different mating systems (monogamy vs. polygyny). She completed her undergraduate degree at the University of Puerto Rico and is excited to return to her alma mater as an NSF Post-doctoral fellow in the Fall of 2018. At the University of Puerto Rico, she will be working with Dr. Riccardo Papa on Heliconius butterfly chemosensory recognition and mate choice as well as organizing a science outreach program for K-12 students.

Roberto Salom-Pérez, William T. Hornaday Award

Jaguar Corridor Initiative: a collaborative wide-ranging conservation strategy

Tuesday, June 26th, 10:00 – 10:30 am — Student Union, Forum Hall

The American Society of Mammalogists Conservation Awards Committee selected Roberto Salom-Pérez for the 2017 William T. Hornaday Award from the American Society of Mammalogists. Roberto is a Costa Rican biologist who has over 11 years of experience working on mammal research and conservation, with an emphasis on jaguars. His Master's thesis work, completed in 2003, included the first jaguar and ocelot density estimates in Costa Rica using camera traps. After his MSC, Roberto went on to work with Wildlife Conservation Society and then the worldwide wildcat conservation organization Panthera, as Costa Rican Director and Mesoamerica Coordinator. Currently, Roberto is working on his PhD in a Joint Doctoral Program between University of Idaho and CATIE University in Costa Rica. Those who wrote letters in support of Roberto's nomination spoke highly of his work ethic and dedication to working with others to implement policy. Roberto's work helped build a strong basis for the Jaguar Corridor Initiative and was fundamental for the signing in 2012 of a Memorandum of Understanding between the Ministry of Environment and Energy of Costa Rica and Panthera for the conservation of jaguars. He later collaborated on developing similar agreements with the governments of Panama and Nicaragua.

Brett R. Jesmer, Albert R. & Alma Shadle Fellowship Award

Microbiome composition and social learning as pathways to dietary specialization in moose

Tuesday, June 26th, 10:30 – 11:00 am — Student Union, Forum Hall

The 2017 recipient of the Albert R. and Alma Shadle award is Brett Jesmer of University of Wyoming. Mr. Jesmer has received a NSF Doctoral Dissertation Improvement Grant, a NASA Space Grant Fellowship, and was the recipient of the ASM Elmer C. Birney Award and the Alces Society's Al Franzmann and Distinguished Colleagues Award. He also has received numerous grants from state and federal agencies to support of his research. Mr. Jesmer has been published in journals such as Ecological Applications, Journal of Mammalogy, and Frontiers in

Genetics. He is an active member of ASM, serving on the Animal Institutional Care and Use Committee, and presented at the ASM conference each of the past four years. Mr. Jesmer's dissertation research focusses on understanding how large mammalian herbivores, such as moose, deer, and bighorn sheep, behaviorally and physiologically cope with food limitations. By synthesizing several ecological sub disciplines and methodological approaches he strives to not only increase understanding of mammalian systems, but to also provide practitioners with new tools and approaches for management and conservation. Mr. Jesmer plans to use funds from the Albert R. and Alma Shadle Fellowship to investigate how moose may mitigate food limitations by altering their diet and gut microbiome.

Dr. Eliécer E. Gutiérrez, Oliver Pearson Award

*A critical review of mammalian faunas endemic to the Cerrado and the Caatinga
Tuesday, June 26th, 11:00 – 11:30 am — Student Union, Forum Hall*

The 2017 recipient of the Oliver P. Pearson Award is Dr. Eliécer Gutiérrez. Eliécer is originally from Venezuela, where he completed a Licenciatura degree in Biology at the Universidad de los Andes. He then continued his studies at the City University of New York, obtaining a Ph.D. in Ecology, Evolutionary Biology and Behavior in 2012. Dr. Gutiérrez obtained the prestigious Peter Buck Fellowship from the National Museum of Natural History of the Smithsonian Institution, where he was a postdoctoral researcher from 2012 to 2015. Since that year, he has been a research associate of Smithsonian Institution. In 2016 he moved to Brazil, where he worked as a postdoctoral fellow at Universidade de Brasília, and then, in 2017, he accepted a position as visiting professor at Universidade Federal de Santa Maria, in the Rio Grande do Sul state. Dr. Gutiérrez is interested on a broad arrange of empirical, methodological, and conceptual questions pertaining to systematics, biogeography, and evolutionary ecology. Most of his work has either focused on or employed data of Neotropical marsupials, rodents, bats, and artiodactyls. His research and perspective pieces have been published in journals including Journal of Mammalogy, Mammal Review, Ecography, Philosophical Transactions of the Royal Society, Ecology and Evolution, Ecography, American Museum Novitates, Nature, and Science. Dr. Gutiérrez is heavily involved in education of students through university courses at the undergraduate and graduate levels, mentoring students' research, and participating on workshops and invited seminars at universities.

PLENARY II SPEAKERS

Dr. Robert M. Timm, Joseph Grinnell Award

*The evolution of teaching and mentoring in the ASM: a brief and unauthorized history
Wednesday, June 27th, 8:15 – 9:00 am — Student Union, Forum Hall*

The 2017 recipient of the Joseph Grinnell Award is Dr. Robert M. Timm, Associate Professor in the Department of Ecology and Evolutionary Biology and Curator of the Division of Mammals at the University of Kansas, Lawrence Kansas. Bob's career exemplifies the integration of teaching and research and his contributions to education in Mammalogy span formal classroom instruction, field-based courses, mentoring of graduate students, facilitation of museum-based research, and public outreach. At the University of Kansas, Bob taught Mammalogy, Diversity of Life, History and Diversity of Organisms, Introductory Biology, and courses in Tropical Ecology. His field-based courses through the Organization for Tropical Studies (OTS) program researched hundreds of students and inspired many Latin American students to continue their studies in Mammalogy. Students describe their experiences in these courses as having had a profound impact on their career trajectories, and setting the example for how they now teach their own courses. Bob is widely recognized by his colleagues for being particularly helpful to minority, international, and English as a Foreign Language (EFL) students. He has recruited Native American students for work in Central America and has found money to support their course and research expenses. He has spent countless hours working with Spanish-speaking students to perfect their English-language manuscripts. And, when visiting various countries, has volunteered his time in national and regional museums, donating specimens and reprints, sorting out their problem cases, and encouraging young museum curators in their efforts. He is known to be a truly Equal Opportunity teacher, mentor, and colleague.

Dr. Gerardo Ceballos, Aldo Leopold Award

Biological annihilation of mammals and the sixth mass extinction
Wednesday, June 27th, 9:00 – 9:45 am — Student Union, Forum Hall

The American Society of Mammalogists Conservation Awards Committee selected Dr. Gerardo Ceballos for the 2017 Aldo Leopold Award from the American Society of Mammalogists. Dr. Ceballos has been actively working on the diversity, ecology and conservation of mammals in Mexico and the entire world for at least 30 years. He is a pioneer in many fields in mammal ecology and conservation in Mexico. Not only has he led the first ever long-term community and population biology studies of Mexican mammals in the early 1980's, but he has also pioneered reintroduction of endangered species such as the black-footed ferret and eradication of exotic species from islands of the Gulf of California. He has published well over 200 peer-reviewed papers in the primary literature and over 30 very influential books, including some of the most significant papers on mammal ecology, biodiversity, biogeography and conservation published in *Science* in the past couple of years. He has also published a truly daunting volume, the *Mammals of Mexico*, a major landmark in the discipline given the huge task at hand (Mexico is country # 3 in terms of numbers of mammal species in the world), and the extraordinary difficulty of attempting to compile this humongous, extremely useful volume for anyone working on mammals in Mexico and its neighboring countries. His influence has flourished and mushroomed, with dozens of his students occupying key positions in many universities, local, state, and federal government agencies, and virtually every NGO active in Mexico. All those that recommended him commented particularly on his extraordinary ability to "operationalize his science" and achieve meaningful conservation outcomes on the ground. Many of the most important protected areas in Mexico, from the Chamela-Cuixmala reserve (the only one with a significant extension of the endemic-rich Mexican tropical dry forest) to the San Ignacio Lagoon in Baja California to the last remaining extensive grasslands of North America in Chihuahua, owe their existence in great part to his efforts.

Dr. Mark S. Boyce, C. Hart Merriam Award

Wolves for Yellowstone: predicting dynamics in time and space
Wednesday, June 27th, 9:45 – 10:30 am — Student Union, Forum Hall

Dr. Mark S. Boyce of the University of Alberta is the 2017 recipient of the C. Hart Merriam Award. He obtained his B.S. from Iowa State University, his M.S. from the University of Alaska Fairbanks, and his Ph.D. from Yale University; he also was a Post-Doctoral Fellow at the University of Oxford. Dr. Boyce served as a Professor at the University of Wyoming, and held the Vallier Chair at the University of Wisconsin, Stevens Point. He currently is the endowed Chair of the Alberta Conservation Association at the University of Alberta. Dr. Boyce, who is a life member of ASM, has a prodigious record of publication, including >270 scientific papers and 6 books. He remains exceptionally active with 70 papers published in the past 5 years, many with his numerous graduate students and post-doctoral fellows. Professor Boyce has significantly advanced the state of scientific knowledge in several distinct areas of mammalogy. His publications cover an extraordinary range from the conceptual and theoretical development of the survival of small populations, the analysis of habitat requirements of animals, and threats to survival of species from human hunting, agriculture and other disturbances. Mark is probably best known for his mathematical approaches to ecology, although he is also a first-rate naturalist and experimentalist. His research on Resource Selection Functions is widely cited, and used for animal populations world-wide. Dr. Boyce's research also has made substantial international contributions to the conservation of mammals. In 2007, he was the Safari Club's International Conservationist of the Year. Mark also is a Fellow of the Wildlife Society, a Fellow of the Royal Society of Canada, and last year received that Society's Romanowski Medal for contributions to environmental sciences. He also received the Astech Award for leadership in science in Alberta.

CAPSTONE SPEAKER

Dr. Blaire Van Valkenburgh

Cracked teeth and broken bones: insights into Pleistocene carnivore paleoecology
Friday, June 29th, 4:00 – 5:00 pm — Student Union, Forum Hall

The capstone speaker for the 2018 meeting will be Dr. Blaire Van Valkenburgh. Dr. Van Valkenburgh's research explores the fossil record of carnivores from both ecological and evolutionary perspectives, sometimes focusing on guilds of species in distinct time horizons, and other times focusing on the evolutionary trajectories of species over millions of years.

SOCIAL EVENTS

Monday, June 25th, 7:00 – 10:00 pm

Opening Social – Flint Hills Discovery Center

Come kick off the conference with an opening night reception at the Flint Hills Discovery Center. Enjoy the opportunity to socialize with friends, colleagues, and other conference attendees, as well as welcome new members and meeting attendees to the Society. The FHDC is located in the heart of downtown Manhattan and celebrates the importance of the geology, ecology and cultural history of the Flint Hills. Beer and wine, as well as heavy hors d'oeuvres, will be available. Transportation will be provided between campus and the Discovery Center.

Tuesday, June 26th, 6:00 – 8:30 pm

Mammal Crawl – Aggieville

We invite you to make your way through Aggieville, located adjacent to the K-State campus. As the oldest shopping district in Kansas, Aggieville offers something exciting for everyone. From shopping to dining to a night out with friends, you'll leave with a good story and great memories. Home to over 100 businesses see how we grow our tradition of quality, quirkiness, and camaraderie. Local watering holes will be offering specials for AMS meeting attendees.

Tuesday, June 26th, 7:00 – 8:30 pm

Student Social – 1115 Venue & Urban Garden (1115 Moro Street)

All student attendees are welcome to come and socialize with your friends and colleagues, as well as meet new student members. Food, alcohol, and non-alcoholic drinks will be available. The 1115 Venue and Urban Garden is Manhattan's newest event space. It is ideally located in the heart of Aggieville, the hub of Manhattan's nightlife. The Student Social is hosted by the Education and Graduate Students Committee.

Tuesday, June 26th, 8:30 – 11:00 pm

Meeting Social & Karaoke Contest – 1115 Venue & Urban Garden (1115 Moro Street)

Come decide for yourself who has the most singing talent in the ASM! All meeting attendees are welcome at this event. Light hors d'oeuvres and an open bar will be available.

Wednesday, June 27th, 6:30 – 9:30 pm

Picnic – Konza Prairie Biological Station

Join your friends and colleagues for food, drink, and live music at the Konza Prairie Biological Research Station. Located approximately 10 miles from campus, the Konza Prairie was host to the ASM picnic event in 1997. Bison sliders, a traditional Kansas City BBQ, local beer and wine, and live music by the Red State Blues Band will make for a great event. Must purchase tickets in advance!

Thursday, June 28th, 7:00 – 11:00 pm

Poster Social II & Auction – Student Union, Grand Ballroom

The Thursday night poster session will include poster presentations, a social, and auction. What a great opportunity to discuss research with poster presenters and socialize with your colleagues. Support the ASM's Future Mammalogists Fund through donating to and purchasing from the auction! The Auction will begin around 9:00 pm. Beer and wine, as well as heavy hors d'oeuvres; will be available during the poster social. A cash bar will be available during the auction.

Friday, June 29th, 6:00 – 9:00 pm

Closing Social & Awards Ceremony – Alumni Center

Join us at the Closing Social and Awards Ceremony at the beautiful Kansas State University Alumni Center. A buffet dinner and drinks will be provided. Must purchase tickets in advance!

PROGRAM AT-A-GLANCE

MONDAY, JUNE 25TH, 2018		
TIME	EVENT	LOCATION
7:00 am	Registration	Student Union, 2nd Floor
7:30 am	Gathering at Registration Desk for Fieldtrip I	Student Union, 2nd Floor
7:30 am	Gathering at Registration Desk for Workshop I	Student Union, 2nd Floor
8:00 am	Board of Directors Meeting I	Alumni Center, Tadtman Board Room
8:00 am	Fieldtrip I: Flint Hills Fossil Hunt	Tuttle Creek Reservoir
8:00 am	Workshop I: Biological Applications in UAVs	Konza Prairie Biological Station
8:00 am	Workshop II: Holistic Specimen Collection	Trotter Hall, Room 204
1:00 pm	Workshop III: Non-Academic Careers	Student Union, Bluemont Room
6:30 pm	Shuttles begin loading for Opening Social	Student Union, 17th Street Circle
7:00 pm	Opening Social	Flint Hills Discovery Center
TUESDAY, JUNE 26TH, 2018		
TIME	EVENT	LOCATION
7:00 am	Registration	Student Union, 2nd Floor
8:00 am	Plenary Session I	Student Union, Forum Hall
9:35 am	Break	Student Union, Grand Ballroom
10:00 am	Plenary Session I	Student Union, Forum Hall
11:30 am	Lunch	On Your Own
11:30 am	Officers & Student Plenary Speakers Lunch	Student Union, Union Station
1:00 pm	Poster Session I	Student Union, Grand Ballroom
3:00 pm	Break	Student Union, Grand Ballroom
3:30 pm	Members Meeting I	Student Union, Forum Hall
5:00 pm	Workshop IV: Interviewing Strategies	Student Union, Bluemont Room
6:00 pm	Mammal Crawl	Aggieville
7:00 pm	Student Social	1115 Event Space (1115 Moro Street)
8:30 pm	Meeting Social & Karaoke Contest	1115 Event Space (1115 Moro Street)
WEDNESDAY, JUNE 27TH, 2018		
TIME	EVENT	LOCATION
6:00 am	Gordon L. Kirkland Grand Run for Research	Kansas State University campus
7:00 am	Registration	Student Union, 2nd Floor
8:00 am	Plenary Session II	Student Union, Forum Hall
10:30 am	Break	Student Union, Grand Ballroom
11:00 am	Technical Sessions 1 and 2	Student Union (rooms – Bluemont and Cottonwood)
11:00 am	Thematic Session I: Approaches for Organismal Teaching	Student Union, Flint Hills Room
12:30 pm	Lunch	On Your Own
2:00 pm	Technical Sessions 3, 4, and 5	Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)
3:30 pm	Break	Student Union, Grand Ballroom

4:00 pm	Members Meeting II	Student Union, Forum Hall
5:15 pm	Group Photo	Student Union, Courtyard
5:30 pm	Buses begin loading for Picnic	Student Union, 17th Street Circle
6:30 pm	Picnic	Konza Prairie Biological Station
THURSDAY, JUNE 28TH, 2018		
TIME	EVENT	LOCATION
7:00 am	Registration	Student Union, 2nd Floor
8:00 am	Technical Sessions 6 and 7	Student Union (rooms – Bluemont and Cottonwood)
8:00 am	Thematic Session II: Agroecosystems	Student Union, Flint Hills Room
9:30 am	Break	Student Union, Grand Ballroom
10:00 am	Symposium I: Mammals Across the Ages	Student Union, Forum Hall
12:00 pm	Lunch	On Your Own
12:00 pm	Board of Directors Meeting II	Student Union, Room 227
12:00 pm	Workshop V: Wallace	Student Union, Bluemont Room
1:30 pm	Technical Sessions 8, 9, 10	Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)
3:00 pm	Break	Student Union, Grand Ballroom
3:30 pm	Technical Sessions 11 and 12	Student Union (rooms – Bluemont and Cottonwood)
3:30 pm	Thematic Session III: Gene Flow	Student Union, Flint Hills Room
5:00 pm	Dinner	On Your Own
7:00 pm	Poster Session II & Social	Student Union, Grand Ballroom
9:00 pm	Auction & Social	Student Union, Grand Ballroom
FRIDAY, JUNE 29TH, 2018		
TIME	EVENT	LOCATION
7:00 am	Registration	Student Union, 2nd Floor
8:00 am	Technical Sessions 13 and 14	Student Union (rooms – Bluemont and Cottonwood)
8:00 am	Thematic Session IV: Zoonoses	Student Union, Flint Hills Room
9:30 am	Break	Student Union, Grand Ballroom
10:00 am	Symposium II: Critical Issues in Bat Conservation	Student Union, Forum Hall
12:00 pm	Lunch	On Your Own
12:00 pm	Wildlife Acoustics Hands-On Lunch & Learn	Student Union, Room 227
1:30 pm	Technical Sessions 15, 16, and 17	Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)
3:30 pm	Break	Student Union, Grand Ballroom
4:00 pm	Capstone Session: Blaire Van Valkenburgh	Student Union, Forum Hall
6:00 pm	Closing Social & Awards Ceremony	Alumni Center

MONDAY, JUNE 25TH, OPENING DAY

7:00 AM	Registration – Student Union, 2nd Floor
7:30 AM	Gathering at Registration Desk for Fieldtrip I – Student Union, 2nd Floor
7:30 AM	Gathering at Registration Desk for Workshop I – Student Union, 2nd Floor
8:00 AM	Board of Directors Meeting I – Alumni Center, Tadtman Board Room
8:00 AM	Fieldtrip I – Flint Hills Fossil Hunt
8:00 AM	Workshop I: Biological Applications with Unmanned Aerial Vehicles – Konza Prairie Biological Station Instructors: T. Balthazor and K. Carraway
8:00 AM	Workshop II: Holistic Specimen Collection: Small Mammal Parasite Sampling, Preservation, and Identification – Trotter Hall, Room 204 Instructors: R. Eckerlin, K. Galbreath, S. Greiman, A. Hope, and A. Jimenez
1:00 PM	Workshop III: Non-Academic Careers for Mammalogists – Student Union, Bluemont Room Instructors: B. Blood, D. Greene, J. Hanson, and A. Johnston
5:00 PM	Open
6:30 PM	Shuttles begin loading for Opening Social – Student Union, 17th Street Circle
7:00 PM	Opening Social – Flint Hills Discovery Center





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———— FORTHCOMING ————

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50 Million Years of Evolution
Annalisa Berta
graphics editor *James L. Sumich*
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The Skeleton Revealed
An Illustrated Tour of the Vertebrates
Steve Huskey

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**TUESDAY, JUNE 26TH, PLENARY SESSION I
-STUDENT UNION, FORUM HALL-**

7:00 AM	Registration – Student Union, 2nd Floor
8:00 AM	Plenary Session I – Student Union, Forum Hall
8:00 AM	Welcome & Announcements ASM President Robert S. Sikes and KSU Dean Kristan Corwin
8:15 AM	Annie M. Alexander Award 1^{HTA}: Applying island biogeography to small mammals in the Ozark glades while accounting for imperfect detection E.M. Beasley* and S.P. Maher
8:35 AM	Anna M. Jackson Award 2^{E,HTA**}: Does the social environment matter to solitary animals? Fitness benefits of familiarity in red squirrels E.R. Siracusa*, S. Boutin, M.M. Humphries, D.W. Coltman, B. Dantzer, J.E. Lane, and A.G. McAdam
8:55 AM	A. Brazier Howell Award 3^{E,HTA}: Individual based modeling of an endangered carnivore can be simultaneously pragmatic and paradigmatic C.C. Day*, P.A. Zollner, J.H. Gilbert, and N.P. McCann
9:15 AM	Elmer C. Birney Award 4^{E,HTA**}: Immunogenetics of mating behavior in <i>Peromyscus</i>: a genomic approach J. Meléndez-Rosa*, K. Bi, and E.A. Lacey
9:35 AM	Break – Student Union, Grand Ballroom
10:00 AM	William T. Hornaday Award 5**: Jaguar Corridor Initiative: a collaborative wide-ranging conservation strategy R. Salom-Perez*, D. Araya-Gamboa, D. Corrales-Gutierrez, D. Espinoza, S. Arroyo-Arce, L. Petracca, H. Robinson, C. Wultsch, R. Hoogesteijn, E. Payan-Garrido, B. Finegan, L. Waits, and H. Quigley
10:30 AM	Albert R. & Alma Fellowship 6^{E**}: Microbiome composition and social learning as pathways to dietary specialization in moose B.R. Jesmer
11:00 AM	Oliver P. Pearson Award 7**: A critical review of mammalian faunas endemic to the Cerrado and the Caatinga E.E. Gutiérrez, N. M. Heming, and J. Marinho-Filho
11:30 PM	Lunch – On Your Own
11:30 PM	Officers & Student Plenary Speakers Lunch – Student Union, Union Station
1:00 PM	Poster Session I – Student Union, Grand Ballroom

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**TUESDAY, JUNE 26TH, POSTER SESSION I
-STUDENT UNION, GRAND BALLROOM-**

1:00 PM	Poster Session I – Student Union, Grand Ballroom
8 ^{E,HTA}	Pumas as ecosystem engineers for carrion-dependent invertebrates J.M. Barry*, M. Elbroch, R.J. Sarno, M.E. Aiello-Lammens, H.B. Quigley, and M.M. Grigione
9	The importance of multiple methodologies to survey tropical bat communities K.A. Campbell and S.G. Mech*
10	Advantages of 3D microCT imaging for studying prenatal development in bats J.M. Ryan
11	Urban Wildlife Information Network (UWIN): A multi-city approach to urban wildlife research S.B. Magle, M.A. Fidino, E. Leher, T. Gallo, M.J. Rios, M. Mulligan, A. Ahlers, J.L. Angstmann, C.M. Salsbury*, T.J. Ryan, L.M. Hartley, C. Schell, A. Gramza, A. Belaire, B. Dugelby, K. Simon, D. Drake, H. Sander, and B. MacDougall
12 ^{E**}	Small mammal communities in Nevada’s swamp cedar woodlands, a globally unique and imperiled habitat B.A. Kohli*, D.A. Charlet, and R.J. Rowe
13 ^{E,HTA}	Effects of ectoparasites on survivorship and reproduction of <i>Peromyscus leucopus</i> S. Dea* and S. Mech
14 ^E	The functional roles of cattle and bison grazing in North American grasslands: a meta-analysis C.R. Wilford* and J.L. Malaney
15 ^E	Island-inhabiting voles have larger skulls than their mainland relatives: indications of the Island Rule? M.C. Schlis-Elias* and J.L. Malaney
16 ^E	A study of endoparasites within the eastern spotted skunk (<i>Spilogale putorius</i>) H.L. Jones*, N.J. Negovetich, and R.C. Dowler
17	In the shadow of the moon: small mammal activity during the 2017 solar eclipse E.A. Rickart*, O.E. Ornelas, L.F. Alexander, and D.J. Merkler
18	Leveraging citizen scientists in the interpretation of bat bioacoustical data C.J. Yahnke*, E.M. Meyer, B.M. Jovanovich, J.L. Orlando, and J.P. White
19	Body size and reproductive characteristics of deer mice in anthropogenic and native habitats in Kansas G.A. Kaufman* and D.W. Kaufman
20	Small mammal communities in experimentally manipulated sites within the Flint Hills tallgrass prairie D.W. Kaufman*, G.A. Kaufman, and D.M. Kaufman
21	Large-herbivore exclusion and soil enrichment, not prescribed fire, enhance small-mammal abundance on East African savannas B.J. Bergstrom
22	The rise and fall of small mammals: what’s affecting communities at Hawk Mountain (PA)? D.M. Kaufman*, S. Marino, D.A. Zegers, G.M. Darbenzio, and M.A. Steele
23	Squirreling around for science: incorporating sciurid behavioral research into undergraduate curriculum J. Varner, P.K. Connors*, J.S. Brown, L. Dizney, J.M. Duggan, L.P. Erb, E.A. Flaherty, J. Hanson, H.C. Lanier, and C.J. Yahnke
24	Southeastern <i>Myotis</i> and Rafinesque’s big-eared bats switch their roosting habits seasonally in Arkansas bottomlands S.J. Scherman, T.S. Risch, and V. Rolland*
25 ^{E**}	Phylogenomics of South American tree squirrels: Tracing their evolutionary history through mitogenomes from museum specimens E.F. de Abreu-Júnior*, S.E. Pavan, M.T.N. Tsuchiya, A.R. Percequillo, and J.E. Maldonado

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<p>26^F: Character displacement of three sympatric rodent species in eastern Paraguay Atlantic Forest remnants D. Gonzalez*, G. Hernandez, A. Alvarado, and N.U. de la Sancha</p>
<p>27: Two new recent country records of mormoopid bats in The Bahamas (Chiroptera: Mormoopidae) V.L. Mathis* and D.L. Reed</p>
<p>28: Preliminary data on small mammal assemblages in a cacao dominated landscape in Cote d'Ivoire N.U. de la Sancha*, B.kpatou Kouamé, J. Kerbis, A. Laurent, D. Gonzalez, A. Alavarado, and C. Koume</p>
<p>29^F: American Black Bear (<i>Ursus americanus</i>) Density, Diet, and Distribution Near Moab, Utah S.R. Stephens*, A.M. Green, and C. Hakkı Şekerçioğlu</p>
<p>30: Cascading effects of island area and isolation on seed dispersal effectiveness of rodents D. Zeng*, R.K. Swihart, Y. Zhao, and P. Ding</p>
<p>31^E: Using captive lemurs to quantify the relationship between food toughness and feeding behaviors S.L. Canington*, S.B. Cooke, and J.M.G. Perry</p>
<p>32: Future research into the plains spotted skunk (<i>Spilogale putorius interrupta</i>) in a tallgrass prairie ecosystem J.C. Perkins*, R.D. Stevens, and R.C. Dowler</p>
<p>33^F: Assessing mesocarnivore competition for small carcasses: potential impacts on endangered American burying beetles (<i>Nicrophorus americanus</i>) J.H. Noble* and T.E. Nupp</p>
<p>34^F: Land-use history and canopy thinning alter small-mammal foraging activity and spatial patterns of seed predation S.L. Bartel* and J.L. Orrock</p>
<p>35: Population genetics of the frugivorous bat <i>Sturnira parvidens</i> (Chiroptera: Phyllostomidae) M.Y. Cabrera-Garrido*, G. Hernández-Canchola, H.D. Marshall, and L. León-Paniagua</p>
<p>36: Shrub encroachment, landscape restoration, and intraguild predation in the Chihuahuan Desert R.L. Schooley*, C.J. Wagnon, and B.T. Bestelmeyer</p>
<p>37: Hidden species diversity in the genus <i>Octodon</i> (Caviomorpha, Octodontidae) R. Cadenillas* and G. D'Elía</p>
<p>38: Short-term effect of helicopter-based capture on movements of a social ungulate T.S. Jung*, S.M. Konkolics, P.M. Kukka, Y.N. Majchrzak, A.K. Menzies, M.J.L. Peers, and E.K. Studd</p>
<p>39: Craniodental morphological variation in southwestern chickarees (Genus <i>Tamiasciurus</i>) R. Gant, J. Woods, A. Hill*, S. O'Connor, and J.L. Malaney</p>
<p>40^E: Morphometric review of the southern <i>Coendou ichillus</i> (Caviomorpha, Erethizontidae) from Peru L. Huamaní and R. Cadenillas</p>
<p>41: Predictors of metabolic rates in aquatic mammals J.L. Maresh*, A. Corl, D.P. Costa, and C.J. Law</p>
<p>42^F: Behavioral response of <i>Myotis lucifugus</i> and <i>Eptesicus fuscus</i> to restraint-related stress H. Karevold*, K. Cortes, and E. Gillam</p>
<p>43^F: Home range size of leopards in an increasingly disrupted world M.H. Snider*, V.R. Athreya, M.E. Gompper, M.S. Farhadinia, L.T.B. Hunter, P.J. Johnson, D.W. Macdonald, J. Fattebert, G.A. Balme, A.T. Vanak, C.R. Owen, R. Slotow, C.C. Wilmers, L.A. Isbell, F.J. Weise, A.B. Stein, J.A. Spalton, S. Gubbi, V. Steyn, and R. Kays</p>
<p>44: Co-mapping coat-color with GIS data for <i>Peromyscus</i>: visualization as a tool for hypothesis testing G. Nevil, L. Sheyda, and V. Hayssen*</p>
<p>45^E: A systematic assessment of endemic Galapagos rodents: <i>Nesoryzomys fernandinae</i> and <i>Nesoryzomys swarthy</i> M.H. Hamilton* and R.C. Dowler</p>

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46^E: Using ArcGIS to predict the co-occurrence of Virginia opossum (<i>Didelphis virginiana</i>) and raccoon (<i>Procyon lotor</i>)	
R.M. Bingham*, E. Ozdenerol, M.H. Ferkin, R.A. Baldwin, and M.L. Kennedy	
47: Wildlife use of livestock water troughs in several states east of the Mississippi River	
N.L. Buschhaus*, R.L. Milam, D.A.R. Taylor, and S.R. Tuttle	
48^E: Evaluating the species distribution for the giant kangaroo rat (<i>Dipodomys igens</i>)	
A.E. Semerdjian*, R. Stafford, M.F. Westphal, H.S. Butterfield, and W.T. Bean	
3:00 PM	Break – Student Union, Grand Ballroom
3:30 PM	Members Meeting I – Student Union, Forum Hall
5:00 PM	Workshop IV: Professional Interview Strategies – Crafting Your Message – Student Union, Bluemont Room Instructors: B. Blood, J. Koprowski, S. Loeb, and K. Munroe
6:00 PM	Mammal Crawl – Aggieville
7:00 PM	Student Social – 1115 Event Space (1115 Moro Street)
8:30 PM	Meeting Social & Karaoke Contest – 1115 Event Space (1115 Moro Street)

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**WEDNESDAY, JUNE 27TH, PLENARY SESSION II
-STUDENT UNION, FORUM HALL-**

6:00 AM	19th Annual Gordon L. Kirkland Grand Run/Walk for Research -Start at Intersection of Claflin Road & Mid-Campus Drive-
7:00 AM	Registration – Student Union, 2nd Floor
8:00 AM	Plenary Session II – Student Union, Forum Hall
8:00 AM	Welcome & Announcements President-Elect Doug A. Kelt
8:15 AM	Joseph Grinnell Award 49: The evolution of teaching and mentoring in the ASM: a brief and unauthorized history R.M. Timm
9:00 AM	Aldo Leopold Award 50: Biological annihilation of mammals and the sixth mass extinction G. Ceballos
9:45 AM	C. Hart Merriam Award 51: Wolves for Yellowstone: predicting dynamics in time and space M.S. Boyce
10:30 AM	Break – Student Union, Grand Ballroom
11:00 AM	Technical Sessions 1 and 2 – Student Union (rooms – Bluemont and Cottonwood)
11:00 AM	Thematic Session I: Engage your –Ologies: Active Approaches for Organismal Teaching – Student Union, Flint Hills Room

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**WEDNESDAY, JUNE 27TH, MORNING SESSIONS
-STUDENT UNION-**

Session	Technical Session 1: Community Ecology	Technical Session 2: Morphology	Thematic Session I: Engage your -Ologies: Active Approaches for Organismal Teaching
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Terry Bowyer	Bryan McLean	Hayley C. Lanier
11:00 AM	52^{E,HTA}: The underappreciated role of generalists in rodent-mycorrhizal dispersal networks R.B. Stephens* and R.J. Rowe	58: Evolution of dentary and scapular shape in foxes: Are gray foxes (<i>Urocyon cinereoargenteus</i>) unique? L.A. Dolan* and J.S. Scheibe	64: A Wisconsin bat curriculum for high school biology courses C.J. Yahnke*, J.L. Orlando, and J.P. White
11:05 AM			65: What is the best approach for training teaching assistants to make their labs more active? L. Patrick*, H. Barron, J. Brown, and S. Cotner
11:10 AM			66: Early engagement of undergraduates in research, an avenue for science education reform? Z.P. Roehrs*, C.L. Springer, and A.L. Wangeline
11:15 AM	53^{E,HTA}: Prescribed fire and thinning increases small mammal diversity while decreasing parasite loads in pine-oak woodlands B.C. Rapier* and J.L. Malaney	59**: Effects of climatic stress on morphological symmetry in bushy-tailed woodrats (<i>Neotoma cinerea</i>) A.D. Hornsby	67: Squirreling around for science 301: CURE implementation & scaffolding for upper level courses J.M. Duggan*, J.S. Brown, P.K. Connors, L.Dizney, L.P. Erb, E.A. Flaherty, J.D. Hanson, H.C. Lanier, J. Varner, and C. J. Yahnke
11:20 AM			68: Choose your own adventure: Does allowing students to participate in course development increase student motivation? H.C. Lanier
11:25 AM			69: Squirreling around for science 101: multi-campus implementation and piloting of a Course-based Undergraduate Research Experience J.D. Hanson*, H.C. Lanier, J.S. Brown, P.K. Connors, L. Dizney, J.M. Duggan, L. Erb, E.A. Flaherty, J. Varner, and C.J. Yahnke

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**WEDNESDAY, JUNE 27TH, MORNING SESSIONS
-STUDENT UNION-**

11:30 AM	<p>54^{HTA**}: Hungry like the wolf: have coyotes experienced dietary release following apex predator extirpation? B.P. Tanis*, L.R.G. DeSantis, and R.C. Terry</p>	<p>60: Morphological variation in <i>Peromyscus maniculatus</i>: Bergmann's rule and Allen's rule B. Buttler</p>	<p>70: Small mammal, vector, and pathogen data collection in the National Ecological Observatory Network R.L. Evans*, M.T. Sanders*, K.M. Thibault, K. Tsao, L. Goldman, and M. Jones</p>
11:35 AM			<p>71: March Mammal Madness: a successful story about science & social media P. Kurnath-Connors*, J.E. Light, B.P. Tanis, J.A. Drew, C.N. Anderson, and K. Hinde</p>
11:40 AM			<p>72: Field courses as general education science courses for non-majors L. Kauffman*</p>
11:45 AM	<p>55^{E,HTA**}: Small mammal communities and habitat associations along an elevation gradient in southern California A. Karasov-Olson* and D.A. Kelt</p>	<p>61^E: Unintended morphological effects of captivity in Mexican wolves (<i>Canis lupus baileyi</i>) L. Siciliano-Martina*, J.E. Light, and A.M. Lawing</p>	<p>Panel Discussion</p>
12:00 PM	<p>56^E: A test of Eltonian niche conservatism for martens (<i>Martes</i> spp.) in the Pacific Northwest P.J. Manlick*, S. Petersen, K.M. Moriarty, and J.N. Pauli</p>	<p>62: Postcranial morphological trends in Rodentia: a morphometric analysis of the appendicular skeleton C.J. Saltzberg* and S.J. Stepan</p>	
12:15 PM	<p>57: Rodent predation by the nocturnal-hunting letter-winged kite during resource pulses in arid Australia C.R. Pavey</p>	<p>63: Modularity during sigmodontine radiation B.M.A. Costa* and G. Marroig</p>	
12:30 PM	Lunch – On Your Own		
2:00 PM	Technical Sessions 3, 4, and 5 – Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)		

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**WEDNESDAY, JUNE 27TH, AFTERNOON SESSIONS
-STUDENT UNION-**

Session	Technical Session 3: Evolutionary Biology	Technical Session 4: Population Ecology	Technical Session 5: Wildlife Management
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Marie L. Westover	Amanda E. Cheeseman	Casey C. Day
2:00 PM	73^{E,HTA**}: Down the rodent burrow: weasels exhibit evolutionary shifts towards smaller and more elongate body plans C.J. Law*, G.J. Slater, and R.S. Mehta	79^{E,HTA**}: Identifying geographic variation in the Virginia opossum's diet using stable isotopes L.L. Walsh* and P.K. Tucker	85^E: Quantifying forage characteristics for ungulates with remotely sensed data R. Jakopak*, E. Aikens, and K. Monteith
2:15 PM	74^{HTA**}: The role of locomotor mode in lineage turnover and persistence among Indo-Australian rats and mice J.A. Nations*, A. Achmadi, K.C. Rowe, and J.A. Esselstyn	80: Demography of snowshoe hare population cycles at Kluane Lake, Yukon M.K. Oli*, C.J. Krebs, A.J. Kenney, R. Boonstra, S. Boutin, and J.E. Hines	86^{E,HTA}: Viability of population viability analyses: a critical evaluation V. Chaudhary* and M.K. Oli
2:30 PM	75: Reducing uncertainty in past/future range predictions: models and population genetics for a Mexican shrew L. Guevara, E. Vázquez-Domínguez, E. Arellano, and R.P. Anderson*	81^E: The influence of density dependence, weather, and human exploitation on beaver population dynamics S.M. Johnson-Bice*, S.K. Windels, J.M. Ferguson, J.D. Erb, and R. Moen	87^{E,HTA}: Analyzing behavior and aggression in coyotes across contexts and urbanization gradients A.M. Wurth* and S.D. Gehrt
2:45 PM	76^{E,HTA**}: The role of ecological opportunity and incumbency in Philippine "old endemic" rodent diversification (Muridae: Murinae) D.M. Rowsey*, L.R. Heaney, and S.A. Jansa	82: Climatic variables, seasonality, and population demography of the big-eared woodrat in coastal-central California V. Rolland*, W.D. Tietje, A. Srivathsa, A.Y. Polyakov, and M.K. Oli	88: Altitudinal stratification of rodents along the Ibrahim River – Mount Lebanon riparian ecosystem: a case study Mounir R. Abi-Said* and S.S. Karam
3:00 PM	77: Hox clusters molecular evolution provides hints for mammalian evolution M.F. Nery*, L. Canesin, and T. Kohlsdorf	83: Paleocology of a Pleistocene woodrat (<i>Neotoma</i>) midden and coprolites from the La Brea Tar Pits A.M. Mychajliw*, L.R. Tewksbury, K.A. Rice, and E.L. Lindsey	89: To see or not to see: park attendance impacts on animal sightings in Glacier NP C.D. Damer* and B.J. Swanson
3:15 PM	78^E: Could a failure in a post-mating isolation protein allow hybridization in deer species in Texas? E.A. Wright*, E.K. Roberts, and R.D. Bradley	84: Reproductively mediated effects of precipitation on populations of <i>Dipodomys ordii</i> and <i>Peromyscus maniculatus</i> in Utah A.G. Cook	90^E: The effects of prescribed fires on bat occupancy in the Ozark Mountains of Arkansas C.M. Blanco* and J. Garrie
3:30 PM	Break – Student Union, Grand Ballroom		
4:00 PM	Members Meeting II – Student Union, Forum Hall		
5:15 PM	Group Photo – Student Union, Courtyard		
5:30 PM	Buses Begin Loading for Picnic – Student Union, 17th Street Circle		
6:30 PM	Picnic – Konza Prairie Biological Station		

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**THURSDAY, JUNE 28TH, MORNING SESSIONS
-STUDENT UNION-**

7:00 AM	Registration – Student Union, 2nd Floor		
8:00 AM	Technical Sessions 6 and 7 – Student Union (rooms – Bluemont and Cottonwood)		
8:00 AM	Thematic Session II: Mammalian Ecology in Agroecosystems – Student Union, Flint Hills Room		
Session	Technical Session 6: Conservation	Technical Session 7: Systematics	Thematic Session II: Mammalian Ecology in Agroecosystems
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Janet L. Rachlow	Thomas E. Lee, Jr.	Elmer J. Finck
8:00 AM	91^{E,HTA**}: An experimental translocation identifies habitat features buffering the effect of camouflage mismatch in snowshoe hares E.C. Wilson*, A.A. Shipley, B. Zuckerman, M.Z. Peery, and J.N. Pauli	97: Diversification and species diversity in the mammal tree of life N.S. Upham*, J.A. Esselstyn, and W. Jetz	103^E: Estimating density of bobcats in midwestern landscapes using spatial capture-recapture models E.D. Davis*, T.C. Swearingen, R.W. Klaver, C.R. Anderson, C.S. DePerno, J.A. Jenks, R.D. Bluett, and C.N. Jacques
8:15 AM	92^{E,HTA}: Survey design for threatened and declining species P.A. Burns*, K.C. Rowe, and B.L. Phillips	98: Revisiting the phylogeny and taxonomy of South American cottontails, <i>Sylvilagus Gray, 1867 (Lagomorpha: Leporidae)</i> L.A. Ruedas*, S. Marques Silva, J.H. French, R.N. Platt II, J. Salazar-Bravo, J.M. Mora, and C.W. Thompson	104: Nest tree use by southern flying squirrels in fragmented Midwestern landscapes C.N. Jacques*, J.S. Zweep, S.E. Jenkins, R.W. Klaver, and S.A. Dubay
8:30 AM	93^E: Change and fragmentation of woody cover affects ocelot recovery in Texas J.V. Lombardi*, M.E. Tewes, and H.L. Perotto-Baldivieso	99^E: Taxonomic revision and distribution patterns of <i>Marmosa</i> mouse opossums in Colombia G.E. Pinilla-Buitrago* and H.F. López-Arévalo	105^E: The role of Cecropia trees in the fitness of three-toed sloths in an agro-ecosystem M.F. Garces-Restrepo*, M.Z. Peery, and J.N. Pauli
8:45 AM	94^E: Habitat use and species interactions of reintroduced fishers in Washington State M.A. Parsons*, J.C. Lewis, and L.R. Prugh	100^{E,HTA}: The continued increase in our knowledge of mammalian biodiversity C.J. Burgin*, J.P. Colella, and N.S. Upham	106: Predicting movement distances in small mammals through an ecological and life-history trait-based approach B. Ríos-Uzeda, R. Crouzeilles, M.M. Weber, and M.V. Vieira*

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**THURSDAY, JUNE 28TH, MORNING SESSIONS
-STUDENT UNION-**

9:00 AM	95^E: Linking climate, diet, and distribution: stable isotope analysis of Great Basin rodent communities D.S. Taylor* and R.C. Terry	101^E: DNA barcodes for urban small mammals in the northern Andes of Colombia M. Londoño-Gaviria* and J.F. Díaz-Nieto	107: Fair tests of the habitat amount hypothesis: an example with small mammals M.V. Vieira *, M. Almeida-Gomes, A.C. Delciellos, R. Cerqueira, and R. Crouzeilles
9:15 AM	96^E: Integrating camera trap data to estimate spatial ecology of mesocarnivores in south-central Oklahoma D.L. Premathilake* and V.L. Jackson	102^E: Redescription and phylogenetic position of <i>Ctenomys dorsalis</i> Thomas 1900, an enigmatic tuco tuco (Rodentia, Ctenomyidae) M. Londoño-Gaviria*, P. Teta, S.D. Ríos, and B.D. Patterson	108^E: Roost characteristics of <i>Myotis septentrionalis</i> in the Kisatchie National Forest, Louisiana C.J. Garcia*, R.W. Perry, D.A. Ray, and R.D. Stevens
9:30 AM	Break – Student Union, Grand Ballroom		
10:00 AM	Symposium I: Mammals Across the Ages – Student Union, Forum Hall		

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**THURSDAY, JUNE 28TH, SYMPOSIUM I
-STUDENT UNION, FORUM HALL-**

10:00 AM	Symposium I: Mammals Across the Ages – Student Union, Forum Hall
10:00 AM	Welcome & Introduction Melissa I. Pardi and Felisa A. Smith
10:05 AM	109: Teeth through time: quantitative mammalian dental morphology across the Cretaceous-Paleogene boundary S.M. Smith* and G.P. Wilson
10:25 AM	110: Macroevolutionary trends in marine mammal evolution macroevolutionary trends in marine mammal evolution M.D. Uhen
10:45 AM	111: Northward bound: xenarthran evolution and the Great American Faunal Interchange H.G. McDonald
11:05 AM	112: The relative abundance structure of megafauna from Natural Trap Cave, Wyoming (Late Pleistocene-early Holocene) C.M. Redman* and J.A. Meachen
11:25 AM	113: The influence of cross-trophic associations on community structure at the end of the Pleistocene J.L. Blois
11:45 AM	Panel Discussion J.L., Blois, H.G. McDonald, C.M. Redman, S.M. Smith, and M.D. Uhen
12:00 PM	Lunch – On Your Own
12:00 PM	Board of Directors Meeting I – Student Union, Room 207
12:00 PM	Workshop V: Wallace: A New Modular GUI Software for Modeling Species Niches and Distributions – Student Union, Bluemont Room Instructors: J.M. Kass, G.E. Pinilla-Buitrago, and R.P. Anderson
1:30 PM	Technical Sessions 8, 9, and 10 – Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)

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KANSAS STATE
College of Arts and Sciences

**THURSDAY, JUNE 28TH, AFTERNOON SESSIONS
-STUDENT UNION-**

Session	Technical Session 8: Biogeography	Technical Session 9: Physiology	Technical Session 10: Wildlife Management
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Rebecca J. Rowe	Tom E. Tomasi	Drew Ricketts
1:30 PM	114^{E,HTA**}: How a climate-sensitive alpine mammal responds to climate change: The importance of microclimate and habitat M.L. Westover*, E.A. Beever and F.A. Smith	120^{E,HTA}: Biologgers and fecal cortisol metabolites: understanding the physiological limits of free-living arctic ground squirrels V.Y. Zhang*, C.T. Williams, R. Palme, and C.L. Buck	126: Trial translocation allows assessment of habitat suitability for the world's rarest marsupial, Gilbert's potoroo J.A. Friend* and T.A. Button
1:45 PM	115: A common species amidst climate change: the Great Basin Pocket Mouse (<i>Perognathus mollipilosus</i>) M.I. Pardi*, R.C. Terry, and R.J. Rowe	121: Reduced hepatic detoxification in marsupial folivores following heat acclimation P.K. Connors*, P.K. Beale, K.J. Marsh, M.D. Dearing, and W.J. Foley	127^E: Individual detection of coarse woody debris using airborne LiDAR: implications for forest mammal habitat research M.J. Joyce*, J.D. Erb, B.A. Sampson, and R.A. Moen
2:00 PM	116: Manic Pixie Dream Squirrel: Phylogeography of the colorful <i>Sciurus variegatoides</i> A.A. Castellanos*, W.J. Murphy, and J.E. Light	122^{E,HTA}: The influence of demographic, social, and environmental factors on chronic stress in free-ranging coyotes K.E. Robertson*, C.M. Tonra, and S.D. Gehrt	128^E: Spatial ecology and landscape-scale behavior of coyotes in south Texas J.T. French*, J.M. Tomeček, and T.A. Campbell
2:15 PM	117^{E,HTA**}: Co-occurrence with two carnivorans results in differential occupancy for invasive raccoons in Japan J.M. Kass*, M.W. Tingley, T. Tetsuya, and F. Koike	123^{E,HTA}: Metabolic costs of climate change in a temperate bat J.M. Alston*, I.M. Abernethy, M.E. Dillon, D.A. Keinath, and J.R. Goheen	129^E: Molecular diet analysis of New York City coyotes C.S. Henger*, C. Wultsch, E. Hargous, and J. Munshi-South
2:30 PM	118: North American evolutionary drivers of diversification: jumping mice (Zapodinae) reflect the 'Pleistocene species pump' hypothesis J.L. Malaney	124^E: Bone strength of the metacarpal in pronghorn (<i>Antilocapra americana</i>) A.J. Baran*, J.P. Broker, A.D. Ketsdever, E.H. Mooney, and J.C. Pigage	130: Marking small mammals for individual recognition: a survey of practitioners use and perceptions of methods T.S. Jung, D. Jolkowski, M. McCaw, S. van Delft, P.M. Kukka, R.Boonstra, and C.J. Krebs
2:45 PM	119^E: Geographic responses of cougars (<i>Puma concolor</i>) following the Pleistocene megafaunal extinction N.A. Freymueller*, M.I. Pardi, and F.A. Smith	125: Evolution of litter size in North America's most common small mammal: An informatics-based approach B.S. McLean*, N. Barve, R.P. Guralnick	131^E: Survival and cause-specific mortality in a hunted population of elk (<i>Cervus canadensis</i>) M. Sergeev*, B.R. McMillan, K.R. Hersey, and R.T. Larsen
3:00 PM	Break – Student Union, Grand Ballroom		
3:30 PM	Technical Sessions 11 and 12 – Student Union (rooms – Bluemont and Cottonwood)		
3:30 PM	Thematic Session III: Gene Flow, Species, and Species Complexes – Student Union, Flint Hills Room		

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**THURSDAY, JUNE 28TH, AFTERNOON SESSIONS
-STUDENT UNION-**

Session	Technical Session 11: Behavior	Technical Session 12: Community Ecology	Thematic Session III: Gene Flow, Species, and Species Complexes
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Eileen A. Lacey	Philip J. Manlick	Thomas C. Giarla
3:30 PM	132: Second chances: replacement estrus in seasonally breeding Richardson's ground squirrels G.R. Michener	140^{E**}: Towards improved functional trait information for small mammals B.A. Kohli* and R.J. Rowe	148: Phylogenetic analysis of South American rodents of <i>Thomasomys</i> and <i>Microrzomys</i> T.E. Lee, Jr.* and J.D. Hanson
3:45 PM	133^{E,HTA}: Active space of grasshopper mouse vocalizations in relation to woody plant encroachment D.M. Green*, T. Scolman, and B. Pasch	141^E: Processes driving small mammal community composition over the previous 17,000 years J.E. Williams* and J.L. Blois	149: On the taxonomic status and distribution of African species of <i>Otomops</i> (Chiroptera: Molossidae) B.D. Patterson*, P.W. Webala, M. Bartonjo, C.W. Dick, and T.C. Demos
4:00 PM	134^{E,HTA}: Food for thought: how personality affects seed choice in a guild of terrestrial small mammals A.M. Brehm*, J. Zydlewski, G.A. Maynard, and A.Mortelliti	142: The role of functional traits in mammalian community structure across the Pleistocene-Holocene transition S.K. Lyons*, A. Villasenor, and F.A. Smith	150^{E,HTA**}: Glacial cycles drive rapid divergence between cryptic species of the field vole, <i>Microtus agrestis</i> N.K. Fletcher*, P. Acevedo, J.S. Herman, J. Paupério, P.C. Alves, and J.B. Searle
4:15 PM	135^{E,HTA}: Grasshopper mice exhibit sex differences in call production and behavioral responses to playbacks N.G. Mull* and Bret Pasch	143: Impacts of a tornadic blowdown on small mammals inhabiting eastern deciduous forest in western Pennsylvania S.R. Sheffield* and C.A. Ludica	151^{E,HTA**}: The impact of introgression on mammalian evolution J.P. Colella*, T.-Y. Lan, R.E. Wilson, S.L. Talbot, C. Lindqvist, and J.A. Cook
4:30 PM	136^{E,HTA**}: Behavioral responses to advertisement vocalizations among sympatric grasshopper mice (<i>Onychomys</i>) G.C. Griffiths* and B. Pasch	144^{E**}: Abiotic and biotic characteristics influencing community dynamics across the distribution of a rare kangaroo rat J.D. Stuhler*, M.K. Halsey, R.D. Bradley, R.N. Platt, D.A. Ray, and R.D. Stevens	152^{E,HTA}: Phylogeographic assessment of the Heermann's kangaroo rat (<i>Dipodomys heermanni</i>) B.B. Downs* and J.E. Light

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**THURSDAY, JUNE 28TH, AFTERNOON SESSIONS
-STUDENT UNION-**

4:45 PM	137^E: Importance of rivers as migratory corridors for temperate bats K.M. Cortes* and E.H. Gillam	145^E: Changes in South American bat biodiversity patterns along environmental gradients: a multidimensional problem C. Ríos-Blanco* and R.D. Stevens	153: Conflict and consensus among datasets assessing relationships among southern brush-tailed mice, genus <i>Calomyscus</i> (Rodentia: Calomyscidae) R.W. Norris*, O. Balkowiec, C.W. Kilpatrick, A.K. Weller, and A.S. Chavez
5:00 PM	138: Vigilance of black-tailed prairie dogs (<i>Cynomys ludovicianus</i>) in urban and rural landscape contexts J.M. Conard*, J.L. Pitschmann, and E. Hubbell	146^E: Variation in space and time: examining conspecific and heterospecific density-dependent dispersal in woodland rodents S.T. Denomme-Brown*, K. Cottenie, and A.G. McAdam	154: Genomics of environmental adaptation in Douglas squirrels (<i>Tamiasciurus douglasii</i>) A.S. Chavez* and M.W. Nachman
5:15 PM	139: Estimating home ranges using different currencies and animals' perception about their environments R.A Powell*, A.N Facka, L. Rogers, and S.A. Mansfield	147^E: Trapping approaches for detecting rare small mammals K. Harkins*, M. Ben-David, and D. Keinath	155: DNA-based identification of small Neotropical rodent species using Oxford Nanopore's Minion real time sequencing technology J.F. Díaz-Nieto* and N. Franco-Sierra
5:00 PM	Dinner – On Your Own		
7:00 PM	Poster Session II & Social – Student Union, Grand Ballroom		
9:00 PM	Auction & Social – Student Union, Grand Ballroom		

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**THURSDAY, JUNE 28TH, POSTER SESSION II
-STUDENT UNION, GRAND BALLROOM-**

7:00 PM	Poster Session II – Student Union, Grand Ballroom
156^{E,HTA} : Does a textured coating alter bat activity at wind turbine towers? B.E. Huzzen*, V.J. Bennett, and A.M. Hale	
157^F : Immune function and hibernation energetics of four North American bat species with white-nose syndrome B.N. Anderson*, T. Tomasi, and C. Lupfer	
158^F : Deciphering the <i>Neotoma albigula</i> complex of southwestern New Mexico S.W. Liphardt*, A.K. Jones, K.M. Dereig, and J.A. Cook	
159^F : Identifying immune response to WNS in a resistant bat species (<i>Eptesicus fuscus</i>) K.S. Naffa-Wack*, T.E. Tomasi, and C.R. Lupfer	
160^F : Does the petal fall far from the rose? Revealing the ontogeny of ungulate migration R. Jakopak* and K. Monteith	
161^{E,HTA**} : Density-dependent habitat selection in a fluctuating population of golden-mantled ground squirrels, <i>Callospermophilus lateralis</i> J. R. Aliperti*, K. Jenderseck, and D.H. Van Vuren	
162 : Who succeeds in a biodiversity course? L.L. Walsh* and C.J. Giffen	
163^F : Bat to the future: an insight into island biogeography using fossil and modern bats A. Jayarajan* and D.L. Reed	
164^F : Investigating shifts in skull morphology and dietary preferences in North American deermice associated with wildfire A.G. Allen*, D.C. Allen, Z.P. Roehrs, R.S. Seville, and H.C. Lanier	
165^F : Developing protocols to recover and amplify museum DNA in <i>Berylmys bowersi</i> and other murid groups K.L. Tuttle	
166^F : Modeling the effects of environmental predictors on small mammal assemblage structure in an isolated rangeland K.R. Vedolich* and K.L. Griffis-Kyle	
167 : Does agriculture influence demography, development and activity patterns in California ground squirrels (<i>Otospermophilus beecheyi</i>)? K.N. Ulm* and J. Cooper	
168 : Evaluating potential effects of camera density on capture and recapture rates of bobcats C.N. Jacques*, T.C. Swearingen, R.W. Klaver, E.D. Davis, C.R. Anderson, C.S. DePerno, J.A. Jenks, and R.D. Bluett	
169^F : Influence of spatial alignment on photographic detection rates of bobcats at remotely triggered camera stations E.D. Davis*, T.C. Swearingen, R.W. Klaver, C.R. Anderson, C.S. DePerno, J.A. Jenks, R.D. Bluett, and C.N. Jacques	
170 : Small mammal isotopic analysis of consumer roles across an experimental prairie woodland mosaic S.F. Gragg*, J.B. Nippert, and A.G. Hope	
171 : Mesopredator distribution, abundance and potential competition with the American burying beetle (<i>Nicrophorus americanus</i>) for carrion K.A. Fenton* and T.E. Nupp	
172^F : Status, distribution, morphology and genetics of <i>Sigmodon fulviventer dalquesti</i> in the Chihuahuan Desert Ecoregion P.J. McDonald* and C.D. Phillips	
173 : Phylogeography of the African wading rat, <i>Colomys goslingi</i> (Muridae: Murinae) F.M. Mosher*, T.C. Demos, J.C. Kerbis Peterhans, and T.C. Giarla	
174 : Assessing status of eastern spotted skunks (<i>Spilogale putorius</i>) in Oklahoma V.L. Jackson* and A.P. Jones	

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175: Small mammal, vector, and pathogen data collection in the National Ecological Observatory Network
R.L. Evans*, M.T. Sanders*, K.M. Thibault, K. Tsao, L. Goldman, and M. Jones
176^E: Exploring the distribution of <i>Peromyscus maniculatus</i> in south Texas
L. Siciliano-Martina*, I.F. Greenbaum, M. Casillas, A.M. Lawing, and J.E. Light
177: Nematode assemblages provide a glimpse of mammal-helminth community dynamics within the central Great Plains
H. Penticoff, A.G. Hope, and F.A. Jiménez*
178^E: Requirements for handling skills in entry-level jobs in wildlife biology
B. Gastelum*, R. Rangel, M. Browne, and J.M. Duggan
179^E: Examining the effect of raptors on vole populations and soybean damage in cover-cropped fields
A.-G. Prieur*, M. Zagorski, and R.K. Swihart
180^{E**}: Small mammal community dynamics and isotope ecology at Rancho La Brea: millennial-scale stability or change?
N.S. Fox*, J.R. Southon, G.T. Takeuchi, A.B. Farrell, E.L. Lindsey, and J.L. Blois
181^E: Secondary sexual dimorphism in white-lined broad-nosed bats (<i>Platyrrhinus lineatus</i>)
A.N. Kildow*, J.D. Stuhler, and R.D. Stevens
182: Post construction bat and bird fatality monitoring at a wind energy facility in south Texas
S.P. Weaver, A.K. Jones*, C.D. Hein, and I. Castro-Arellano
183: Morphological analysis of <i>Peromyscus truei</i> from a mtDNA contact zone
S. Lewis-Rogers*, E.A. Rickart, N. Lewis-Rogers, and D.S. Rogers
184^E: First genomic evidence of wolf-dog hybrids from Oklahoma's latest Holocene
B. Postoak*, C. Monroe, N.J. Czaplewski, K.S. Smith, and L.C. Bement
185: Managing an undergraduate research lab at a teaching-focused university
L. Kauffman
186: Rural communities in the boreal forest are habitat islands for little brown bats (<i>Myotis lucifugus</i>)
J. Thomas and T.S. Jung*
187: Landscape drivers of site occupancy by remnant populations of arctic ground squirrels (<i>Urocitellus parryii</i>)
P.M. Kukka*, J.R. Werner, L.M. Andresen, T.S. Jung, and C.J. Krebs
188^E: Isotopic ecology and body size in grasshopper mice after the Late Pleistocene megafaunal extinction
J.S. Keller*, J.T. Cordova, F.A. Smith, T.W. Stafford, and S.D. Newsome
189^E: Phylogeography of <i>Artibeus fraterculus</i> (Chiroptera: Phyllostomidae) in South America
N. Cortés-Delgado* and B. Patterson
190^E: Evolutionary relationships among brush-tailed mice, genus <i>Calomyscus</i> (Rodentia: Calomyscidae) based on mitochondrial and nuclear data
A.K. Weller*, O. Balkowiec, C.W. Kilpatrick, C.A. Woods, and R.W. Norris
191^E: Embracing uncertainty in distributional model development and estimations by considering circulation models
C.L. Adkins*, V. Starnes, K. Beckham, B. Spitz, and S.P. Maher
192: Atlatl saltation, a new ricochetel locomotion model; a quicker, safer way to escape from predators
V.L. Naples
193^E: Diversification of the kangaroo rat, <i>Dipodomys phillipsii oaxacae</i>
G.E. Medina-Cruz*, I.G. Vargas-Jiménez*, M. Briones-Salas, and S.T. Álvarez-Castañeda
194: Quantifying habitat structure relative to predation risk: characterizing the functional properties of concealment and detection
J.L. Rachlow* and J.U.H. Eitel
195^E: Static allometry in the dentary of <i>Glaucomys volans</i>
R. Prasai* and J.S. Scheibe
9:00 PM Auction for Future Mammalogists' Fund & Social – Student Union, Grand Ballroom

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**FRIDAY, JUNE 29TH, MORNING SESSIONS
-STUDENT UNION-**

7:00 AM	Registration – Student Union, 2nd Floor		
8:00 AM	Technical Sessions 13 and 14 – Student Union (rooms – Bluemont and Cottonwood)		
8:00 AM	Thematic Session IV: Mammalian Disease Ecology and Zoonoses		
Session	Technical Session 13: Biogeography	Technical Session 14: Evolutionary Biology	Thematic Session IV: Mammalian Disease Ecology and Zoonoses
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Robert P. Anderson	Andreas S. Chavez	Helen Pigage
8:00 AM	196: Founder takes more: interspecific competition influences range and niche expansion of North American mammals into deglaciated areas T. Jezkova	202^{HTA}: Ecological causes of intraspecific variation in the aposematic patterning of the striped skunk <i>Mephitis mephitis</i> H. Walker*, T. Caro, and T. Stankowich	208^E: Coyotes exhibit an immune response to <i>Rickettsia</i> spp. in Arizona: an update E.N. Green*, W.T. Porter, A.L. Howard, H. Yaglom, R. Benford, J.D. Busch, and N.C. Nieto
8:15 AM	197: Isolation by marine barriers and climate explain areas of endemism in an island rodent T.C. Giarla*, S.P. Maher, A.S. Achmadi, M.T. Swanson, K.C. Rowe, and J.A. Esselstyn	203: How small an island? Speciation by endemic mammals (<i>Apomys</i>, <i>Muridae</i>) on an oceanic Philippine island L.R. Heaney*, C.C. Kyriazis, D.S. Balete, S.J. Stepan, and E.A. Rickart	209^{HTA}: Effects of maternal and grandmaternal flea infestation on offspring quality in a desert rodent E.M. Warburton*, I.S. Khokhlova, L. van der Mescht, E.M. Dlugosz, and B.R. Krasnov
8:30 AM	198: Body size downgrading across the late Quaternary F.A. Smith*, R.E. Elliott Smith, S.K. Lyons, and J.L. Payne	204^{E**}: Patterns of gut microbial diversity in two recent diverged lineages of California voles D.Lin*, R.C.K. Bowie, and E.A. Lacey	210^E: Impacts of a plague-induced bottleneck on genetic diversity in black-footed ferrets (<i>Mustela nigripes</i>) P.M. Phillips*, T.M. Livieri, and B.J. Swanson
8:45 AM	199^E: Modeling the range-wide distribution of pygmy rabbits: Implications for the sage-grouse umbrella I. Smith*, J. Rachlow, L. Svancara, L. McMahon, and S. Knetter	205^E: Understanding the population structure and historical demography of the <i>Neotoma fuscipes</i> in California R.A. Boria*, S.K. Brown, and J.L. Blois	211: Towards understanding the role of small mammals in the transmission of Lyme disease in Virginia R.K. Rose*, L. Bitzer, W. Hynes, and H. Gaff
9:00 AM	200: A guide to campus squirrels J. Peplinski* and J.S. Brown	206: The slow gradual action of the Great American Biotic Interchange (GABI) on nematode phylogenies F.A. Jiménez*, J. Notarnicola and S.L. Gardner	212^E: Immunogenetic variation and potential pathogens of New England's imperiled and nonnative cottontails K.B. Neil*, T.J. McGreevy Jr., and D.M. Rand

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**FRIDAY, JUNE 29TH, MORNING SESSIONS
-STUDENT UNION-**

9:15 AM	201: Mammal diversity is correlated with productivity, but decoupled from food resources, abundance, or habitat complexity C.M. McCain*, S.R.B. King, T. Szewczyk, and J. Beck	207^E: Alternative mRNA splicing of a gamete recognition protein promotes potential functional adaptation in mammalian reproduction E.K. Roberts*, E.A. Wright, D.M. Hardy, and R.D. Bradley	213: Examining parasite distributions using niche models and patterns of host occurrence S.P. Maher* and K.C. Bell
9:30 AM	Break – Student Union, Grand Ballroom		
10:00 AM	Symposium II: Critical Issues in Bat Conservation – Student Union, Forum Hall		

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**FRIDAY, JUNE 29TH, SYMPOSIUM II
-STUDENT UNION, FORUM HALL-**

10:00 AM	Symposium II: Critical Issues in Bat Conservation – Student Union, Forum Hall
10:00 AM	Welcome & Introduction Erin F. Baerwald
10:05 AM	214: Ecosystem services provided by bats, a XXI century update R.A. Medellin
10:20 AM	215: The skin we're in: Physiological consequences of white-nose syndrome for cutaneous respiration in bats Y.A. Dzal*, N.A.S.-Y. Dorville, E.L. Kunkel, A.M. Breit, K.J. Norquay, Q.E. Fletcher, A. Habrich, T. Moore, A. Shrivastav, and C.K.R. Willis
10:35 AM	216: A multi-pronged approach to the conservation of bats affected by the disease, white-nose syndrome T.L. Cheng*, K. Pierson, and W.F. Frick
10:50 AM	217: Landscape features associated with bat fatalities at wind energy facilities. E.F. Baerwald
11:05 AM	218: Reducing wind turbine-related bat fatalities C.D. Hein
11:20 AM	219: Managing forests and other bat habitats in the age of white-nose syndrome S.C. Loeb
11:35 AM	Panel Discussion E.F. Baerwald, T.L. Cheng, Y.A. Dzal, C.D. Hein, S.C. Loeb, and R.A. Medellin
12:00 PM	Lunch – On Your Own
12:00 PM	Wildlife Acoustics Hands-On Lunch & Learn Workshop – Student Union, Room 227 Instructors: Ali Donargo and Bob Gierschick
1:30 PM	Technical Sessions 15, 16, and 17 – Student Union (rooms – Bluemont, Cottonwood, and Flint Hills)

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**FRIDAY, JUNE 29TH, AFTERNOON SESSIONS
-STUDENT UNION-**

Session	Technical Session 15: Behavior	Technical Session 16: Conservation	Technical Session 17: Genetics
Room	Bluemont Room	Cottonwood Room	Flint Hills Room
Moderator	Laurie Kauffman	Rodrigo Medellin	Melissa T.R. Hawkins
1:30 PM	220^E: Foraging activity of <i>Peromyscus leucopus</i> in relation to exposure to different levels of light pollution J.J. Lovett* and K. McBee	226: Burn severity and extent influence space use and post-fire survival in an endangered small mammal M.J. Merrick* and J.L. Koprowski	234^E: Spatially explicit genetic analysis is essential for guiding management decisions of a threatened kangaroo rat M.K. Halsey*, J.D. Stuhler, R.N. Platt II, N.J. Bayona-Vásquez, R.D. Bradley, D.A. Ray and R.D. Stevens
1:45 PM	221^E: The Eastern woodrat's response to size of novel objects D.L. Smith* and C.A. Corbat	227: Establishing a mainland population of New England cottontail (<i>Sylvilagus transitionalis</i>) in Rhode Island T.J. McGreevy, Jr. *, D. Ferreira, and T.P. Husband	235^{HTA}: Fine scale field-derived resistance surfaces depict landscape connectivity in a desert-dwelling rodent A. Flores-Manzanero*, E. Vázquez-Domínguez, and R.J. Dyer
2:00 PM	222^{E,HTA}: Chiseling away dogmas of saltbush specialization and investigating local diet shifts in <i>Dipodomys microps</i> S. Stephens*, T. Orr, and D. Dearing	228: Apparent competition in a semiarid savanna: reducing predation pressure on a rare ungulate through pastoralism C.C. Ng'weno, S.W. Buskirk, N.J. Georgiadis, B.C. Gituku, A.K. Kibungei, L.M. Porensky, D.I. Rubenstein, and Jacob R. Goheen*	236: Genetic diversity and hierarchical population structure within a recently fragmented metapopulation of imperiled cottontails A.E. Cheeseman*, J.B. Cohen, C.M. Whipps, S.J. Ryan, and A.I. Kovach
2:15 PM	223^E: Use of enclosure space by long-tailed macaques at Mindy's Memory Primate Sanctuary T.J. Martin*, K.J. Copp*, M.A. Snow, H. Tran, T. Jeyaraj-Powell, and L. Kauffman	229^E: Swimming against the tide: a unique mammal may be more exceptional than we ever imagined K.R. Smith*, L. Barthman-Thompson, S. Estrella, M.K. Riley, and D.A. Kelt	237: Rooting out population genetic structure of a destructive, invasive species in Texas A.M. Mangan*, T.J. Smyser, and A.J. Piaggio

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**FRIDAY, JUNE 29TH, AFTERNOON SESSIONS
-STUDENT UNION -**

2:30 PM	224: Effects of plant composition, vegetative structure, and demography on fine-scale movement patterns of small mammals G. Block*, B. Christensen, M. Rai, and R.L. Rehmeier	230^E: Determining habitat suitability for the conservation of a native ecosystem engineer E.I. Parsons*, J.T. Pynne, S.I. Duncan, R.A. Gitzen, L.M. Conner, J.D. Austin, S.B. Castleberry, and R.A. McCleery	238: A population genomics approach to estimating migration with small sample sizes and genetically similar populations T.J. Smyser*, M.A. Tabak, K.M. Pepin, A.J. Davis, and R.S. Miller
2:45 PM	225^E: Effect of reproductive status on social burrow construction in <i>Peromyscus polionotus</i> R.A. Greenberg*, N.L. Bedford, and H.E. Hoekstra	231: Black-footed ferret reintroduction in Kansas D.M. Okeson*, M. McNulty, G. Suleiman, and T. Livieri	239: Chromosome-level assembly and annotation of the black-footed ferret (<i>Mustela nigripes</i>) genome K.-P. Koepfli*, S. Kliver, O. Dudchenko, and E. Lieberman
3:00 PM	Open	232^{**}: Characteristics of habitat used by fishers (<i>Pekania pennanti</i>) during reproduction in the southern Sierra Nevada R.E. Green, K.L. Purcell, D.A. Kelt, C.M. Thompson, and H.U. Wittmer	240: Hidden diversity of African house bats (<i>Scotophilus, Vespertilionidae</i>): insights from multilocus phylogenetics and lineage delimitation T.C. Demos*, P.W. Webala, M. Bartonjo, and B.D. Patterson
3:15 PM	Open	233^E: Leaving more than a legacy: museum collection reveals small mammal climate responses in Ethiopian Highlands E.W. Craig*, J.C. Kerbis-Peterhans, and M. Yonas	241^E: From trash to treasure: techniques for reconstructing mitochondrial genomes from highly fragmented historical DNA J.D. Hetzel* and J.D. Hanson
3:30 PM	Break – BPC 2nd Floor		
4:00 PM	Capstone Session: Cracked teeth and broken bones: insights into Pleistocene carnivore paleoecology – Student Union, Forum Hall		

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**FRIDAY, JUNE 29TH, CAPSTONE SESSION
-STUDENT UNION -**

4:00 PM	Capstone Session: Cracked teeth and broken bones: insights into Pleistocene carnivore paleoecology – Student Union, Forum Hall
4:00 PM	Welcome & Announcements Vice President Felisa A. Smith
4:05 PM	Capstone 242: Cracked teeth and broken bones: insights into Pleistocene carnivore paleoecology B. Van Valkenburgh
5:00 PM	Open
6:00 PM	Closing Social & Awards Ceremony – Alumni Center

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For more information about the 2019 meeting, contact the program director, Cody Thompson (mammal.meetings@gmail.com); local co-hosts, Jesus Maldonado (maldonadoj@si.edu), Don Wilson (wilsond@si.edu), and Neal Woodman (woodmann@si.edu); or meeting planner, John Murray (jsmurray@k-state.edu).

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