



**BOONE AND CROCKETT CLUB  
UNIVERSITY PROGRAMS  
ANNUAL REPORT  
2017**





# BOONE AND CROCKETT UNIVERSITY PROGRAMS



- Michigan State University
- Mississippi State University
- Oregon State University\*
- Texas A&M University
- Texas A&M at Kingsville
- University of Georgia
- University of Montana
- University of Wisconsin at Stevens Point

*\*Currently Inactive*

## 2017 AT A GLANCE

### 8 GRADUATES



from Boone and Crockett University Programs

### \$6,400,000+

Total funding for research activities

### 3 ENDOWED PROFESSORS IN PLACE



FELLOWS



UNDERGRADUATES



MASTERS



PHD



POSTDOCTORAL

# 42

**57**  
SCHOLARLY  
PUBLICATIONS

**21**  
POPULAR  
PUBLICATIONS

**19**  
INVITED  
TALKS

**68**  
RESEARCH  
PRESENTATIONS

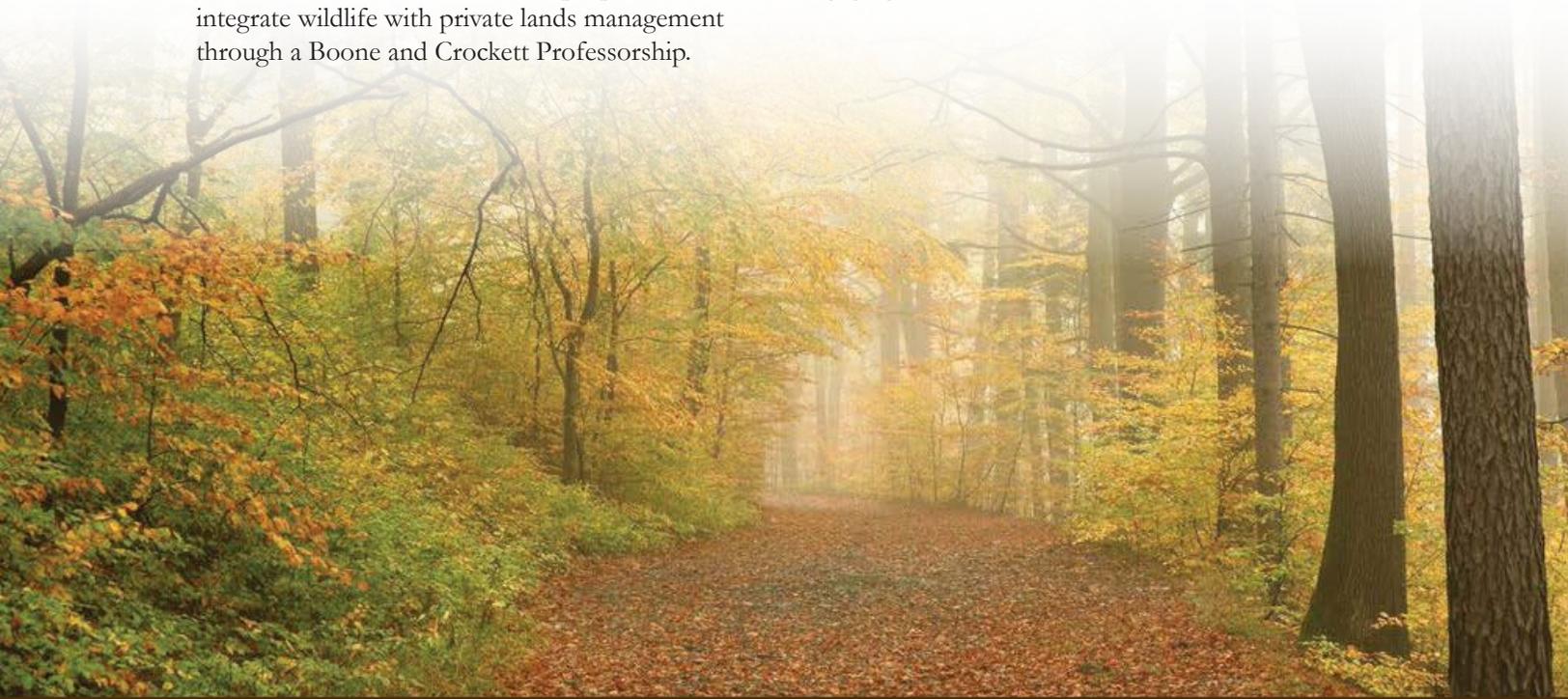
**10**  
COURSES  
TAUGHT

# WELCOME

**The Boone and Crockett Club stands as a role model for all who are passionate about wildlife conservation. Among the qualities that set it apart are its University Programs. The Club is not bashful about expressing a bold vision: attract the brightest young people to the strongest universities to work with the foremost wildlife faculty.**

Over the past seven years, the Club has sought to fulfill that vision by inspiring new leadership in its University Programs. There is growing excitement in Michigan and Texas and Montana, in Mississippi and Wisconsin. Club members are engaging professors and students with a new sense of energy and urgency. That vision and inspiration are being noticed. The Club has been approached by several universities to host a Boone and Crockett Professorship. Two of those are among the finest wildlife programs in the nation. The University of Georgia proposed to forge a Boone and Crockett Professorship linking wildlife and forest industry. Just recently, Clemson University proposed to integrate wildlife with private lands management through a Boone and Crockett Professorship.

Attracting bright young people and the nation's top wildlife universities to our cause are signs that our vision is getting good traction. Still, we need to keep our eye on the ultimate goal—placing effective advocates at the decision-making table in the next generation. We all know that 20 years from now the challenges facing wildlife conservation and our hunting heritage will be enormous. The Boone and Crockett Club stands as the major conservation organization preparing those future leaders and scientists, those who will advocate for all we hold dear. As you browse this report, we hope you will get a sense of the Club's growing traction in engaging the future of wildlife conservation.



*“Our Boone and Crockett University Programs continue to evolve and are developing the great potential leaders that the Club has envisioned.”*

*- William Demmer, Past President of the Boone and Crockett Club*



## 2017 UNIVERSITY PROGRAMS HIGHLIGHTS

### BOONE AND CROCKETT CLUB UNIVERSITY PROGRAMS RETREAT

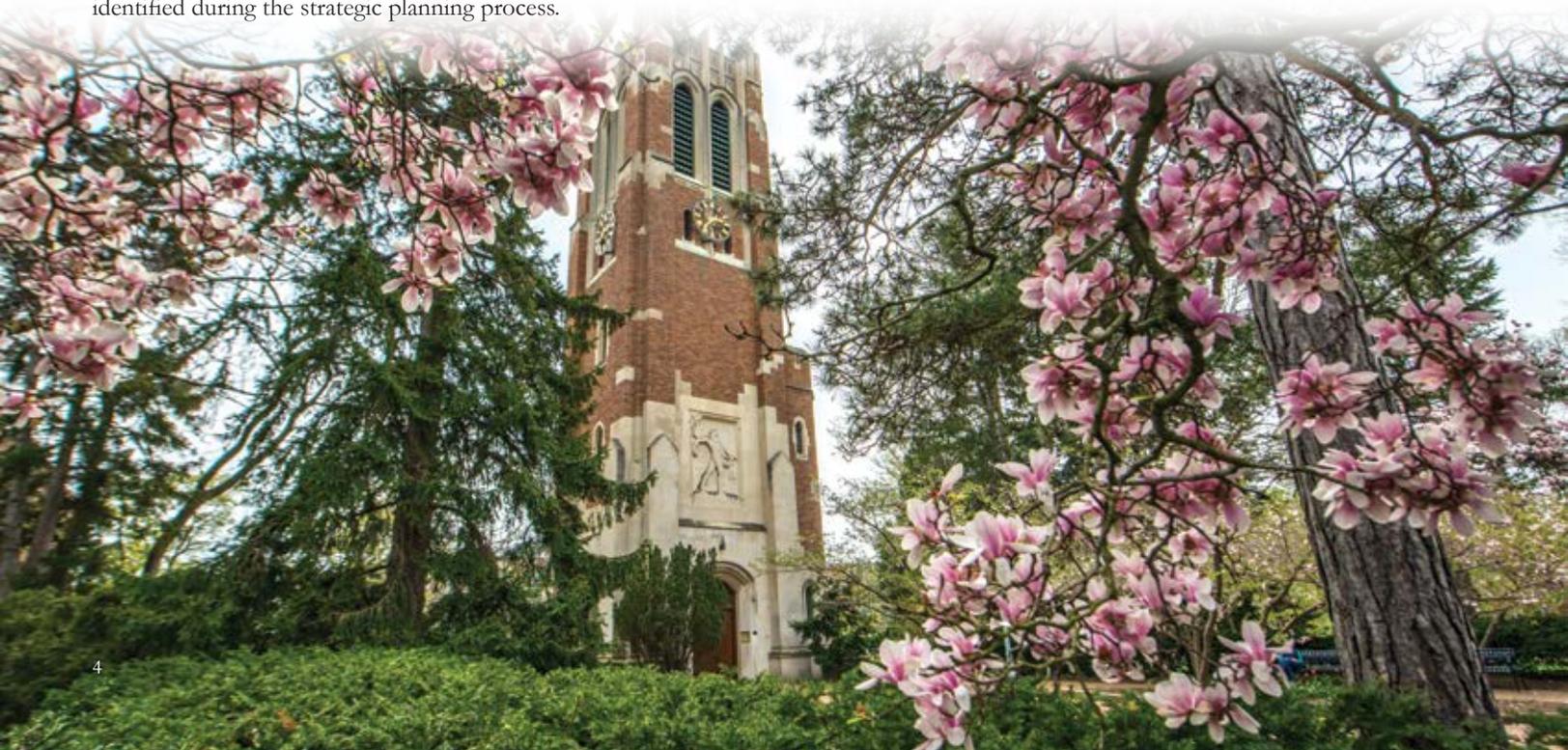
A Boone and Crockett Club University Programs Retreat was held on August 8-9, 2017, in East Lansing, Michigan. The retreat brought together University Program leaders, Club members and university administrators to participate in a strategic planning process. Specific goals were to: 1) identify organizational structures and processes that can effectively strengthen relationships between the members of the Club and the leaders of its Program, 2) identify a set of performance metrics that can be used to evaluate program accomplishments, promote growth and communicate program successes, and 3) construct a practical vision for University Programs.

There was general agreement that the mission of the University Programs is well-aligned with the Club and that the Club is well-served by the diversity of approaches to research, instruction and outreach among the universities. Club oversight committees are valuable and would benefit from greater engagement with university administrators as well as program leaders. Performance metrics could be strengthened by focusing on process measures as well as product measures. Strategic planning produced a rich set of ideas for development of a comprehensive action plan that will focus on three priority areas: (1) a common set of objectives and goals across programs, (2) increased collaboration and communication among programs, the Club and external organizations, and (3) stabilization of existing programs and sustained financial viability. A point person for each focal area was identified and tasked with moving forward with action items identified during the strategic planning process.



### *University Programs Focal Areas for 2018-22*

- *Develop a common set of goals and objectives*
- *Stabilize programs and ensure financial viability*
- *Increase communication and collaboration*



## SYMPOSIUM AND LUNCHEON AT THE WILDLIFE SOCIETY CONFERENCE

The University of Georgia and Michigan State University partnered to organize a symposium at the 2017 Conference of The Wildlife Society (TWS) in Albuquerque, New Mexico. The session was titled “Challenges of Balancing Stakeholder Engagement and Scientific Decision-Making to Inform Wildlife Policy,” and was sponsored by the Boone and Crockett Club and the College and University Wildlife Education Working Group of TWS. Ten speakers, including leaders in the wildlife profession from a diversity of backgrounds, shared their experiences managing wildlife-related issues for the public good. Attendance exceeded 150 participants during each of the talks in the session.

The following day, Boone and Crockett Fellows attending TWS were invited to a luncheon with the symposium speakers, where they had an opportunity to interact with B&C Professional Members and strengthen their network. Dr. Wini Kessler provided an introduction to the luncheon that inspired a follow-up webinar (see below) with all Boone and Crockett Fellows.



## MEMBERS-FELLOWS PROGRAM AT THE SPRING MEETING

During the Boone and Crockett Club’s spring meeting at the 82nd North American Wildlife and Natural Resources Conference, University Programs hosted a Members-Fellows Program. Members had an opportunity to interact with Boone and Crockett Fellows while listening to research presentations by four Fellows ranging from undergraduates to postdoctoral researchers.

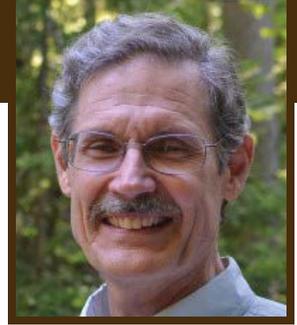
## BOONE AND CROCKETT FELLOWS WEBINAR

We organized a webinar on November 8, 2017, that engaged seven faculty and more than 25 fellows across six time zones. Our featured speaker was Dr. Wini Kessler, who spoke about the importance of professional networks and gave examples of how networks have served her throughout her career. She provided guidance on developing, maintaining, and protecting professional networks, and gave special attention to the remarkable networking opportunities provided to Boone and Crockett Fellows through interactions with Regular and Professional Members.





# MICHIGAN STATE UNIVERSITY



Dr. William Porter

## MICHIGAN STATE UNIVERSITY WILDLIFE PROGRAM

Michigan State University (MSU) is the nation's pioneer land-grant university. With roots in the northern hardwood forests, Great Lakes and agricultural ecosystems of the upper Midwest, MSU is home to one of the premier fisheries and wildlife programs in the nation. The Department of Fisheries and Wildlife at MSU includes 45 faculty, more than 200 undergraduate students and 100 M.S. and Ph.D. students. Its academic programs emphasize ecology, management, policy and leadership.

Graduate students are engaged in research with government wildlife agencies, non-government conservation organizations and private businesses worldwide. There is a strong emphasis on collaboration with the Michigan Department of Natural Resources, the Great Lakes Fishery Commission and the U.S. Geological Survey.

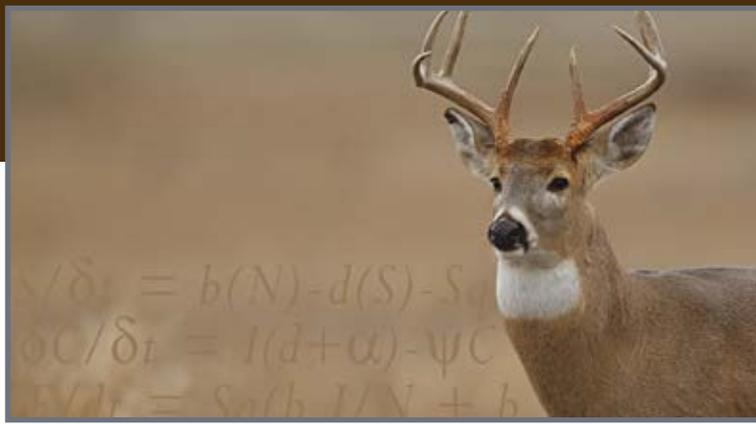


## MICHIGAN STATE BOONE AND CROCKETT PROFESSORSHIP PROGRAM

The Boone and Crockett Program at Michigan State University attracts bright individuals with a deep passion for wildlife. They have a mind for math and science, the creativity to be innovative and the drive to be leaders. We train them in problem-solving and develop their communication skills to better engage wildlife managers, policy makers and the general public.

Central to the program is the Boone and Crockett Quantitative Wildlife Center, where fellows are trained in the advanced analytical thinking that is the heart of today's wildlife sciences, economics and conservation policy. We have dedicated office space for Michigan Department of Natural Resources staff, providing an exceptional avenue for students to regularly interact with wildlife managers. The research we do is focused on four game-changing issues: land-use change, shifting climate patterns, emerging wildlife diseases, and sustainable management of wildlife. We emphasize educational experiences that prepare our Boone and Crockett Fellows for a seat at the table where the big decisions about wildlife conservation will be made 30 years from now.





## FUNDING PROVIDED BY:

- Boone and Crockett Club
- Michigan Department of Natural Resources
- MSU College of Agriculture and Natural Resources
- MSU Extension
- MSU AgBioResearch
- The Hal and Jean Glassen Memorial Foundation
- National Wild Turkey Federation
- Safari Club International

*The Michigan Boone and Crockett Partners (Oversight Team) worked closely with Dr. William Porter and Dr. David Williams in an initiative to fund new research on managing the emergence of Chronic Wasting Disease in Michigan. With the help of partners who hold key positions within the university, in state agencies and on philanthropic boards, we raised \$1.4 million in 6 months to support 3 new Ph.D. students and 1 post-doctoral research associate.*

## POLICY IMPACT

The Boone and Crockett Quantitative Wildlife Center's work with harvest management of game species has been integral to recent evaluations of hunting regulations in Michigan.

Our work with diseases in deer (epizootic hemorrhagic disease and chronic wasting disease) has also created opportunities for us to provide input on disease management policy to the Michigan Natural Resources Commission.

## BOONE AND CROCKETT FELLOW PROFILE

**Jennifer Smith** is a Master's student in the Boone and Crockett Quantitative Wildlife Center at Michigan State University, graduating in December 2017. Born in Kingsville, Texas, she moved to northern California where she received her B.S. in Wildlife Biology from Humboldt State University. Jen's research at Michigan State focused on effective management of black bears in Michigan's Lower Peninsula. Black bear numbers are increasing in this region, creating a need for explicit estimation of population size and strategies for managing conflicts with humans. Jen applied modern statistical models to existing black bear datasets to estimate population densities on various geographic scales. These newer estimates are suited for regions like Michigan's Lower Peninsula, where bears are distributed unevenly across patchy habitat. As part of this research, Jen devised an innovative approach to understanding the relationships between landscape characteristics and black bear use of agricultural fields. This research will help managers identify local populations of black bears and manage agricultural areas that are likely to experience human-wildlife conflicts.





Dr. Joshua Millspaugh

## UNIVERSITY OF MONTANA WILDLIFE PROGRAM

The Boone and Crockett Program is housed in the Wildlife Biology Program and Department of Ecosystem and Conservation Sciences at the University of Montana. The Wildlife Biology Program is an interdisciplinary program comprised of faculty from the W.A. Franke College of Forestry and Conservation, the Division of Biological Sciences in the College of Humanities and Sciences, and the Montana Cooperative Wildlife Research Unit. The Program is tailored to meet student needs and facilitates research collaboration across the spectrum of wildlife biological science, ecosystem science, management, and conservation. Students benefit from our faculty's outstanding teaching, experience, and knowledge, an enthusiastic and diverse student body drawn from across North America, and unrivaled access to hands-on, outdoor learning opportunities.

Through a common commitment to excellence, our faculty have become demonstrated leaders in wildlife biology, whether it be through development of national conservation strategies, locally-driven partner-based conservation solutions, scientific achievements or educational outreach. Collectively, our work advances basic science and addresses our most pressing applied conservation and management challenges, covering issues from molecular biology to global ecology.

## UNIVERSITY OF MONTANA BOONE AND CROCKETT PROFESSORSHIP PROGRAM

Long known for its exceptional big game research, the University of Montana hosted the first Boone and Crockett Professor, beginning in 1987. The Boone and Crockett Program at Montana is focused primarily on the integration of wildlife conservation and private land management. Our program addresses society's most significant wildlife and natural resource challenges through relevant and high-caliber research and teaching. The Program prepares future conservation leaders through science-based instruction that promotes wise stewardship, application of the best available science, and informed policy decisions.

A key component of the research-teaching effort is centered on Boone and Crockett Club's Theodore Roosevelt Memorial Ranch and the Elmer E. Rasmuson Wildlife Conservation Center near Dupuyer, Montana. The 6,000-acre working cattle ranch and the Center are adjacent to the Lewis and Clark National Forest, along the Rocky Mountain Front. With the hiring of Dr. Joshua Millspaugh in fall 2016, the Boone and Crockett Program at the University of Montana is preparing for the next chapter in its history.





*In October 2017, citing student research led by Dr. Millspaugh, the U.S. Fish and Wildlife Service determined that the Black Hills population of black-backed woodpeckers was not a listable entity under the Endangered Species Act and did not meet the criteria under the Distinct Population Segment Policy.*

#### **FUNDING PROVIDED BY:**

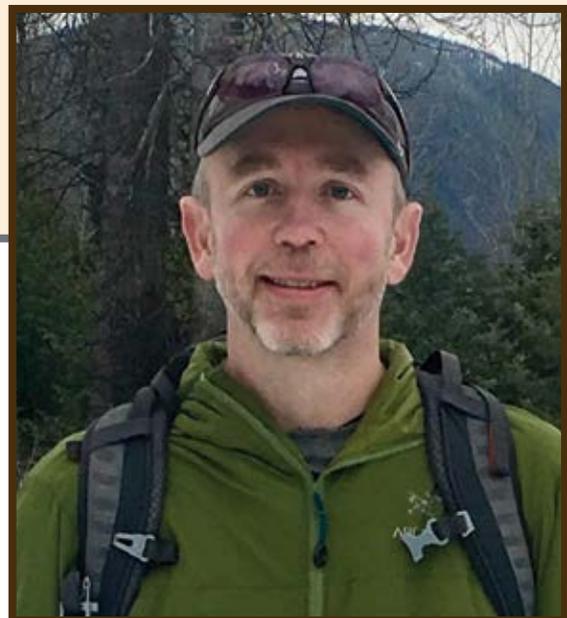
- Boone and Crockett Club
- National Science Foundation
- Rocky Mountain Elk Foundation
- North Dakota Game and Fish Department
- Missouri Department of Conservation
- U.S. Bureau of Land Management
- U.S. Forest Service
- Mule Deer Foundation
- North Dakota Oil and Gas Research Council
- South Dakota Department of Game, Fish, and Parks
- Kentucky Department of Fish and Wildlife
- U.S. Fish and Wildlife Service

#### **POLICY IMPACT**

In the summer of 2017, citing data obtained by an M.S. student supervised by Dr. Millspaugh, the Missouri Department of Conservation recommended regulation changes in September 2017 to the commercial harvest of river turtles in the state. The state had been petitioned by the Center for Biological Diversity and Great River Environmental Law Center in August 2016.

#### **BOONE AND CROCKETT FELLOW PROFILE**

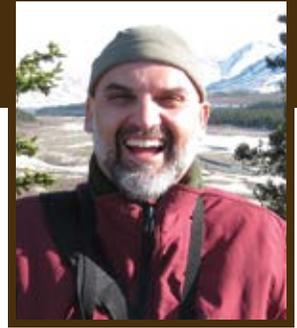
**Vaughan Branch** is an M.S. student whose research will have a distinct policy focus. Vaughan attended Mercer University in Georgia where he served as president of the business fraternity, a judicial counsel justice and graduated with honors. At Mercer Law School, Vaughan was drawn primarily to litigation courses and while a student worked for the local district attorney's office through a legal practicum. An attorney since 1995, Vaughan's professional experience is diverse. Twice in his legal career he served as a prosecutor in metropolitan Atlanta, logging over 50 jury trials as lead counsel. Between those stints, Vaughan worked in civil litigation in Washington, D.C. and Birmingham, Alabama. He also served as a program manager for a university affiliated organization linking criminal courts with community resources, and subsequently worked as a policy fellow for a nonprofit organization. Vaughan's decision to leave the practice of law and return for an M.S. in wildlife conservation was driven in part by his lifelong passion for wildlife and the outdoors. Equally important was his appreciation that informed wildlife policy decisions at every level of government are as critically important as the science supporting them. Vaughan's primary research interests involve the role and authority of state wildlife agencies, their policy-related challenges and their relationships with federal agencies.





TEXAS A&M  
UNIVERSITY

# TEXAS A&M UNIVERSITY



Dr. Perry Barboza

## TEXAS A&M UNIVERSITY WILDLIFE PROGRAM

The Department of Wildlife and Fisheries Sciences at Texas A&M University uses the latest in the ecological and management disciplines to provide the most varied and innovative education available in the conservation of the earth's biodiversity. Students in this department conduct research and learn problem-solving skills, focusing on areas that include species extinction, aquaculture food production, environmental education, and wildlife and fisheries recreational activities.

Curricula in Wildlife and Fisheries Sciences are designed to provide both the traditional and contemporary dimensions of academic instruction necessary to transform motivated and intellectually capable students into competent professionals. The program offers a bachelor's degree in Wildlife and Fisheries Science, with three concentration areas: (1) Fisheries, Aquaculture, and Aquatic Sciences, (2) Wildlife Ecology and Conservation, or (3) Vertebrate Zoology, as well as M.S. and Ph.D. options.

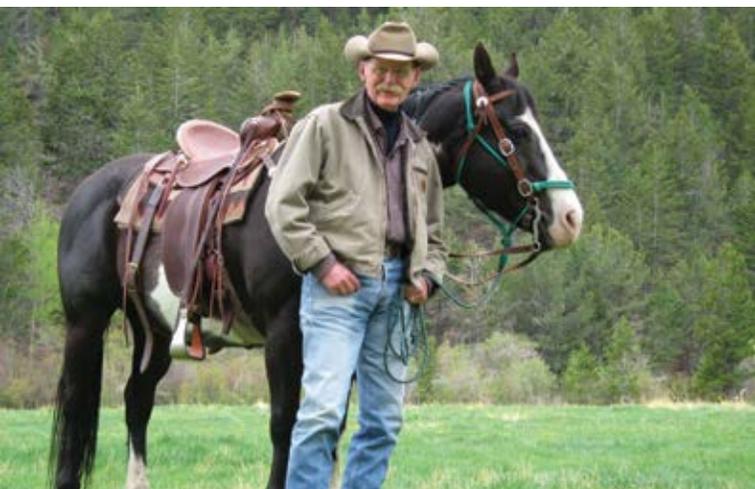
## TEXAS A&M UNIVERSITY BOONE AND CROCKETT PROFESSORSHIP PROGRAM

The Red Duke program at Texas A&M will expand opportunities for students to learn leadership in wildlife policy. Texas A&M is revising courses in Wildlife and Fisheries Sciences to engage students by integrating basic science with policy to address an array of problems including wildlife under-abundance (e.g., endangered species), wildlife over-abundance (e.g., invasive species) and human-wildlife conflicts (e.g., predator control).

The program at Texas A&M is also preparing wildlife biologists to work with people by developing social skills (e.g., outreach), analytical skills (e.g., geographic analysis) and professional skills (e.g. leadership) so that graduates can make a difference on an issue. Our goal is that more Texas A&M graduates will find a career in a network of public and private employers doing the work of wildlife policy.



*Texas A&M works with students and colleagues to study how animals use the supply of food and water to meet the demands of living in an area. The laboratory group measures what foods animals use, how much food they use and how well they are able to survive and reproduce in an area. Dr. Barboza's research program informs decisions about sustainably managing the landscape for wildlife and the formulation of policies to meet management goals.*



### RED DUKE FELLOWS

The Boone and Crockett Club signed an agreement with Texas A&M University in March 2017 to create the Boone and Crockett Dr. Red Duke Wildlife Conservation and Policy Program. The program honors the service of A&M alumnus Dr. James H. "Red" Duke (1950) as a surgeon, educator and wildlife conservationist. Dr. Duke served as president of the Boone and Crockett Club (1986-1987) and the Foundation for North American Wild Sheep (1986). Red Duke Fellows will continue to work on B&C strategic challenges such as energy, land management and private lands that are important to Texas and the nation. The Red Duke fellowships will expand the existing Boone and Crockett Club professorship program in wildlife and fisheries sciences at Texas A&M with courses, internships and practical experiences that prepare students to develop policy options for wildlife conservation in North America.

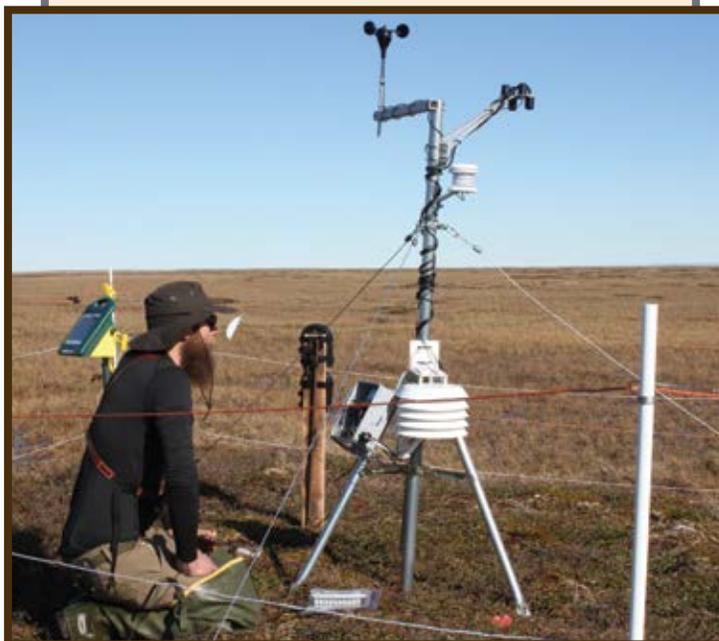
### FUNDING PROVIDED BY:

- Texas A&M AgriLife Research
- U.S. Geological Survey
- Alaska Department of Fish and Game

### BOONE AND CROCKETT FELLOW PROFILE

**Keith Oster** defended his thesis entitled "A Spatial and Phenological Perspective of Forage Minerals for Arctic Caribou" in August 2017. Keith transferred to Texas A&M from University of Alaska Fairbanks in 2015. He moved to Alaska from his home in California near Yosemite National Park. Keith thoroughly enjoyed 6 years of living, working and hunting in and around Fairbanks while he completed a Bachelor's degree and the initial phase of his M.S. program.

Keith's field work included two summers on the migratory ranges of caribou in the North Slope. His work found that arctic caribou are extremely limited in the availability of salt (sodium) on the landscape, and have short windows of opportunity to gain adequate concentrations of phosphorus for bones and copper for disease resistance. These limitations have the potential to influence movement patterns and productivity of arctic caribou in Alaska.



## MISSISSIPPI STATE UNIVERSITY WILDLIFE PROGRAM

The Department of Wildlife, Fisheries and Aquaculture at Mississippi State University is dedicated to ensuring that future generations enjoy wildlife and fisheries in their natural habitats. To meet this goal, the department is focused on training future wildlife and fisheries professionals, conducting regional, national and international research, and providing educational outreach for citizens and landowners.

Mississippi State's wildlife faculty are some of the country's leading biologists, developing scientifically-based, adaptive and proactive conservation planning to benefit applied management of wildlife and fisheries. Students are engaged with faculty in developing new methods for wildlife management and restoration through hands-on experiential learning.

The Department has a number of specialized research laboratories and centers that support its focal areas, which include spatial and quantitative ecology, carnivore ecology, human-wildlife conflicts and conservation biology. Mississippi State also benefits from integrated partnerships with the U.S. Geological Survey, the U.S. Fish and Wildlife Service, USDA-APHIS Wildlife Services and the Mississippi Department of Wildlife, Fisheries and Parks.

## MISSISSIPPI STATE BOONE AND CROCKETT FELLOWSHIP PROGRAM

The Boone and Crockett Fellowship program is reaching its fourth term at Mississippi State University. Over the past 3 years, the program's influence at Mississippi State has facilitated the education, training and professional development of our Nation's future conservation leaders through culturing academic excellence and professional integrity. Throughout the program's presence at Mississippi State, it has been under the direction and council of Dr. Bruce Leopold (Professional Member), Dr. Bronson Strickland – Extension Professor, James L. Cummins (Regular Member) – Executive Director of Wildlife Mississippi, and now under the leadership of Dr. Andy Kouba – Department Head of Wildlife, Fisheries & Aquaculture, College of Forest Resources, all of whom maintain active roles in culturing the program at Mississippi State.

*Mississippi State is working with the Mississippi Department of Wildlife, Fisheries, and Parks, the National Assembly of Sportsmen's Caucuses and the Congressional Sportsmen's Foundation to evaluate legislation and government provisions for the control of wild hogs at federal, state and municipal levels.*



### BOONE AND CROCKETT FELLOW PROFILE

**Andrew Smith** of Greenville, Mississippi, a small town in the Mississippi River Delta, is a passionate conservationist who enjoys writing, history, traditional archery, and fly-fishing. He received his B.S. in Wildlife and Fisheries Science from Mississippi State University in 2014 where he worked as an ecological technician on a variety of projects with the U.S. Fish and Wildlife Service, U.S. Geological Survey, and others. After graduation, Mr. Smith began to seek out his interests in biological invasions and natural resources/conservation policy, where he was then recruited by Dr. Leopold and the Boone and Crockett Club to investigate the effectiveness of policy and legislation to control wild pig populations in the United States. Mr. Smith is a full-time Extension Associate for Mississippi State's Center for Resolving Human-Wildlife Conflicts, where he provides programmatic support to the director, writing and publishing on key invasive species of Mississippi, the southeast, and the U.S. During this time he has worked closely with species such as Asian carp and wild pigs on a variety of projects with the U.S. Army Corp of Engineers, the Mississippi Department of Wildlife, Fisheries, & Parks, and the U.S. Geological Survey.

## TEXAS A&M KINGSVILLE WILDLIFE PROGRAM

Texas A&M University-Kingsville's (TAMUK) wildlife program has 150 undergraduate and 60 graduate students who learn about range and wildlife management in the southwestern United States. These students work with the program's 20 scientists to study wildlife ecology and management, focusing on applied studies that address challenges confronting wildlife biologists. TAMUK has nationally recognized research programs in big game, upland gamebirds, wild cats, waterfowl and wetland birds, and habitat restoration.

A unique aspect of TAMUK's wildlife program is the Caesar Kleberg Wildlife Research Institute (CKWRI), a privately funded entity that supports wildlife research at the university. The CKWRI ensures faculty and students have the finest research facilities, including GIS, molecular ecology, necropsy, and forage analysis labs, as well as facilities to work with captive ungulates and birds.

### FUNDING PROVIDED BY:

- Endowment established by Boone and Crockett members from Texas
- Texas Parks and Wildlife Department
- Mule Deer Foundation

## TEXAS A&M KINGSVILLE BOONE AND CROCKETT FELLOWSHIP PROGRAM

The Boone and Crockett Fellowship in Ungulate Research at Texas A&M University-Kingsville was funded by Boone and Crockett regular members from Texas to support a graduate student studying big game in Texas. The fellow draws on expertise of six faculty studying large mammal ecology and management, as well as range scientists, quantitative ecologists, and GIS specialists.

The Fellowship program is not only designed to develop the fellow's expertise in wildlife ecology and management but to enable the fellow to build a professional network and to understand the role of research in wildlife management and policy.

*Because of this research project, Texas Parks and Wildlife Department will be able to better match their population survey data with management decisions such as allocating permits and assessing areas where crop depredation is likely to be a problem.*

## BOONE AND CROCKETT FELLOW PROFILE

**Laura Warner** is the Boone and Crockett Fellow at TAMUK. Laura is from Ubyly, Michigan, and received her B.S. at Central Michigan University. She started her program during January 2016 and has been collecting data for two years. She makes the long drive to the Texas Panhandle several times a year to monitor her study animals and agricultural crops in the study area. Her rural background has helped her make friends with several landowners in the region which has given her an understanding of their management goals and challenges. After graduating she looks forward to taking her knowledge and applying it as a biologist with a state or federal wildlife agency. She worked previously as a hunting control station manager at Patuxent Research Refuge in Maryland, and hopes to work in a similar area where she can conduct research to help form harvest management policies and reach management goals through hunting. She enjoys working with the public and teaching others about wildlife research while promoting hunting as a management tool.





# UNIVERSITY OF WISCONSIN – STEVENS POINT

## UNIVERSITY OF WISCONSIN - STEVENS POINT WILDLIFE PROGRAM

The University of Wisconsin-Stevens Point (UWSP) Wildlife Ecology program has over 350 undergraduate wildlife majors and nine full-time wildlife faculty members. The Wildlife Ecology program emphasizes undergraduate teaching and incorporates research in areas such as conservation biology, avian ecology, predator ecology, wetland ecology, wildlife health, population dynamics, wildlife damage management and habitat management.

Practical, hands-on experiences inside and outside the classroom is a cornerstone of the program. Undergraduate courses focus on the problem-solving and scientific skills needed to understand the ecological interactions affecting wildlife management, including game, non-game, endangered and invasive species.

Graduates of the Wildlife Ecology and Management program are academically qualified to become Certified Wildlife Biologists, as stipulated by The Wildlife Society (TWS). UWSP's Wildlife Society Student Chapter is among the best in the nation. In 2016, they were awarded the National Student TWS Chapter of the Year and the North Central Section Student Chapter of the Year.

## STEVENS POINT BOONE AND CROCKETT FELLOWSHIP PROGRAM

The Douglas R. Stephens Boone and Crockett Club Fellowship in Wildlife Conservation is awarded to undergraduate students who display academic excellence and are interested in gaining a background in wildlife conservation and leadership skills. The faculty-mentored student research fellowships further the mission of the Boone and Crockett Club and advance the educational, research and outreach mission of the College of Natural Resources at UWSP.



## BOONE AND CROCKETT FELLOW PROFILE

**Janelle Taylor** was awarded the Douglas R. Stephens Boone and Crockett Club Fellowship in spring 2017. She grew up in Sun Prairie, Wisconsin, and has been twice named to the Dean's List. She is expected to graduate in May 2018, with honors, with her bachelor's degree in Wildlife Ecology – Research and Management along with a minor in GIS and Spatial Analysis and certificates in both Professional GIS and Environmental Management. Janelle is working on a research project entitled “Quantifying River Otter Habitat Selection in Wisconsin Using Aerial Surveys” under the direction of Dr. Shawn Crimmins. This project uses nearly 30,000 miles of aerial survey data collected by the Wisconsin DNR to determine habitat associations of river otters in different ecological zones of the state through the application of mixed-effects resource selection functions. Aside from identifying patterns of river otter habitat use, something that is poorly understood in Wisconsin, this project will serve to help prioritize future monitoring efforts by identifying un-surveyed areas that are likely to support otters and may merit monitoring efforts in the future. Janelle will be presenting her work at the 2018 Midwest Fish and Wildlife Conference with the hopes of having a peer-reviewed manuscript developed by the end of the academic year.



## UNIVERSITY OF GEORGIA WILDLIFE PROGRAM

The Warnell School of Forestry and Natural Resources at the University of Georgia (UGA) specializes in educating future wildlife professionals through practical application of science to benefit wildlife, habitats and society. The program includes 130 wildlife and fisheries undergraduates and 80 graduate students concentrating on wildlife research. There are 16 wildlife faculty at UGA, including three faculty members specifically focusing on big game species in their research.

Students gain a strong background in the biological, technical and management aspects of the profession while meeting the educational requirements to become Certified Wildlife Biologists through The Wildlife Society. Graduates of the program go on to work as biologists, researchers, administrators, and consultants in state and federal agencies and in private industry.



## UNIVERSITY OF GEORGIA BOONE AND CROCKETT CONSERVATION PROGRAM

The Boone and Crockett Conservation Program at UGA will focus on management of native big game species in the southeastern United States. The effort is strongly supported by Boone and Crockett Regular Members from Georgia, the Georgia Department of Natural Resources and the Quality Deer Management Association. The Distinguished Boone and Crockett Professor will train undergraduate and graduate students to strategically position them for leadership roles to advocate for wildlife resources and the men and women who fund conservation efforts through their hunting license dollars. This program will further strengthen UGA's longstanding commitment to game management research, education and outreach.

*“The students ranged from metropolis to rural, avid hunters to those who had never shot a gun, those with limited travel experience to biologists who had conducted wildlife research in the Chernobyl region. The combination of science, law, and political influences resulted in informative, enlightening, and even entertaining discussions.”*

*- Hamilton Garner, Instructor of Wildlife Law Course at UGA*

## BROADENING THE SCOPE OF WILDLIFE EDUCATION AT UGA

One part of the initiative at UGA includes the establishment of the Boone and Crockett Wildlife Policy and Law Center to provide students the opportunity to learn, not only from wildlife faculty, but also from campus experts in law, political science and business. Together, they can study the legal, social and financial components of wildlife management. The Warnell School worked with the UGA Law School to develop and a new Wildlife Law course. Mr. J. Hamilton Garner, an attorney from Moultrie, Georgia, taught the course during spring semester 2017. A total of 42 students enrolled in the class, including 35 law students and 7 wildlife graduate students. The course focused on state-level law in the United States, particularly sustainable use and regulated hunting as components of conservation. Selected topics included the North American Model of Wildlife Conservation, the Public Trust Doctrine and policy related to wildlife management on public and private lands.



## BOONE AND CROCKETT OUTREACH



Ms. Jordan Burroughs

By focusing on the health benefits, sustainability, and great taste of wild game and fish, the Gourmet Gone Wild Program highlights that hunting and fishing is also about procuring food. According to research, hunting for food is the most widely-accepted reason to hunt and a great way to introduce non-hunters to conservation and hunting. Local, donated wild game and fish are served at GGW events, which gives guests an even better understanding of the resources available in their state and exactly where their food came from. Since receiving grant funding from the Cabela's Outdoor Fund, over a dozen GGW events have been organized across Michigan. Through these events, the program has connected with over 415 people that are underrepresented in the conservation community in order to enhance their interest and support for hunting, angling, and environmental stewardship. GGW held its first wild game cooking demo associated with a farmers market this past spring. In May, GGW partnered with a Culinary Arts program to demonstrate wild game recipes to culinary students. The GGW program ventured to the Upper Peninsula of Michigan to host an event with the Keweenaw Young Professionals. During the event, wild game dishes were prepared by a local chef and the Michigan DNR donated the use of a virtual shooting trailer for event attendees to try out target shooting. This past summer, GGW collaborated on a "Will Forage for Food" event in Ann Arbor and a "Date Night" at the DNR's Outdoor Adventure Center in Detroit. Survey results indicate that many of the GGW participants (with little to no prior connections to hunting) are interested in learning more about hunting. When participants were asked about their interest in learning how to hunt with a certified hunting mentor, over half indicated that they were interested. Therefore, opportunities are being explored to cross-promote programs and connect GGW participants with Learn to Hunt (LTH) efforts taking place across the state.

A national initiative has pushed for the recruitment, retention, and reactivation (R3) of hunters, including reaching out to new demographics. According to the research, these new demographics appear to be motivated to hunt for various reasons including to improve their self-sufficiency, provide their own meat, experience nature in a unique way and hunt with an experienced mentor. These motivations are seamlessly intertwined into Michigan's LTH program. Michigan's LTH program has a sustainable food focus and is geared toward teaching adults, new to hunting, how to hunt. During each offering, participants are taught fundamental hunting skills through both classroom and hands-on experiences including a mentored hunt. For each offering, curricula is created (or revised based off evaluation results), implemented and evaluated. During 2017, the following LTH sessions were offered: fall turkey, deer, pheasant, and spring turkey (3 sessions). Two new sessions were piloted in 2017: Learn to Wingshoot (3 sessions) and an adult-focused hunter safety certification course. In total, 84 people registered for the 2017 LTH



offerings and over 60 percent of those registrants were female. The Michigan Learn to Hunt Program continues to be refined based on participant feedback and enhanced by the skills and expertise of the LTH collaborators. Prompted by experience and the success of the LTH program, the LTH founder and program coordinator have been invited to present their work to regional and national audiences and serve on numerous R3 related committees.

*“Thank you so much for an amazing opportunity! I was hesitant to get involved because of my complete lack of experience with hunting, but you and everyone involved with the program have made me feel much more comfortable with hunting and shooting. The resources and information provided have been invaluable! ... I’m super excited to get back out there and to learn more and grow as a new hunter! I’m even more excited to be able to share future experiences with my young son!”*

*- 2017 Spring LTH Turkey Participant*

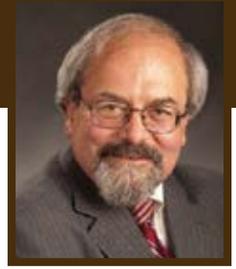


Michigan’s Learn to Hunt program was featured in the Boone and Crockett Club’s quarterly publication *Fair Chase* (Summer 2016 issue).





## DEMME SCHOLARS PROGRAM



Mr. Mark Rey

The William A. Demmer Scholars Program has been underway at Michigan State University since 2009. The program is led by Mark Rey, executive in residence in the MSU Center for Systems Integration and Sustainability in the Department of Fisheries and Wildlife. Since its inception, 218 Demmer Scholars have been selected through a competitive process to enroll in a federal natural resources policy course taught in Washington, D.C. While enrolled, students are placed in paid natural resource policy internships with the federal government, nongovernmental organizations, and trade associations.

The course is taught in the classroom and through visits with policy makers and field trips in and around Washington, D.C. Demmer Scholars learn from a broad array of elected officials, policy makers and natural resource professionals. They also meet with Boone and Crockett Club members working in the area at a dinner with the heads of all four of the federal land management agencies.

During the summer of 2010, we added 6 Mississippi State University students to the course and increased the number of annual internships to 28 students. Recently, we added 2 additional students from Oregon State University, bringing the total number of scholars in our upcoming 2018 cohort to 30. Students from these universities are interacting with each other and learning about different natural resources issues in their respective regions.

Over fifty Demmer interns who have finished their academic studies have relocated to Washington, D.C. to start their careers in full time, professional positions in government or the private sector. More will follow. We are educating the next generation of natural resource leaders and they are starting to take their places.

*"From the moment I walked through security each morning, to riding the metro home from Union Station each afternoon—often after a 10-hour work day, I never lost sight that I was working in a place of privilege and enormous history and tradition. Having the opportunity to work with and learn from such committed and passionate staff has been a unique and remarkable experience. It has taught me skills and knowledge that go beyond academia, into personal development. I plan on taking this knowledge and experience back to school with me in a few weeks, and know it will shape the rest of my education, and professional decisions."*

**- Julia Rossman (Michigan State, worked for the Senate Agriculture Committee)**

*"When someone asks me why I never wanted to miss a day of work, I always referred back to the notecard that Chief Tom Tidwell wrote me saying, "Why is our work important? Why do people care so much about what we do? From the clean water, the clean air, the biodiversity, the economic activity that supports over 350,000 jobs—to simply providing the recreational settings that renews our spirit. Through conservation we improve people's lives... Hundreds of millions of people." I never imagined that by stating that I am an intern at the U.S. Forest Service, I would feel that I belonged to something much greater than myself."*

**- Shea Gould (Mississippi State, worked in the U.S. Forest Service Office of Legislative Affairs)**



## WHERE ARE THEY NOW?

### DR. NATHAN SNOW

Dr. Nathan Snow received his Ph.D. in Fisheries and Wildlife from Michigan State University in 2014, as well as a M.S. degree in Fish, Wildlife, and Conservation Biology from Colorado State University, and a B.S. degree from Central Michigan University. Nathan currently works as a Research Biologist for the United States Department of Agriculture, National Wildlife Research Center. Nathan designs and leads field experiments and statistical modeling to enhance management strategies for feral swine throughout the United States, and help curtail the spread of one of the nation's most destructive invasive species. This work directly pertains to the National Feral Swine Damage Management Program (congressionally appropriated in 2014), whose goals are to develop tools and policies that will ultimately reduce the populations of feral swine throughout the United States. Furthermore, Nathan collaborates with counterparts in Canada and Australia where similar threats from feral swine exist. Nathan plans to continue his career helping to solve conflicts between wildlife and humans so that both can coexist for generations to come.



### DR. BRENDAN MOYNAHAN

Dr. Brendan Moynahan completed his B&C doctoral fellowship under Dr. Jack Ward Thomas in 2004. He holds a B.A. in Political Science (in environmental policy) from Bates College, and completed both of his graduate degrees at the University of Montana: an M.S. in Restoration Ecology (focusing on restoration of Montana riparian systems) and a Ph.D. in Wildlife Biology (quantitative population ecology of greater sage-grouse). The emphasis on practical, interdisciplinary conservation is what first drew him to the B&C program at the University of Montana.

Brendan lives in Missoula and is a Research Coordinator and Senior Science Advisor for the National Park Service. Prior to this post, Brendan was the Supervisory Wildlife Biologist for the National Bison Range (USFWS, 2012-2014), NPS Program Manager for the Southeast Alaska Inventory and Monitoring Network (2007-2012), and a Wildlife Biologist for the BLM in western Colorado (2005-2007). He has worked throughout the Intermountain West and Alaska, frequently on collaborative projects that bring private, NGO, state, and federal parties together for wildlife research and conservation. He is particularly interested in the application of sound science to thorny resource management issues, and the development and delivery of effective science communication tools.





# 2017 BOONE AND CROCKETT FELLOWS



**Stephanie Berry** (Ph.D. student; U of Montana): Retrospective assessment of wildlife response to habitat treatments in western Montana and northern Idaho



**Joanne Crawford** (Postdoctoral fellow; Michigan State): Coordinating the Midwest Wild Turkey Consortium



**Chris Hoving** (Ph.D. student; Michigan State): Adaptation and resilience in habitat planning; Models of oak management in a changing climate



**Vaughan Branch** (M.S. student; U of Montana): Evaluating the foundations of state authority over wildlife



**Andrew Crosby** (Ph.D. student; Michigan State): Assessing the impact of forest management systems on wildlife and biodiversity



**Ashley Huinker** (M.S. student; Michigan State): American woodcock and factors affecting their reproduction and survival



**Rebecca Cain** (Ph.D. student; Michigan State): Impacts of landscape-level changes in abundance and distribution of trophy white-tailed deer



**Kathryn Frens** (Ph.D. student; Michigan State): Effects of policy on land protections, habitat quality, and human wellbeing in the US Northern forest



**Nick Jaffe** (Ph.D. student; Michigan State): Effects of predator-prey interactions on the ecology and local economies of the Lower Peninsula of Michigan



**Andrew Carlson** (Ph.D. student; Michigan State): Fisheries as coupled human and natural systems (advised by William Taylor)



**Molly Good** (Ph.D. student; Michigan State): Role and efficacy of law enforcement in Great Lakes fisheries management (advised by William Taylor)



**Garrett Knowlton** (B.S. student; Michigan State): Spatially-explicit analysis to quantify reporting rates of white-tailed deer entered in the Boone and Crockett records



**Colter Chitwood** (Postdoctoral fellow; U of Montana): Ecology and management of the restored elk population in Missouri



**Steve Gurney** (B.S. student; Michigan State): Behavioral ecology of black bears in the northern Lower Peninsula of Michigan



**Jesse Kolar** (Ph.D. student; U of Montana): Potential effects of oil and gas energy development on mule deer in western North Dakota (based at U of Missouri)



**Sonja Christensen** (Ph.D. student; Michigan State): Local-scale assessment and monitoring of deer populations following a major mortality event



**Christopher Hansen** (Ph.D. student; U of Montana): Conservation implications of sustainable ranch management on wildlife communities



**Rachel Konkle** (B.S. student; U of Wisconsin-Stevens Point): Estimating the time of greater prairie-chicken nest failure



**Mike Clawson** (Postdoctoral fellow; U of Montana): Demographic modeling of harvested wildlife (based at U of Washington, co-advised with J. Skalski)



**Levi Heffelfinger** (Ph.D. student; Texas A&M-Kingsville): Effect of agriculture on mule deer movements and survival in the Texas Panhandle



**Sydney Manning** (B.S. student; Michigan State): Developing realistic wild turkey management models: effects of observation uncertainty and regulation cycle



**Jonathan Cook** (Ph.D. student; Michigan State): Management solutions for chronic wasting disease in white-tailed deer



**Kaylee Hollingsworth** (Ph.D. student; Texas A&M): Little and large mammals as indicators of productivity in grasslands



**Jeff Martin** (Ph.D. student; Texas A&M): The effect of warming summers on the size and morphology of bison



**Elizabeth Matseur** (Ph.D. student; U of Montana): Black-backed woodpecker population estimates (based at U of Missouri, co-advised with F. Thompson)



**Jennifer Smith** (M.S. student; Michigan State): Black bear density, resource selection, and movement behavior in the Lower Peninsula of Michigan



**Chloe Wright** (M.S. student; U of Montana): Survival, movements, and resource selection of female white-tailed deer in two regions of Missouri



**Jon McRoberts** (Postdoctoral Fellow; U of Montana): Survival, recruitment, and movement patterns of white-tailed deer in Missouri (based at U of Missouri)



**Andrew Smith** (M.S. student; Mississippi State): Investigating effectiveness of wild hog legislation in the United States



**So-Jung Yun** (Ph.D. student; Michigan State): Assessing inland capture fisheries harvest and the inland fisheries value chain (advised by William Taylor)



**Emily Oja** (M.S. student; U of Montana): Retrospective assessment of wildlife response to habitat treatments in western Montana and northern Idaho



**Hunter Stanke** (B.S. student; Michigan State): Using a landscape approach to assess chronic wasting disease in Michigan



**Keith Oster** (M.S. student; Texas A&M): Spatial and phenological constraints of mineral nutrients on arctic caribou



**Janelle Taylor** (B.S. student; U of Wisconsin-Stevens Point): Quantifying river otter habitat selection in Wisconsin using aerial surveys



**Ellen Pero** (Ph.D. student; U of Montana): Ecology and management of the restored elk population in Missouri



**Daniel Thompson** (Ph.D. student; Texas A&M): Response of moose to seasonal and diurnal variation in temperature



**Megan Pluemer** (B.S. student; U of Wisconsin-Stevens Point): Canine heartworm infection in urban coyotes and red foxes in Madison, Wisconsin



**Noelle Thompson** (Ph.D. student; Michigan State): Modeling white-tailed deer disease risk to determine cost-effective management techniques



**Allie Shoffner** (Ph.D. student; Michigan State): American woodcock reproductive rates in relation to forest structure at local and landscape scales



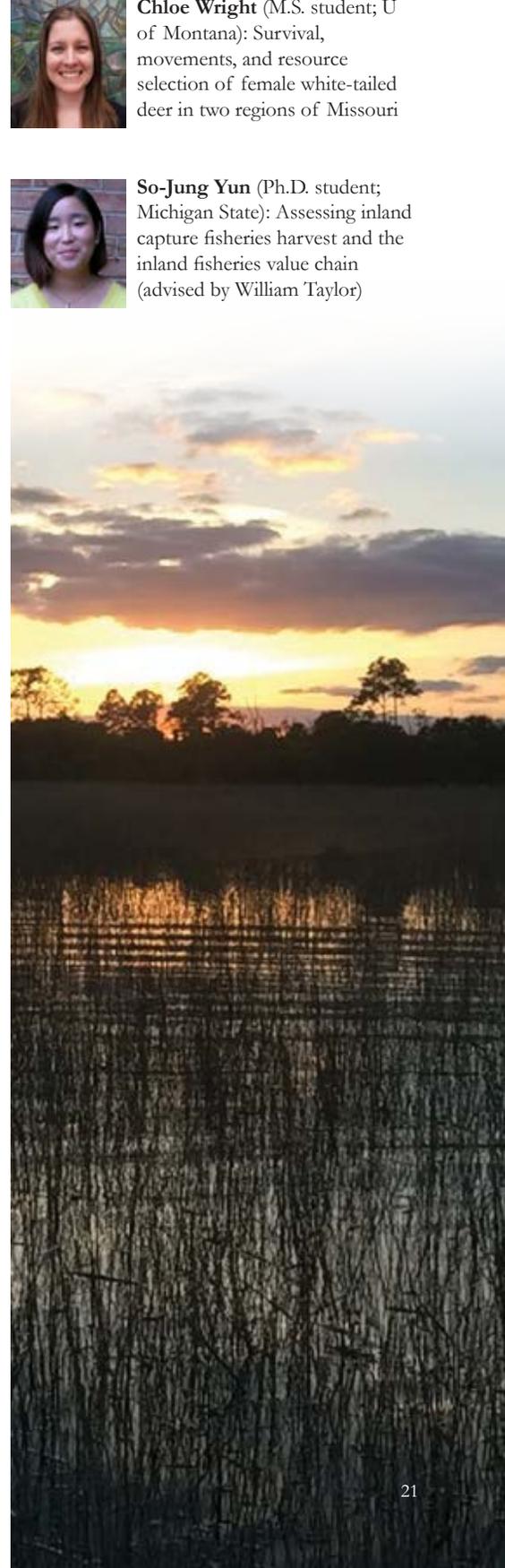
**Jonathan Trudeau** (Ph.D. student; Michigan State): Assessing drivers of spread and transmission of chronic wasting disease in Michigan deer



**Leslie Skora** (M.S. student; Michigan State): Population dynamics of brown bears in Katmai National Park and Preserve



**Laura Warner** (M.S. student; Texas A&M-Kingsville): Effect of agriculture on mule deer movements and survival in the Texas Panhandle





# BOONE AND CROCKETT ACCOMPLISHMENTS

## SELECTED AWARDS

**Kathryn Frens** was awarded 3rd Place for Best Student Presentation at The Wildlife Society's Annual Conference.

**Steve Gurney** was awarded Best Poster Presentation at the annual meeting of the Michigan Chapter of The Wildlife Society.

**Garrett Knowlton** received a Michigan State University College of Agriculture and Natural Resources undergraduate research grant.

**Rachel Konkle** was awarded Best Undergraduate Presentation at the winter meeting of the Wisconsin Chapter of The Wildlife Society.

**Sydney Manning** was awarded Best Oral Presentation at the annual meeting of the Michigan Chapter of The Wildlife Society.

**Hunter Stanke** was awarded 1st Place for Best Poster Presentation at The Wildlife Society's Annual Conference.

## SELECTED PEER-REVIEWED PUBLICATIONS

**Chitwood, M.C.**, B. J. Keller, H. Saeed Al-Warid, K. Straka, L.P. Hansen and **J.J. Millspaugh**. 2017. Meningeal worm (*Paraphostrongylus tenuis*) as a mortality source in the restored elk population in Missouri. *Journal of Wildlife Diseases*. In Press.

**Chitwood, M.C.**, M.A. Lashley, C.E. Moorman and C.S. DePerno. 2017. Setting an evolutionary trap: could the hider strategy be maladaptive for white-tailed deer? *Journal of Ethology* 35: 251-257.

**Chitwood, M.C.**, M.A. Lashley, C.S. DePerno, and C.E. Moorman. 2017. Considerations on neonatal ungulate capture method: potential for bias in survival estimation and cause-specific mortality. *Wildlife Biology*. DOI:10.2981/wlb.00250.

**Clawson, M.V.**, J.R. Skalski, J.M. Lady, C.A. Hagen, **J.J. Millspaugh**, D. Budeau and J.P. Severson. 2017. Performing statistical population reconstruction using Program PopRecon 2.0. *Wildlife Society Bulletin* 41: 581-589.

De La Torre, J. R., C. Bautista-Pina, J. A. Ortega-S., A. Cantu-Covarrubias, M.G. Alvarez-Ojeda, D. Romero-Salas, S.E. Henke, C.D. Hilton, **D.G. Hewitt**, R.W. DeYoung, T.A. Campbell and F.C. Bryant. 2017. Neospora caninum in axis deer (*Axis axis*) and fallow deer (*Dama dama*) in northern Mexico. *Journal of Wildlife Disease* 53: 186-187.

Fremgen, A., C. Rota, C. Hansen, M. Rumble, S. Gamo and **J. Millspaugh**. 2017. Use of multi-state mark-recapture models to assess male greater sage-grouse movements among leks. *Journal of Wildlife Management* 81: 498-508.

Gustine D.D., **P.S. Barboza**, L.G. Adams, D.B. Griffith, R.D. Cameron and K. Whitten. 2017. Advancing the match-mismatch framework for large herbivores in the Arctic: Evaluating the evidence for a trophic mismatch for caribou in the Alaskan Arctic. *PLoS One* 12(2) DOI:10.1371/journal.pone.0171807.

Gray, S., R.A. Montgomery, **J.J. Millspaugh** and M.W. Hayward. 2017. Spatio-temporal variation in African lion roaring in relation to a dominance shift. *Journal of Mammalogy* 98: 1088-1095.

Hansen, L.P., E. Flinn, J. Sumners, S. Gao, and **J.J. Millspaugh**. 2017. Effects of an antler point restriction on harvest of white-tailed deer in Missouri. *Wildlife Society Bulletin* 41: 516-522.

Haskell, S.P., W.B. Ballard, **J.T. McRoberts**, M.C. Wallace, P.R. Krausman, M.H. Humphrey, O.J. Alcumbrac and D.A. Butler. 2017. Growth and mortality of sympatric white-tailed and mule deer fawns. *Journal of Wildlife Management* 81(8): 1417-1429.

**Heffelfinger, L.J.**, K.M. Stewart, A.P. Bush, J.S. Sedinger, and V.C. Bleich. 2017. Timing of precipitation in an arid environment: effects on population performance of a large herbivore. *Ecology and Evolution*. Accepted.

Hinton, G.C., **B.K. Strickland**, S. Demarais, T.W. Eubank and P.D. Jones. 2017. Estimation of deer damage to soybean production in eastern Mississippi: perception versus reality. *Wildlife Society Bulletin*. DOI: 10.1002/wsb.738.

Kays, R., A.W. Parson, M.C. Baker, E.L. Kalies, T. Forrester, R. Costello, C.T. Rota, **J.J. Millspaugh** and W.J. McShea. 2017. Does hunting or hiking affect wildlife communities in protected areas? *Journal of Applied Ecology* 54: 242-252.

Lehman, C., C. Rota, M. Rumble and **J. Millspaugh**. 2017. Characteristics of successful puma kill sites of elk in the Black Hills, South Dakota. *Wildlife Biology*: In Press.

**Pero, E.P.** and J.F. Hare. 2017. Demography and life history of a Manitoba, Delta Marsh population of Franklin's ground squirrels (*Poliocitellus franklinii*). *Canadian Wildlife Biology and Management* 6: 42-52.

**Porter, W.F.** and **K. Frens**. 2017. The landscape conservation movement. In: Mahoney, S., and V. Geist, editors. *The North American model of wildlife conservation*. Johns Hopkins University Press. In Press.

**Porter, W.F.**, R. Mason and **K. Frens**. 2017. Wildlife Protection Legislation. In: Leopold, B., J. Cummins and W. Kessler, editors. *North American wildlife policy and law*. Boone and Crockett Club. In Press.

Shoemaker, K.T., **L.J. Heffelfinger**, N.J. Jackson, M.E. Blum and K.M. Stewart. 2017. A machine-learning approach for extending classical wildlife resource selection analyses. *Ecology and Evolution*. Accepted.

**Smith, A.L.** 2017. Environmental Protection. In: Leopold, B., J. Cummins and W. Kessler, editors. *North American wildlife policy and law*. Boone and Crockett Club. In Press.

**Snow, N.P.**, J.A. Foster, J.C. Kinsey, S.T. Humphrys, L.D. Staples, **D.G. Hewitt** and K.C. Vercauteren. 2017. Development of toxic bait to control invasive wild pigs and reduce damage. *Wildlife Society Bulletin* 41: 256-263.

**Stevens, B.S.**, J.R. Bence, **W.F. Porter**, and M.L. Jones. 2017. Identifying target reference points for harvesting assessment-limited wildlife populations: a case study. *Ecological Applications*. 27: 1916-1931.

**Stevens, B.S.**, J.R. Bence, **W.F. Porter**, and **C.J. Parent**. 2017. Structural uncertainty limits generality of fall harvest strategies for wild turkeys. *Journal of Wildlife Management*. 81(4): 617-628.

**Strickland, B.K.**, P.D. Jones, S. Demarais, and C. Dacus. 2017. Adjusting for body mass change in white-tailed deer during hunting season. *Wildlife Society Bulletin*. 41(2): 286-293.

Van Someren, L.L., **P.S. Barboza**, D.D. Gustine and M.S. Bret-Harte. 2017. Assessing nutrient availability for arctic caribou: Interactions among nutrients, anti-nutrients, and stable isotope ratios. *Rapid Communications in Mass Spectrometry* 31: 813-820.

## SELECTED POPULAR ARTICLES

**Barboza, P.** Red Duke's legacy for wildlife conservation and policy. *Fair Chase Magazine*. Fall 2017.

**Clawson, M.V.**, J.L. Isabelle, J.R. Skalski and **J.J. Millspaugh**. 2017. Recommendations and guidance for the implementation of statistical population reconstruction in game management. *Science and Management Technical Series: Number 11*. Missouri Department of Conservation, Jefferson City, MO.

**Crosby, A.** Thinking like a forest: managing forests for wildlife habitat and biodiversity. *MSU Fisheries and Wildlife Spotlight Magazine*, Spring 2017.

Fulbright, T., R. DeYoung, **D. Hewitt**, W. C. Conway, H. Perotto, and S. Gray. 2017. Panhandle pronghorns: How do crops influence them? *Caesar Kleberg Tracks* 2(1): 8-9.

**Hewitt, D. G.** 2017. Population-level impacts of chronic wasting disease. *South Texas Wildlife* 21(1): 1-2.

Kolar, J.L., **J.J. Millspaugh**, B.A. Stillings, C.P. Hansen, **M.C. Chitwood**, C. T. Rota and B. P. Skelly. Potential effects of oil and gas energy development on mule deer in western North Dakota. Final Report to North Dakota Game and Fish Department, Bismarck, North Dakota.

Michel, E., S. Demarais, **B. Strickland**, A. Blaylock, W. McKinley, C. Dacus and B. Hamrick. 2017. The role of genetics and nutrition in deer management. Mississippi State University Extension Service Publication 3013.

Michel, E., S. Demarais, **B. Strickland**, A. Blaylock, W. McKinley, C. Dacus, and B. Hamrick. 2017. The role of genetics and nutrition in QDM. *Quality Whitetails* 20-26.

**Smith, A.L.** 2017. Comradery of hunting. *Extension outdoors*. Mississippi State University Extension Service.

**Smith, A.L.** 2017. Effects of hunting wild pigs in Mississippi. *Extension outdoors*. Mississippi State University Extension Service.

**Trudeau, J.K.** A game called "Have you met Jon?": A guide to networking. *The Student Chronicles: Newsletter from The Wildlife Society Student Development Working Group*, September 2017.

**Warner, L.**, J. Lampman, **D. Hewitt**, S. Gray, T. Fulbright, L. Harveson, W. Conway, and R. DeYoung. 2017. Solving the Case of the Disappearing Mule Deer. *Caesar Kleberg Tracks* 2(2): In Press.

## COURSES TAUGHT BY PROGRAM LEADERS

Conservation of Wildlife Populations. Fall semester 2017. **J. Millspaugh** (Course instructor).

Directed Studies: Responses of Animals to Hot Environments. Spring semester 2017. **P. Barboza** (Course instructor).

Fish and Wildlife Laws and Administration. Spring semester 2017. **P. Barboza** (Course instructor).

Leadership in Natural Resources and Environmental Management. Fall semester 2017. **W. Porter** and **S. Christensen** (Course instructors).

Sustaining South African Wildlife: Cash, Crime, Conflict and Conservation. Summer semester 2017 (Study abroad). **D. Williams** and J. Schneider (Course instructors).

Wildlife Harvest Management. Spring semester 2017. **J. Millspaugh** (Course instructor).

Problems in Range and Wildlife Management. Summer semester 2017. **D. Hewitt** (Course instructor).

Wildlife Policy. Spring semester 2017. **W. Porter**, **D. Williams** and **R. Cain** (Course instructors).

## SELECTED OUTREACH AND PROFESSIONAL ACTIVITIES

Association of Fish and Wildlife Agencies, National Fish and Wildlife Health Initiative Committee: **S. Christensen**, Coordinator.

Chronic Wasting Disease Symposium, Michigan Department of Natural Resources: **W. Porter**, Invited working group member; **D. Williams**, Invited speaker and panelist.

Michigan Chapter of The Wildlife Society, **S. Christensen**, President.

Midwest Deer and Turkey Technical Committee: **W. Porter**.

Midwest Association of Fish and Wildlife Agencies Climate Change Technical Committee: **C. Hoving**.

Mississippi State Extension Workshop Series: Wild Pig Control and Damage Management. **A. Smith**.

Mississippi State Extension Workshop Series: White-tailed Deer Management. **A. Smith**.

Mississippi State Extension Workshop Series: Wild Turkey Management. **A. Smith**.

Texas A&M College of Agriculture Presentation. **P. Barboza**.

TAMU-K Deer Associates Meeting. **D. Hewitt**.

TAMU- K CKWRI Partner Meeting. **D. Hewitt**.

Wildlife Society, Conservation, Education and Outreach Working Group: **J. Crawford**, Board Member.





This report was created by the Michigan State University  
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Design by Karlie Slayer, Rose Stewart and Jordan Burroughs