

St. John Family Endowed Professor of Wildlife Management

2020-2021 ANNUAL REPORT



MISSISSIPPI STATE
UNIVERSITY™

COLLEGE OF
FOREST RESOURCES

LETTER FROM THE CHAIR

AM GRATEFUL TO SERVE AS THE ST.

John Family Endowed Professor of Wildlife Management at Mississippi State University. Our state's rich natural resources along with the opportunities provided by Mississippi State University and the St. John Family Endowment enables those serving in this position to have a platform for educating landowners and hunters on wildlife conservation in the state, region, and beyond.

Since I became the St. John Family Endowed Professor, colleagues and I have garnered \$2.29 million in external funding for applied wildlife research, and I have served as advisor or committee member to 18 graduate students. The hard work of these students has so far culminated in 28 technical presentations to wildlife professionals and 15 publications. To disseminate this management information to the public, we have grown a large audience throughout the U.S. on various communication platforms. In 2020, we had over 34,000 social media followers and over 87,000 downloads on the podcast Deer University. In 2021, we launched our YouTube channel—MSU Deer Lab TV—and our wildlife management online educational series will launch later this year.

Mississippi State University is honored to have alumni like the St. John family who give back to the university for wildlife management research and conservation education.



Bronson Strickland
Extension Professor
Wildlife, Fisheries
& Aquaculture

SUMMARY

28
Presentations

15
Publications

18
Graduate Students
*Major professor and/or
committee member*

34,138
Social Media Followers

\$2.29M
External Funding

"...educating landowners and hunters on wildlife conservation in the **state, region, and beyond.**"

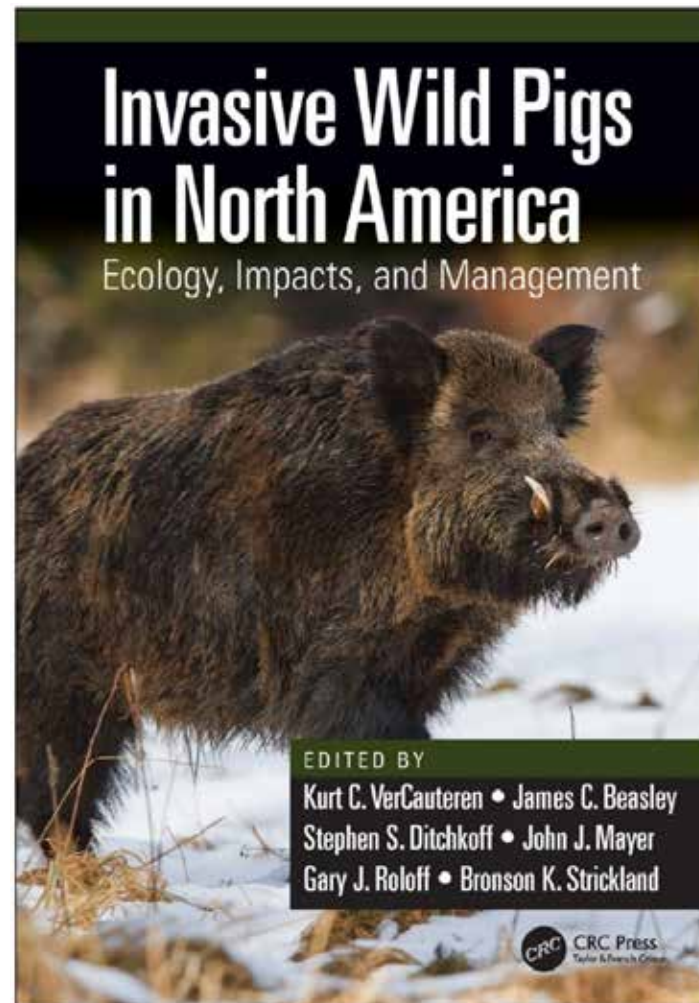
EXTENSION

The goal for the St. John Endowed Chair in Extension is to deliver research-based, educational programming that meets a wide range of audiences through various media outlets.

WILD PIGS CONTINUE TO BE A MENACE

to Mississippians, as well as to landowners, agricultural producers, and natural resource managers throughout North America. Wild pigs are found in about 40 states and in the Southeastern States, population numbers are either stable or increasing. In Mississippi, hunters are now recreationally harvesting over 300,000 wild pigs annually (as compared to 220,000 white-tailed deer) and the economic costs of wild pigs exceed \$60 million annually in Mississippi.

Until 2020, there was no compendium of research and management information detailing what we know about the ecology and management of wild pigs in North America. Bronson Strickland, along with co-editors and co-authors, addressed this need with the development of the new book “Invasive Wild Pigs in North America: Ecology, Impacts, and Management.” The book received The Wildlife Society Edited Book publication award in 2020.



Reduced Vertebrate Diversity Independent of Spatial Scale Following Feral Swine Invasions, co-authored by Strickland, was recognized in 2020 as the top downloaded paper in 2018–2019 in Ecology and Evolution.

DIGITAL MEDIA

Social Media



- The MSU Deer Lab **Facebook** page has **27,232** followers. In 2020, posts reached **2.1 million** people and videos were viewed **227,854** times.



- The MSU Deer Lab **Twitter** account has 1,279 followers. In 2019, tweets provided **62,298** impressions with **4,766** engagements.



- The MSU Deer Lab **Instagram** account has now become the lab's second most popular social media account with **4,136** followers, **131,134** impressions, and **11,604** video views.



- The MSU Deer Lab TV channel on **YouTube** has **1,491** subscribers and **72,400** video views in 2020, which equates to **3,000** video view hours.

Radio/Television

Four TV episodes of Mossy Oak Gamekeepers on the Sportman's Channel with a viewership of over 4 million.

Podcast

Four podcast interviews for outdoor magazines were provided.

The Deer University podcast continues to be a success. **Ranked #2**, all time, in the Science/Nature category of Apple Podcasts, Deer University has received over **311,000** downloads, with **87,077** downloads in 2020.



RESEARCH

The goal for the St. John Endowed Chair in Research is to develop applied research that addresses needs and questions asked by Mississippi landowners and/or hunters.

Why Measure Antlers?

Antlers are nutritionally and physiologically taxing to produce. Life-history theory suggests allocating resources to antler growth must be balanced against resource availability for survival and to maximize reproductive success. Because antler size sensitively tracks habitat variability, they can be used to signal both short- and long-term environmental change. A recent study from the Deer Ecology and Management Lab sought to investigate whether antler growth in the white-tailed deer population of Mississippi, signals environmental changes over time. The results of this study suggest environmental effects can affect the antler size of entire cohorts of bucks in a region and influence their reproductive success. In short, antlers can be a very sensitive indicator of habitat quality and changes in the environment.



RECOGNITION

Boone and Crockett Club president Tim Brady and professional member Jimmy Bullock presented Mississippi State University's Deer Ecology and Management Lab with the Club's Conservation and Stewardship Award. The prestigious award is given annually to the organization or entity that best exemplifies excellence in natural resource conservation and stewardship—core values of the Boone and Crockett Club and its founder, Theodore Roosevelt. Dr. David Guynn and Dr. Bronson Strickland accepted the award during the Club's annual dinner on March 11, 2020 at the North American Wildlife and Natural Resources Conference in Omaha, Nebraska.

"The groundbreaking research conducted by the Mississippi State Deer Ecology and Research lab has had unprecedented impact on both management and hunting of the premier big game species in North America, the white-tailed deer," commented Bullock. "It is our honor to present them with the Boone and Crockett Club's Conservation and Stewardship Award to recognize them for their nearly 50 years of advancing science-based knowledge and management of deer and deer hunting."

Text and photo by Boone and Crockett Club



Pictured left to right: Boone and Crockett Club president Tim Brady; Club professional member, and co-chair of the Stewardship and Multiple-Use Subcommittee, Jimmy Bullock; Strickland and Guynn; and U.S. Fish and Wildlife Service Director Aurelia Skipwith.



MORIAH BOGGESS RECENTLY completed his thesis entitled “Effects of fire on acorn removal and deer mediated community level indirect effects of mast seeding.” Moriah grew up in the mountains of North Carolina, fishing streams for trout and smallmouth bass. Moriah’s growing interest in land management and habitat improvement led him to an undergraduate degree at North Carolina State University in wildlife science, where he realized his biggest interest was in habitat manipulation for game species, particularly white-tailed deer.

One aspect of Moriah’s research was measuring species selectivity of acorns by white-tailed deer and other wildlife and the subsequent effects of oak regeneration in North Mississippi.

Moriah is now the Deer Biologist for the Indiana Department of Natural Resources, Division of Fish and Wildlife.



HEARNE FOSTER RECENTLY COMPLETED his thesis entitled “Estimation of wild pig (*Sus scrofa*) damage to corn (*Zea mays* L.) production in the Mississippi Alluvial Valley.”

Hearne was born and raised in Cedarbluff, MS, and grew up on a farm where his family managed a cow-calf operation, hay production, and all the associated activities relative to farm life. Hearne received an undergraduate degree in Wildlife Science at MSU and later his MS degree studying the underlying economic and spatial characteristics of wild pig damage to corn production.

Hearne sampled 125 corn fields in 2015 and 2016 and found only 12% were damaged by wild pigs. His research uncovered that the spatial distribution of wild pig damage is heterogenous and the variance in economic costs to individual producers is great, which means the costs to most corn producers is negligible, but for some corn producers the costs can be severe.



ST. JOHN FAMILY ENDOWED PROFESSOR OF WILDLIFE MANAGEMENT IN THE COLLEGE OF FOREST RESOURCES

LIFELONG WILDLIFE ENTHUSIASTS, CONSERVATIONS, and MSU alumni Drew and Kathy St. John of Madison established the St. John Family Endowed Professor of Wildlife Management in the College of Forest Resources. The couple understand first-hand the importance of management practices that maximize wildlife and waterfowl habitat. They have implemented several practices on their family farm near Louise.

Drew St. John, who currently serves as CEO of Jackson-based New South Access and Environmental Solutions, graduated in 1980 from the College of Agriculture and Life Sciences with a bachelor's degree in landscape contracting. He was a 2017 MSU Alumni Fellow. During his time as a student, he served as the university's "Bully" mascot from 1976-1978.

A 1979 MSU College of Business marketing graduate, Kathy St. John is a retired contracts consultant for Kentucky-based NAPA HealthCare Connection, LLC. Beyond financially supporting MSU, she also serves on the advisory board for the business college's Department of Marketing, Quantitative Analysis and Business Law.

The St. John Family Endowed Professorship in Wildlife Management provides support for Dr. Bronson Strickland, the named endowed professor in the Department of Wildlife, Fisheries and Aquaculture. Strickland leads an educational program in applied wildlife science and assist landowners with better management of natural resources. He is committed to game management education on working landscapes.



Drew & Kathy St. John



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