NEMOURS GAZETTE

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SPRING - SUMMER 2019

Wood Duck Project Paving the Way For Unique Multi-State Study

By Ernie Wiggers, PhD

Three students' work this winter, spring and summer monitoring about 160 wood duck boxes on Lake Moultrie is the first step toward a one-of-a-kind regional study to better understand the contribution of nest boxes to wood duck population dynamics. Joining us in this effort are the James Kennedy Waterfowl and Wetlands Center associated with the Baruch Institute, Clemson University, the SC Department of Natural Resources and the Santee National Fish and Wildlife Refuge. In 2020, the study will expand to sites in coastal states from Delaware to Florida. The ability of these three students from very different parts of the country to come together and help us on this project is invaluable and speaks highly of their passion for wildlife studies and capability. See their story on Page 2.

The idea for this study "hatched" during a workshop hosted by Nemours in February 2018 attended by biologists from all mid-Atlantic and southeastern states, US Fish & Wildlife Service, Ducks Unlimited, and faculty from several universities. During this three-day workshop,



From left: Jacob Shurba (University of Wisconsin), Emily Miller (State University of New York), and Jake Merindino (Texas A&M University), with Nemours Biologist Beau Bauer on Lake Moultrie.

Photo by Rick Kaminski

seven top priority research questions were developed concerning wetland and waterfowl management in the southern portion of the Atlantic Flyway. One of these priorities was to more thoroughly examine factors influencing recruitment of hens from wood duck boxes and evaluating the abundance and use of natural cavities by wood ducks.

Are Wood Duck Box Programs Sustainable?

Jake Merendino, Emily Miller, and Jacob Shurba Research Technicians

James C. Kennedy Waterfowl & Wetlands Conservation Center, Clemson University and Nemours Wildlife Foundation

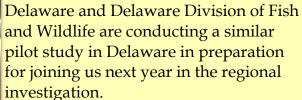
Wood ducks nest in natural tree cavities throughout North America, but artificial nest boxes frequently are used by the species and widely accepted as an effective wildlife management tool.

We are technicians for a pilot study designed to begin estimating wood duck use, duckling production, and recruitment rates by females nesting in boxes around Lake Moultrie near Bonneau, South Carolina. By recruitment rates, we mean the percentages of hens nesting and their female offspring that return in subsequent years to nest in the boxes. These percentages are critical to determining if box-nesting populations are sustaining themselves and nest-box programs are cost-effective.

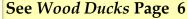
Our project this year is conducted in partnership with the South Carolina Department of Natural Resources and the U.S. Fish and Wildlife Service-Santee National Wildlife Refuge. Our pilot study is intended to develop, refine, and standardize methodology for a multi-state and multi-year collaborative research project across the south-eastern United States. Colleagues from the University of



Clockwise from top: Jake Merindino, Emily Miller and Jacob Shurba on site at Lake Moultrie.



We also are investigating if nestbox placement has an effect on hens' use of boxes. We are recording micro-habitat characteristics at each box including water depth, vegetative cover, distance from the box to cover and distance to the nearest other box. We also are determining if physical characteristics of the boxes such as box volume, direction of the box







The first five months of 2019 have been both beautiful and busy. Beautiful as in spectacular sunrises, bold full moons, spring bird migrations, and great spring weather, although summer seems to be charging in now. Busy as in new projects starting, old projects wrapping up, board members transitioning in and out, and new students arriving.

I first want to thank Mr. Lane Morrison for his six great years of service on our board of directors. Lane operates his own plantation, Rose Hill, so he is very familiar with the many challenges of maintaining large properties and very helpful in getting us through some of these challenges. I think in another life he was a farmer because he loves to plant crops and show you his fields. I was able to travel with Lane on many occasions to meetings and enjoyed hearing his stories and thoughts on various topics during our rides together. Lane has witnessed many of the changes that have occurred in the ACE Basin over the past several decades and his insights are always helpful. Lane does not live very far from Nemours so I suspect and hope we will be continuing our chats. Lane thank you for all you've done and continue to do for conservation. I am a better, smarter person for being able to work with you over the years. Yes, let's stay in touch!

Fortunately, we were able to convince Mr. Johnny Williamson of Denmark, SC to join our board. Like Lane Morrison, Johnny has firsthand knowledge of what it takes to be a good steward of the land and brings much business experience to the board. I have known Johnny for many years through his work capturing nuisance alligators for the SC Department of Natural Resources, and his son John was a student intern for us back in 2003. Johnny's many experiences will be very helpful in providing oversight and leadership for the Foundation and I look forward to working with him. As a fringe benefit, like Mr. Morrison, he is a great storyteller and has many stories to tell about the people and events of the Lowcountry.

We have several new and returning student interns for the summer. Rebecca Malkewicz, a recent graduate of USCB, has been with us for several months. She is joined by Castles Leland and Christiana Huss, both from Clemson. These students are sharing the workload on several studies

See From the President, Page 6

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Welcome to Our New Board Member

John W. "Johnny" Williamson III, a lifelong resident of Bamberg County, joined the Nemours Wildlife Foundation Board of Directors in February.

He graduated from the University of South Carolina with a degree in economics after which he operated Williamson Ginnery, an agricultural supply business and grain elevator, for 43 years. Since 2001 he has served as chairman of the board of the Jackson Companies which own and operate Ocean Lakes Family Campground and Prestwick Golf Club and are involved in commercial development on company owned



properties in Myrtle Beach. He and his wife Kaki and their business partner have opened Black Water Barrels in Bamberg to manufacture high quality white oak barrels for the spirits industry.

Johnny served on the Bamberg County Council from 1995-2005, serving two terms as chairman. He is a charter member of the Tri County Alliance. Formed in 1995 representing three counties, the alliance has grown into the Southern Carolina Alliance leading economic development efforts for seven lowcountry counties. He serves on the executive committee, with numerous terms as chairman. He retired in 2017 after 21 years on the corporate board of South State Bank and its predecessors. Johnny serves on the board of the South Carolina Waterfowl Association. Johnny's main hobby for the past 30 years has been serving as a nuisance alligator control agent for the South Carolina Department of Natural Resources (SCDNR). He also is a member of SCDNR's Law Enforcement Advisory Committee.

Kaki and Johnny love living on a 40-foot-high bluff overlooking the South Edisto River in the Finland community near Denmark, SC. Johnny keeps busy working to improve the habitat for wildlife on their properties. They participate with Congaree Land Trust with a conservation easement on their beloved "Hickory Top" in Clarendon County.



Thank you, Lane!

M. Lane Morrison left the Nemours Wildlife Foundation Board of Directors in February after six years of service. Following the board meeting, he was presented with a silver and brass belt buckle and leather belt by renown wildlife artist Grainger McKoy as a token of our appreciation.

Lane will continue to be an involved at Nemours both as a member of the Friends of Nemours, a neighboring property owner and an enthusiastic advisor regarding the foundation's land management plans.

Pilot Project continued from Page 1

Why wood ducks? In South Carolina wood ducks make up about 47% of the total harvest of waterfowl each year. In other states the ratio may not be as high but wood ducks still rank as one of the most common species harvested. Further, many states, like ours, have promoted the idea of landowners putting out nesting structures for wood ducks. There is a continual need to evaluate whether these boxes are really contributing to wood duck conservation and achieving program goals.

The purpose of our workshop in 2018 was not just to put ideas on paper but to follow through and act on these ideas. Therefore, we have begun this very ambitious new study. Such multi-state, regional research projects are rarely undertaken because of cost and coordination but are essential to fully understand the biology and ecology of mobile and migratory species such as the wood duck. The collaboration among organizations like the Nemours Wildlife Foundation and James Kennedy Center with state and federal agencies is the type of partnership which has to be developed and sustained to address these challenging questions.

Our plan is to keep this multi-state project going for a minimum of three, and hopefully five, years. The resulting data will provide critical insights into wood duck population dynamics not obtained before, and we are hopeful our results will help develop new management approaches for wood ducks that ensure their long-term conservation success.



Clockwise from above: Jacob Shurba, Jake
Merindino and Emily Miller banding ducklings.

Photos by Pete Laurie.





From the President continued from Page 3:

including monitoring the movements of urban alligators, prey selection of bobcats hunting managed impoundments, mitigating erosion problems where alligators cross dikes, and comparing bird use of managed impoundments vs. natural marshes.

Speaking of alligators, now would be good time to mention my experience snagging an 11.5 foot gator with rod and reel from a boat and the ensuing classic struggle between man and beast. At times I was unsure who would win. I now know why these kinds of encounters have inspired writings by authors such as Ernest Hemingway! (Please excuse my self-indulgence.) This experience was all part of recapturing a male gator which had shed the original transmitter we put on this animal last spring. Also, it involves days stalking the animal, almost being pulled off the boat into the water with the mighty beast, blisters on my hands, and some other good stuff you will just have to ask me about when you have a few hours of free time.

Our work to update our buildings and other infrastructure continues. One refurbished staff house is ready for move in and work on a second staff house is underway. Montgomery Architecture is close to finishing the construction plans for our new research laboratory. The next step is approval from the county's building code department and hopefully we can start construction in late summer or fall. We are all very excited about this project and what this facility will mean to the growth of our foundation.

Finally, I cannot end without saying a big THANK YOU and CONGRATUATIONS to Peachie Washington! We celebrated Peachie's 40th anniversary with Nemours a few weeks back. Having Peachie here has been such a treat for all of us. She has told me so many great stories about Gene duPont which provide me more insight into the type of man he was. Peachie considers all our students her "children" and they seem to know she will be there for them. Her fried chicken is always appreciated, especially for those unfortunate students who have never experienced real fried chicken until arriving at Nemours. Peachie, thanks for bringing so much life to this place!

Yes, the new year has been beautiful and busy and that is just the way it should be. I hope the summer will bring similar results.

Wood Ducks continued from Page 2

entrance, and if it is on land or over water, influence use of boxes by ducks. These factors may play a role in female selection of boxes and can be adapted to increase female use of boxes, duckling production, and recruitment. Currently, we are monitoring 166 boxes among six sites around Lake Moultrie. As of May 30th, wood ducks have laid eggs in 79% of the boxes. We have noted that many boxes not used by wood ducks may be influenced by disturbance from boat traffic and that woodpeckers are puncturing and carrying away wood duck eggs from the boxes. We will implement experiments to evaluate and abate these problems in 2020.

Thus far, we have leg banded 118 hens and marked 302 ducklings with a web tag in each foot (see picture, Page 2). Individually marking hens and ducklings will enable us to estimate their return and recruitment rates in coming years.

Are wood duck nest box programs sustainable? We can't address this question yet, but answers will emerge through this unique study across the southeastern United States. Stay tuned!

Friends of Nemours Wildlife Foundation 7th Annual Oyster Roast





Nearly 200 guests, staff and students gathered at Nemours on March 16th for our seventh annual oyster roast. Prior to the feast, Clemson University graduate student Amanda Williams (top left) presented an update on her master's project on predators in managed tidal impoundments.

Nemours staff biologist Beau Bauer (below left), a December graduate of Clemson's master's program, presented the conclusions of his study investigating impacts of water management on invertebrates and other forages in managed wetlands.

Photos by Pete Laurie.

At right: Peachie Washington, Nemours' longest serving employee, was honored during the morning's presentations for her 40th anniversary. Nemours Wildlife Foundation Vice Chairman Mike McShane and his daughter, Aimee McShane, presented a surprised Peachie with a signed copy of Southern Traditions, a combination art and cook book by Beaufort author Pat Branning, and a gift certificate so she can indulge one of her other passions beside cooking: shopping! Foundation President and CEO, Dr. Ernie Wiggers, was also recognized for his 20 years with Nemours.

Photo by Susan DeLoach Photography



Mews & Notes...



Above: About a dozen Marines from Marine Corps Air Station Beaufort who recently returned from deployment joined us at Nemours for a home cooked breakfast after duck hunting on Nemours Plantation and neighboring properties in January.

Photo by Michele Barker





Nemours staff biologist, Beau Bauer (right) and former intern Gillie Croft (left) received their Masters of Science degrees in Wildlife and Fisheries Biology in December from Clemson University. While Beau continues on staff, Gillie is staying on temporarily to work on a land management plan for Nemours.



Members of the
Clemson chapter of the
Wildlife Society
visiting Nemours in
March got to learn first
hand about prescribed
burning from
foundation staff.



Photos by Michele Barker



Nemours hosted 60 kindergarten students, their teachers and parents, from Shanklin Elementary School on March 6th. **Top**: Lila Arnold of Lowcountry Raptors introduced the students to a great horned owl, barred owl, eastern screech owl and burrowing owl. Arnold uses non-releasable birds of prey to educate the public about conservation, habitat loss, and the natural history of each bird presented. Learn more about her non-profit organization at www.LowcountryRaptors.org. **Center:** Students examine a duck egg from a nesting box on the property. **Right:** A student works diligently on his bird feeder made with Nemours long leaf pine cones, sunflower butter and bird seed. **Photos by Susan DeLoach Photography**

New and Familiar Faces at Nemours for the Summer

New interns and graduate students have arrived and will be coming and going from Nemours throughout the summer. **From left:** Anje Kidd, PhD student, Clemson University, working on the urban alligators project; returning intern Castles Leland, Clemson University (in the water as usual!); Christiana Huss, Clemson, and Rebecca Malkewicz, a recent graduate of USCB, collecting scat for the mammalian predators project. **Below center:** Castles, Rebecca and Christiana.



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