

Field Notes

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SPOTLIGHT ON A WELDER FELLOW

By John Rappole

We were very lucky. Shortly after my return to graduate school at the University of Minnesota, following a

three-year hiatus courtesy of the U.S. Army, my advisor, Dwain Warner, and I submitted an expensive proposal to Dr. Clarence Cottam, Welder Wildlife Foundation Director, that called for field research across the continent on the ecology of migratory birds during the breeding period, migration, and winter. As part of this proposal, we had requested that two technicians be funded to assist with the work. Dr. Cottam agreed, but said that these should also be Welder students, and that, because of the topic, one of them should be Mexican. As a result, Mario Ramos and Dick Oehlenschlaeger joined the project to help me while doing their own research. All three of us got our degrees from Minnesota as Welder fellows; Mario Ramos on the winter distribution of selected passerine subspecies, Dick Oehlenschlaeger on the biogeography of the Tuxtla Mountain region of southern Veracruz, and myself on the ecology and evolution of long-distance migratory birds that winter in tropical rain forest. My wife, Bonnie, and I with our two children, Brigetta (4) and Jay (2), first arrived at Welder in February of 1973, scouting study sites at Welder and in Mexico. From August of 1973 until August of 1975, we migrated between Minnesota and Veracruz, via Welder, along with the birds.

The research findings allowed by my Welder opportunity formed the basis for my entire career as a research scientist; first with the University of Georgia, then the Caesar Kleberg Wildlife Research Institute in Kingsville, Texas, and finally with the Smithsonian National Zoological Park's Conservation and Research Center in Front Royal, Virginia. I retired from the Smithsonian with *emeritus* status in February of this year. The core of my research has been to demonstrate that many migrants are tropical species that leave the tropics to breed in the Nearctic in order to take advantage of reduced resource competition and predation pressure to produce more offspring than their non-migratory conspecifics. This finding has profound implications in terms of understanding speciation, evolution, and conservation of this group. At present, Bonnie and I have returned to Welder to work with current Assistant Director, Selma Glasscock, and former Welder curator, Gene Blacklock, investigating apparent rapid range change (< 30 years) in roughly 80 species of subtropical birds. The 100,000 net-hours accumulated in Hackberry Motte from 1973-1975 during my thesis research provide key data on this question, showing what birds were present at Welder 34 years ago as opposed to those present there now. This information will help guide biologists' understanding of range change in these species.



Dr. John Rappole at WWF Headquarters

CURRENT RESEARCH

Nest Site Selection and Nestling Diet of Texas Red-Shouldered Hawks

By Bradley N. Strobel, Ph.D Candidate



Brad Strobel prepares to release a Red-shouldered hawk.

research and hope to complete my degree by May 2010.

Five years ago, I had recently finished my undergraduate degree at the University of Wisconsin-Stevens Point and was building my resume by working on various wildlife research projects. I had not heard of the Rob and Bessie Welder Wildlife Foundation or its fellowship program, but mentioned my potential opportunity to faculty members and friends in the field. The responses I received were overwhelmingly positive. Visitors to the Welder Refuge praised the Foundation's library and a former fellow adamantly urged that I pursue the opportunity. Shortly after receiving my fellowship, I began to realize other benefits to conducting research on the Welder Refuge.

Few research sites have such a dedicated support team as Welder. The director's and staff's expertise helped me cope with many of the trials that often hamper field studies and allowed me to focus more intently on the critical details of my research project. In addition, the close contact and camaraderie with other graduate students and researchers have been exceedingly valuable. Not only did this environment enhance my research with frequent peer review, but it also provided me with important networking opportunities. I'm certain conducting research on the Welder Refuge has better prepared me for my career and will continue to pay personal and professional dividends.

In the future I hope to land a research position working on management-oriented solutions for current challenges in avian ecology. I have always been intrigued by birds, especially issues concerning their conservation and management. Only recently, while working on my M.S. on the Welder Refuge, I found how satisfying and important research in this field can be. My Welder fellowship has been incredibly influential and has helped me identify my career goals and allowed me to build the skills necessary to meet them. Currently, my research interests are broad, but focus on the ecology and management of birds. Although my recent research has been on raptors, I am also interested in waterfowl and non-game waterbird ecology. Issues such as growing populations of snow geese and conversion of tillable wetlands for ethanol production are rapidly emerging challenges in wildlife management and I hope to contribute to their solutions.

I began my first Welder fellowship in January of 2005 when I enrolled in a Master of Science program in Wildlife Science at Texas Tech University. For the following two years, my research focused on the breeding season ecology of red-shouldered hawks (*Buteo lineatus texanus*) on the Welder Refuge. I documented red-shouldered hawk breeding season diet and determined characteristics of nest sites, nesting densities, and reproductive success. I finished my M.S. fellowship in May 2007 and immediately began a Ph.D. fellowship through Texas Tech University, continuing and expanding my research project on red-shouldered hawks. In addition to continuing my previous research, my doctoral research examines habitat selection of red-shouldered hawks during the breeding season and non-breeding season. I am currently finishing my last season of fieldwork for my Ph.D.

Although I haven't yet completed my graduate research, I have already amassed many fond memories. For example, to monitor the breeding season diets of red-shouldered hawks, we employed video surveillance cameras and time-lapse video recorders to provide a "nanny cam" view of activities in the nest. We reviewed thousands of hours of footage, and in addition to recording diets we witnessed many nestling behaviors. After watching nestlings develop from helpless fuzz balls to juvenile delinquents, it's difficult not to subtly personify some of their behaviors. One particular pair of nestlings was well matched in size and demeanor, and was soon labeled mischievous. Shortly after earning this title, they substantiated it. It began when both nestlings turned their back to the camera (apparently to exchange the details of their heinous plan), then like a lineman on a football team, one nestling lowered its head and raised its rear directly toward the camera. The other nestling sighted down the first nestling's back as if aiming a rifle. "Up little...a little more...FIRE!" To my knowledge it is the first record of cooperative vandalism in hawks, and is something I will reminisce and embellish for years to come.



Video camera used to document diet in Red-shouldered hawks

CALLING ALL WELDER FELLOWS


If you received a Welder fellowship or worked on the Refuge, you have a standing invitation to drop in when you are in the area. We would like to visit and tell you what we are doing on the Refuge. If you would like to make an extended visit, we will be happy to make room arrangements for you in the Welder Dormitory. It would be a great opportunity for you to meet our current Welder Fellows. Please contact Dr. Selma Glasscock at 361-364-2643 or sglasscock@welderwildlife.org.

THE NORTH AMERICAN MODEL FOR WILDLIFE CONSERVATION

By Dr. Selma Glasscock, Assistant Director, Welder Wildlife Foundation

All of south Texas is well-known for its amazing wildlife resources, and the Welder Wildlife Refuge supports an abundance of these wildlife species from green jays and alligators to white-tailed deer and javelina. This story could have been much different had it not been for some very foresighted individuals who developed the North American Model for Wildlife Conservation (often referred to simply as the North American Model). Prior to development of the model, several species within the U.S., such as the passenger pigeon and heath hen, went extinct. Others, such as American bison and even white-tailed deer, were in serious decline. However, if you ask any U.S. citizen whether he or she knows of the North American Model, it is quite likely they will tell you no. Equally disconcerting to many wildlife biologists, managers, and conservationists is the fact that many young biologists are unable to articulate its meaning. Why then is it important?

The North American Model is the foundation upon which wildlife management and conservation in the United States and Canada is firmly entrenched. The most likely reason the model is unknown among our citizenry is that it was not developed in a single law through one fell swoop of the pen, but instead it has been carved out through the establishment of various U.S. laws, policies, and regulations over the better part of the past two centuries. We can thank two gentlemen, Dr. Valerius Geist and Mr. Shane Mahony, for their recent efforts to articulate the model and disseminate the message of its importance to the public. The model's basic tenets are that wildlife and fish populations belong to all citizens of North America, and



wildlife populations are to be managed in such a way that they are forever sustainable. The principles that define the model, commonly referred to as the Seven Pillars of Conservation, are:

- ◆ Wildlife resources are a public trust. Wildlife belongs to all the people, and it is the public's right to have access to wildlife.
- ◆ Wildlife shall not be commercially exploited or marketed.
- ◆ Wildlife use shall be allocated by law.
- ◆ Wildlife should be taken only for legitimate purposes.
- ◆ Wildlife is considered an international resource.
- ◆ Wildlife policy must be based on sound science.
- ◆ Hunting shall be a democratic process, with equal access for all.

Some of the earliest legislation affecting wildlife resources occurred in 1842 in a dispute over who could harvest oysters in a New Jersey bay. Early legislation, such as the Lacey Act of 1900, the Migratory Birds Convention Act of 1918, and the Duck Stamp Act of 1934 contributed significantly to stemming the tide of decline in wildlife resources. The most important piece of legislation affecting wildlife conservation to date is the Federal Aid in Wildlife Restoration Act, more commonly known as the Pittman-Robertson Act, which was established in 1937. The Federal Aid in Sport Fish Restoration Act (1950), also known as the Dingell-Johnson Act, in combination with the Pittman-Robertson Act, generate income for wildlife and fish conservation through excise taxes on purchases of sporting arms and ammunition, archery equipment, and fishing equipment. In fact, the revenue generated from these acts has now reached \$7.5 billion dollars since time these two pieces of legislation were enacted.

Most important, funding generated from these sources supports wildlife and habitat conservation, thus not only affecting game species, but also the non-game species that share their habitats. Despite the huge success of these two legislative acts, U.S. wildlife leaders are concerned about the continued existence of this funding. The decline in hunting nation-wide portends not only a decline in the revenue generated from Pittman-Robertson, but also from license sales. The current concern is that no other secure source of income exists to replace this loss.

Such a model does not exist anywhere else in the world. Consequently, the citizens of the United States and Canada are extremely fortunate to be able to enjoy the abundant wildlife resources that exists on this continent because of the foresight of our of our hunter-conservationists forefathers. So the next time you are in the field searching for green jays and great kiskadees—or white-tailed deer and Rio Grande turkey—you can thank those hunter-conservationists who made it possible for us to enjoy an abundance of such magnificent creatures.

To learn more about the North American Model, visit these links:

[Rocky Mountain Elk Foundation](#)

[Orion - The Hunters Institute](#)

[The Wildlife Society - Position Statement on the North American Model](#)

[American Sportsmen and the Origins of Conservation](#) by John F. Reiger

FROM THE WWF SCRAPBOOKS

From Volume 1—1954 to 1959

- ◆ The first three WWF fellowships were worth \$2400 each (Apr 1956).
- ◆ The first Welder Fellow, John M. Langford, studied forage preferences of cattle and deer and devised methods of determining whether a specific plant was grazed by a deer or a cow. He worked on his MS in range management.
- ◆ Thadis W. Box received the first degree from a Welder fellowship; he was the second Welder Fellow. His research dealt with utilization of range plants with emphasis on plant succession and ecology of range plants. His study gave Welder a permanent record of condition of the range as it existed at the time. A photo in the scrapbook shows Mrs. Box, in a sunbonnet, assisting her husband with his research.

HIDDEN TREASURES OF THE WELDER WILDLIFE FOUNDATION

One of the primary reasons Rob H. Welder (1890-1953) established the Rob and Bessie Welder Wildlife Foundation is because he wished “to further the education of the people of Texas and elsewhere in wildlife conservation.” The Foundation has done just that for over 50 years. Over 320 fellowships have been awarded to outstanding students engaged in advanced research, and science-based conservation education continues to be provided for visitors of all ages. The 7,800-acre field station we call the Welder Wildlife Refuge is a treasure both for human beings and for wildlife. The Refuge contains 16 vegetative communities and is home to some 55 species each of mammals, reptiles, and amphibians.

Few visitors know the Welder Wildlife Foundation owns some of the greatest natural history specimens in the state of Texas and the nation. The Foundation’s collections include more than 300 taxidermy prepared bird specimens in the Don Bowman collection, more than 2,000 scientific study skins representing 545 bird species in the Foundation’s scientific collection, and 10,000 bird eggs in the Roy W. Quillin collection. Because we lack proper space to exhibit these hidden treasures, it is very difficult for students and visitors to the Refuge to see and study them. Additionally, the Foundation’s small classroom cannot house many of the larger student groups seeking to learn about the unique natural heritage of South Texas.



One of three passenger pigeon specimens in the Don Bowman Collection

The beautiful buildings we enjoy today were state-of-the-art in 1958. Today, while historically significant, the facilities are too small for the ever-increasing role we play in conservation education. The reality of our situation is we urgently need more space in which to exhibit, conduct research, and teach. Hence, we have developed a \$4,693,500 capital campaign to construct a new building at the Refuge—in keeping with the architectural design of our original facilities—that will provide 9,600 square feet of additional space for an exhibition gallery, high-tech classroom, laboratory, an atrium for administrative space and gatherings. The new building will allow the Welder Wildlife Foundation at long last to reveal its many hidden treasures for the benefit and enjoyment of all.

We have reviewed our budgets thoroughly, developed our case for support, and have begun to conduct meetings with potential supporters. We welcome your inquiries. We would also appreciate referrals to others who can help make the dream of more sophisticated and broad-reaching science-based conservation education program a reality for South Texas. For more information please contact Dr. Selma N. Glasscock at 361-364-2643 or sglasscock@welderwildlife.org.



DIRECTOR'S COLUMN

By Dr. Terry Blankenship

I have been with the Foundation for 19 years, so it is a distinct honor to be able to take the reigns as Director of the Welder Wildlife Foundation. Together Selma Glasscock, Assistant Director, and I will ensure the Foundation's focus continues to be on wildlife research and education. The Welder Wildlife Foundation has provided great opportunities to graduate students over the years. We believe the Foundation's graduate program is part of what has made the Foundation a major force in the wildlife community. I was fortunate to have received a Welder Fellowship to support my Ph.D. research, and over my years as Assistant Director, I have enjoyed seeing new graduate students bring new energy and new techniques to the field. It is gratifying to see these students complete their research and degrees and move on to positions within the wildlife community around the country and throughout the world. The Foundation is proud to have played a part in the development of these biologists, educators, and managers.

Because of difficult economic times being felt across the country, we have been forced to reduce the annual number of Welder-funded projects. In order to maintain our research program and continue to provide graduate research opportunities to outstanding students, we will be looking at new and innovative ways to assist with funding our Welder fellowships. We will continue to build new partnerships. Most recently, we set up a fund for individuals wishing to contribute to the Foundation's Fellowship program. We will continue working with professors and graduate students to support research and access to the Refuge as a research site.



If you would like more information about any of our programs, please visit our website at www.welderwildlife.org or contact the Conservation Educator conservationeducator@welderwildlife.org



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