

CONSERVATION THROUGH BIRD EDUCATION IN TEXAS

MARK KLYM¹

Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744, USA

Abstract. In a state with more than 95% private land ownership, direct and meaningful conservation by state agencies is difficult. Private property is a very important concept in Texas and landowners' rights are not to be taken lightly. The challenge facing the biologist is balancing these landowners' rights, the needs of wildlife present on the tract and the expectations of and norms established by the community. The safest way to achieve conservation goals in these situations is through education and by leveraging the potential economic benefits of ecotourism. Birds play a very significant role in this effort. The state of Texas has created conservation, citizen science, and literature programs designed to trigger interest in bird conservation, help the citizenry understand habitat and restore damaged resources, and to reach out to an ever growing urban population. These programs include electronic media, direct consultation, programs and presentations, demonstration projects, and literature. The major attraction of the programs is the restoration of bird habitat and resulting tourism generated by birders. Through these efforts, important pockets of habitat for both migratory and resident species are being restored and enhanced.

Key Words: citizen science, conservation, education, habitat, private lands, restoration.

LA CONSERVACIÓN MEDIANTE LA EDUCACIÓN SOBRE LAS AVES EN TEXAS

Resumen. En un estado con más del 95% de la tierra en manos privadas, la conservación directa y profunda por parte de organismos del estado resulta difícil. La propiedad privada es un concepto muy importante en Texas y los derechos de los terratenientes no deben tomarse a la ligera. El desafío que enfrenta el biólogo aquí, está en equilibrar esos derechos de los terratenientes, las necesidades de la flora y fauna presentes en el trayecto y las expectativas de y normas establecidas por la comunidad. La manera más segura de lograr objetivos de conservación en estas situaciones es a través de la educación sobre las aves y la exaltación de los posibles beneficios económicos del ecoturismo. Las aves juegan un papel muy significativo en este esfuerzo. Para que llegue a toda una creciente población urbana, el estado de Texas ha creado programas de ciencia ciudadana, conservación y literatura, diseñados para provocar interés en la conservación de las aves, ayudar a la ciudadanía a entender sobre hábitat y restaurar recursos dañados. Estos programas incluyen los medios electrónicos, la consulta directa, programas y presentaciones, proyectos de demostración y literatura fijada al tema. La mayor atracción de los programas reside en la restauración del hábitat de las aves y el consiguiente turismo generado por observadores de aves. Gracias a estos esfuerzos, importantes focos de hábitat para especies migratorias y residentes, están siendo restaurados y ampliados.

INTRODUCTION

Despite Texas' large land area—695 621 km²—public land within the state is a very scarce commodity. Less than 3% of the total land area is owned by state & federal governments (Damude and Bender 1999). Thus, if conservation efforts are to be successful and meaningful, there must be buy-in from the private landowner with a commitment to conservation and maintenance. If this is to happen, landowners must see a value to the conserved resource that offsets the value

gained by agricultural, commercial, development, or other potential land uses.

The state of Texas has created an educational program designed to demonstrate a value to landowners while presenting simple, practical guidance on conservation and restoration of wildlife habitat across the state. Given the growing and more urban statewide population—many with little or no contact with bird habitat issues—this education is critical to any successful stewardship effort. There is, however, a strong and active conservation movement within the state as is demonstrated by growing

¹E-mail: Mark.klym@tpwd.state.tx.us

participation in various bird related organizations throughout the state. Recognizing this, the educational program created by Texas Parks and Wildlife Department (TPWD) addresses both novice and experienced bird enthusiasts, as well as landowners of varying degrees of interaction with their holdings and even corporate interests.

The educational program is diverse including direct consultations and technical guidance as well as public programs, electronic media, and an active print program. Supplementing these direct activities are demonstration areas that show what can be done and a landowner recognition program, the Texas Wildscapes program, that provides encouragement and support for landowners who consider the needs of wildlife, including birds, in their landscape projects.

The work of biologists, technicians and educators within the department is supplemented by a growing and active trained volunteer group of Master Naturalists, many of whom devote some of their effort to enhancing habitat either directly—by working on demonstration areas—or indirectly—by training and encouraging others. In recent years, through partnerships with the National Wildlife Federation and the Texas Forest Service, opportunities to reach landowners have multiplied, allowing the message of conservation and habitat restoration to reach more Texans.

The introduction of the Texas Wildlife Action Plan in 2006 added emphasis to the program by recognizing the need for education and outreach, as well as the value of the Urban Wildlife program, and by specifically naming the program within the WAP. This recognition within the strategic direction of the conservation agency will ensure that efforts to enhance bird habitat will continue in the foreseeable future.

DIRECT TECHNICAL GUIDANCE

Technical Guidance Biologists, Diversity Biologists and other staff employed by TPWD provide direct consultation with landowners to assist in developing effective wildlife habitat, including bird conservation opportunities. The Wildlife Exemption under Texas property tax codes recognizes bird habitat as a legitimate conservation goal, and requires development of a management plan in order to obtain the exemption. On smaller areas, where staff biologists may not have time to work, urban biologists and members of the wildlife diversity outreach team often provide direct guidance to urban residents. Such guidance may range from developing a small Wildscape to attract birds to

providing a wildlife management plan for songbird conservation on a landscape scale.

PUBLIC PROGRAMS

Often an effective way to reach more landowners in a limited amount of time is to provide a public program on bird conservation. These programs are provided at schools, nature centers, wildlife management associations, Audubon, 4H, and other group meetings coordinated by Texas AgriLife Services. Target groups, where impact can often be realized, are homeowner associations, developers, and landscape architects. Programs range from brief, 25-min summaries of bird habitat and restoration to detailed workshops where plans are developed and small Wildscapes established. Master Naturalists, Habitat Stewards and other volunteer groups have been vital tools in expanding the outreach of these programs. Nine Urban Biologists in Texas conducted 312 events reaching 35 757 individuals in one fiscal year (as reported in May 2007 federal aide report).

A growing number of owners of larger tracts of property are looking to wildlife conservation and the potential revenues generated by ecotourism as a revenue stream to allow them to keep the land intact and maintain their livelihood. Workshops and presentations on ecotourism are provided by TPWDs ecotourism coordinator to encourage this change and protect habitat on larger tracts.

PRINT MEDIA

Publications on birds and their habitat, and ecotourism constitute a significant portion of the TPWD Wildlife Diversity Program print budget. These publications include checklists for the state, for many of the individual or combined ecoregional subdivisions, and for some public lands. Checklists help landowners determine what might be possible on their property. Guidance for specific groups is particularly effective, e.g., *Waterfowl of Texas* and *Purple Martins and Their Management in Texas*. Issues like heronries, swallow congregations, and woodpecker damage are other bird nuisance issues addressed within free publications. Publications addressing ecotourism, how to develop an ecotourism based business and the impact of ecotourism on properties in Texas are provided to landowners considering alternative land uses rather than subdividing their holdings.

New birders are not forgotten in the print media program. Introduction to Birdwatching provides the basics needed to help the novice

achieve success. Backyard Birds in Texas and Providing for Backyard Wildlife help the neophyte identify the birds most likely to visit their feeders and gives guidance on feeder or nest box construction.

In 1994 Texas introduced the Texas Wildscapes program. As part of this program, a book “Texas Wildscapes: Gardening For Wildlife” was published in 1999. This book provides detailed information on creating ecoregion appropriate habitat as part of the landscape plan. Supplementing the book is a series of ecoregional plant lists to help in selecting appropriate plants for shelter and food.

These publications are distributed through meetings with outdoor clubs, garden clubs and civic groups, as handouts at nature festivals and outdoor events, by mail order, and in response to requests from outdoor groups for inserts in member packages.

“Making Nature Your Business”, published in 2002, is targeted specifically at the landowner who wants to maintain their property, provide for and encourage wildlife on and around their holdings, and invite ecotourists to enjoy the nature they see every day.

ELECTRONIC MEDIA

While print is costly, disk space is relatively inexpensive. Every booklet or brochure produced by TPWD is converted to pdf and placed on the website for free public access. This expands the outreach effort in several ways—making the publication available to more people, allowing immediate response to inquiries arriving by email or telephone, and permitting quick transfer of information to staff and volunteers in remote locations across the state.

By far the more effective means of communication remains commercial or public broadcasts. Opportunities to interview on television or radio are actively sought. These are often secured by offering to talk about birds and then building the conservation message through discussion. It is also important to provide quality video of birds for television broadcasts.

DEMONSTRATION AREAS

Wildlife Management Areas can often be the best demonstration of how habitat should be maintained for wildlife, including birds. Properly maintained, these areas provide the diversity of species and structure that birds need to thrive. Landowners attending programs or workshops are often guided to local wildlife management areas for examples of the techniques in practice.

For the urban resident though—an estimated 80% of Texans (May 2007)—a wildlife management area often does not provide the illustration they need. They are typically too large and do not reflect what is possible or practical in the urban setting. To assist urban residents and small acreage landowners, demonstration areas have been developed that are generally much smaller than one-half hectare in size and portray what can be done with the typical urban or suburban tract. These areas emphasize the use of native vegetation to provide food and shelter for birds and other wildlife. Water is also present on all demonstration areas.

LANDOWNER RECOGNITION PROGRAM

To assure landowners that they are making progress toward successful bird habitat and to help in tracking success of the outreach efforts, the Texas Wildscapes program was developed in 1999. This program partnered with the National Wildlife Federation Backyard Wildlife Habitat program (<http://www.nwf.org/backyard/>) in 2003 to create a Best of Texas Backyard Habitats program (www.tpwd.state.tx.us/huntwild/wildscapes/certification/best_of_tx/). Both of these are participant recognition programs through which participants certify their properties as wildlife friendly. This is not creating “bird sanctuaries” or “wildlife refuges.” Rather, it is recognizing landowners that have made an effort to provide bird habitat through their landscaping. Ideal properties will have shrub, understory and canopy shelter, as well as some grasses and herbs Diversity is encouraged through the application process.

Properties that have been certified are given the opportunity to purchase signs they can post informing visitors of their status as a Texas Wildscape. This is an additional outreach tool, explaining to neighbors and guests that the property is effective in attracting wildlife because of the habitat availability.

PROGRAM EVALUATION

Tracking results of an education and outreach program is difficult. However, simple numbers of publications distributed, talks provided, and numbers of program registrants, for example, provide some indication of success. TPWD currently has 29 brochures and booklets directly relating to birds and birding published by the Wildlife Diversity program. Another 4 brochures, and tip sheets as well as 10 ecoregional plant lists are published as part of the Texas Wildscapes program. In two printings, 17 500 Texas Wildscapes books have been sold. The

Checklist of Texas Birds, produced every third year, distributes 25 000 copies each printing.

Nine brochures and booklets relating to the novice birder are distributed at a rate of 1500 pieces or more each quarter. Often these materials will be out of print before a new run can be produced. Technical and more advanced materials are typically produced in volumes of 1500–2000 copies and these are estimated to last 2 to 3 years. Some collaborators are copying or printing materials from .pdf sources as well—numbers that can not be effectively tracked.

Presentations and programs reach an average of 70 persons each. Staff is providing 30 programs monthly, thus reaching about 2100 people per month with messages about habitat conservation. Programs provided by volunteers supplement these efforts.

Electronic media tracking shows that in the 3-month period from October through December, 2008, 3410 individuals visited our habitat guidance web pages. There was a distinct peak in March 08—the traditional start of gardening season in the state—adding more than 700 visits to those of the previous month. Digging further into the statistics revealed that 80% of these visitors were seeking some form of guidance on creating wildlife habitat. Visitors to the certification section of the website accounted for 30% of those visiting the Wildscapes pages.

A critical part of the outreach effort is the network of volunteers generated in Texas who are willing to speak out and talk with others about conservation. In 2007, Texas trained another 640 Master Naturalist volunteers. These individuals and their colleagues donated 150 000 hours (valued at \$2.82 million) in time and effort toward wildlife conservation and education in Texas (May 2007).

These numbers do not include the people reached as a result of television and commercial print interviews, reviews, and spots done every day that reach millions of people across the state.

The outreach is working. Since its inception in 1994, more than 4000 landowners have certified their properties as Texas Wildscapes, representing more than 4000 ha recognized as suitable wildlife habitat. In 2008, an average of eight new habitats were certified monthly.

CONCLUSIONS

Conservation is a critical issue in Texas. Effective conservation in a state consisting almost entirely of private lands can only be done through landowner participation, and this will require continuing education and outreach effort focused on habitat and restoration. Texas has produced an integrated system of outreach using a wide variety of tools to provide landowners with the confidence and information they need to restore and conserve effective, sustainable habitat on their holdings. This material is reinforced with a message detailing the benefits of ecotourism within the state.

LITERATURE CITED

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Historically, these birds followed herds of grazing animals like the American¹ Brown-headed cowbirds (*Molothrus ater*) are a common species of blackbird that are found throughout Texas year-round. Historically, these birds followed herds of grazing animals like the American bison (*Bison bison*) through short-grass prairies. They later expanded across the nation as human settlements brought agriculture and domesticated livestock herds. A trapped male brown-headed cowbird trapped in San Antonio, TX. Photo by Stephanie Martinez. Cowbirds are known for an interesting behavior known as obligate parasitism. Conservation through bird education in Texas. Mark Klym. In a state with more than 95% private land ownership, direct and meaningful conservation by state agencies is difficult.² [Show full abstract] community. The safest way to achieve conservation goals in these situations is through education and by leveraging the potential economic benefits of ecotourism. Birds play a very significant role in this effort. The state of Texas has created conservation, citizen science, and literature programs designed to trigger interest in bird conservation, help the citizenry understand habitat and restore damaged resources, and to reach out to an ever growing urban population.