



Restoring Bluebirds to Everglades



This special net is used to catch eastern bluebirds for the relocation project. Photo by Gary Slater.

Golf Courses May Play Vital Role in Major ARC Project

BY GARY L. SLATER

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Within five minutes of stepping out of my truck, I observe a familiar silhouette perched on a pine tree branch, "Is that a bluebird?" I ask George McBath. Sure enough, as we approach we see not one, but three eastern bluebirds intermixed with a flock of birds.

The birds are in an island of pine trees, adjacent to the parking lot where we stand, and the bluebirds are checking out a cavity in a large snag. Since it's the end of October these birds are not looking for a place to nest, but probably a warm, protected place to roost for the night, as the cooler fall weather draws nearer.

I am a research biologist for the Avian Research and Conservation (ARC) Institute, Inc., a non-profit scientific organization I co-founded in 1997. For the last three years, I have been working to reintroduce eastern bluebirds and brown-headed nuthatches to Everglades National Park.

This morning, George and I are at the Lely Resort Golf and CC to meet with Shane Bass, superintendent of Flamingo Island GC, one of three courses at Lely Resort. Shane is planning on putting up bluebird nest boxes on his golf course and, if enough bluebirds are found on his course this spring, he is interested in donating bluebirds to the ENP reintroduction program.

By the end of the day we will visit five golf courses in Naples that have good bluebird habitat and a nestbox program,

and are interested in participating in a program where golf courses donate bluebirds to the ENP reintroduction program.

In southern Florida, one can hardly utter the words "bluebirds" and "golf courses" without bringing up the name of George McBath. For the last seven years, George has been constructing nest boxes for bluebirds and other cavity-nesting species and placing them on golf courses throughout southern Florida (see *The Florida Green* - Winter 2000).

At last count, about 1,100 of his nest

boxes are set up on over 35 golf courses in southern Florida. The nest boxes have helped several golf courses become certified in the Audubon Cooperative Sanctuary Program. George agreed to introduce me to golf courses that have his nest boxes and help me gain support for the bluebird donor program.

Because of their striking color, bluebirds are enjoyed by birders and nonbirders alike. Bluebirds were close to extinction by the mid-1900s because of habitat loss, the use of insecticides (e.g., DDT), and forest management practices

ACSS Update

Florida's Newest Audubon Cooperative Sanctuary Golf Courses

PGA Country Club, Port St. Lucie
Remington Golf Club, Kissimmee
Lexington Country Club, Fort Myers
Grand Pines Golf Club, Springhill
Broward County Parks and Recreation, Ft. Lauderdale
Santa Rosa Golf & Beach Club, Santa Rosa Beach
IGM West Bay Golf Club, Estero
Mizner Country Club, Delray Beach

Certified Audubon Cooperative Sanctuaries in Florida as of Nov. 16

Amelia Island Plantation, Amelia Island
Bonita Bay Club, Bonita Springs
Bay Island Course
Creeside Course
Marsh Course
The Colony Golf Course, Bonita Springs
Country Club of Florida, Village of Golf
Eagle Pines Golf Course, Lake Buena Vista
Floridian, Stuart
Foxfire Golf and Country Club, Naples
Gainesville County Club, Gainesville
Harbour Ridge Yacht & Country Club, Palm City
Hole in the Wall Golf Club, Naples
IGM - Aquarina Country Club, Melbourne Beach
IGM - Brooksville Golf & Country Club, Brooksville
IGM - The Habitat Golf Course, Malabar
IGM - Sandridge Golf Club, Vero Beach
Interlachen Country Club, Winter Park
Ironwood Municipal Golf Course, Gainesville

Lake Buena Vista Club, Lake Buena Vista
Lemon Bay Golf Club, Englewood
Loblolly Pines Golf Club, Hobe Sound
Magnolia Golf Course, Lake Buena Vista
Olde Florida Golf Club, Naples
Old Marsh Golf Club, Palm Beach Gardens
Osprey Ridge Golf Course, Lake Buena Vista
Palm Golf Course, Lake Buena Vista
Panama Country Club, Lynn Haven
PGA St. Lucie West Country Club, Port St. Lucie
Quail Ridge Country Club, Boynton Beach
River Hills Country Club, Valrico
Royal Poinciana Golf Club, Naples
Tampa Palms Golf & Country Club, Tampa
TPC at Eagle Trace, Coral Springs
TPC at Heron Bay, Coral Springs
TPC at Prestancia, Sarasota
TPC at Sawgrass, Ponte Vedra Beach
TPC at Tampa Bay, Lutz
Wilderness Country Club, Naples
Windstar Country Club, Naples

Audubon Signature Sanctuaries

Bonita Bay Club East, Naples
Collier's Reserve, Naples
Indian River Country Club, Vero Beach
The Legacy Club at Alaqua Lakes, Longwood
Lost Key Golf Club, Perdido
PGA Golf Club at the Reserve, Port St. Lucie
West Bay Club, Estero



The eastern bluebird on this Naples golf course nesting box may find himself a participant in a relocation project to repopulate the Everglades National Park. Photo by George McBath.



This brown-headed nuthatch is another small bird species disappearing from Florida as the dry open woodland areas fall victim to urban sprawl. The nuthatch is also being reintroduced to the Everglades National Park through the relocation project by biologist Gary Slater.



that removed snags, which bluebirds need to nest.

However, since the 1960s bluebird populations have increased over most of their range because of strong public support. The popularity of nest box programs has played an important role in their recovery.

Florida is the only state where eastern bluebird populations have continued to decline. As the human population in Florida has increased, space for bluebirds and other wildlife has been sacrificed. In Florida, bluebirds require open pine-forest habitats that are found on drier, upland sites - the same areas favored by developers.

Perhaps the greatest loss of pine forest habitat has occurred in southern Florida, particularly the east coast. Forests that used to stand along the Atlantic coastal ridge from Ft. Lauderdale to what is now ENP are mostly gone - obliterated in the 1900s to pave the Miami/Fort Lauderdale megalopolis. Today, ENP contains the only significant remnant of that pine forest and even that area was mostly clearcut in the mid-1940s, before it was designated a National Park.

Habitat destruction of this magnitude has its costs. Four pine-forest bird species have disappeared from southeastern Florida: southeastern American kestrels, red-cockaded woodpeckers, brown-headed nuthatches and eastern bluebirds. One other species, the hairy woodpecker, is very rare. All are cavity-nesters, and their dependence on snags and pine forest habitat make them especially vulnerable to habitat destruction.

Unfortunately, this pattern is being repeated on the southwest Florida coast,

Bluebird Relocation Project Donor Courses

Eagle Creek CC
Foxfire Golf and CC
The Glades Golf Club
Glen Eagle Golf and CC
Grey Oaks CC
Lely Resort Golf and CC
Quail Creek CC
Royal Poinciana Golf Club



This temporary bluebird aviary has been set up in the Everglades National Park to acclimate relocated birds to their new surroundings before being released. The trial program has been successful so far.

in Naples and Fort Myers. Already, breeding southeastern American kestrels have disappeared, red-cockaded and hairy woodpeckers are rare, and populations of bluebird and nuthatches have undoubtedly declined.

With so much attention given to wetlands in southern Florida, most people are surprised to hear that the only known vertebrate species to have disappeared from the Everglades ecosystem are pine forest birds. I began studying these birds in 1994, mostly focusing on eastern bluebirds and brown-headed nuthatches.

One result from my early studies was that the pine forests in ENP appeared suitable for bluebirds and nuthatches. These forests, after being clearcut in the 1940s, were now approximately 60 years old and appeared similar to areas of pine forest in Big Cypress National Preserve, where bluebirds and nuthatches were common.

However, because of the long distance between the ENP pine forests and the closest bluebird and nuthatch popu-

lations to the north, it seemed unlikely that either species could recolonize ENP without the help of the species that did them in - humans.

In fall of 1997, I initiated a two-year reintroduction project to develop translocation techniques to restore populations of eastern bluebirds and brown-headed nuthatches to ENP. The challenge was significant because most reintroductions with birds have focused on raptors and upland game species, like bald eagles and wild turkeys. Techniques for our "little-dickey" birds were lacking.

During the two years, 15 bluebirds and 20 nuthatches were removed from pine forests in Big Cypress National Preserve and taken to ENP. In general, pairs of bluebirds were held for one to three weeks in large aviaries and nuthatches were held for one to three days in smaller aviaries before being released.

In most cases, we moved a breeding pair and released them early in the breeding season so that they would have a chance to breed. Overall, our techniques

were effective, bluebirds and nuthatches nested and produced young in each year and we now had a small population of both species.

After the success of the first two years, the goals of the reintroduction program shifted from developing translocation techniques to moving birds or, as we like to say, from development to production.

Even though our first efforts were successful, the small number of birds in ENP were vulnerable to a variety of catastrophes. A hurricane, tropical storm, or even a cold, rainy winter could erase the progress we had made.

I proposed moving 20 adults of each species in each of the next four years. At that rate, the total number of translocated birds would equal 100, a number suggested by some individuals that is needed to establish a self-sustaining population. This past year, we moved 17 adult bluebirds (and 10 nestlings) and 14 nuthatches to ENP and the population has swelled to 28 bluebirds and 39 nuthatches.

With the help of golf courses, I hope to increase the number of bluebirds that are moved to ENP this spring. Using bluebirds from golf courses will help us reach our goal of 100 birds more quickly and improve our chance of success.

Also important is the fact that continued funding for the reintroduction program is tenuous, because wetland and hydrology projects remain the priority of federal agencies. Now is the time to make this extra effort to insure the success of the program.

Only 10 years ago, an idea like this would probably not be possible - perhaps, even laughed at - because golf courses have historically been perceived as environmentally unfriendly. That perception, however, is changing as golf courses increasingly make conservation a management priority.

The driving force in this management shift, according to Shelly Foy of the USGA Green Section, is the Audubon Cooperative Sanctuary Program, which promotes environmental stewardship and provides a framework for golf courses to achieve that goal.

It's impressive to hear that activities like prescribed burning, planting na-



Vero Beach C.C. Superintendent Jim Scheultker and J. A. Thompson Elementary School teacher Kathy Johnson attended the GCSAA Regional Seminar on Wildlife and Habitat Management in Orlando. They are working together to earn a grant from the Audubon Sanctuary Program for Schools.

STEWARDSHIP NOTES BY SHELLY FOY

This is a Good Time to Educate Golfers On Environmental Projects

As I start writing this column, it's almost Thanksgiving, and it is 52 degrees in Hobe Sound. It's great weather to get you in the mood for the holidays, but definitely not typical for South Florida. Superintendents are busy dealing with all the members that are down for the "season," and locals are busy trying to avoid all the members that are down for the season. Driving in my neck of the woods is pretty hectic right now.

This is a good time of the year to spend a little time educating your members/golfers on environmental projects on the golf course.

- Call your local Audubon and set up a talk on Florida birds
- Include articles in your newsletter about environmental practices on the golf course.
- Have your members/golfers participate by encouraging them to record all wildlife they see on the golf course.
- Volunteer to give a talk to your members/golfers. Explain environmental practices you use on the golf course and how homeowners can do their part to protect the environment in their own backyards. Share your expertise on irrigation, disease identification and proper cultural practices.
- Set up a display in the clubhouse with articles and photos of your environmental projects. Encourage members/golfers to submit their own photos of wildlife.
- Host a walking tour of the golf course, stopping from time to time to explain various environmental practices on the golf course and the important role they play in managing the golf course.

It has always been my belief that the Outreach and Education section of the ACSP is the single most important part of the entire program. You may be doing all the right things toward environmental stewardship, but if you don't take the





time to educate your members/golfers, what have you really gained? The bottom line is don't assume that your golfer/members know that you care about the environment, tell them. Yes, I know that there are a few people who could care less, but I assure you there are even more that do care.

By now, everyone has received the new certification handbook for the ACSP for Golf Courses. This updated certification handbook took almost a year to complete, and I can assure you it was well thought out. The response has been positive from those that have reviewed it, and I am confident that it offers an improved framework for applying for certification. Craig Weyandt, Superintendent at the Yacht and Country Club of Stuart, Rob Kloska, Superintendent at the Jupiter Island Club, John and myself were part of the working group to update this certification handbook. We are all pleased with the result. Bottom line: Open the book and get started on certification!

Audubon International's web page has been given an entirely new look. There is a lot of useful information available, so check it out at: <http://www.audubonintl.org>.

Welcome to USGA Green Section, Todd

The USGA, (and certainly John and I) are pleased that we have hired a new agronomist for Florida, Todd Lowe. Todd, his wife Stephanie, and 2-year-old daughter Kayla, live in Englewood. A lot of you may know Todd's dad, David, who was superintendent at The Plantation at Ponte Vedra for many years.

While working on his master's degree at Clemson, Todd coordinated the ACSP program for the university's golf course.

Sometimes it is hard to believe that John and I have been with the USGA for 15 years. A lot has happened for our family since we moved to Florida in 1986 with our then 2-week old Hunter.

We have been blessed with three children, Hunter (15), Elizabeth (13), and Thomas (2). Two things have been constant for us in the past 15 years: the support and friendship of the golf industry in Florida, and the support and friendship of the USGA. Both have been very good to us.

We know that both will be constants for Todd and his family as well. John and I encourage you to get to know Todd and welcome him as you have us. He passed the Foy Family test with flying colors by jumping in and helping fix dinner, and he never batted an eye when Thomas joined us at the dinner table in the buff.



Todd, Kayla and Stephanie Lowe, additions to the USGA Green Section family in Florida, will make their home in Englewood

tive terrestrial and aquatic vegetation, and preserving large patches of natural habitat have been incorporated by some golf course architects and superintendents to make their golf courses as compatible with the natural environment as possible. I hope this donor program further demonstrates the contribution that golf courses can make to the environment: not only by providing a green refuge for native plants and animals, but also by participating in management activities away from the golf course.

Eight golf courses in the Naples area have expressed interest in donating bluebirds (*see sidebar*). My goal is to remove one or two pairs of bluebirds from each golf course this spring. I expect these birds to be replaced quickly by individuals who didn't have a place to breed previously (floaters). Bluebirds are territorial during the breeding season and will defend their home space aggressively from other bluebirds.

Bluebirds will be captured in late February or early March, when pairs initiate breeding behavior, using a large (30 x 25 ft) net designed to catch birds, a live lure bluebird, and a pair of speakers to play the bluebirds' song on either side of the net. When the pair responds to the invading lure bird and speakers, they will become trapped in the net. Once removed, they will be taken to ENP and placed in an aviary and released within a few weeks.

We may also capture pairs later in the breeding season while they are nesting. In that case, the pair and their nestlings will be taken to ENP and released when the young can fly on their own. After release, we will monitor their activity with the help of radio transmitters and hope they try to nest in the park.

I look forward to this cooperative effort between golf courses and the reintroduction program and anticipate a mutually beneficial relationship.

For more information on the bluebird donor program, contact Gary Slater at ARC Institute, Inc., 15551 SW 104 Terr., #813, Miami, FL 33196; mail:gslater@yahoo.com.