

What A Success!

By Gary L. Slater

As I sit back and reflect on the past six months, those words best describe my thoughts concerning the eastern bluebird reintroduction program in Everglades National Park. Granted, during that period, I often muttered other, less wholesome, phrases. For example, those days when my field crew and I awoke before dawn to drive to our research site, only to be taunted by bluebirds that refused to be trapped or even be found. As time passes, however, the unpleasant memories fade, while the accomplishments become more evident.

Perhaps the biggest reason for this year's success was the participation by golf courses. Last December, George McBath and I began talking to golf course superintendents in Naples to see if courses would be interested in donating bluebirds to the reintroduction program (see *Florida Green*, Spring 2001). The response by golf courses was extremely positive and as the breeding season approached, five courses each agreed to donate a pair of bluebirds.

Without George's help, this project would not have been possible. George is an enthusiastic advocate for conservation on golf courses and has helped many courses become certified in the Audubon Cooperative Sanctuary Program. It's no wonder that he has become known in southwest Florida as "the bluebird man." During this project, he guided me to nest boxes where we could trap, and he monitored bluebird nest boxes after birds were removed. With his help, we moved 10 adult and five nestling bluebirds from golf courses to a new home in Everglades National Park.

We captured and translocated the first breeding pair of bluebirds from Royal Poinciana Golf Club on Feb. 20, and followed that with captures of pairs from Grey Oaks CC and Foxfire Golf and CC on March 5.

All the pairs were captured with a large (30' x 25' ft) net designed to catch birds, a live lure bluebird, and speakers to play the bluebird's song on either side of the net. The net was placed next to a nest box where breeding behavior by bluebirds had been observed, and the lure bird was placed on top of the nest box in a small cage.



Gary Slater tries to locate and track bluebirds in the Everglades National Park by radio signals from tiny transmitters attached to the birds. Photo by Liliana Menacho.



Male bluebird with radio transmitter attached to his back. Photo by Liliana Menacho.

In most cases, the bluebirds responded quickly to the invading lure bird, vocalizing loudly with displeasure, diving at the intruder, and even landing on the cage to scuffle — beak to beak — with the obnoxious intruder. The pair was then captured as they flew back and forth across the net in response to the lure bird on one side and the bluebird song coming from the speaker on the opposite side.

Once captured, the bluebirds were driven to Everglades National Park in a small cage, placed in an aviary, and given a gourmet diet of mealworms — typically a routine affair.

Can you imagine our surprise when we found the female from Foxfire had laid an egg in the transport cage? Because it was so early in the breeding season, we didn't realize that she might be that close to egg-laying or we would not have attempted to capture her. Fortunately, she appeared to be physically unaffected by what must have been a traumatic expe-

rience for her.

After spending three weeks in the aviary to become better adjusted to their new surroundings, the bluebird pairs were ready to be released. Before release, however, we attached a small, pinto-bean-sized radio transmitter to the back of the male. The transmitter emits a steady beep for about six weeks that we can detect with a radio receiver and antennae up to two miles away. This device greatly improves our ability to locate and track released birds, which often move six to eight miles daily, for the first few days after release.

We had hoped the birds would set up a territory and begin nesting before the radios fail.

That was not to be the case.

The Foxfire pair split up; I'm afraid the egg-laying experience may have persuaded the female to ditch her mate. The other two pairs stayed together, and, like the Foxfire male, moved widely throughout the pine forest in Everglades

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This bluebird nestling, shown here after banding, is the offspring of a Foxfire male and a Royal Poinciana female relocated to the Everglades National Park. Photo by Elizabeth Crisfeld.

National Park. When the radios failed, no evidence of breeding had been found and we lost track of all the birds.

In mid-April, about the time the

radios failed, we moved bluebirds from two more golf courses. This time, though, we moved bluebird pairs and their nestlings. From the Glades Golf Club we

removed a pair of bluebirds with two nestlings and from Eagle Creek CC we removed a pair and three nestlings.

As before, we transported each family to Everglades National Park and placed them in an aviary. The nestlings were put into a new nest box, where they were fed by the adults until they fledged.

One tragedy occurred when a rat snake got into the Glades aviary and swallowed the two fledglings — the lumps were obvious. Unfortunately, this seems to occur once a year regardless of our effort to exclude predators. Small-mesh wire is placed around the aviaries to deter snakes and other predators from entering, but because the ground is limestone rock it's impossible to completely secure the aviary.

Adults are able to get away from a predator inside the aviary, but the slow, uncoordinated flight by juveniles makes them vulnerable. More frustrating, was that these birds were to be released in just a couple days.



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After three weeks, the males from both courses were radio-tagged and the families were released. Immediately, the pairs split up. The Glades adults were seen on a couple occasions near the park's entrance, but neither has been seen since. The Eagle Creek male abandoned its mate and young and set up a territory near a nesting bluebird pair about four miles from its release site.

By early May, ten bluebird adults and three juveniles from golf courses had been released to Everglades National Park. But we knew the whereabouts of only one bird — not a great success story. To make matters worse, we had found only two of the eight bluebirds translocated from Big Cypress National Preserve, and only a few nests had been found.

Overall, the scene was discouraging and I must admit that a few of those unwholesome words escaped from my mouth.

Fortunately, our luck was about to change, and in this case it happened swiftly. One morning in early May, we found the female from Eagle Creek with one surviving juvenile near one of the Park's research buildings. An hour later, we found a nest across the street! The Foxfire male and the Royal Poinciana female had mated and were nesting in the back of a small shed.

We had been looking for golf-course birds in the forest; these birds were hanging out near buildings, people, and well-maintained lawns. I guess old habits die hard.

A few days later, we found the Grey Oaks pair nesting in a natural cavity, and a few weeks later, we located the male

from Royal Poinciana nesting with a female translocated from Big Cypress National Preserve.

The pair nesting in the small shed won the most fledglings contest for all of the territories in Everglades National Park. Their first nest yielded three juveniles, which we banded with color bands to mark them uniquely. To our pleasant surprise, they nested again and raised five more juveniles — a rare event — to bring their total to eight. The Royal Poinciana male and its mate produced three juveniles. However, the Grey Oaks pair failed. In summary, we found seven of the 10 golf course adults released in the park. This is a great success rate and higher than previous years where we had seen 40%–60% of translocated birds remain in the Park.

Also, the three adults that disappeared may still be in the park; it's an enormous area and impossible to survey completely. Golf course bluebirds produced 11 of the 38 (29%) juveniles that fledged in Everglades National Park this year. I could never have anticipated such great success. I expect all the birds to remain in the park and be ready to breed again next year.

Back at the golf courses, bluebirds were successful too. George monitored the nest boxes at four golf courses, while Dr. Harold Dowell of the Foxfire Nature Group monitored the nest boxes at Foxfire Golf and CC. At only one course, Royal Poinciana, did new bluebirds occupy the nest box where we removed bluebirds. However, all courses had significant numbers of bluebird nests (see table), and the juveniles produced this year will find an available nest box ready for them next year.

The bluebird population in Everglades National Park increased in size substantially this year with the help of translocated bluebirds from golf courses. Last year we found only four breeding territories. This year the number jumped to 16 breeding territories (I think we missed some last year).

With 38 fledglings produced this year, the population at the end of the breeding season is around 70 individuals. With such a large population established, we have decided to stop translocating birds and just monitor the population for a couple of years to evaluate its status.

That means an end to the golf course donor program, but not to the golf course bluebirds. Next year, golf course bluebirds and their offspring will continue to be monitored by me in Everglades National Park, by George on courses in southwestern Florida, by the Foxfire Nature Group on its home course, and by other bluebird enthusiasts on golf courses throughout Florida.

Finally, I want to thank the participating golf courses again for taking part in this reintroduction effort. Your cooperation was great and I think our partnership makes for a great conservation story that the entire golf industry can be proud of. For me, it was also a learning experience about golf courses and the role they can play in conservation. I certainly hope to have the opportunity to work with golf courses again.

Gary L. Slater is a research biologist with ARC Institute, Inc. If you have any questions or comments, he can be reached at 305-213-8829, or by e-mail: gslater@yahoo.com.

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STEWARDSHIP NOTES

by Shelly Foy

Ah fall... What a relief to know that you are just around the corner. I look forward to opening my house up and having pleasant nighttime temperatures, college football games to watch (GO DOGS), and those delightful breezes. It's no wonder half the world wants to live in Florida during the fall and winter.

I read an interesting article recently on environmental education and its importance in the development of children. Ken Voorhis, director of the Great Smoky Mountains Institute, reports that several studies have recently been published on the benefits of teaching environmental education in schools.

Those benefits:

- Better performance on standardized measures of academic achievement in reading, writing, math, science and social studies.
- Reduced discipline and classroom management problems.
- Increased engagement and enthusiasm for learning.
- Greater pride and ownership in accomplishments.

Voorhis says, "It seems obvious to many of us that environmental education is not only effective but also critically essential. People can only make informed decisions about the world in which they live if they are environmentally literate.

People also need to feel connected to nature, not separate from it."

Although this article was about environmental education in schools, I think adults can benefit as well. Let's look

at the above listed benefits for children and put them into context for our golfers:

- Better performance on tests could equate to golfers being more knowledgeable and tolerant of golf course maintenance practices and programs.
- Reduced discipline problems could mean less golfer grumbling.
- Increased enthusiasm for learning could mean more golfers getting involved in projects and programs.
- Greater pride and ownership — stands on its own.

The fall and winter is an excellent time of year to work on outreach and education projects with your members and golfers. So, I encourage everyone to take a little time this season to work on environmental education. The most successful golf course superintendents I have ever met are those who make communication with their golfers and members their top priority. The least successful are those who turn and go the other way to avoid running into a member when they might have to actually speak to them.

The Benefits of Reaching Out

Communicating with golfers and the public about your environmental efforts can help you:

- Gain recognition and support for your management efforts.
- Increase golfer understanding of wildlife and environmental quality on the golf course.

Let the public know that environmentally managed golf courses can be valuable community resources — whether

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or not the public ever gets to step on the course.

Audubon International recommends that the first step is to form that all-important Resource Advisory Committee made up of fellow employees, golfers, and even people outside the golf course who can provide technical expertise. Your Resource Advisory Committee's primary role is to aid you in communicating a commitment to environmental stewardship and implementing conservation activities.

There are many ways to let people know about your commitment to conservation. Education projects can inform people about your efforts or teach people how they can support environmental practices.

Try some of the following ideas this year. For more specific information on how to implement these ideas, call Audubon International at (518) 767-9051.

- Create a display to promote the positive efforts you have undertaken to maintain environmental quality at your course. (Artwork, pictures, newsletters, wildlife inventories, etc.. are all things that can be used in your display).
- Write articles for your club newsletter.
- Mount signs (like "Natural Area," "Environmentally Sensitive Area – Please Keep Out," "Shoreline Naturalization," "Critical Nesting Habitat," etc.).
- Write a press release announcing your environmental plans or projects (Audubon International has detailed information on writing press

releases).

- Work proactively with neighbors (adjoining properties, homeowners associations, etc.) by sharing information on your environmental projects, offering to help them with projects, or inviting them to participate in projects on your golf course.
- Request help with building and monitoring a nestbox program.
- Create a garden for wildlife.
- Let members/golfers help you inventory wildlife.
- Create a nature guide.
- Host nature walks.
- Lead a golf course tour.
- Use tournaments to showcase environmental aspects of the course.
- Teach good stewardship to golfers (jr. golf clinics, etc.).
- Offer a workshop like tree and shrub care, IPM, etc..
- Encourage neighborly stewardship.
- Host kids projects.
- Sponsor a school in the ACSF for Schools.

TCGCSA Sponsors Indian River Lagoon Envirothon

My pals with the Treasure Coast GCSA had a good time sponsoring the Indian River Lagoon Envirothon in March. They donated \$5,000 to this annual event established as a competitive, problem-solving, natural resource event for high school students to challenge them about the environment.

High school students in Martin, Okeechobee, St. Lucie and Indian River

counties used critical thinking skills and worked as a team to develop and design a proposal to implement the best environmental management practices for a specific demonstration site of their choice in their county.

Students were trained and tested in five natural resource areas: soil, aquatics, forestry, wildlife, and non-point source pollution.

The Envirothon began in Pennsylvania in 1979 and today, at least 46 states, Canada and Australia have initiated the program. In competing in the Envirothon, not only do students learn about their state's natural resources, problems and solutions, but they also learn about team building, communication, and conservation partnerships. They also indirectly experience natural resource and conservation careers, and most importantly will become more environmentally aware citizens in the future.

Greg Phenegar, John's Island Club, was a judge for this year's event. Greg was very impressed with the Envirothon and said, "it was a great learning experience for the students and I was impressed with their comments and the questions they asked."



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