



## He'll Put a Bluebird on Your Shoulder!

Slash pines and open grassy areas often mean bluebirds like this male perched on a branch.  
Photo by George McBath.

### The Bluebird Man of Naples Builds Nest Boxes from PVC Pipe

BY GEORGE MCBATH

**I**n February 1994 a friend at Eagle Creek CC in Naples said, "George, you had a successful nest box program for bluebirds on your farm in Virginia. Why don't you cut out some nest boxes? We will put them together, and then you and I will hang them up." I did. They did, and we did.

The morning after hanging the boxes, I got an 8 a.m. call from an excited Eagle Creek resident telling me that there were two bluebirds standing on a new nest box across from his house. This was the first of what has become six years of

experiences showing me just how very successful golf course bluebird nest box projects could be.

That first spring we ended up with eight different pairs of bluebirds using our boxes at Eagle Creek. Three pairs nested twice, and one pair nested three times, not an uncommon circumstance in south Florida.

Those first Eagle Creek boxes were made from wood. Observations that summer suggested that I would need longer-lived construction materials. Almost immediately, woodpeckers enlarged entrance holes making the boxes unsuited for bluebirds. In attempting to move unused boxes to different locations, the wood backs tended to split. Observations after the summer rains indicated I was going to have problems with the wood rotting.

I began experimenting with different

construction materials and settled on a combination that has proved to be long lasting and very successful. The body of my houses is now made from discarded, used pvc water and sewer pipe, 6-inch diameter for bluebirds, 4-inch and 8-inch diameter for other cavity nesters.

These pvc bodies are almost indestructible. The attachment bracket for securing the nest cylinder to the tree comes from scraps of plastic lumber discarded from the dock-building industry. This plastic lumber is produced by melting down No. 1 and No. 2 plastic milk and soda containers. It too is indestructible. The tops and bottoms of the nest cylinders are made from heavy-duty aluminum which is both recycled and recyclable.

With increasing interest of golf courses in the Audubon Cooperative Sanctuary Program — which promotes



the use of recycled and reused materials — my pvc nest cylinders have really caught on. Over the last five years I have put up more than 1000 nest cylinders on 30 central and south Florida golf courses.

Two experiences I had early in my bluebirding indicated that the existence of nice populations of bluebirds in south Florida is not widely known: I once telephoned Lawrence Zeleny, founder of the North American Bluebird Society to get some information.

He asked me where Naples was and when I told him he said, "Forget it! There are no Eastern Bluebirds in that area."

Boy did he have something to learn.

On another occasion I told Bernie Yokel, president of Florida Audubon Society, of my nest box success at Eagle Creek, a property adjacent to Rookery Bay where Bernie had spent two years doing research. He told me that he had no idea that bluebirds were in the area.

Why is there so much interest in bluebirds? Why do people want to promote them by building nest structures? Why do bluebirders throughout the U. S. tend bluebird trails which each year fledge more than 50,000 young from artificial nest structures? Few birds in the U.S. are as colorful as the male bluebird. The blue of the back and the orange-red of the breast are brilliant. Few tropical rainforest birds are more colorful.

Bluebirds should not be confused with the more widely spread blue jay which is about 80 percent larger and has blacks



Male bluebird on top of "raccoon proof" pvc pipe nesting box. Photo by George McBath.

and grays mixed in with its blue. Often when I question golfers about bluebirds, they describe to me the blue jay. The bluebird song is cheerful and pleasing to the ear. Bluebirds are quite gentle, not displaying the aggressive and predaceous qualities of grackles, crows, and jays.

Bluebirds are very accepting of humans and permit very close observation. I have had bluebirds nest at eye level within 10 feet of cart paths and just as close to people's patios.

When I open the top of a nest cylinder to check nesting activity, often the female Bluebird will remain on her eggs

which are within six inches of my eyes. When I show this to golfers, it blows them away.

During the first half of the twentieth century, when our country was more rural, bluebirds were much more abundant. I think many older people are partial to bluebirds because they remind them of times that were much less hectic, crowded, and materialistic.

The exotic European Starling outcompetes bluebirds for abandoned woodpecker cavities to be used for nesting. Bluebirds, by being so accepting of artificial housing, give people positive feelings that they are doing something

## Audubon Cooperative Sanctuary Golf Courses

### New Members

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Wilderness CC, Naples

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### Raccoon Proofing

Raccoon-proofing a bluebird nest cylinder consists of:

- 1) driving a 5-foot-long, 1/2-inch diameter piece of steel rebar 30 inches into the ground;
- 2) slipping a 5-foot long, 1/2-inch diameter piece of steel electrical conduit over the rebar;
- 3) bolting the nest structure to the conduit; and
- 4) waxing the conduit with a carnuba based car wax.





## Bluebird Potpourri

**LEVEL:** When I put up nest cylinders, I always use a carpenter's level. For birds that lay their eggs on the cylinder floor, eg. screech owls and woodpeckers, it is important that the floor be level, both left-right and front-back; otherwise eggs will roll to the cylinder wall. Since bluebirds build nests within the cylinder usually out of pine needles with some grass and palmetto hairs, their nests prevent egg rolling thus functionally leveling the cylinder. Nevertheless, I still level the cylinder for aesthetic reasons.

**SPRING CLEANING:** Bluebirds build a new nest preceding each clutch of eggs they lay. A nest structure will become filled with nests and unusable to the birds after two or three broods. This can occur in just one nesting season. Therefore it is important to check nest structures each winter and discard old nests.

**SNAKES:** No matter how much I prepare, it is always startling to check a nest cylinder and come eyeball to eyeball with a snake. Snakes, especially rat snakes, prey on bluebirds when on the nest. Experience suggests that the more shrubs touching a nest tree, the greater the probability that a snake will be in a nest cylinder. Thus I never hang a cylinder where shrubs are touching a tree or touching my raccoon proof rebar-conduit systems.

**TERRITORIAL:** Like most birds, bluebirds are territorial. A bluebird pair will chase other bluebirds away from their territory. Bluebird territories extend in a radius of approximately 125 yards from the nest. Therefore, I try to keep my nest cylinders at least 125 yards apart. Frequently home owners ask me for their own bluebird house in addition to the ones on the golf course. If this request violates the 125 yard rule, I explain territoriality to them. If they still insist, I put up the house for them. Their enthusiasm will educate neighbors and gain support for the nest cylinder project on their course.

**HEAT BUILDUP:** Most bluebirders say that nest structures should face east so that the late afternoon sun does not heat up the structures. The two professionals who gave me the most guidance when I was starting out felt that this wasn't necessary. My experience supports this. I usually face my cylinders in the direction that most people will see them or in the direction of the most open grass. These two factors being equal, I face them east. I have not found dead nestlings in my nest cylinders which indicates that I don't have a heat build-up problem. Additionally, I paint my cylinders a light color which therefore reflects rather than absorbs the sun's rays. This also prevents heat build up in the cylinders.

**COWBIRDS:** Bluebird eggs are a light blue color. Occasionally I find a slightly larger white egg with brown speckling accompanying bluebird eggs in the nest. These eggs are laid by a nest parasite, the brown-headed cowbird. If the cowbird egg is permitted to hatch, the larger young cowbird will heave the smaller young bluebirds out of the nest. The adult bluebirds end up raising a cowbird. I always destroy cowbird eggs.

good for the environment as well as for these wonderful little creatures.

And finally people like bluebirds because their diet is almost entirely insects. I have found parts of mole crickets in their nest cylinders. Is there anyone who doesn't hate bugs? They will eat wild berries in the winter.

Of the 30 central and south Florida golf courses that I have done breeding bird nest projects on, only nine courses have had bluebirds. Please note that

screech owls, great crested flycatchers, red-bellied woodpeckers, downy woodpeckers, carolina wrens, brown-headed nuthatches and purple martins in various combinations have also used my nest cylinders at these courses.

In south Florida most golf courses have been built in areas where the original plant communities were coastal scrub, wet cypress woods or slash pine flatwoods of either the dense, xeric palmetto type or the more hydric, open type

dominated by grasses and shrubs.

Of these four plant community types, bluebirds are almost exclusively found in the more hydric, open flatwoods. Therefore only golf courses built in this latter plant community will have bluebirds. So far it is only on these courses that bluebirds have used my nest cylinders.

Bluebirds hunt insects by sitting on low and mid-level tree branches and searching open ground cover for insects. Apparently in the other plant community types, the ground cover is too dense for bluebirds to successfully catch insects.

However, in the process of building golf courses, a lot of dense ground cover is removed in creating tees, greens, and fairways. These open areas, if they have islands of slash pines, somewhat mimic open pine flatwoods and may in the future attract bluebirds.

For this reason I put up six to ten bluebird nest cylinders on courses that appear not to have bluebirds. The hope is that at some time in the future, bluebirds will be dispersed into the area and the presence of the nest cylinders will help them become resident breeders.

Ideally bluebird nest structures should be checked every 7-10 days during the nesting season (mid-March to mid-June). Only by doing so can it be discovered whether predation, heat, ants, cowbird nest parasitism, or abandonment are affecting the nesting birds. By constant checking I learned that raccoons can be terrible predators on bluebirds using nest structures on golf courses.

I am not thrilled that it took me three nesting seasons to realize this and how to prevent it. It probably takes one to two seasons for raccoons to learn that bluebird nest structures mean a free lunch and to start regularly raiding these structures.

In my third year at Eagle Creek, five of ten nestings were destroyed and at Foxfire CC, six of 12 nestings were destroyed. At Embassy Woods CC, where I surreptitiously hung five nest cylinders, a sad progression occurred. There were five nesting pairs the first year. Three the second, and none the third. Since the



management at Embassy Woods would not let me do a raccoon-proof nest project, I removed all five nest cylinders.

Signs of raccoon nest predation on bluebirds are missing eggs or young (you need to know that eggs hatch in 13 to 16 days and young fledge in 15 to 20, averaging 19 days); destroyed nests in the cylinder (part of the nest is sticking out of the entrance hole or is on the ground); muddy footprints on the cylinder; blood and/or feathers stuck on the cylinder; or parts of dead birds on the ground.

When I realized the magnitude of my predation problem, I searched *Sialia*, the Journal of the North American Bluebird Society, and discovered a method of raccoon-proofing bluebird nest structures that had proven very successful in the upper Midwest. It is described in the sidebar.

The wax makes the conduit too slippery for the raccoons to climb. I do not wipe off the powdery wax residue. If raccoons try to climb the conduit, they leave foot prints on the residue thereby giving me an idea of what is going on. This year at Quail Creek CC. all seven nest cylinders with nesting bluebirds has raccoon foot prints on the conduits.

For the three years I have been using this rebar-conduit system, I have had no raccoon predation, but many attempts are recorded on the residue.

Each December or January when I check the nest cylinders, I throw out last year's old bird and hornet nests and make minor repairs. At the same time I steel wool and apply new wax to create maximum slipperiness of the conduit for the

upcoming nesting season.

From my six years experience with raccoon predation of bluebird nest cylinders on nine golf courses, I have come to this harsh conclusion: If a golf course has a bluebird nest structure program with nesting bluebirds and does not use a raccoon proof nest structure system, that course is signing bluebird death warrants.

I do not raccoon-proof the cylinders until a course has its first nesting success because of time, expense and other considerations. Not raccoon proofing will cause the decline and possible loss of bluebirds on that course. These beautiful creatures, fellow passengers on spaceship earth, do not deserve this. Don't be an ugly human and ignore the need for raccoon-proofing bluebird houses.

#### Bluebird Experiences

Once while checking nest cylinders adjacent to a golfer's home, the woman of the house rushed toward me and demanded I remove the nest cylinder which barely two weeks before she had given me permission to put up. She said she was tired of watching to see if the bluebirds were going to arrive. Two weeks was all time she was going to give them!

On another course an elderly resident who had, many years before, immigrated from Italy where they hunt and eat song birds, asked me, when I showed him a nest of hatchlings, when was I coming back to collect the "squab" and eat them. Needless to say I did not feel good about leaving those birds to his care.

Much is made of instructions for

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building and placing bluebird houses. The house should be 8 inches deep, 5 inches wide, entrance hole 1-1/2 inches wide, and hung 5 to 10 feet above the ground. However there are always exceptions.

At Foxfire I had a nest of bluebirds that twice in a period of two weeks had its eggs robbed, probably by grackles. Two weeks later when I returned, the house was abandoned. When I checked a nearby screech owl nest cylinder, guess who was nesting in it? Those troubled bluebirds had selected a nest cylinder that was 15 inches deep, 8 inches wide, 3-inch entrance hole, and hung 15 feet above the ground. Sometimes there is just no telling.

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Another time at Foxfire I saw something I could not believe. As I approached a nest cylinder, a homeowner about 30 yards away stepped out of his lanai and rung a bell. Immediately two bluebirds left the nest cylinder and the tree above and flew to the homeowner's feeder to collect some fresh meal worms. Over the course of the spring that person has conditioned those birds to come get meal worms whenever he ran his bell. Unbelievable!

Once in late winter toward dusk, as I was hanging up the last of 24 bluebird nest cylinders at Quail Creek CC, I looked up into the tree that I was nailing the cylinder to. There sat two bluebirds watching me as I worked. How rewarding! And yes, that cylinder had nesting birds in the spring.

Late one May at the Glades CC, I was doing a nest check on a cylinder that had eggs and young birds on previous checks. As I approached the tree, I noticed an envelope tacked next to the cylinder. It was addressed to the "Bluebird Man."

In an enclosed note, a snowbird resident told me that the young birds had fledged three days before. She thanked me for providing the best thing in her life over the last six weeks. She wrote that the highlight of her days had been to watch those beautiful creatures find the cylinder, pair through song, build a nest, come and go feeding their young, and finally the fledging. Now that the birds had fledged, it was time for her to fledge back to Canada.

**Audubon Cooperative Sanctuary**



*Female bluebird on eggs in a pvc nesting box. The strong maternal instinct to remain on their eggs makes bluebirds very vulnerable to raccoon predation. Photo by George McBath*

My bluebirding activities gave an important assist to Foxfire CC in getting them registered and eventually certified in the Audubon Cooperative Sanctuary Program. Foxfire is across the street from where I live. While bicycling on their cart paths, I noticed that they had bluebirds very early, New Years Day! I surreptitiously put up five nest cylinders on their course with my telephone number on them.

About mid-March I began getting telephone calls from residents indicating they were seeing bluebirds at the nest cylinders and asking me to put up cylinders in their yards. I had done this for seven or eight people when I got a call from resident Dean Lang who asked me

to do the same. Our conversation eventually got around to the ACSP.

Dean became very interested in the ACSP and decided to take the idea to club management. Just prior to this, the club manager had made an inquiry to the ASCP, and their papers were sitting on his desk.

Dean decided to lead an "adopt a nest cylinder project" and advertised the idea on the Foxfire in-house TV channel. Unbelievably, 51 residents sent in money for nest cylinders to be placed around the course! The resident sponsor's name was put on each cylinder and its location and nesting success was reported to each resident.

Five years later Foxfire residents eagerly await the annual nesting report. I believe it was this overwhelming support for the nest cylinder project that convinced Foxfire officials to go ahead with the ACSP.

Bluebirding on south Florida golf courses has been a lot of fun for me and has been very well received by course superintendents, players, and residents. If there is any chance you have these wonderful birds at your course, I urge you to put up nest cylinders for them. It will be a very rewarding project.

*Editor's note: George McBath is a retired biology professor and self-described ACSP advocate. If you have any questions about starting a bluebird nest project on your course, or maybe would like to have him talk to your chapter or golf course members, you can reach him at (941) 774-2820.*

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