

# ON COURSE WITH NATURE

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## The Nest Box Project

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*A handmade bluebird box by Colonel Robertson represents one design alternative. The ventilation slits improve airflow and provide a light source to encourage the bluebird to enter.*

**S**NAGS AND tree cavities once provided many areas of suitable habitat for cavity-nesting birds, but land development and more manicured maintenance trends have reduced these habitat sites. For example, the North American bluebird has experienced a 90% decline in the past 50 years, and habitat loss has been a significant cause of this decline.

Artificial nest boxes can provide alternative nest sites, enticing birds to occupy new habitat areas. Besides cavity-nesting species, birds that usually nest on tree tops, such as osprey, eagles, and owls, have been encouraged to use artificial nests with imaginative designs. Waterfowl also can be encouraged to nest on artificial floating islands. Participation in a nest box project is an easy and economical way to increase bird nesting success, help balance loss of natural habitat, and offer an oppor-

tunity for superintendents to take an active role in conservation and enhancement of the environment.

Nest box position is one of the most important considerations in attracting birds. Specific nest site characteristics for each species vary, based on instinct, habitat site, and nesting characteristics. It is important to pay attention to the correct habitat (i.e., open fields, wooded area), as well as species preference for nest height above the ground, distance to dense cover, spacing between boxes, etc.

### **Bluebirds**

Nest boxes are a familiar subject to Colonel W. R. Robertson, active for 20 years with the North American Bluebird Society (NABS), who has encouraged bluebird nesting in Georgia. At 80 years old, Colonel Robertson has con-

structed over 1,000 nest boxes and still sells a few each year. He continues to monitor 60 boxes on three different Georgia golf courses: Cherokee Country Club, Polo Field Club, and Brookfield West Country Club.

Colonel Robertson's first nest boxes were placed in a nearby cemetery, which provided acres of short grass and an ample supply of insects. This effort, however, resulted in failure as many of the boxes were stolen. Recognizing this problem, the golf course was identified as an excellent location for providing both security and bluebird habitat. It took only a short time to learn how to build bluebird boxes and where to place them so they did not interfere with golf and yet were desirable to the bluebirds.

He emphasizes, as does NABS, that bluebirds can help reduce certain insects on a golf course, and thus reduce the volume of chemical usage necessary to

## DIMENSIONS FOR TAILORING NEST BOXES

BIRDS USING SINGLE-ENTRANCE BOXES	ENTRANCE		DIMENSIONS		Location Height Feet	Preferred Habitat Codes
	Diameter Inches	Above Floor Inches	Floor Inches	Sides Inches		
Barn owl	6	4	10 × 18	15 to 18	12 to 18	4
Bewick's wren	1 to 1¼	1 to 6	4 × 4	6 to 8	6 to 10	2, 6
Bluebird	1½	6	5 × 5	8	5 to 10	1
Carolina wren	1½	1 to 6	4 × 4	6 to 8	6 to 10	2, 6
Chickadees	1⅞	6 to 8	4 × 4	8 to 10	6 to 15	2
Crested flycatcher	2	6 to 8	6 × 6	8 to 10	8 to 20	1, 2
Downy woodpecker	1¼	6 to 8	4 × 4	8 to 10	6 to 20	2
Flickers	2½	14 to 16	7 × 7	16 to 18	6 to 20	1, 2
Hairy woodpecker	1⅞	9 to 12	6 × 6	12 to 15	12 to 20	2
House wren	⅞	1 to 6	4 × 4	6 to 8	6 to 10	2, 6
Nuthatches	1¼	6 to 8	4 × 4	8 to 10	12 to 20	2
Purple martin	1¾ (min.) 2 to 2¼ (recom'd.)	1	6 × 6 (min.) 6½ × 9 (recom'd.)	6	10 to 20	1
Redheaded woodpecker	2	9 to 12	6 × 6	12 to 15	12 to 20	2
Screech owl	3	9 to 12	8 × 8	12 to 15	10 to 20	2
Sparrow hawk	3	9 to 12	8 × 8	12 to 15	10 to 30	1
Titmouse	1¼	6 to 8	4 × 4	8 to 10	6 to 15	2
Tree swallow	1½	1 to 5	5 × 5	6	10 to 15	1
Wood duck	4	17 to 19	12 × 12	22 to 24	10 to 20 above ground 6 above water	3, 5

### Preferred Habitat Codes:

1. Open areas in the sun (not shaded continually)
2. Woodland clearings or the edge of woods
3. Above water, or if on land, the entrance should face water
4. On trunks of large trees, or high in little-frequented parts of barns, silos, water towers, or church steeples
5. Moist forest bottomlands, flooded river valleys, swamps
6. Backyards, near buildings

control these pests. From considerable experience as both golfer and bluebird expert, he recommends:

- Use an average of 13 to 14 bluebird houses per 18-hole golf course.
- Place the box to the side or back of tees, out of the golfers' way. (Use of nest boxes as 150-yard markers has not been successful for Colonel Robertson, as they get hit by golf balls, annoying both golfer and bird.)
- Mount on a metal pole, one inch in diameter. Trees represent natural passageways for predators, allowing raccoons, opossums, and snakes to reach the nest.
- Locate boxes no closer than 100 yards apart; 200 yards is better. Closer placement violates feeding territories, causing birds to fight.
- Choose an open area not shaded completely by trees.

- Use ¾" weather-resistant wood and paint the exterior a neutral color that simulates bark.

Provide ventilation, drainage, and a predator guard to the nesting box. Ventilation improves temperature and airflow, as well as providing a light source. Light is important to encourage birds to enter the box. The bluebird box should be in place by the end of March, but it's never too late to get started. Many species look for future nest sites during migration. Most of all, be patient. It takes approximately two years before your nest boxes will attract a noticeable population.

Don't forget about the nest boxes once they have been constructed and mounted. Monitoring the boxes remains an important aspect of the project. Careful observation of nest box activities allows you to determine and correct problems with predators, parasites, or competitors.

## Share Your Stories

Reporting your successes or failures is important to help others incorporate the right elements into habitat projects. The USGA and the Audubon Society of New York want to encourage your participation in other projects through the Audubon Cooperative Sanctuary Program, and we would like you to share your successes with us in future "On Course With Nature" articles. As a participant in the Audubon Cooperative Sanctuary Program for Golf Courses, you will automatically be connected with the Nest Box Network, which surveys and reports on members' nest box efforts and observations.

For more information, contact:

- Audubon Cooperative Sanctuary Program, Hollyhock Hollow Sanctuary, Route 2, Box 131, Selkirk, NY 12158 (518/767-9051).
- North American Bluebird Society, P.O. Box 6295, Silver Spring, MD 20916-6295 (301/384-0744).

*Monitoring the bluebird box is an important aspect of the project. Active bluebird conservationist Colonel Robertson checks his nest boxes for activity.*

