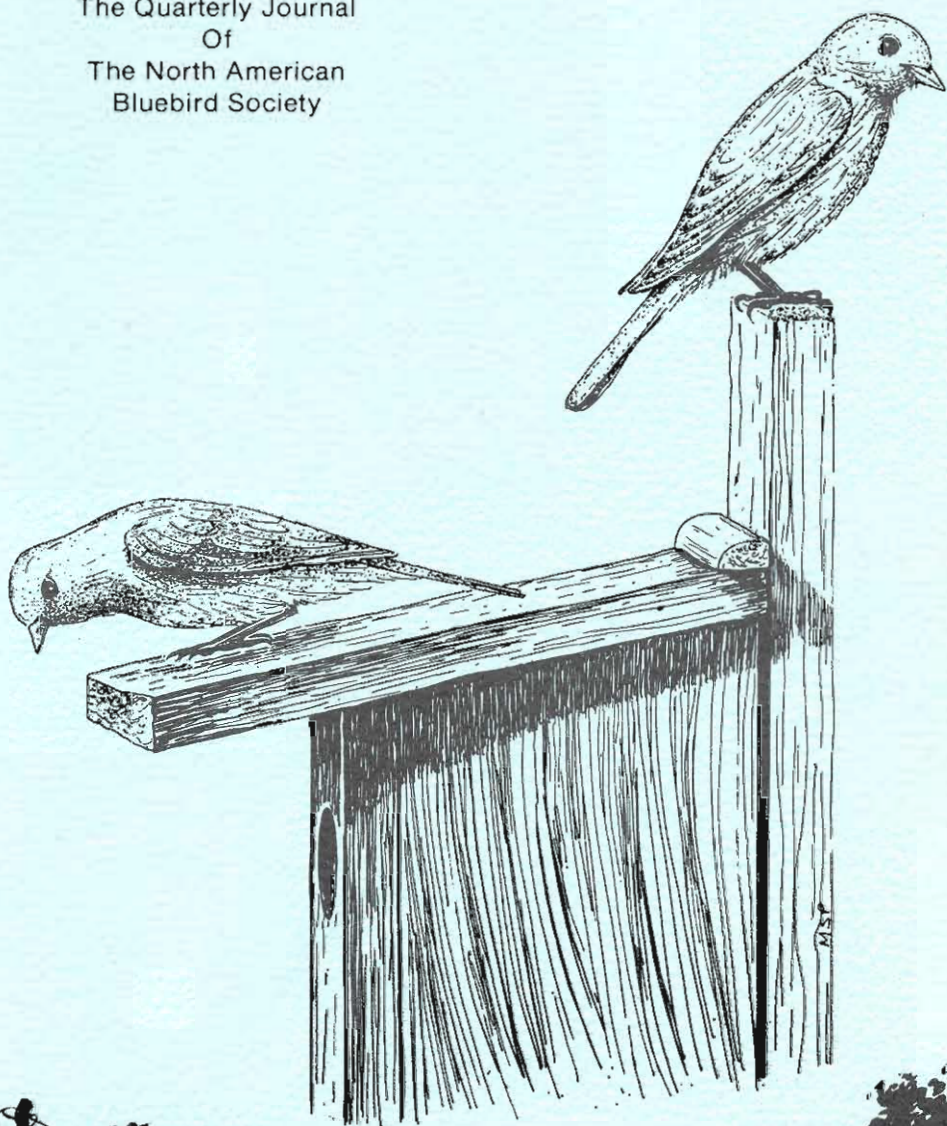


Sialia

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Autumn 1990
Pages 121-160

The Quarterly Journal
Of
The North American
Bluebird Society



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Sialia means bluebirds. Hence the title of this journal. Technically, *sialia* is the Latinized, neuter plural version of the Greek word *sialis*, a noun meaning a "kind of bird." Since the Eastern Bluebird was the first bluebird classified by Carolus Linnaeus (1707-1778), he gave it the species name *sialis*, though he placed it in the genus *Motacilla* which is now reserved for the wagtails. It was William Swainson (1789-1855), who, in 1827, decided that the bluebirds needed a genus of their own within the thrush family (*Turdidae*). He selected the generic name *Sialia* which he simply adapted from the species name *sialis* which Linnaeus had used. Therefore, the scientific name for the Eastern Bluebird is *Sialia sialis* (pronounced see-ahl'-ee-ah see'-ahl-iss). Similarly, the Western Bluebird and Mountain Bluebird, the two other species within the genus, were named *Sialia mexicana* and *Sialia currucoides* (coo-roo-coy-dees) respectively. Their species names are descriptive of their locations. All three bluebird species are native only to the North American continent, although each inhabits different regions generally separated by the Rocky Mountains and by altitudinal preferences.

While the adult birds all show differing plumages, the young of all three species look remarkably alike, prominently displaying spotted breasts and large white eye rings. This similarity in plumage was the principal reason the Society chose the juvenal bluebird for its logo. Since bluebirds almost always choose to raise their young in small enclosed cavities, a young bluebird sitting near a nesting box seemed to symbolize our mission. The hope of any species resides in its young. Because of bluebird nesting preferences, the survival of their young may depend on the nesting box, especially since natural cavities, for a variety of reasons, are disappearing rapidly. The theme of bluebird young nurtured in man-made structures will be a recurring one in our art and literature. We hope that this theme will remind all about the plight of the bluebird, and will stimulate action which will allow this beautiful creature to prosper.

Sialia is published quarterly by the North American Bluebird Society, Box 6295, Silver Spring, MD 20916-6295. Subscription price is included in annual membership dues. Single copies: \$2.50. Write for information about bulk quantities. Checks and money orders should be made payable to North American Bluebird Society and should be in United States funds. Issues are dated Winter, Spring, Summer and Autumn and appear approximately on the fifteenth of January, April, July and October respectively. Deadline for submission of material is three months prior to date of publication; dated items only, two months.



Sialia

The Quarterly Journal
About Bluebirds

Volume 12, Number 4
Autumn 1990
Pages 121-160

EDITOR
Joanne K. Solem
**CONTRIBUTING
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ART EDITOR
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COVER

Art Editor M. Suzanne Probst depicts bluebirds on a nesting box. In autumn available cavities are investigated for possible use as roosts.

Sialia welcomes original articles, art and photographs for publication. Although this journal is named for the bluebird, material relating to all native cavity nesting species will be considered. Manuscripts should be typed neatly and double-spaced. All material submitted is subject to editing or rewriting. Submit the original manuscript plus a duplicate copy if you wish to proof the material before publication. If the article has been submitted elsewhere (or previously published) that fact must be stated at the time of submission. All manuscripts will be acknowledged. Black and white glossy photographs are preferred. Print the subject, names of individuals pictured, photographer and return address on the back of each photograph. Art is welcome and should be in black pen-and-ink. We do not assume responsibility for manuscripts, photographs or art submitted. The editor's address is 10617 Graeoch Road, Laurel, Maryland 20723.

Presidential Points

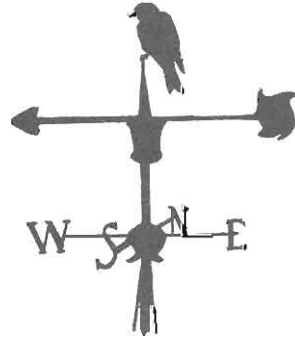
Sadie Dorber

You couldn't miss the ad placed in the local newspaper by the New York Power Authority. Snow Geese lifting from the water, covering a half page, would catch any birder's eye. The accompanying text described the events being held during the summer at the Power Authority's Blenheim-Gilboa location in Schoharie County. The announcement of Bluebird Day naturally appealed to me.

The trail at Blenheim was started by Kevin Berner and his students from SUNY-Cobleskill a few years ago. Different box styles, predator guards, coon deterrents and other items of research are tested on this trail. We entered the Visitors Center at Blenheim where we were greeted by the Power Authority staff and a very disgruntled Kevin—he'd forgotten his bluebird shirt.

Bluebird displays filled the room. A detailed explanation with pictures and real larvae in a glass jar explained blowflies. Many people ask what blowfly larvae look like; this made it possible for them to see exactly what they're looking for in a nest. A nesting box near the building held young bluebirds. A telescope aimed at the entrance hole gave the viewer a fantastic sight as the adults brought food to the box. Often the parents came to the nearby bird feeder right outside the window. They were using the feeder as a perch point to search the ground for food. Can't you imagine all the comments made by viewers when they spotted a bluebird? Probably the biggest hit was the small table and chairs in one corner of the room. A selection of bluebird pictures was provided for the children to color. The table was always full.

A slide show was followed by a question and answer period. Many of these people were new bluebirders and came with lots of questions. In Schoharie County, bluebirding is serious business. From the slide show we all



accompanied Kevin for a walk on the trail. The group was shown a Tree Swallow nest, a wren nest, a bluebird nest with eggs, and a nest with seven-day-old bluebirds.

We've always found one of the hardest things to convince people to do is take out a nest full of blowflies and provide a clean nest of soft, dried grass. Most are concerned that they will hurt the young or the parents will abandon the nest. Just as Kevin had done in the slide show, he again explained how to change the nest. One woman stepped forward and said, "I changed my first nest last week and was scared to death, but all went well and the next one will be easier."

Nancy Niles was handling the booth that had nest boxes for sale. After the slide show and walk she seemed to be doing a brisk business.

Many of us throughout the East have experienced a high number of dead young this breeding season. The rain along with many cold nights took a heavy toll. Many swallows as well as bluebirds on my trail were lost. The rain persisted, the temperatures climbed, and the blowfly infestation increased. I removed the young from each nest and usually found a clean nest with no sign of blowflies under the nest; the middle would be full of big, fat larvae. Often the number of larvae would be quite high. Always be sure to look for blowfly larvae in the middle of the nest.

By the time you read this column, we'll be preparing for the annual meeting in Gettysburg, Pennsylvania. Join us there for a great weekend! ■

Field Tests of Predator-Deterrent Nest Box Devices for Acceptance by Cavity Nesting Birds

Kevin L. Berner

Introduction

Large-scale efforts have been made to restore Eastern Bluebirds (*Sialia sialis*) throughout their range by providing nest boxes. Although extremely successful thus far, the gains could be reversed by predators if precautions are not taken. Raccoons (*Procyon lotor*) can be a serious predator on bluebird eggs, nestlings, and, occasionally, incubating females (Read 1989, Zeleny 1976). Some nest box trails are decimated by this predator. The tendency of bluebirds to build tall nests that approach the entry hole increases their vulnerability to predators. Low raccoon fur prices in recent years have reduced trapping and hunting harvests of this species and, as a result, bluebirds may be subject to increased predation in the future.

Numerous nest box designs and predator deterrent features have been proposed to reduce the vulnerability of bluebirds to raccoon predation. Additional thicknesses of wood over the nest box entry hole are widely suggested to reduce predation (Boone 1981, Zeleny 1976). I have found that although this may help somewhat, raccoons are often still able to reach well into a box equipped with a 3/4 in. (1.9 cm) device. Read (1989) also noted the inadequacy of this deterrent. Dew *et al.* (1986) recommended a 2 in. (5.1 cm) thick wooden guard. Sedlacek (1987) felt that a wooden predator guard of up to 2 1/4 in. (5.7 cm) was a more effective barrier to raccoons than a 3/4 to 1 in. (2.5 cm) guard. He found, however, that bluebirds were reluctant to pass through the additional thickness unless it was added after the nest was well established. Zeleny (1976) and Scriven (1989) also noted that guards

over 1 1/2 in. (3.8 cm) thick discouraged bluebird use. Fuerst (1988) proposed that extending the roof on a box by 3 in. (7.6 cm) would make it more difficult for a raccoon or cat to perch on the top of the box and still reach into the box.

Although many novel ways have been proposed to control raccoon predation, few controlled tests have been conducted to compare the acceptance of these designs by bluebirds and other cavity-nesting species such as Tree Swallows (*Iridoprocne bicolor*), and House Wrens (*Troglodytes aedon*). This study was designed to eliminate all variables in the field except predator deterrent features.

Study Area

The study was conducted at the Blenheim-Gilboa Pumped Storage Power Facility site administered by the New York Power Authority. The area is located near North Blenheim, in upstate New York's Schoharie County in the northern foothills of the Catskill Mountains. The research was conducted on an area of uniform habitat established to mitigate the loss of White-tailed Deer (*Odocoileus virginianus*) winter range due to the construction of a hydroelectric dam and reservoir. Between 1971 and 1979 a large gently sloping area of former farmland was planted with Northern White Cedar (*Thuja occidentalis*) in uniform rows and columns. Areas between the rows of cedar have been mowed periodically for grass hay. The rows of trees now 8-10 ft. (2.4-3.1 m) tall are 30 ft. (9 m) apart and trees within a row are 25 ft. (8 m) apart. The result is an area approximately one mile (1.6 km) long and up to 0.2 mile (0.3 km)



Photographs by Kevin L. Berner

Blenheim-Gilboa Pumped Storage Power Facility site near North Blenheim in Schoharie County, New York. Rows of Northern White Cedar have been planted which are presently 8-10 ft. (2.4-3.1 m) tall.

wide with a relatively homogeneous habitat throughout. The uniformity of the habitat makes the site ideal for research because habitat variables such as vegetation height, density, and composition should not confound interpretation of nest box use.

Methods

A trail of 16 nest boxes through the center of the research area was established in 1985 and has been used by Eastern Bluebirds, Tree Swallows, and House Wrens. Field work during 1988 revealed that 100% of the nest boxes were used and that additional nest sites were needed. Prior to the 1989 nesting season, the trail was expanded to 52 boxes laid out on a grid system with three rows of boxes. Each row was 100 yd. (91 m) from the adjacent row with boxes spaced at that same interval within each row, usually

in pairs. All boxes were mounted approximately 4 1/2 ft. (1.4 m) above the ground on metal water pipe. After boxes were cleaned early in the spring, the entire trail was monitored weekly from 14 May to 6 August, 1989.

Thirteen boxes each of four different deterrent designs were systematically arranged throughout the study area. The first deterrent was a standard 3/4 in. wooden guard over the entry hole. The second group of boxes featured a 1 3/8 in. (3.5 cm) wooden guard. An additional 13 boxes had extended roofs which projected 3 in. further over the entry hole than the 2 in. overhang of the standard box design. The boxes with long roofs also were equipped with a 3/4 in. wooden guard over the entry hole. The final type of box was protected by a commercial plastic predator guard that extended 3 in. from the hole and was firmly attached to the

nest box entry with wires. This device, sold by Audubon Entities, is known as a "Bird Guardian" and is perforated by 20 3/8 in. (0.4 cm) holes on each side to allow for passage of light. The model used in this study did not feature a tail brace extending below the device which newer models offer.

Results

Bluebirds attempted 7 nests on the study site in 1989. Five of these were in the boxes with extended roofs, and one each in boxes with 3/4 in. and 1 3/8 in. wooden guards. Four of the six successful bluebird nests with 14

of the 19 nestlings fledged were in the boxes with extended roofs. Only one successful nest each was documented in the boxes with 3/4 in. or 1 3/8 in. wooden guard boxes with a total of 5 young fledged from these boxes. No bluebirds attempted to nest in the boxes equipped with the plastic predator guard. See Table 1.

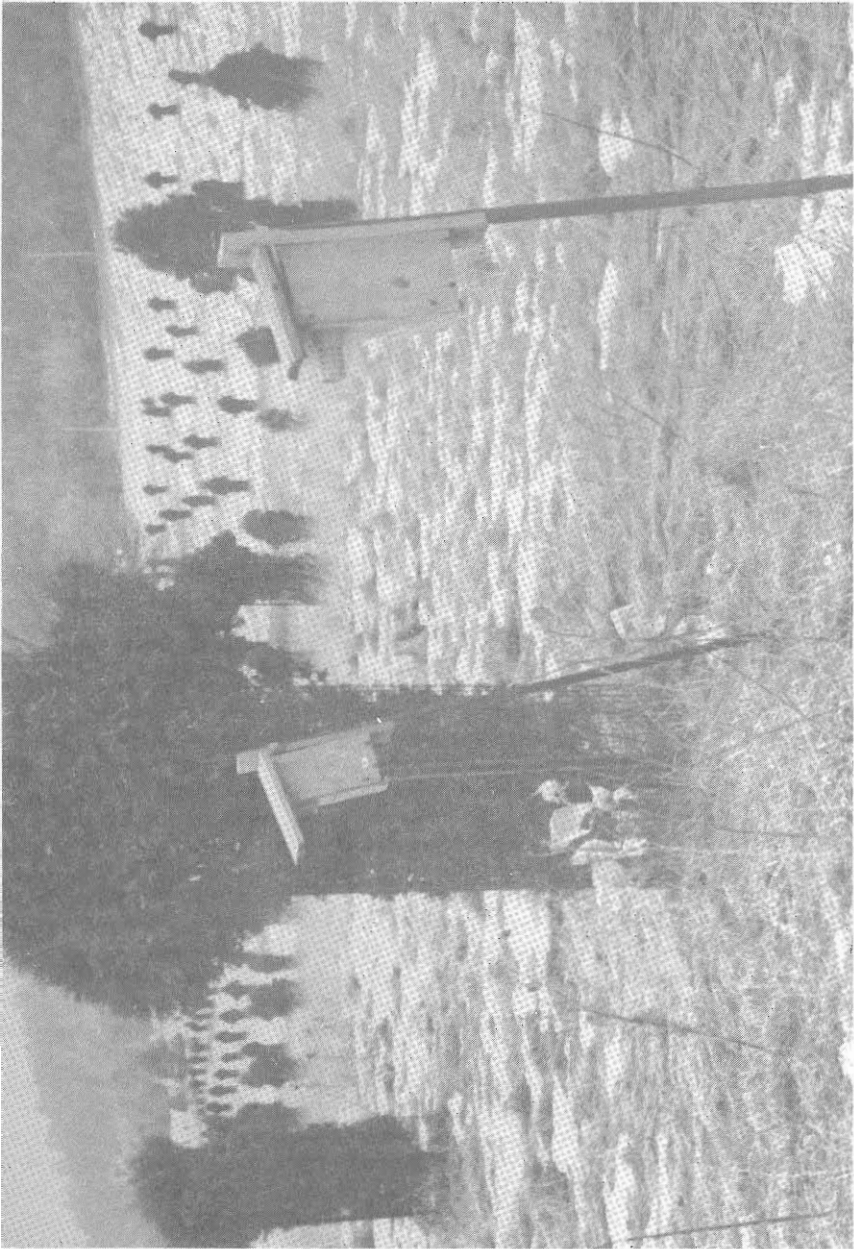
Tree Swallows also avoided the plastic guards at this site and attempted nestings in 6 boxes with the 3/4 in. wooden guards (28 young fledged), 7 boxes with the 1 3/8 in. wooden guard (13 young fledged), and 8 boxes with extended roofs (21 young fledged). See Table 2.

Table 1. Summary of the number of Eastern Bluebird nesting attempts, successful nests, eggs laid, and young fledged by deterrent feature.

Deterrent feature	No. of nesting attempts	No. of successful nests	No. eggs laid	No. young fledged
3/4 in. wooden guard	1	1	5	1
1 3/8 in. wooden guard	1	1	4	4
Extended length roof (with 3/4 in. wooden guard)	5	4	17	14
Commercial plastic guard	0	0	0	0
TOTAL	7	6	26	19

Table 2. Summary of the number of Tree Swallow nesting attempts, successful nests, eggs laid, and young fledged by deterrent feature.

Deterrent feature	No. of nesting attempts	No. of successful nests	No. eggs laid	No. young fledged
3/4 in. wooden guard	6	6	32	28
1 3/8 in. wooden guard	7	5	29	13
Extended length roof (with 3/4 in. wooden guard)	8	6	33	21
Commercial plastic guard	1	0	4	0
TOTAL	22	17	98	62



Box on left with extended roof. "Bird Guardian" is attached to entrance of righthand box.

House Wrens showed the least preference for any box style, and successfully nested in all box designs. Two wren nests were attempted in the boxes with the 3/4 in. wooden guard (10 young fledged), three nests were attempted in boxes with a 1 3/8 in. guard (2 young fledged), one nest in a box with an extended roof (5 young fledged), and two nests in boxes with plastic guards (10 young fledged). See Table 3. No additional species besides White-footed or Deer Mice (*Peromyscus spp.*) nested in any other boxes.

Discussion

Raccoon predation is usually recognized by extensive nest disturbance and nesting material protruding from the box. Raccoon predation was not known to have been a major cause of the loss of birds between the egg and fledgling stage in this study; however, the cause of the disappearance of some eggs and young could not be determined. Many bluebirds and some Tree Swallow chicks died during a very cool and damp period early in the summer. A combination of weather factors and weakening of young by

blowfly (*Protocalliphora sialia*) larvae are suspected to have caused most of the losses.

Based on this first year of field trials, I would recommend using a standard wooden guard of 3/4 in. or slightly thicker in conjunction with an extended-length roof. As stated earlier, the 3/4 in. guard over the entry hole by itself does not provide adequate protection from raccoons. It is difficult to tell if the bluebirds intentionally avoided the thicker wooden guard or if they were selecting boxes more for the characteristics of the roof. My tests with captive raccoons indicate that extended roofs do provide additional protection. Both bluebirds and Tree Swallows readily used the extended-roof boxes which would also provide additional shade on warm summer days. Additional predator protection may also be provided by reducing nest heights as proposed by Read (1989). Experiments should be conducted with roofs having up to a 7 in. (17.8 cm) overhang which I have found increases the level of nest protection in captive raccoon tests.

The plastic guards were avoided by bluebirds in this study area and in others which I monitored during the summer of 1989, although some swal-

Table 3. Summary of the number of House Wren nesting attempts, successful nests, eggs laid, and young fledged by deterrent feature.

Deterrent feature	No. of nesting attempts	No. of successful nests	No. eggs laid	No. young fledged
3/4 in. wooden guard	2	2	11	10
1 3/8 in. wooden guard	3	1	6	2
Extended length roof (with 3/4 in. wooden guard)	1	1	5	5
Commercial plastic guard	2	2	11	10
TOTAL	8	6	33	27

low and wren use was observed elsewhere in the county. Several other individuals testing these guards throughout the United States have observed similar avoidance by Eastern Bluebirds (Dorber, Monschke, Zeleny, pers. comm.). When this design was modified to include a tail brace below the entry hole, it was readily accepted by bluebirds in studies by Ryndak (pers. comm.) in Illinois and merits additional testing.

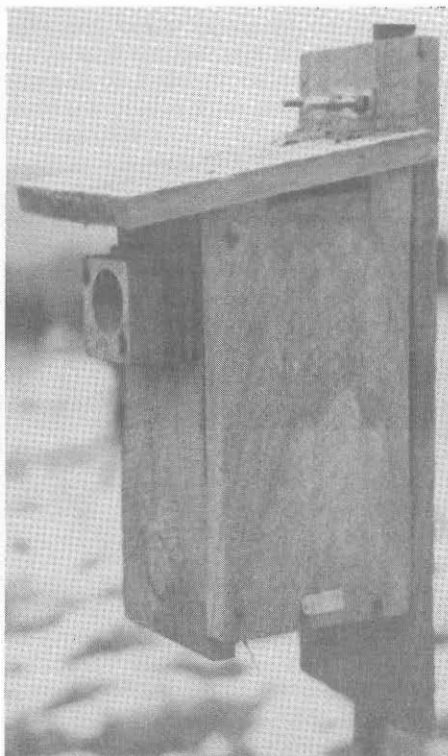
Future Work

The North American Bluebird Society has agreed to provide an additional year of financial support to continue this research. During the summer of 1990, the Blenheim-Gilboa study area will be expanded to include comparative tests of the Peterson-style box widely used in Minnesota. These boxes are thought to reduce the potential for predation relative to the more traditional design. All of the current commercial plastic guards will be replaced by guards with tail braces. Thirteen boxes of each of these five deterrent designs will be monitored weekly throughout the summer.

A second study area will also be modified on the farmlands of the State University of New York College of Agriculture and Technology at Cobleskill. At this site, eight boxes each of the five types described above will be monitored. ■

Acknowledgements

Materials and travel to the study site were provided through a grant from the North American Bluebird Society. The New York Power Authority provided the study site and contractors to cut the hay on the area. Nest boxes were built by inmates of the Camp Summit correctional facility. Students from SUNY Cobleskill assisted in setting up the field research site and tabulating data. The commercial plastic predator guards were donated by Audubon Entities. Nancy Niles assisted in trail monitoring and manuscript review. Additional supplies, labor, and other assistance were provided



Nest box with a 1 3/8 in. (3.5 cm) wooden predator guard.

by members of the Schoharie County Bluebird Society.

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RECYCLING FOR BLUEBIRDS: 2. The Chilean Connection

Eric P. Mayer and Dean E. Sheldon, Jr.

iHola! In part one of this series, "The California Connection," we discussed how to make an excellent side-opening bluebird nest box from recycled California grape crate ends. Now the story continues as seasonal changes in table grape producing regions of the world trigger the development of two new nest box designs.

Since summer, we enjoyed an almost continuous supply of California grape crates from local markets and constructed dozens of fine nest boxes. On the day before Thanksgiving we picked up 35 grape crates from a single supermarket. But all this was about to change; enter the Chilean connection.

About the middle of December, the California season for table grapes ends and the Chilean season in the southern hemisphere begins. In our local supermarkets, California crates began to be replaced by a crate with metric dimensions from Chile which had thinner end pieces. Much different than its California cousin, the Chilean crate could not be used to build our original nest box. According to one produce manager, the Chilean crate was only good for making model airplanes and as kindling. The same produce manager told us that the Chilean grape season runs from about December to June. For a while it looked like we were out of business until summer.

About the same time, the Winter 1990 issue of *Sialla* arrived in the mail. The issue contained an excellent article by Richard M. Tuttle of Delaware, Ohio, entitled, "Details for a Front Opening Bluebird Nest Box with a Slot Entrance." Upon reading the article and studying Tuttle's design, we wondered whether the Chilean grape crate could be used to build a modified version of his slot entrance nest box. After three hours in the shop we had our first prototype and it was obvious that end pieces from the Chilean crate would

make an excellent slot entrance house. The same design could also be fitted with an optional 1 1/2 in. [3.81 cm] round entrance hole and predator guard. "Recycling for Bluebirds" could now be practiced year around.

Like California grape crates, Chilean crates are not made of the highest quality lumber. Warps, knots, and cracks are common. Chilean crate ends are only about 1/2 in. [1.27 cm] thick. Because they are shorter in length and thinner, they are more subject to warping than the longer and thicker California crate ends. They also seem to be made to less exacting manufacturing standards than their American counterparts. Ends that appear to be cut to the same size may vary slightly from one another and many end cuts are not exactly square. In fact, the extra-wide crate ends make excellent roofs for all grape crate bluebird houses because of the increased overhang. Although imperfections may render some end pieces unusable, most of the wood is suitable for making boxes. Slight adjustments in measurements may be necessary in some cases. Many crates will also have paper labels glued to one end. These can easily be removed by soaking the ends in water until the label comes loose. The wet boards can be prevented from warping by allowing a stack of boards to dry for several days under the weight of a couple of cement building blocks.

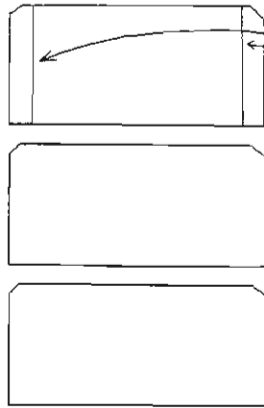
An easy way to get the precise 1 3/16 in. [3.0 cm] slot entrance is to cut a blocking jig the same size and hold it in place between the roof and the door while the door is nailed into position. After nailing, the jig is removed and the slot will be the correct size. For putting the nest boxes together, we use a #4 galvanized box nail. Drilling a 3/16 in. [1.19 cm] pilot hole before driving nails will help prevent wood from splitting during construc-

Grape Crate Bluebird Nest Boxes

Made from three recycled Chilean grape crates

Option #1 ...slot entrance design

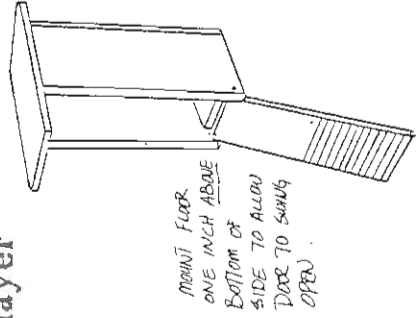
by Eric P. Mayer



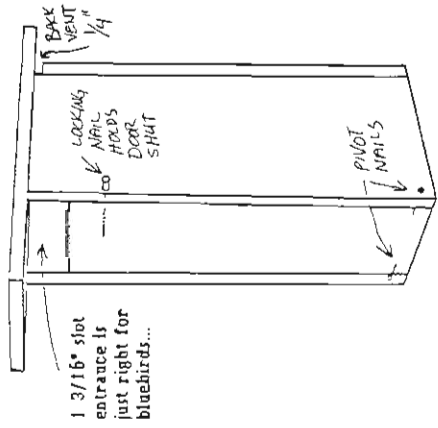
Roof and Sides (5 3/8" x 11 3/8):
Three entire end pieces. Cut 1/8" deep
rain grooves on underside of roof piece.



Roof (4 3/8" x 10 3/16):
On inside cut 12 toe-hold grooves
1/8" deep and 1/2" apart.



MAIN FLOOR
ONE INCH ABOVE
BOTTOM OF
SIDE TO ALLOW
DOOR TO SWING
OPEN.

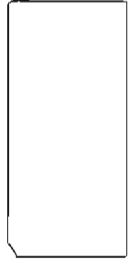


1 3/16" slot
entrance is
just right for
bluebirds...

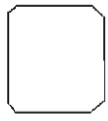
LOCKING
NAIL
HOLDS
DOOR
SHUT

PINOT
NAILS

Note: Some measurements may have to
be adjusted slightly to allow for
variations in grape crate manufacturing
standards...

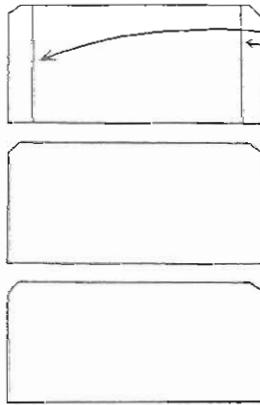


Back (5 3/8" x 11 1/8):
Trim 1/4" off one entire end
piece to provide for cross venting.



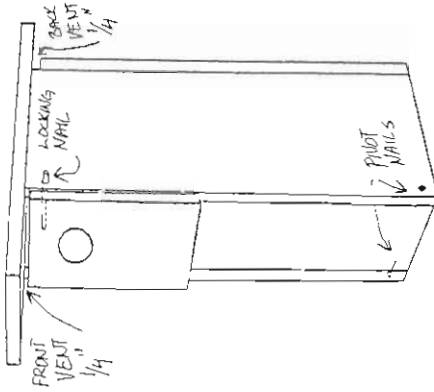
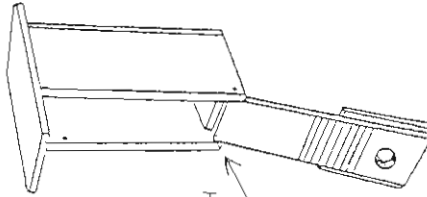
Floor (4 3/8" x 4 3/4):
Cut corners for
drainage/venting.

Option #2 ...hole entrance design by Dean E. Sheldon, Jr.

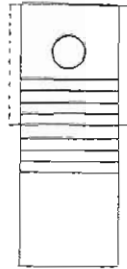


Roof and Slides (5 3/8" x 11 3/8");
Three entire end pieces. Cut 1/8" deep
rain grooves on underside of roof piece.

MOUNT FLOOR
PIECE
ONE INCH
ABOVE SIDES
AND BACK...



Predator Guard (5 3/8" x 5 3/8");
Drill 1 1/2" or 1 9/16" entrance
hole after mounting predator
guard on door piece.



Door (4 3/8" x 11 1/8");
On inside cut 9 toe-bolt grooves
1/8" deep and 1/2" apart
below entrance hole.



Floor (4 3/8" x 4 3/4);
Cut corners for
drainage/venting



Back (5 3/8" x 11 1/8);
Trim 1/4" off one entire end
piece to provide for cross venting.

tion.

Here are some common sense tips that can help maintain a good relationship with supermarket produce managers when collecting grape crates. First of all, never inconvenience produce managers. They have a big job to do besides saving grape crates. Making it easier for the manager to give you the crates rather than throwing them away is the key. Secondly, check with your local supermarket to determine where and when to pick up the crates. Be regular and consistent; markets don't have room to endlessly stack and store grape crates. Finally, give the produce crew a "piece of the action" by getting them copies of the

grape crate nest box plans for distribution to interested customers. Why not include a credit in a local news article about bluebirding. Consider giving them a "sample" box to take home or to display in their workroom as a reminder of their special role as conservationists in helping to save this threatened species.

The accompanying illustrations show two nest boxes made of the Chilean grape crate ends which we developed from Tuttle's original slot entrance design. ■

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Bluebirds and Friends

Clara L. Granata

On a cold day before Christmas (I think it was 22 December with a temperature about 9 degrees) as I slipped my coffee at the kitchen table, I saw a bluebird. No! I saw two bluebirds. No! There were three...four...five...six bluebirds near one of our usually unoccupied bluebird houses. As Jack (my passive birdwatching partner) and I watched, four of the birds flitted in and out of the house. Maybe they spent the night...I hope so. After a few minutes, they left. But they didn't leave my mind. I thought about them all day long. They were so beautiful! They lifted my spirits and they carried my thoughts back to a recent year and another cold sunny day when all the trees were sparkling with ice.

On that day, I was standing at the kitchen sink when I spied two bluebirds, two titmice and two chickadees flying around the same bluebird house. Suddenly they all went inside for a moment, then came out and flew around and back in again, and then they left. I was so surprised to see this little mixed group that I really didn't believe my own eyes so I didn't say anything; however, in a short time they returned for a repeat performance. This time they flew around our house and visited

another bluebird house; this time I shared the fun with Jack. Their little ritual continued throughout the day and I arranged my work so that I could be near a window. They seemed to be having lots of fun, stopping in one of the bird boxes momentarily to get warm as do little children playing in the snow who dash inside to warm their hands. Thus, each time they appeared, I called out, "Here come the children!" and we both scurried from window to window to watch their antics. We had a wonderful time watching them all day long.

Each spring a male bluebird coaxes his bride to nest in the bluebird house near the kitchen, and each spring she stubbornly and wisely refuses because of predatory snakes and things in this heavily wooded area. Even though the bluebirds won't live with us, their boxes will remain in place for these brief, but truly delightful, winter encounters. ■

One Hilltop Lane
Cottondale, AL 35453

This article was first published in the newsletter of the Tuscaloosa Audubon Society, January 22, 1990.

Variable Ventilation for Nesting Boxes

Robert McKinney

Articles in *Nature Society News* and the resulting controversy about the suitability of the Peterson bluebird nesting box in high temperature areas have inspired me to design the variable window attachments shown in the accompanying diagrams. The square swiveling design that looks like the box is wearing ear muffs was suggested by Ted Crawford. I am grateful for his contribution.

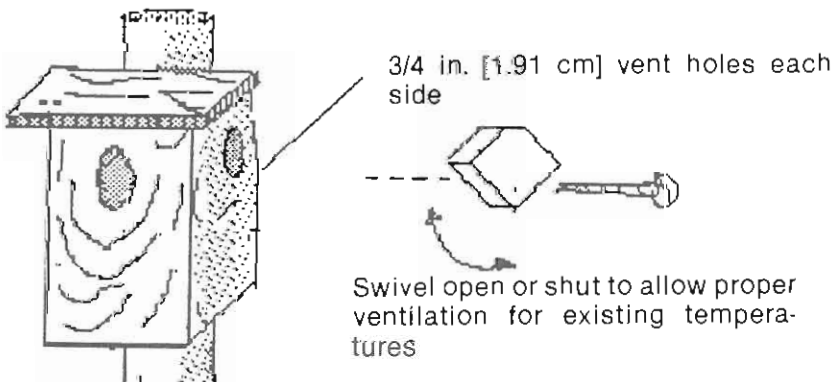
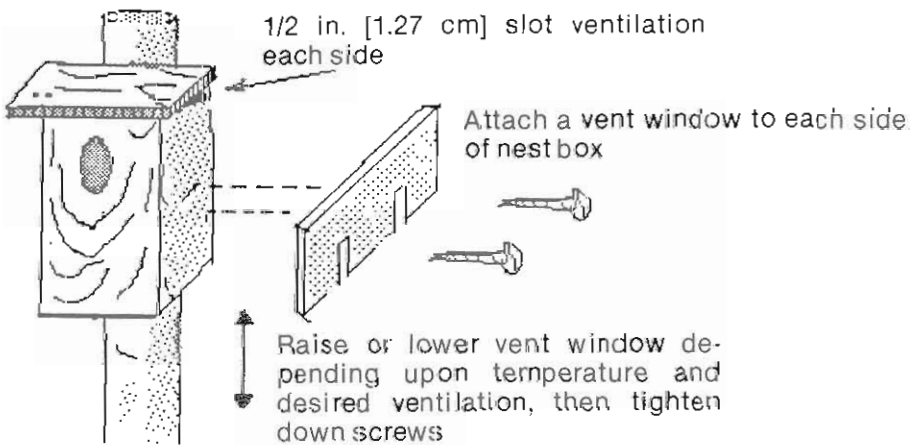
The controversy was the result of tests by Harry Krueger of Ore City, Texas. The tests compared the Peterson box with the Tuttle nesting box in

detailed heat comparisons inside the boxes. Krueger's finding was that the Peterson box did poorly in this situation.

Needless to say, proponents of both boxes came to the defense of their favorite box.

I hope the simple attachments shown can be adapted to *anyone's* box with variations if need be. The Peterson box as well as the Tuttle box can be fitted with the variable windows to adjust for the weather conditions.

(Continued on page 141)



Literature Review

T. David Pitts

McCallum, D. Archibald, and Frederick R. Gehlbach. 1988. Nest-site preferences of Flammulated Owls in western New Mexico. Condor 90:653-661.—Flammulated Owls are small, migratory, secondary cavity nesting, insectivores of coniferous forests in western North America. While previously thought to be rare, they are now known to be common in some areas. Has the species become more abundant, or are modern observers more efficient at finding it? The authors tested the hypothesis that the species has increased because its preferred habitat, conifers with brushy understory, has increased due to logging. Results indicated that the owls actually preferred open vegetation over dense vegetation. Comparisons of the habitat surrounding nest cavities with the habitat surrounding unused cavities indicate the birds are choosing nest sites on the basis of surrounding vegetation. The authors conclude that if the species has increased in numbers it has done so in spite of, not because of, changes in habitat. While most NABS members in eastern North America, like me, are probably not familiar with Flammulated Owls, a point made by the authors is pertinent to all who work with secondary cavity nesters: the presence of cavities is *not* more important than appropriate vegetation to secondary cavity nesters. To be a suitable cavity, the cavity must be in appropriate habitat. Readers who have tried to explain to someone why their bluebird box erected in a forest never attracted bluebirds can appreciate some of the points made in this article.

Plissner, Jonathan H., and Patricia A. Gowaty. 1988. Evidence of reproductive error in adoption of nestling Eastern Bluebirds (*Sialia sialis*). Auk 105: 575-578.—Several notes in *Sialia* have described the "adoption" of nestlings by adult bluebirds. In all of these accounts, people have transferred nest-

lings from abandoned nests to active nests; the adult birds at the active nests have not truly adopted the nestlings since the adults were not involved in the decision making. It might be more accurate to describe the adults as having "accepted" the new nestlings; since the adults apparently cannot distinguish their own young from the newly acquired young, all are cared for. Cases of adults adopting the eggs or young of other parents is uncommon in wild birds. (I will exclude Brown-headed Cowbirds and other similar social parasites from consideration here.) Biologically, the role of parents is to pass on their genes to offspring. If parents spend their time and efforts (both of which are limited) caring for the young of other individuals, the parents will produce fewer young of their own; natural selection will tend to select against such altruistic individuals who are, from our anthropomorphic view, performing such "good deeds."

Plissner and Gowaty document in this article a case of one pair of bluebirds who after losing their nest to a predator adopted the young at a similar stage of development in a nearby nest. The authors describe this event as a "reproductive error" because the adopting parents, apparently, do not benefit in any way. The action of the adopting parents is ascribed to their motivational state following the loss of their own brood. That is, the adopting parents were highly motivated to feed nestlings; when their own nestlings disappeared, the nestlings of an adjacent pair were fed. Adoptions of this type are rare; readers who observe nests where the male parent or female parent (or both) is replaced with another adult are encouraged to report their observations. ■

Dr. Pitts welcomes reviews from members. Readers should submit material to Dr. T. David Pitts, The University of Tennessee at Martin, Martin, TN 38238-5014.

Banding Eastern Bluebirds as Part of a Cooperative Project

William F. Read

Banding Eastern Bluebirds (EABL) just for the sake of having them on your banding list is strongly discouraged. Far too many banders who do not have a specific banding objective in place are banding EABLs. Passerine recovery rates for this species are quite low, but their banding could be one of the objectives of a cooperative program in which other information is being collected.

Before banding, ask yourself the following questions:

- What is my reason for banding?
- What contribution am I making to the overall conservation and/or knowledge of this species by banding?
- Does my banding program fit in with a cooperative banding project?
- Am I gathering information that can be used by someone else?
- Am I gathering the right kind of information?
- What is the right kind of information?

Precautions to take while banding:

1. Visiting nest boxes greatly increases the chance of predation by mammalian predators, especially raccoons. Human scent is left on the nest box and on the surrounding ground. Raccoons, in particular, have learned that if they follow human scent long enough, food will be near by. (If boxes are fully protected against predation, i.e., a metal cone around the post beneath the box, periodic checking causes little interference as long as common sense is used.) Ask yourself whether the information collected by banding is worth the added risk of predation by mammalian predators.

2. Common sense must be used when banding at nest boxes. If it is a cold, wet day and the female is brooding, then wait for a warmer day or come back later in the day when it has warmed up.

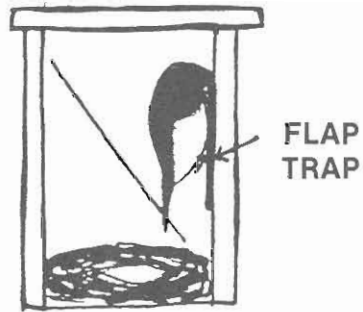
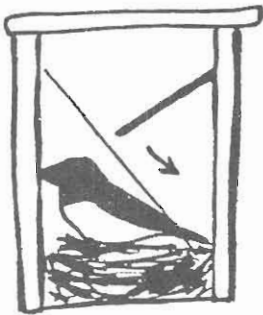
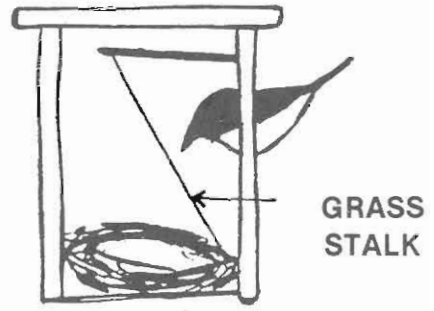
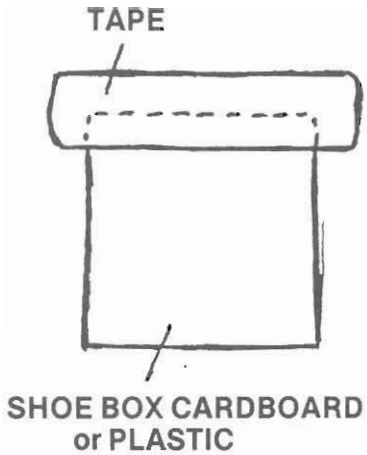
3. Female bluebirds should not be banded if they are incubating as there is a chance of nest abandonment after handling (especially during the early stages of incubation).

4. Banding should not be done after about 13-14 days as there is a chance of premature fledging which will increase mortality.

5. Probably the best time to use the trap that is illustrated is when both adults are feeding the young at regular intervals. At that time you will be able to catch the adults quickly with a minimum of disturbance. By using a car parked near the nest box as a blind to avoid detection, you will be able to band the birds immediately after they are trapped. You can also stand a distance away and observe their activity with binoculars until the trap is successful.

It is my intention to institute a cooperative banding project involving all EABL banders in the province. Any comments on the information we should be gathering or what specific objectives we should focus on would be greatly appreciated. ■

165 Green Valley Drive, #2
Kitchener, Ontario
Canada N2P 1K3



Diagrams by William F. Read.

Brown-headed Nuthatch Helps Feed Bluebird Nestlings

I have an Eastern Bluebird (*Sialia sialis*) nest in my backyard with three young. They are about one and one-half weeks old.

Recently, I noticed a Brown-headed Nuthatch (*Sitta pusilla*) going into the box so I got my binoculars and observed this nuthatch carrying food to the nestling bluebirds. A pair of adult bluebirds are also feeding the young.

The nestlings look large for their age so I guess having three adults looking after them is working well. I also saw the nuthatch carry out a fecal sac so I guess it really thinks these young belong to him. One time both the nuthatch and the female bluebird came to the box with food at the same time. The nuthatch ran the bluebird off.—
Paul Stroud, Rt. 4, Elba, AL 36323.



House Wrens Pose a Problem

The following two letters both happen to have been written by North Carolina birders who are looking for solutions to competition from House Wrens. Since this problem is widespread on bluebird trails, Dr. Lawrence Zeleny provides comments following the letters.

Both my husband, Charles, and I are bluebird defenders. This spring we put up six bluebird houses and waited patiently for the bluebirds that we had observed in our backyard to begin building nests. Finally, one pair did begin a nest in the box near our kitchen window. We both enjoyed Bobby and Betty Bluebird as they built the nest and raised their family. When the young finally left the nest, the adults were not seen for about two weeks. Then one day they were back.

Meanwhile, a tiny little noisemaker with a sharp bill took over the house. Although Charles wouldn't let me discourage him, with the return of our special pair I felt the stranger should go. The bluebirds were interested in the box near the kitchen but, because it was occupied, couldn't use it. To keep peace in the family, Charles moved another house to a cedar post across the driveway which was still in view of the kitchen window. In a short time the bluebirds were looking at this box. Finally one day as I worked at the kitchen sink I saw Betty Bluebird fly into it with some pine needles; I knew they were home again.

But not so! The same little noisemaker that had taken over the first bird house also began to fly over and into the second one. The bluebirds disappeared almost overnight. We took down both boxes and found the first was filled with rather large twigs while the second had a completed nest that looked like the one we had found after the bluebirds left the first house. Now, what we cannot find out is what kind of enemy bird we are dealing with. Our book on North American birds does not exactly describe this type. I do not believe it to be a House Sparrow. The bird has brown-gray feathers, is about three inches long with a sharp bill, and is not afraid of anybody. The song is a long "tweet, tweet," and then several fast sounds—rather more of a shrill noise than the song of the bluebird. We have checked the other bird houses and find that all of them have the same pile of sticks. As fast as we empty them out the "tweety-bird" fills them up again. Now what are we to do?

I don't appreciate that little rogue evicting our tenants, and I would like to know what kind of bird would be so small yet so aggressive. (I walked right up to the post while he was sitting on the box, but he did not fly until I waved a stick at him.) We both want our bluebirds back, if not this year, then maybe next spring.

Two dedicated bluebirders
Charles and Jewell Gurley

Donna Dunn, editor of the North Carolina Bluebird Society (NCBS) newsletter, asks several questions in her letter including one pertaining to House Wrens.

Another issue NCBS members have concerns about is wrens. On the one hand are those who would like to discourage these birds; on the other are those who consider this interfering in the natural order. Comment?

Dr. Zeleny replies:

On the subject of wrens, the House Wren (*Troglodytes aedon*), is in most respects a delightful and friendly little bird that brings great pleasure to many people, even those living rather close to large metropolitan areas. It

readily accepts nesting boxes of almost any shape and design even when mounted very close to our windows or outside doors. Unfortunately, however, these wrens often have what we human friends consider very bad

habits.

During the nesting season, the male House Wren usually seems to be determined to dominate all available potential nesting sites in his chosen domain. He will fill all such cavities or nesting boxes with twigs to discourage other birds from using them. His mate will then select one of these sites and fashion her nest in among the twigs. If any other cavity nesting species such as bluebirds or chickadees do manage to use any of the boxes or cavities in the area, the wren is likely to puncture the eggs or throw out the newly hatched nestlings of any such bird.

Not all House Wrens behave in the manner described above. On several occasions I have seen House Wrens and bluebirds raise their broods simultaneously and successfully, and

in peace and harmony, in nesting boxes mounted not more than 25 feet [7.6 m] apart. But such cases seem to be exceptions rather than the rule.

House Wrens are native American birds **fully protected by law**. It is, therefore, unlawful to destroy them or to interfere with their nesting activities. Where they are a problem the best solution seems to be to mount nesting boxes intended for bluebirds or other birds well away from shrubbery or underbrush of any kind, since these are the areas favored by the wrens.

Other wren species do not seem to share the undesirable habits of the House Wren, although, in a few instances, the Carolina Wren (*Thryothorus ludovicianus*) has been under suspicion. Let us hope that any such suspicion is not warranted! ■

NORTH AMERICAN BLUEBIRD SOCIETY RESEARCH GRANTS

The North American Bluebird Society announces the eighth annual grants in aid for ornithological research directed toward cavity nesting species of North America with emphasis on the genus *Sialia*. Presently, four annual grants of single or multiple awards totaling up to \$10,000 are available and include these items:

Bluebird Research Grant—Available to student, professional or individual researchers for a suitable research project focused on any of the three species of bluebird from the genus *Sialia*.

General Research Grant—Available to student, professional and individual researchers for a suitable research project focused on a North American cavity nesting species.

Student Research Grant—Available to full time college or university students for a suitable research project focused on a North American cavity nesting species.

Bermuda Research Grant—Available to student, professional or individual for project to be done in Bermuda.

Further guidelines and application materials are available upon request from Kevin L. Berner, Research Committee Chairman, State University of New York, Cobleskill, NY 12043. Completed applications must be received by 1 December 1990; decisions will be announced by 15 January 1991.

QUESTION CORNER

Lawrence Zeleny

On Vancouver Island more land is occupied by dense stands of trees, mostly firs, than is cleared. In most cases, the pasture and farm land either form a strip along the highway or they occur in noncontiguous clearings. The situation is just the reverse of that in many areas in the East. Do you think the disconnected clearings here may inhibit normal expansion of the bluebird population?

Harold S. Pollock
Victoria, British Columbia

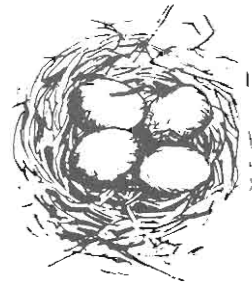
It is doubtful that the discontinuous nature of the habitat on much of Vancouver Island would be as serious a factor in limiting the bluebird population as it is known to be in the case of some bird species. Eastern Bluebirds often breed in rather small isolated pockets of suitable habitat. It seems likely that this would also be true of the western species.

What is the minimum entrance hole diameter that House Sparrows will use? I would like to set some live-traps in boxes to trap sparrows with holes small enough so bluebirds or swallows would not enter. In this particular area there are no titmice, chickadees, or nuthatches.

Sarkis Acopian
Easton, Pennsylvania

Boxes with 1 1/4 in. [3.18 cm] entrance holes are usually accepted by the sparrows and usually rejected by the bluebirds. However, there have been several authentic reports of bluebirds using such boxes even though the hole is a very tight fit.

In a few experiments that I conducted, both bluebirds and sparrows rejected boxes with 1-3/16 in. [3.02 cm] holes. However, when a male sparrow was captured and placed in a box with a hole size of only 1-1/8 in. [2.86 cm] he was able, with extreme effort, to



escape unharmed through the hole. But he never showed any further interest in that box!

In my opinion, there is no entrance hole size that would reliably exclude bluebirds and Tree Swallows and permit sparrows to enter. If you should be successful in finding such a hole size, we would appreciate being informed.

After a female bluebird with nestlings disappeared from our yard, we aided the male by putting out mealworms. A week or two after the young fledged, he brought them to the deck for mealworms. Shortly thereafter, he paired with another female. When the fledglings begged from her, she jumped on them and, within a few days they had disappeared. Did she run them off or kill them? The new pair then raised a brood of their own.

Debbie Harley
Waynesville, North Carolina

When recently fledged young birds beg to be fed by adult birds other than their own parents, they are usually, but not always, either ignored or rebuffed. Thus, the behavior of the second adult female bluebird in this case would be considered quite normal. If the second female had been caring for the young birds while they were still nestlings, she probably would have behaved quite differently.

Young bluebirds usually learn to find their own food within two weeks or so after they leave their nest. They then often wander to some area where natural food is more abundant, rather than remain where their parents are raising another brood. In the above case this is probably what happened. ■

PLANTINGS FOR BLUEBIRDS AND OTHER WILDLIFE

American Black Currant

Karen Blackburn

Like its many closely related species of currants and gooseberries, American Black Currant produces fruits which are highly attractive to a number of birds. This low-growing shrub is thornless, as are most currants, while gooseberry plants generally bear thorns. All species, however, possess distinctive maple-like leaves which are borne alternately along the stems. Though American Black Currant and other species of this genus are of value to wildlife, it must be noted that these plants serve as alternate hosts for white pine blister rust, which can cause extensive damage to white pine forests and plantings. For this reason, many regions have attempted to eradicate wild currants and gooseberries, and we recommend consulting a local nurseryman or your county agent before bringing these plants onto your property.

American Black Currant *Ribes americanum*

Native Range—From Nova Scotia south to Kentucky and west to Nebraska.

Hardiness—To Zone 5

Habitat—Variable. May be found in woodlands, lowlands, and on slopes in soils ranging from moist and rich to poor and dry.

Habit—A small deciduous shrub reaching up to 5 feet (1.52 m) at maturity. The doubly-toothed leaves are lobed much like maple leaves and are spaced alternately along the stems. The undersides of leaves are hairy.

Fruit and Flowers—Small yellow or white flowers occur in drooping clusters in the spring. Clusters of 1/4 inch (.64 cm) smooth black berries ripen from summer to early fall.

Culture—Full sun or partial shade. Where summers are particularly hot and dry, partial shade is preferred. Propagate by tip layering or by cuttings taken prior to spring growth.

Landscape Value—A small shrub valued for its tolerance of a wide range of site conditions. Useful for naturalizing dry slopes where other plants may fail. Autumn foliage is yellow-green.



Undesirable Traits—Alternate host to blister rust which is a serious threat to five-needled pines.

Wildlife Value—Fruits of the American Black Currant are favored by the Northern Mockingbird, Gray Catbird, Brown Thrasher, American Robin, Eastern Bluebird, and Cedar Waxwing. Other consumers include the Wild Turkey, Spruce and Ruffed Grouse, Northern Bobwhite, Ring-necked Pheasant, Mourning Dove, Northern Flicker, Hermit Thrush, Rufous-sided Towhee, and Song Sparrow.

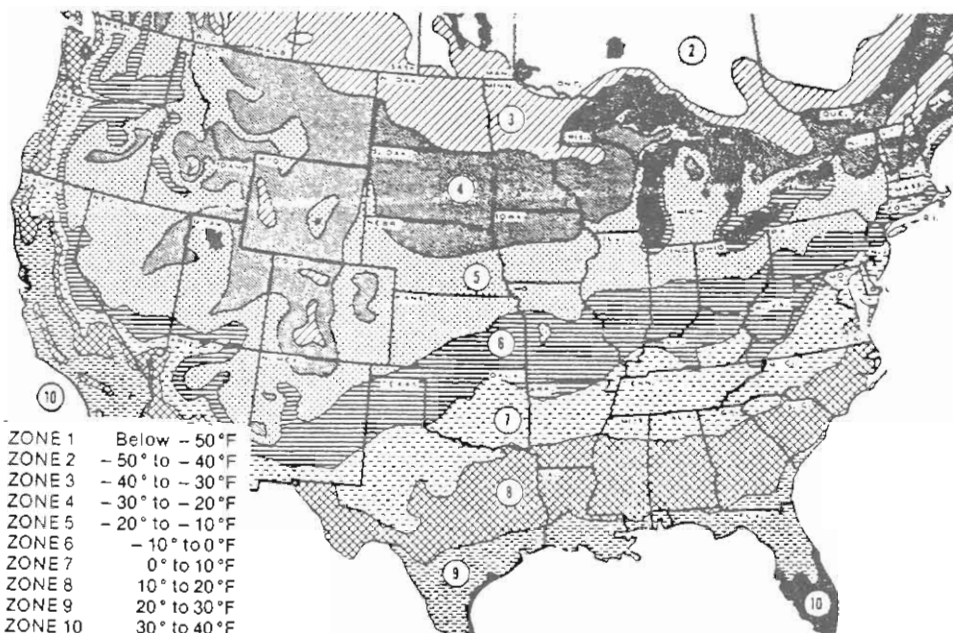


Figure 1. Hardiness Zones for the United States and southern Canada. Temperatures for each zone are the average annual minimum temperatures. When no zones are mentioned with the plant description, plants are hardy anywhere. Factors within zones such as altitude, exposure, soil type, moisture, etc. can create variations. This map was developed by the Agricultural Research Service of the U.S. Department of Agriculture.

Related Species—There are numerous species of currants and gooseberries which range across the continent. Depending upon their ranges, these species may provide food for many of the birds listed above as well as the Blue Grouse, Scrub Jay, Black-billed Magpie, Townsend's Solitaire, Lewis' Woodpecker, Sage Thrasher, and a number of mammals including raccoons, chipmunks and ground squirrels. ■

Readers: Have you observed Mountain or Western Bluebirds feeding on currants or gooseberries? I would appreciate your observations.

KB

4961 Dogwood Drive
Marianna, FL 32446

(VENTILATION—continued from page 133)

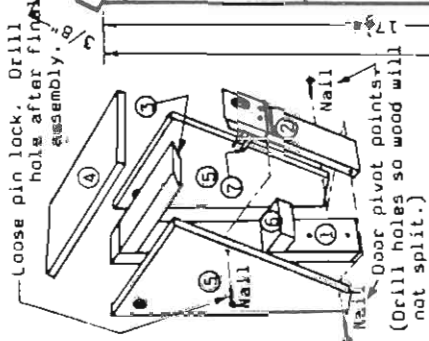
In my area of northeast Texas, we are subject to late freezes in the spring. We have had snow as late as 13 April. This is uncommon but illustrates my point. We have bluebird eggs in the nest by 1 April and sometimes baby birds. At this time of the year the variable window vents should be completely shut. When the temperatures soar about 100° F [38° C] in June, July, and August, the vent windows should be completely open. Heat will kill many baby bluebirds during days of high temperatures. This device may save many of them. ■

Box 1624
Mount Pleasant, TX 75455

This article is reprinted from *Bluebird News* 1(4):4.

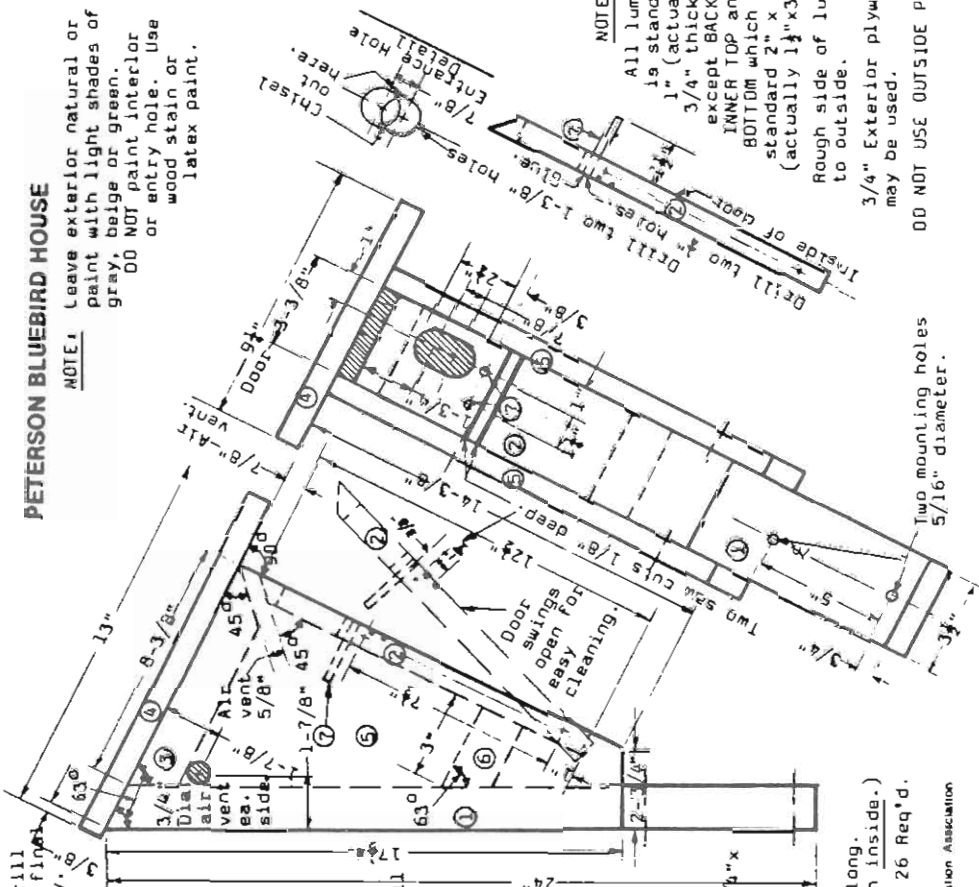
PETERSON BLUEBIRD HOUSE

NOTE: Leave exterior natural or paint with light shades of gray, beige or green.
 DO NOT paint interior or entry hole. Use wood stain or latex paint.



MATERIAL LIST

- ① BACK: 1 1/2" x 3 1/2" x 24"
- ② FRONT: 3/4" x 3-3/8" x 12 1/2"
- ③ INNER TOP: 1 1/2" x 3 1/2" x 8-5/8"
- ④ TOP: 3/4" x 9 1/2" x 13" (Std. 10" bd.)
- ⑤ SIDES: 3/4" x 10 1/2" x 2-3/8" x 17 1/2" x 16-3/8"
- ⑥ BOTTOM: 1 1/2" x 3 1/2" x 3"
- ⑦ PEGS: 1/2" Dia. x 2 1/2" long. (1 1/2" Projection inside.)
- ⑧ NAILS: Galv. 1 1/2" long. 26 Req'd.



NOTE:
 All lumber is standard 1" (actually 3/4" thick) except BACK, INNER TOP and BOTTOM which are (standard 2" x 4" actually 1 1/2" x 3 1/2")
 Rough side of lumber to outside.
 3/4" Exterior plywood may be used.
 DO NOT USE OUTSIDE PERCH!

Design provided by Bluebird Restoration Association
 01/01/2001

Orphaned Baby Bluebirds Set Stage for Bluebird Trail

Vern Johnson

While working on construction of the South Okanagan [B.C.] Rehabilitation Centre for Owls (S.O.R.C.O.) for owls, hawks, eagles and falcons, I received a telephone call from a man 25 miles [40 km] away who had a family of six orphaned baby bluebirds. He explained that he and his wife had erected a nest box near their kitchen window and had enjoyed watching a pair of Western Bluebirds build their nest. When the eggs hatched the male helped feed the young for a day despite having a broken leg. The next day he failed to appear and the following day the female did not arrive to feed the young. After watching the box for a short while, they investigated and found six very cold and weak babies.

Knowing that we at S.O.R.C.O. cared for sick and injured birds of prey, he gave me a call. Upon informing him we were not geared to care for orphaned or abandoned songbirds, he replied that the bluebirds would die because there was no one else who would care for them. That left me no choice but to say, "Bring them down. I will see what I can do."

I no sooner had hung up the phone than I began to wonder how to care for six tiny baby bluebirds: what food was needed, where could it be obtained, how often should they be fed and how much time was involved in feeding and caring for these helpless creatures? I had nothing on hand to feed them so began planning what to do when they arrived within the hour.

At S.O.R.C.O. we receive road-killed deer which we butcher as food for injured hawks, eagles and falcons that are cared for in the Centre. I had butchered a deer a few days earlier; the remains had been taken into the woods for coyotes, ravens and magpies to dispose of. I thought that if there was anything left of the deer perhaps blowflies

might have laid eggs, resulting in maggots. Upon checking I found some quite small maggots and gathered about a large tablespoon of them, thinking it would be a start.

The baby bluebirds arrived and when I lifted the wool cloth covering them I was greeted with six wide-open mouths begging for food. I proceeded to place one little maggot deep in the mouth of each infant, only to learn that the youngsters were not aware they had been given any food because the portion was so small. They just kept their mouths open begging. Those few maggots were just appetizers. Right then I began to panic. Wondering what to feed them next, I remembered the frozen venison. Placing a piece in a microwave on defrost, it was not long before I had a supply of meat cut into small pieces. Soon I had six satisfied and sleepy baby Western Bluebirds.

Now the stage was set. The six babies had to be fed every 20 to 30 minutes for about 16 hours every day; they had to be kept warm; and the nest box had to be cleaned several times each day. You can be assured that I had some doubts. The youngsters took very readily to the venison so, for the time being, that problem was solved.

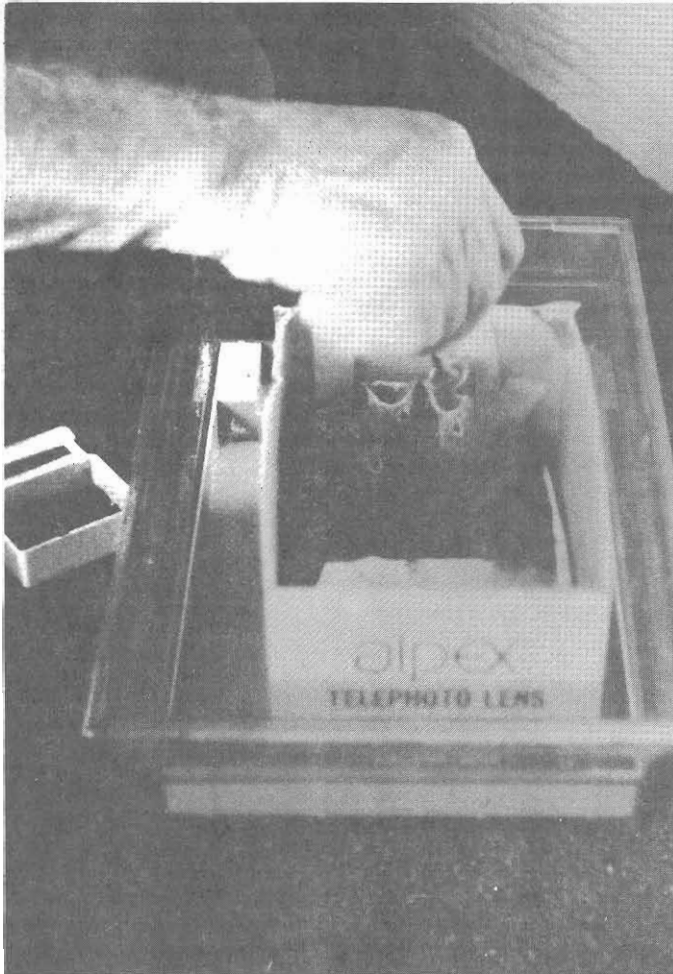
I arrived home in Oliver with the little box and placed it on the bar in our family room. My wife took one quick look. "Now what do you propose to do with those things," she asked, displaying a fair amount of disgust. "Raise them," I said. "And what are you going to feed them? They eat bugs." "Oh yes," I said, "they also love venison."

After lining their nest box with paper towels to act as sheets (which were changed frequently) and feeding them several more meals of venison, it was 9:30 p.m. Time for bed. I had placed their little box on a soft plastic bag partly filled with about three liters (2.85

qts.) of very warm water. This I hoped would keep their environment at an acceptable temperature. This plastic container was taken from the 4 liter [3.78 qts.] cardboard box dispenser for various wines sold in liquor stores. An ordinary hot water bottle can be used, but I found the larger plastic container did not have to be emptied and refilled more than four or five times daily. The plastic bag was placed in a small cardboard box and the nest box put on top of the plastic bag containing the warm water; then a covering of several layers of old towels was placed over the box

containing nest box and baby bluebirds. I hoped this would provide an acceptable nighttime condition for these baby birds.

I checked them at 2 a.m., changing the water in the plastic container. They showed no desire for food at this hour. Saying "goodnight," I retired for a few more hours of sleep. At daybreak (5:00 a.m.) I was up, certain the youngsters would be starving. I removed their cover and was greeted with six dirty looks which indicated they were not ready for breakfast. I refilled their



Vern Johnson feeding nestling Western Bluebirds which he raised.

warm water container and retired once more. I did not check them again until 8 a.m.; at that time they didn't mind my disturbing them by changing their sheets. They accepted a small amount of food, but were more interested in getting back to sleep. From about 9 a.m. on they were ready for food every half hour.

I felt their diet should be varied, if possible, so I set off to dig earthworms in an area where I had, on many occasions, found an ample supply for numerous fishing trips. After a few hours of digging, I ended up with a half gallon of earthworms. By filling the rest of the one gallon ice cream pail with soil, I had a good supply of food for the nestlings. I found the large earthworms had to be cut into several pieces before feeding them to the bluebirds who seemed to enjoy this change of diet. I next visited a sporting goods store where I found maggots sold as fish bait. Now I felt I had a bit of variety. Each day the babies received four feedings of earthworms and one feeding of maggots, while the rest of their meals consisted of prime venison.

After about ten days they showed some desire to move about. They were moved into a small shoebox which was placed inside a birdcage which we placed on our bar. As these little creatures began to take note of their surroundings, they were a great source of entertainment. One soon becomes aware of how quickly they must learn and how willing they are to carry out your instructions. They are great students, most cooperative and willing to learn.

Soon they needed more freedom so I transferred them to a large cardboard box equipped with several perches which was placed out-of-doors on our deck. They had to learn to use their wings a bit and perch without tumbling about. This was accomplished in a few days; now they were definitely teenagers ready to take on the world. Their beaks changed in appearance from a great open door to ones resembling an adult bird, and I

encouraged them to pick up their food on their own. This was absolutely hilarious at times. They would hold their head up with the beak wide open, then lower their head to the food (beak still open) and, in some manner, close the beak on the morsel. After a few days they became quite proficient at picking up their own food.

I now acquired a flight cage 7 feet [2.13 m] high, 5 feet [1.52 m] wide and 3 feet [0.91 m] deep, equipped with a number of perches from bottom to top. A round pan about 12 inches [30.48 cm] in diameter was placed on the ground in one corner with about one inch [2.54 cm] of water in it and a good-sized flat rock in the center. I felt the young bluebirds should be ready to bathe. At first they just ran through the water, not even realizing what it was. On the second day one stopped in the water and seemed to indicate there must be some use for the stuff. In a short time this youngster was splashing about getting thoroughly wet; it was soon joined by one of its siblings. Because the area in which we live is very dry (true desert), the cage floor was dust. When the birds emerged from the water, it took only a few seconds before they became two mud babies.

However, the warm sun soon dried them and they were on the bottom perch preening their feathers. They were fast learners. By the next day, all of the youngsters were bathing. After their baths they took up positions on the perches to dry out and preen their beautiful blue feathers.

I certainly was deeply imprinted on them as the one who provided their food and cared for them. Whenever I appeared there was a great clamor. At feeding time as I entered their cage they would climb all over me, often perching on my head; their sharp little claws made it possible for them to cling to my bare arms and legs—very loveable and adorable little creatures.

Eventually, freedom day arrived. The man who had brought them to me indicated he would like to have them



Six orphaned Western Bluebirds raised by Vern Johnson, a rehabilitator at South Okanagan Rehabilitation Centre for Owls.

released in his area where they had been born. It was agreed he would pick them up and I sadly placed them in a birdcage for the journey to their release site. I insisted the flightcage go along and be erected, keeping the bluebirds in it for a couple of days so that they would get accustomed to their new surroundings. I suggested he just remove the top of the cage at first and this worked very well. The youngsters spent a couple of days perching about the top of the cage. Eventually they flew back and forth to a large tree about 50 feet [15.24 m] away. They spent each night in the flightcage and were fed the venison and garden worms I had provided for them and, eventually, lean hamburger. They accepted the new man in their life very well and would come to his hand for food whenever he appeared; however, they would not come to any stranger. Their flights were extended daily. They showed up less and less frequently until after about two weeks they failed to return. We both hope some of this family has returned to our area and will raise families of their own.

What has all this to do with forming a bluebird trail? Once you have been so close to these wonderful intelligent creatures you just have to become involved in any way to help re-

tain (or, better still, increase) their numbers. I carried out some research and found that the population of bluebirds here in the Okanagan and Similkameen valleys of British Columbia has declined drastically over the past 40 years. I realized that their habitat had been reduced dramatically and also that the competition from European Starlings and House Sparrows for nesting cavities had been taking a severe toll on the bluebirds. Providing starling and other predator-proof nest boxes was the only way we could help these beautiful birds. I contacted four of my local friends who indicated they would like to become involved, and we formed the Southern Interior Bluebird Trail on 16 December 1988.

The first order of business was to come up with a plan for suitable nest boxes for bluebirds. I contacted several sources, but received no replies and as it was now into January 1989 I went ahead and designed what I felt would entice a bluebird. The nest box is 5 1/2 in. x 5 1/2 in. [13.97 cm] square, the depth being 8 in. [20.32 cm] from the bottom of the entrance hole which is 1 1/2 in. [3.81 cm] in diameter. This nest box has the front opening feature. A 3/8 in. [1 cm] space from the top of the door and the roof provides added ventilation, along with a similar space

from the top of the back panel and roof. I felt we needed good ventilation because our summer temperatures can reach 100° F [38° C] and more. I constructed 36 of these boxes and we put them in place during late March and early April, though we later learned this was a bit late for bluebirds. I took into consideration what I thought a cavity nester would look for and placed two large handfuls of cedar planer shavings in each box.

To our surprise we soon had ten nest boxes being used by Western Bluebirds, two boxes by Mountain Chickadees, five by Tree Swallows and five by wrens. Of 36 boxes, 22 were used. Being amateurs we were not aware that this was well above average for our first year.

I received a call from Harold Pollack, who has a bluebird trail on Vancouver Island, wanting to know what we were doing to produce such good results. I could not tell him very much at that time, but now firmly believe the cedar planer shavings encouraged the birds of all species to move in. Harold gave me an application form and encouraged us to join the North American Bluebird Society. A number of our group did join. We are thrilled with the journal which enables us to learn a great deal from other bluebird-

ers.

By the first week in March of 1990, we had expanded our trail to 210 nest boxes with 16 people involved. To date the success rate is very good as we more than doubled the number of bluebirds using nest boxes on last year's trail. Our plans are to expand our bluebird trail by an additional 200 boxes for the year 1991 and an additional 200 for the year 1992. This will give us a trail 150 miles [241 km] long involving at least 35 people. This is the main line; from that there will be many branch lines which should extend our trail to 300 miles [482 km] or more. We are anticipating an occupancy rate of 50% bluebirds, 20% swallows, 15% chickadees, 10% nuthatches and 5% wrens. Nest site selection determines these percentages.

Experiment by using cedar or any other mild-scented wood shavings in some of your nest boxes. Place the shavings in the boxes when you are preparing them for the nesting season. We would be interested in knowing whether it increases occupancy for you. ■

Site 50, Comp. 75
R.R. #3
Oliver, B.C. Canada
VOH 1T0

Bluebird Boosters

Appearing on the inside back cover is a list of those individuals who have made a financial commitment to bluebirds and native cavity nesters over and above their annual dues. Such support is essential in maintaining a stable dues structure. We thank the individuals, organizations, and businesses for their generosity.

You, too, can become a Bluebird Booster. For a donation of \$25.00 per issue or \$75.00 per four issues, you

can be designated as an Eastern, Western or Mountain Bluebird Booster (your choice); for \$15.00 per issue or \$50.00 per four issues, be a Fledgling Booster; while \$10.00 per issue or \$25.00 per four issues makes you a Nestling Booster.

All contributions are tax deductible. Mail your check to NABS Boosters, P.O. Box 6295, Silver Spring, MD 20906-0295.

The Bluebirds of Lucknow

Reverend Bill Henderson of Lucknow has found the restoration of the bluebird population in this area a happy kind of numbers game.

Although he had 211 boxes out in 1980, he got only three nestings. By 1989 he had 110 nestings and 492 eggs. The retired United Church minister finds his present 300 boxes almost a full-time job.

"With the number of eggs that have been laid in the past three years," he reports, "there is no difficulty in seeing bluebirds in Kinloss, Culross, and West Wawanosh Townships. At this time of year I get reports from people who have seen them flocking in

readiness for their trip south. An encouraging factor is the interest I have aroused in many people, some of whom tell me that they saw a bluebird for the first time in 40 years.

"One man stopped by the side of the road one day when I was checking a box and said that he and his son would like to take over the trail whenever I am through. I hope the Lord spares me for a few more years to carry on this hobby, but it is nice to know that someone is ready to carry it on if need be." ■

This material was taken from a longer article which appeared in the *Huron Fringe Naturalists Newsletter*, December 1989.



Vice-president Merle Gunby (left) presents a framed picture to Reverend Bill Henderson on behalf of Huron Fringe Field Naturalists in appreciation of his bluebird activities. The watercolor of a bluebird in flight, painted especially for the occasion by club member Ruth Walker, was given at the annual meeting and dinner on 27 March 1990.

Historian's Request

Please send newspaper and magazine articles about bluebirds to Historian Jane Williams, Box 123, Ware Neck, VA 23178. Be sure name and address of publication, volume and date are included. Photographs of members en-

gaged in publicizing bluebirds or those documenting some unusual occurrence are also welcome. They will be added to scrapbooks which are a permanent record of activity on behalf of bluebirds and other cavity nesters.

Frances J. Ehlers

1909-1990

Frances Ehlers, veteran bluebirder, pilot, attorney, horsewoman, and friend of the environment died Wednesday, 6 June 1990 of heart ailments. She was 81 years of age, a fact belied by her enormous stamina. A fiercely honest and enthusiastic friend of wildlife, Frances' first love was the bluebird. She was an analytical thinker who enjoyed comparing experiences with other active monitors and finding solutions to bluebird problems. She was an early and vocal proponent of nest boxes that could be opened two ways for safe monitoring and easy cleaning.

A charter member of the North American Bluebird Society, Frances was an untiring weekly volunteer in the headquarters office mailing items which had been ordered by members. She was a colorful individualist who leaves a big vacant space which will never be filled in the lives of her many friends.

—*Mary D. Janetatos*

Charlie Ellis

1902-1990

Charlie Ellis, one of North America's great bluebird conservationists, passed away on 18 February 1990. He was 87. Born at Jumping Pound, Alberta in 1902, Charlie moved with his family to the Prentiss area southeast of Lacombe, Alberta in 1904. He worked on the family farm, then gradually took it over during the 1940s. Together with his sister Winnifred, he ran a very successful mixed-farming operation.

When Charlie noticed that the bluebirds of his youth were no longer common around Prentiss, he set out to establish a place where they could once again nest in peace. This was not accomplished without great effort, however, as House Sparrows were plentiful in the area and posed a constant threat. Through vigilant nest box monitoring and sparrow trapping, his trail of some 300 boxes had soon brought back this beautiful harbinger of spring to central Alberta. In his typical self-effacing manner, Charlie shunned the publicity associated with this achievement as his work was done for love not for recognition. Most knew of him through the writings of local naturalist Kerry Wood simply as "Mr. Bluebird."

In the early 1980s, Charlie's greatest concern was the fate of "his" bluebirds should he no longer be able to care for them. When the Ellises were approached by Union Carbide Canada Ltd. in 1982, they agreed to sell their land to the company—on condition that the company look after the birds. An agreement was struck and Ellis Bird Farm Ltd., a non-profit company administered by a volunteer board of directors, was established. Today, an ethylene glycol plant, surrounded by nesting bluebirds, sits on one corner of the original Ellis homestead. The bluebird population in the area has doubled, and Ellis Bird Farm Ltd. continues to carry on the legacy of this quiet, retiring visionary.

In celebrating Charlie's long and useful life, the highest tribute we can pay to the memory of this great Canadian is to carry on his work and to follow his example. The memory of Charlie Ellis, like the beautiful bluebird, will forever symbolize peace and all things gentle.

—*Myrna Pearman*

MORGANTOWN STUDENTS BUILD BLUEBIRD BOXES



During early 1990 the above students from University High School, Morgantown, West Virginia, used NABS instructions to construct nesting boxes. They were constructed of cedar fencing that had been donated by a local contractor. After construction the boxes were distributed to individuals in the surrounding area.

Wilkes County School Bluebird Project

Charles A. Mauldin

The first of May was my last day of school for this year. I started in February and worked as a volunteer with nine classes in five rural Wilkes County (NC) elementary schools (grades 4-6).

I usually did a 50-60 minute presentation Monday through Wednesday using pictures, nests, feeders, etc., for props. On Thursday I showed slides (some of my own as well as some of the NABS bluebird slides and some purchased from Cornell University). On Friday we constructed bluebird boxes from pre-cut parts. On box-building day attendance was usually high because the children looked forward to building a bird house and taking it home.

To begin my project I cut down three large pines on my farm (it's a certified tree farm) for lumber to build the bluebird boxes at no cost to the students. After getting the wood sawed, I

cut out many of the parts myself and got help from the agriculture class at East Wilkes High School.

Work on the boxes began during the first period; it took about four to five hours for everyone to get his box made. To build the houses I trained three children (selected by the teacher) to be my helpers by showing them how to build their own boxes. Each helper, with my assistance, worked with one child at a time. As each student finished he or she carried his box to the classroom and sent another child out to the work area.

At four of the schools we put up one to three boxes on the grounds. The nine classes totaled 235 children (each of their teachers and principals also got a box). I also gave several boxes to teachers or other interested staff members at each school.



Photograph by Jan Gilliam

Charles Mauldin oversees sixth grade students at Roaring River Elementary School as they build bluebird boxes.



Photograph by Robert Brown of the *Wilkes Journal-Patriot*

Charles A. Mauldin (right) helps fourth grader Curtis Owens of Moravian Falls Elementary School build a bluebird box.

At the last school, Roaring River, events unfolded like they were scripted for a Disney movie. Birds were so numerous and active on the campus that the sixth grade teacher, Mrs. Nadine Anthony, and I decided that the children should go on a bird walk. About noon the fifth-sixth grade teacher, Mrs. Linda Welborn, and I set out with the sixth grade children for SCENE ONE. We stopped to watch a European Starling standing at her nest in the wall of the Primary building where she was panting like a dog in the 90°F heat. As we watched, a large bug crawled down the wall toward the cavity entrance. The starling turned her head and had a quick snack. The children applauded!

On the edge of the basketball

court we stopped 75 feet from a Killdeer nest on bare ground. (The custodian had shown it to me earlier.) Before sending one of the boys toward the nest, I explained how Killdeer decoy intruders by feigning an injury. When he got about 15 feet from the nest, instead of flapping around, she just calmly walked away! As the "expert," I told them that the Killdeer must be getting used to human activity.

As we passed along a walkway shelter, the children were able to see a pair of House Sparrows on an overhead beam mating alongside their nest. In a shrub several youngsters found another House Sparrow nest. As I reached toward the nest, several mature-looking juveniles flew out. I brought another out so that several children could hold a bird, a new experience for them. As

we moved on, I placed the bird on a limb and told them the parent birds would tend to it for a few days.

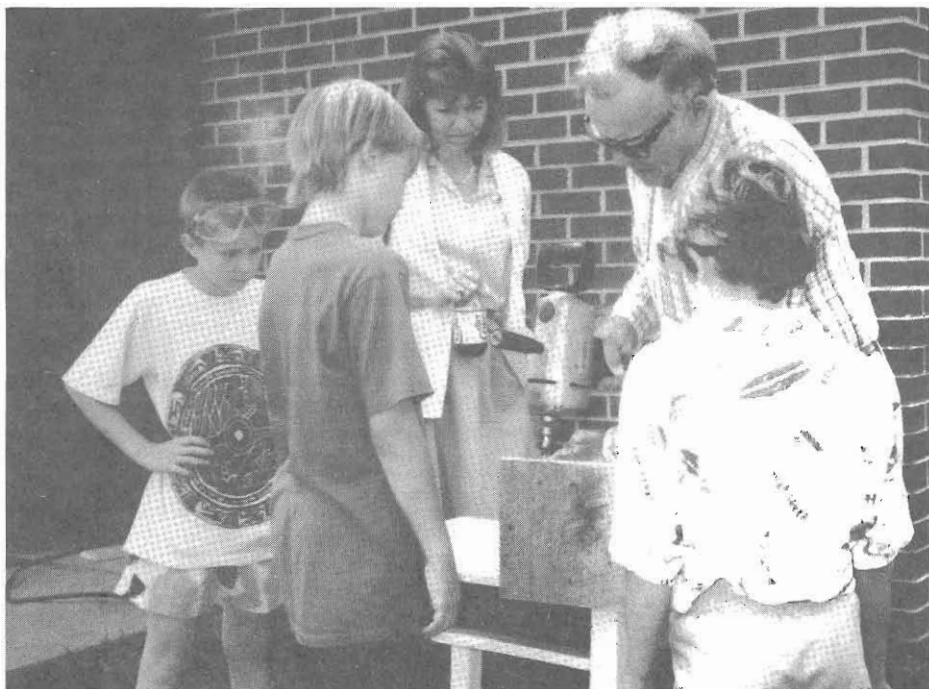
Walking back to the classroom we identified grackles by their tilted tails as they flew. For a finale, a mockingbird atop a utility pole sang for us.

SCENE TWO began on the third day when we put up a bluebird box about noon. Before leaving school some children told me that bluebirds were on the box. I let them know I was pleased, but I had my doubts until the next morning when, as I was parking my car, I saw two bluebirds at the box.

On the day scheduled for beginning nest box construction, we set up shop (two tables) outside about 100 feet from the bluebird box. During the two days we built boxes, many of the children observed the pair of bluebirds. On occasion they flew to a large pine about 50 feet from us where we could identify the male and the female.

These children ought to become enthusiastic bluebirders with a start like this! ■

Rt. 1, Box 191
Roaring River, NC 28669



Sixth grade teacher Mrs. Nadine Anthony (third from left) and Charles Mauldin help three sixth grade Roaring River Elementary School students build bluebird boxes.

NABS SLIDE SHOW

The NABS slide show is available for rental at \$10.00 or purchase at \$55.00. The show consists of 141 collated, cardboard-framed 35 mm slides and a printed script (no slide tray). If a cassette narration is desired add \$5.00 to the purchase price.

To rent or purchase the bluebird slide show, write to the following address: NABS Slides, Box 6295, Silver Spring, MD 20906-0295. Please allow a month for delivery and, if possible, specify several dates.

A True Blue Friend of the Bluebird

Ruth Gilchrist

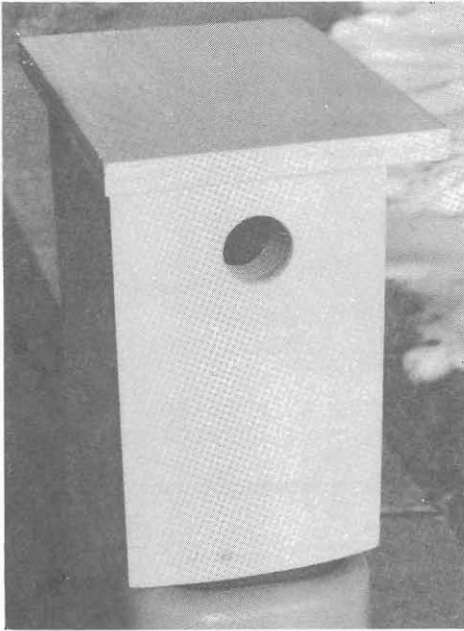
Last autumn I called John Lapin of Poland, Ohio, to ask him if I could write about his work to aid the bluebird. I didn't have an opportunity to interview him until January 1990. Early that same month the Youngstown *Vindicator* newspaper had featured him so I guess I wasn't the only one who felt he should be recognized for his dedication to such a worthy cause.

John Lapin, a retired carpenter, became interested in bluebirds in 1964 when he read an article about their plight in an issue of *Pennsylvania Game News*. He wasted no time getting houses built and giving them to friends in the surrounding countryside who had suitable places to put them. Eventually, he found that many of the boxes were not being monitored so he started

his own trails in Mahoning County in 1986.

Over the years he experimented with four different box styles: top-opening, front-opening, side swing-opening, and side slide-opening. His favorite style is the side slide-opening. It can be easily cleaned, the nest can be raised to inspect for blowfly infestation, and it can be closed quickly without disturbing the occupants. He has even had success with milk carton houses. In 1988, he put up two of this type and fledged two broods of bluebirds from each.

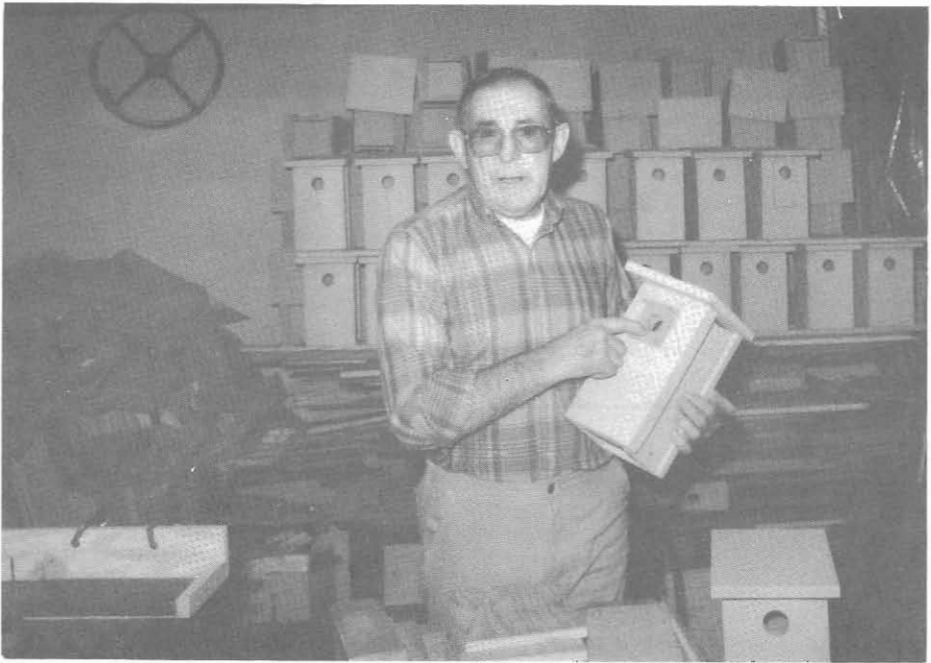
The first year of his extensive trails in 1986 he fledged 176 bluebirds. In 1987, 345 hatched. By 1988 he was monitoring 240 boxes which produced



Front view of John Lapin's sliding side-opening bluebird box. The front is about 1 in. (2.54 cm) thick and is made from a log that has been cut to fit.



Side view of John Lapin's sliding side-opening nesting box. Note how much thicker the front is than the rest of the box.



Photographs by Ruth Gilchrist

John Lapin points to the metal guard he places over the entrance hole of boxes he builds. It prevents squirrels from enlarging the opening.

859 eggs and 603 fledglings. In 1989 he gave a 20 mile trail of 112 boxes to a college professor to monitor for research. He continued to monitor 185 boxes on his other trails. These fledged 364 bluebirds as well as 11 House Wrens, 7 chickadees, and 110 Tree Swallows.

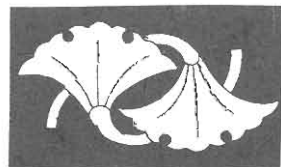
At one local golf course he has placed 23 boxes about 150 yards [137.1 m] apart. In 1989 only 34 eggs hatched from 54 laid. Fifteen were destroyed by wrens and sparrows. A lot of golfers see these boxes and place orders for them. The course manager is so pleased to have a bluebird trail that he lets John use a golf cart to make the weekly inspection rounds. Monitoring all of his trails requires three days a week. In order to minimize insect problems in boxes, he uses diatomaceous earth in the nests after the nestlings hatch.

In addition to the bluebird boxes he builds, he also constructs martin, Wood Duck, and kestrel boxes as well as one-of-a-kind feeders. His basement

workshop is full of finished and unfinished boxes, generally made from scrap lumber. Most are painted pale blue and stamped with his name and telephone number. He cuts out box parts for Boy Scouts and others who want to assemble their own. When the weather breaks in late winter or early spring, he chops locust posts which he can quickly pound into the ground as a support for a bluebird box. His slide houses are easily attached to the post with two 8 penny nails.

With the coming of spring he'll be out monitoring his boxes and looking for new areas in which to start trails. ■

R.D #7, Box 76
New Castle, PA 16102



BLUEBIRD EXPRESS

SIALIA welcomes the correspondence of its membership Bluebird Express should become a forum for all who are interested in communicating their ideas and actions concerning bluebird conservation. We will attempt to publish a wide range of views in a responsible manner. Keep your letters coming!



Dear Editor:

I have discovered a technique which both cuts down the House Sparrow population and keeps the sparrows content in a box without frenzied takeover of bluebird boxes nearby.

I collect sparrow eggs, refrigerate them a couple of days so they won't hatch, and then substitute them for the fertile eggs.

The sparrows sit on them happily for up to three weeks! Be sure to check after that because they will lay more eggs over the "dead" eggs, and then all need to be substituted.

I have also discovered that a greased metal pole (use white lithium grease available at auto stores) with a 36 inch square hardware cloth baffle makes a safe post for bluebird boxes.

Joan Lane
10523 Walter Thompson Dr.
Vienna, VA 22181

Dear Editor:

I could hardly wait to share the great news with you! On 21 February, Raymond and Anna Warner were repairing boxes at Codorus Park when they noticed great numbers of birds in the trees nearby. A closer look with binoculars revealed them to be bluebirds. Raymond estimated the flock to number between 50 and 75 birds....The park office reported that they had had a call from a nearby resident who claimed to have 100 bluebirds feeding in his yard.

We can find bluebirds wintering here each year; however, I suspect that bluebirds in these numbers are migrat-

ing through. I have been searching for the flock, but so far without success. I would love to film them with my camcorder.

Ten years ago a pair of bluebirds in our area was big news. Hearing of bluebirds in these numbers gives hope that with dedicated monitors our beautiful little friends will always be with us.

Karen Lippy
432 Penn St.
Hanover, PA 17331

Dear Editor:

I had a new experience at one of my boxes along the highway. I opened it to find a chickadee nest with two young near fledging: one chickadee and one titmouse.

Last winter we had the highest population of white-footed mice (*Peromyscus leucopus*) that I have ever seen. After the cold December, nearly every box had mice, some as many as seven and most more than one, all adults. I cleaned out some and left others. Although bluebirds nested on some of the mouse nests (in three cases not building any nest, just laying eggs on the soft mouse nest), they preferred the empty boxes. I found the same with old bluebird nests; although they will build on late year's nests, they show preference for emptied boxes.

We have an interesting problem with nasty little biting ants (*Crematogaster clara*). At the UK farms and the army depot fewer than 2% of my boxes had ants last year and this. Along the highways more than half the boxes get ants. These same ants live in trash

along the highway where they apparently build up high populations. I have found them living in beer cans and bottles.

Wayne H. Davis
University of Kentucky
Dept. of Zoology
Lexington, KY 40506-0225

Dear Editor:

Please send *Sialia* to my summer place in Lindale, Texas. I have a second family of bluebirds nesting in one of my boxes. I see lots of bluebirds here in Smith County, none in Dallas, of course.

I shared my copy of *Sialia* with a friend, Marge Flowers, who lives in Garland, Texas. Bet you get a subscription request from her!

Mrs. Bonnie Sexton
244 Hide-A-Way Lane E
Lindale, TX 75771

Dear Editor:

In the Spring 1990 edition (12(2):52) in the nesting report article there was an error. The article stated, "Another Ohioan, J.P. Perkins from Conneaut, had his second best year ever." (Correct so far.) But, "With the help of his friend Roger Redmond" should read *Floyd Litwiler*, "the two octogenarians monitored 59 boxes...." All correct but the name. I would appreciate it if this were corrected in some future issue.

J.P. Perkins died 20 February 1990.

Mrs. J.P. Perkins
118 Grandview Ave.
Conneaut, OH 44030

Dear Editor:

Just a note of thanks for the help I received this week from Bluebird Trouble Shooter Ron Kingston of Charlottesville, Virginia. I was in a total panic when House Sparrows invaded our nest box of five ten-day-old nestlings. I called Ron, his wife contacted him at work, and he got back to me right away! He had some very good ideas and saved the day, not to mention my sanity. It was so good to hear a reassuring voice. He even called back later to see how things were going.

Thanks to NABS and special thanks to Ron Kingston.

Lynda Blair
5112 Wenskydale
New Kent, VA 23124

Dear Editor:

Dr. Zeleny's reply to a question about roosting bluebirds (11(4):133) was a conservative number, "As many as 14 bluebirds have been known to crowd into one nesting box to keep warm at night in severe weather."

And more than that number on occasion. His article in the June 1977 *National Geographic* was illustrated with 16 Eastern Bluebirds in a log box in sub-zero weather photographed from above by Michael J. Smith. Not to be outdone by Maryland bluebirds, our Georgia weather produced a 17-bird night. The four who found no room to enter the box took refuge in another (see 8(3):107-109). One of our customers tells of 25 Eastern Bluebirds leaving her large box and lining up on the fence where they were easily counted.

Looks like just any number may roost together—if the night is cold enough and the box will accommodate them.

Laurance Sawyer
Rt. 1, Bluebird La.
Ringgold, GA 30736

Dear Editor:

At a recent nature group meeting we had a discussion concerning the trapping of problem sparrows. I mentioned the availability of a number of different types of traps that have been used successfully. The one advertisement that I have readily at hand is the following:

"Sparrow Trap: (Fly-in) or Wharton Ground Trap (walk-in). Continuous-selective-multi-catch-multi-entrance. (Vinylclad or Galvanized.) Write or phone. Order from J.A. Imbrogno, 22 Westmoreland Drive, Monessen, PA 15062. (412) 684-8116."

Wesley E. Lanyon
Lamont Curator of Birds Emeritus
American Museum of Natural History
RD2, Box 219, Louisa, VA 23093

Bluebird Tales

Mary D. Janetatos

Beakless Bluebirds and Featherless Penguins! What an outlandish thought! Is this from outer space, or what? Bluebirders in Maryland have been acquainted with the "featherless penguin," otherwise known as **Sister Barbara Ann**, for a long time. **Sister Barbara Ann Underhill** of All Saints (Anglican) Convent in Catonsville, MD, has been a bluebird champion for years as she erected boxes and monitored a trail on the convent grounds. Several years back, a sparrow's attack yielded several dead bluebirds but two tiny nestlings survived which were named Joshua and Eleanor. These orphans lacked beaks (hence the "beakless" bluebirds). Sister Barbara Ann rose to the challenge of hand feeding them in her convent studio. (She is a first rate artist whose devotional cards help support the work of the convent.) The nestlings' story is most charmingly told in Sister's first book named above which includes many nature tales. (Now available in NABS' catalogue.)

Another bluebirder needs our prayers, **John Grivitch** of Walker County, TX. After triumphing over cancer, he is now fighting his way back from a stroke. He credits his work with bluebirds with helping him in his successful battle with cancer. Several years ago, John and his wife, Ruth, invited NABS founder, **Larry Zeleny**, to visit them in Texas to see their work. Larry spoke of it glowingly upon his return. They were award winners at the 1988 NABS meeting.

Many other bluebirders have carried the banner, but none more untiringly than **Frances Ehlers** of Clarksville, MD. Frances was a NABS charter member, trail monitor, and NABS office volunteer par excellence until her death at 81 in early June of 1990.

Bluebirders from everywhere send us newspaper clippings. **Lindsey Spencer** of Snellville, GA, sent one from the *Atlanta (GA) Journal and Constitution* which contained her letter to the *Virgil Adams* column publicizing NABS'



address. Lindsey adds, "I hope this column will bring you some new members!" And we thank you, Lindsey, for being a NABS promoter!

General biology teacher **Elaine H. Stevens** of South Barwick, ME, wrote that a very successful bluebird study and conservation unit had been completed in her high school. She said, "Students discussed the best places to put out nesting boxes [which they had made] and all boxes were put out by the end of March....I am elated to be able to report to you that one of our students has a pair of bluebirds in his nesting box....Everyone in the class seems to be quite excited. Even those male students who like to chide me about birds! There seems to be an attitude that male students (particularly teenage boys) are not supposed to show any concern or feeling for birds. I guess they think that bird watching is for sissies...." She added, "There has been established this year the Maine Bluebird Society. It is encouraging to know that other individuals in our area are educating the public and establishing trails."

We are well aware of the Bluebird Association of Maine for past president **Lillian Files** presented her lecture and slide program to the group in April and reported great enthusiasm and interest. **Esther Leck** of Wiscasset, ME, is current president of the group.

Chris Schaefer of Reamstown in the "Pennsylvania Dutch" country of Lancaster County, Pennsylvania mobilized a bluebird conservation effort last year by placing a small ad in a local shopping newspaper. In it she offered a free bluebird box with installation included to anyone with suitable habitat in several surrounding communities. In

the two days following distribution, she and her husband, **John**, received 106 phone calls! Enlisting the help of fellow birder **Judy Meeker** of Mohnton, they erected 66 bluebird boxes. The trail has now grown to 105 boxes at 45 sites. Chris is trying to preserve habitat, so all the boxes are on private property, mostly farmland. Formerly, Chris was a bird rehabilitator but now concentrates on saving wildlife habitat. Her work has been recognized by the Pennsylvania Game Commission which presented her with their Wildlife Conservation Award in 1984. The bluebirds need lots of people like that!

Some people are drawn to bluebird conservation through their own observation of bluebirds. **Mrs. R. Peabody** of New Albany, IN, wrote about seeing bluebirds as she and her husband delivered newspapers along a rural route. As the car moved swiftly along the roadside, they became adept at aiming the paper so that it slid easily into the newspaper tube; then off they went to the next. When one newspaper came falling back out, they discovered a bluebird nest inside the tube. Unthinking, they pulled out the nest—only to find it rebuilt by the bluebirds the next day. This made converts out of them; they fell in love with the hard-working female and her beautiful mate and are joining the bluebird conservation effort. As is **Frank B. Schley, M.D.** of Columbus, GA, who heard of NABS' continent-wide bluebird conservation efforts through Audubon Workshop, of Northbrook, IL. Dr. Schley described his efforts to help the bluebirds and how, by expanding these efforts, he hopes that "children from our community will be able to see bluebirds whenever they wish...."

Bill Lewis of Scarborough, Ontario, has been working with bluebirds for 30 years and reported seeing a continuous rise in their population. Having monitored 40 boxes in southern Ontario, he said that 1989 was his best year yet when "104 young bluebirds flew from the 40 boxes." **Roland Dagwell** of Indian River, MI, was not so cheerful as he coped with pneumonia and foul weather in the spring of '90.

He wanted to erect his 40 winter-built crop of boxes and did find one woman who would monitor a trail for two months. He closed by saying, "Last year we fledged 615 bluebirds, but do not look for as successful a season in 1990." We hope you're wrong this time, Roland!

Veteran bluebirder **Christine Ammons** of Union Mills, NC, explained in a letter that she doesn't like to write letters, then said she has two bluebird penpals: one in Ohio and one in Pennsylvania. It must be bluebird mania!

Of the many notes and letters we get, those describing the efforts of young people are among the most endearing to me. Recently, a great sheaf of material came from St. Francis Elementary School in Richmond, Quebec. **James Coburn**, presumably one of the sixth graders involved in their bluebird project, wrote in his thank you note (for NABS information sent at their request): "...we made 298 bluebird houses and gave each family in the school one. But you may not know that we also gave each one a copy of your bluebird fact sheet."

A poignant account of bluebirds becoming a symbol of hope and consolation was sent by **Frankie Jean Dorsey** of Marietta, GA. She and her father together have been caring for her mother who has been afflicted with Alzheimer's disease for about 10 years. After a pair of bluebirds moved into a gift nest box in her dad's front yard, they both began to feel less sad and more entertained by the antics of our banner bird. Even her mother enjoyed the bluebirds. Frankie Jean is now attempting to spread the bluebird word around her neighborhood. Now her own husband has become interested. "I have even started a file on bluebirds," she wrote.

Indeed, we all need a file on bluebirds: bluebirds as rescued by Sister Barbara Ann, bluebirds as aided by Frances Ehlers, bluebirds as cherished by us all as we praise God and thank Him once again for this wonderful world He has given us. May He also give us the strength to practice effective conservation! ■

Three Blue Wishes

If I could drop three coins in a fountain
And have three wishes come true,
The first would be that I could see
A bird in my yard named Blue.

The second wish that I would make
Is that in the season of spring,
Mother Nature and luck would come my way
And a pair of bluebirds bring.

What a thrill to behold a nesting pair
All ready their family to raise,
The birds of happiness we used to see,
The song of the birds we praise.

The third and last wish: that all who love birds
Could enjoy the bluebirds once more,
As it used to be when they numbered many
As it was in the days of yore.

—Edna B. Willis

The King Cardinal

A crimson flash in the lilac bush
Tells me my dream may yet come true.
Over patient years I have worked at my wish
To create a cardinal rendezvous.

I hoped to attract a bright red flock,
And studied with active birding clubs,
Then from a list of nursery stock
I selected many most suitable shrubs.

It takes so long for cover to grow
After I have landscaped our yard,
But that single bird is letting me know
There is a reward for working so hard.

—Earl Villers

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Founded in 1978, THE NORTH AMERICAN BLUEBIRD SOCIETY is an incorporated non-profit organization determined to increase the populations of the three species of bluebirds on this continent. Inasmuch as the populations of these birds have diminished due to the maladroitness of human beings, as well as other natural disasters, the primary objective of the SOCIETY is to educate all who will listen about the importance of preserving these singular creatures in their native environment.

Toward this end, the SOCIETY will work, within the bounds of effective conservation, to study those obstacles impeding bluebird recovery; to publish results of those studies; to promote ideas and actions which might reduce the effect of those obstacles; and to obtain a more complete knowledge about bluebird ecology, in the hope of learning more about the ecology of humankind.

Membership: Student (under 21) \$10.00; Senior (over 60) \$10.00; Regular \$15; Sustaining \$30; Supporting \$50; Contributing \$100; Corporate \$100; Donor \$250; Life \$500. Add \$2 per year for Canada and Mexico and \$3 per year for other countries (Surface mail). U.S. funds only, please. Amounts over \$6 are tax deductible.

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