

# *Sialia*

Volume 8, Number 3  
Summer 1986  
Pages 81-120  
Index

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-ah'-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 20906-0295. 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

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## COVER

The Common Barn-Owl can use our assistance as described in the article beginning on page 89. The drawing is by Art Editor Richard L. Woodward.

*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 20707.

# Presidential Points

Sadie Dorber

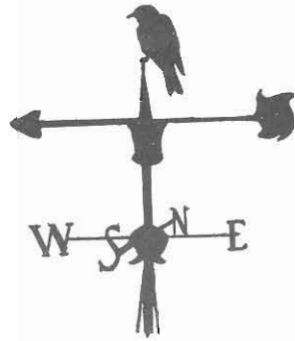
New York State, along with the rest of North America, has been bustling with activity for several months preparing for the return of the bluebirds. When they arrive, they will find many new homes and a host of new and experienced caretakers.

On March 8th, Beaver Lake Nature Center in Baldwinsville, NY, held its Spring Festival. Fran Hanes, Paul Wilson, John Rogers and Karl Curtis provided an educational display about bluebirds and answered questions from the public. On the same day, the town of Union Parks of Broome County New York, held its first Sugar Maple Festival. Sue and Joe Sedlacek and I manned an educational booth about bluebirds and other cavity nesters. We answered questions and presented the NABS slide show.

As president of NABS, I was invited to speak on behalf of NABS to the new Schoharie County New York Bluebird Club. NABS member Anne Casselberry and I arrived at the Cobelskill High School to find 85 enthusiastic people who wanted to learn more about our state bird. Thirty of the people in attendance were new bluebirders. Each of them was presented with a free nesting box along with a NABS brochure which detailed proper placement of the house. A follow-up visit to the new members to offer any help or assistance required will be made by the Schoharie club members.

Ray Briggs', president of the Schoharie Club, enthusiasm for helping the bluebird is apparent. Already many boxes dot the countryside. Schoharie County hopes to be the leading county of New York State in the bluebird movement. With 1,000 boxes already in place, I think they are well on their way toward reaching their leadership goal.

The New York Nestbox Network, formed in 1984, has received 5,700 requests for information on helping bluebirds. Each county in the state is represented. The Network is a combined ef-



fort of the Albany Audubon Society and the New York State Department of Environmental Conservation. Funds from Return A Gift To Wildlife helped launch this project to help our state bird.

In my own Broome County, County Executive Carl Young has declared May 12-16 as Bluebird Week in Broome County. Finch Hollow Nature Center, a Broome County Park, will host NABS founder Larry Zeleny and Executive Director Mary Janetatos as speakers that week. Finch Hollow has an educational display of bluebirds, their predators, and boxes. The display will remain for the month of May for viewing by the general public.

The phone has been busy both at my house and at NABS headquarters. Most people report bluebirds entering the box and wonder if they're building a nest. When we ask if they've looked inside the box, the common response is "I'm afraid it will bother the bluebirds." Checking boxes carefully does not bother the bluebirds or any other cavity nester and it's important to monitor boxes weekly during the nesting season. Larry Zeleny's book, *The Bluebird: How to Help It's Fight for Survival*, is available from NABS and will be helpful to anyone starting new trails.

Along with all of you, I am looking forward to another beautiful spring and summer filled with the wonder of our bluebird friends raising their families and gracing our lives with their presence. ■

# Comparison of an Established Bluebird Trail to New Trails

Michelle Cousineau and Wesley Morse

**E**astern Bluebird (*Sialia sialis*) populations are recovering from the threat of decline (Zeleny 1976). The species is no longer listed on the state threatened and endangered list for Kansas possibly as a result of numerous public programs developed for the enhancement of the species' reproductive habitat. Concern directed toward increasing the Eastern Bluebird population has been demonstrated in recent years through the placement of nest boxes by public and private groups and individuals. The following study was conducted in order to evaluate the results of these attempts and to discern factors which promote success.

The observed trails are located in the low rolling grasslands of south-eastern Kansas, locally known as the Flint Hills. Woodlands comprised of Black Jack Oak and Burr Oak, Eastern Red Cedar and Hackberry cover ridge tops and brushy groves of Persimmon, Redbud and sumac line valleys. Stock ponds and small streams are abundant. Grassy stretches are thin soiled and typically used as cattle range. The countryside is cut into sections by barbed wire fencing which affords perfect locations for nest boxes.

Data were collected from four separate trails. Trail A contains 16 nest boxes and was established in 1979. Trails B, C and D are comprised of 10, 6 and 28 nest boxes respectively and were established in 1985. Nest box dimensions are 4 x 4 inches square, 9.5 inches deep with a 1.5 inch diameter round entrance hole 6 inches above the box floor. Nest boxes were constructed of weathered lumber with a hinged and slanted roof. Thirteen additional boxes, constructed of new lumber, were provided by the Kansas Fish and Game Commission and randomly distributed over the four trails. A 10-inch square metal sheet attached to the bottom of each nest box and extending 2.5 inches from the box served as a predator guard. Nest boxes were attached to steel fence posts at approximately 5 to 6 feet from the ground, placed in appropriate habitat and properly spaced. Each nest box

was inspected weekly beginning 1 March throughout the reproductive season to 3 August with more frequent checks after hatching began. Data used for this evaluation were collected during the egg laying period of 15 March to 21 April.

Trail A is located on private range land 2 miles west of Fall River in Greenwood County. The trail was established and maintained for five years by my collaborator. Of the 16 boxes observed 9 held complete clutches (total number of eggs:46) during the egg laying period of 15 March to 21 April. Some eggs hatched in five of the 9 clutches (total number of hatchlings: 24) and three of the total nests produced 15 fledglings. Of the total number of eggs laid 56% were lost to predation. Three of the complete clutches were presumably taken by a Black Snake (*Colubus constrictor*) as the nest was left intact (Flanigan 1971) and a fourth clutch was lost to an unknown predator. Four nestlings were abandoned in a nest which had previously held five and it was concluded that the brooding female and fifth nestling were also lost to predation. A clutch of 5 eggs was destroyed by wood ant infestation to the nest box. Although nest boxes were constructed without a perch (Bent 1949), two incidents of Brown-headed Cowbird (*Molothrus ater*) parasitism occurred. One Eastern Bluebird clutch contained 2



eggs of the parasitic species which were removed from the nest. One Black-capped Chickadee (*Parus atricapillus*) clutch was abandoned when the nest was parasitized. Of the 16 nest boxes available, 6 were used by Black-capped Chickadees, 4 of which were taken by predators. Four of these boxes were used by Eastern Bluebirds for the rearing of the second clutch. The first nest on Trail A was completed on 15 March and its clutch of 5 completed 31 March. The first young fledged on 2 May.

Trail B is located in an abandoned orchard 4 miles west of Coyville in Wilson county. Two of the 6 nest boxes held complete clutches (total number of eggs: 10) which produced 10 fledglings. The first nest was completed on 23 March and its young fledged on 5 May. Of the 6 boxes available, 3 held Black-capped Chickadee nests. Two of these nests fledged young and the third was abandoned as a result of cattle disturbance.

Trail C is located within the city limits of Benedict in Wilson County. Of the 10 nest boxes, 2 held complete clutches (total number of eggs: 8) which fledged 7 young. The first nest was completed on 28 March and its clutch of off-white eggs completed on 6 April. The first birds fledged on 5 May.

Trail D is located at Fall River reservoir in Greenwood and Woodson Counties. The unique features of this trail include the reservoir and a cemetery. Seven nesting attempts were made in the 28 nest boxes observed. In 4 of the nests a full clutch of eggs was laid (total number of eggs: 18) and 17 nestlings were successfully fledged. Three of the 4 nests were completed by 24 March and the first young fledged on 8 May.

An occupancy rate of 56% indicates that a greater number of breeding pairs inhabited the established trail compared to 20% and 14% occupancy rates for the new trails. However, my collaborator and I were disappointed to discover that nature compensates for the increased population density and established trails become more vulnerable to predation. No incident of predation or parasitism occurred on trails B, C and D. All nest boxes were constructed in accordance with specifications recommended by the Kansas Fish and Game Commission and necessary precautions taken to minimize predation. Black Snakes were identified as the major predator and, in one instance, a 4 foot long snake and a 3 foot long snake were removed from a nest at the same time. As a result of substantial losses to predation

Table 1. Results of Eastern Bluebird Nesting on Four Trails for the First Egg Laying Period of 15 March to 21 April 1985.

|   | Trail A | Trail B | Trail C | Trail D |
|---|---------|---------|---------|---------|
| Total number of boxes   | 16      | 6       | 10      | 28      |
| Nesting attempts  | 9       | 2       | 2       | 7       |
| Nests with complete clutches  | 9       | 2       | 2       | 4       |
| Total number of eggs  | 46      | 10      | 8       | 17      |
| Total number of hatchlings  | 24      | 10      | 7       | 16      |
| Total number of fledglings  | 15      | 10      | 7       | 16      |
| Total number of nests that fledged young                            | 3       | 2       | 2       | 4       |
| Percent of occupancy  | 56%     | 20%     | 20%     | 14%     |
| Percent of success (percent of completed nests that produced young) | 33%     | 100%    | 100%    | 100%    |

my collaborator extended the nest boxes 14 inches above the fence posts with a rigid plastic pipe and secured a 10 inch square galvanized iron guard to the bottom of each box. This box design also prevented cattle disturbance and inhabitation by field mice in early spring. All nest boxes were easily converted to the more predator proof design and those boxes that were disturbed by predators relocated. For the second and third clutches *none* was lost to predation and 79 young were fledged from all 16 nest boxes on Trail A in the 1985 nesting season, the last of which were fledged on 3 August.

Although nest construction began approximately one week earlier on Trail A most nests were completed by 22 March on all of the trails and new trails did not exhibit a substantial delay in clutch completion or fledging. In study area D those nest boxes selected from the large number available indicated that preferred nest boxes were those located within 100 yards of a stock pond or water source and within 30 feet of a tall isolated tree or building.

Programs developed to promote

public awareness and placement of nest boxes by both public and private concerns can only make a significant contribution to increased Eastern Bluebird populations when trails are maintained. It is essential that trails be monitored and nest boxes modified to eliminate accompanying increased predation found in the specific area. Nest boxes that are sufficiently predator proof for an area also require less maintenance and are, therefore, better suited for trails established by public groups. ■

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## The Story of My Bluebird Trail

Wesley Morse

Persimmon Hollow is a 5 acre triangular tract of brush and trees with a creek running through it, located in the Chautauqua Hills of southeastern Kansas. I fell in love with it at first sight and acquired it in 1957. Most of my free time has been spent there building, improving and exploring the countryside. Each early spring I was thrilled by small flocks of bluebirds flying low over the pastures, true harbingers of spring and the beginning of new cycles of life. As the years passed I saw less and less of the bluebirds and one year I saw none at all.

In a 1977 *National Geographic* article, I read that the Eastern Bluebird was becoming an endangered species partly due to loss of nesting sites. I used the information in this article to

build and locate my first 14 nesting boxes in a circumjacent area close to my place the following year. Over hill and dale it is about a 2 mile walk and takes about an hour. The first few years I got but few birds but, with each succeeding year, more birds arrived. There are three stock ponds on my trail and I have noticed that the birds prefer to be near a water supply. I have three or more houses near each of these ponds and they always have successful nestings.

You learn to think like a bluebird and look for a site where you would like to raise a family. I put up one new house in such a location late in the season and in less than a week there was a nest with two eggs in it. When I first started I had no predator guards,

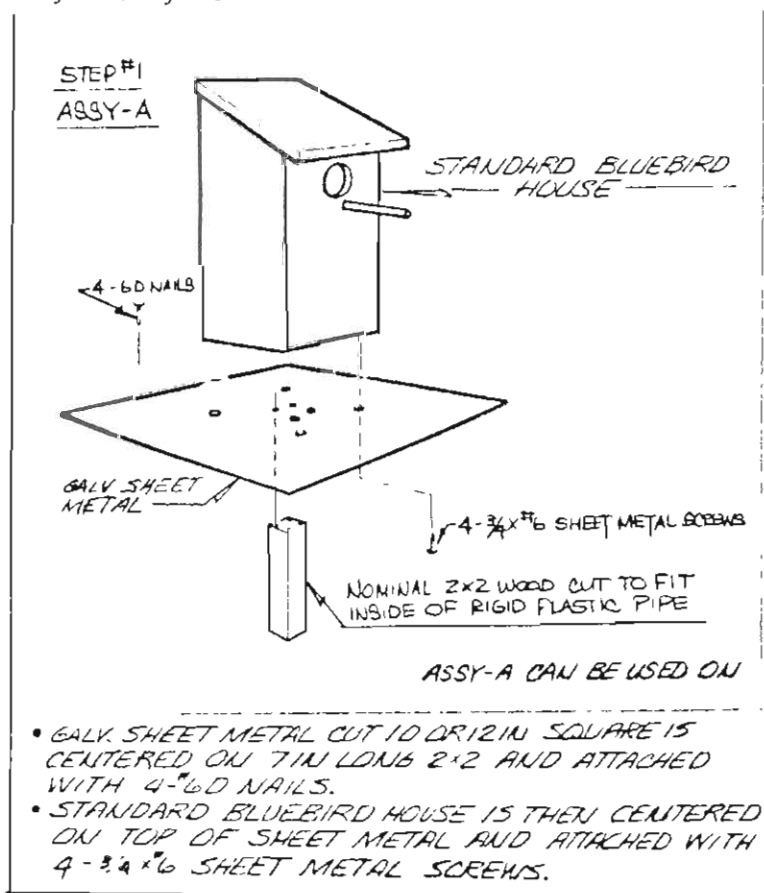
but as I got more birds I noticed greater predator losses. Now I have all houses on plastic pipe with a 10 inch by 10 inch galvanized iron guard under each house.

I started the 1985 season with 16 boxes and added three later with a probable successful clutching of 79 bluebirds. I'm never quite sure unless I see them fly away. I can count the eggs and once in a while catch the nestlings in the box looking out. I assume that if they leave the floor dirty with droppings, they have left in haste.

Bluebirding, like life, is what you make it: Fun or frustration. It is sort of like bankline fishing, you set your line

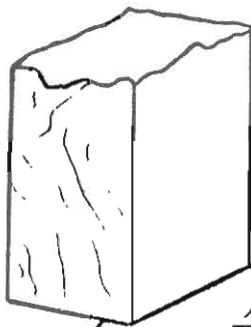
(or house) where you believe you are most likely to get good results, then you have to inspect your places occasionally with the anticipation of making a catch. Better with bluebirding because the catches can be a pleasure to watch to the final results. It also gives you a motivation to walk and observe the wonders of nature. I have seen deer jump out ahead of me and scamper through the brush and over fences, I've pulled black snakes two at a time out of bird boxes, I've found cowbird eggs in nests where they were placed for others to hatch and feed. Best of all, I have found many a companion with which to share my beautiful bluebird trail. ■

### Assembly Instructions for Snake-Proofing Nesting Box as Designed by Wesley Morse



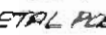
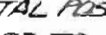
Plans designed by Wesley Morse. Illustrated by Keith Collins.

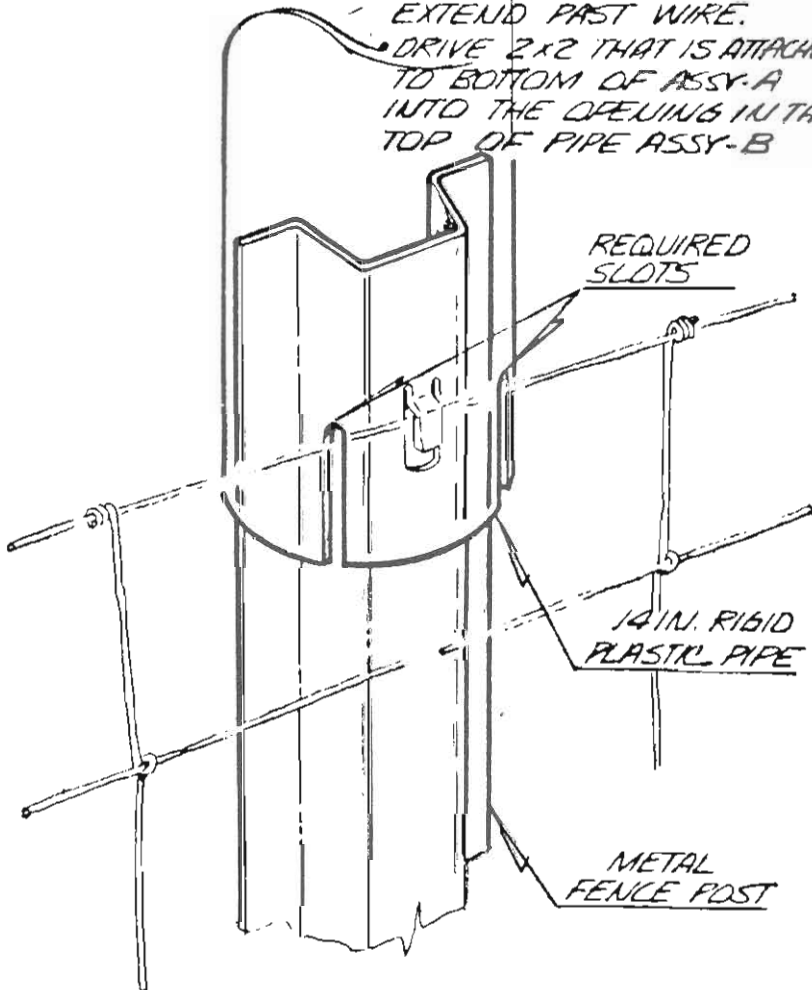




2x2 ATTACHED TO BOTTOM OF ASSY-A

### ASSY-B

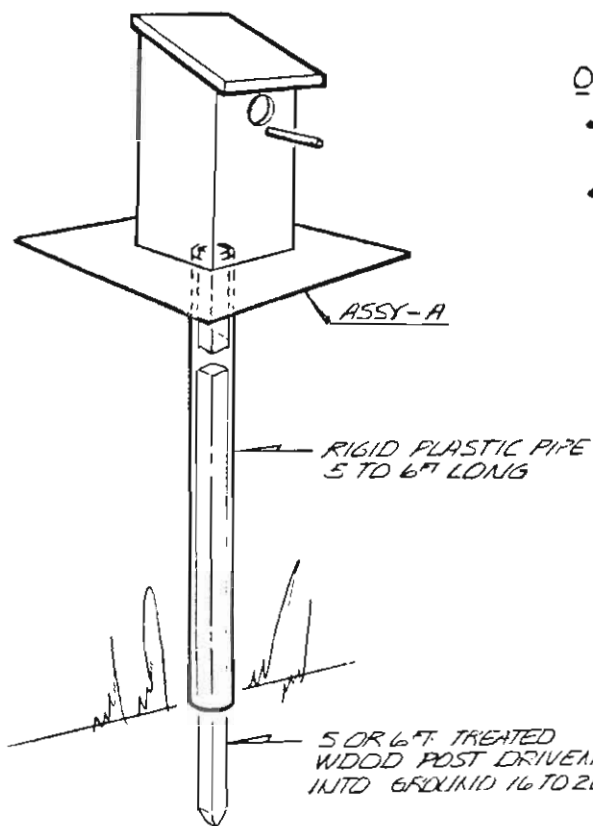
- 14 IN. LONG RIGID PLASTIC PIPE IS SLID OVER TOP OF METAL FENCE POST
- 2 IN.  $\phi$  FOR  METAL POST
- 1 1/2 IN.  $\phi$  FOR  METAL POST
- SLOTS ARE REQUIRED TO EXTEND PAST WIRE.
- DRIVE 2x2 THAT IS ATTACHED TO BOTTOM OF ASSY-A INTO THE OPENING IN THE TOP OF PIPE ASSY-B



REQUIRED SLOTS

14 IN. RIGID PLASTIC PIPE

METAL FENCE POST



### ASSY-C

#### Optional

- 5 OR 6 FT TREATED WOOD POST IS DRIVEN INTO GROUND 16 TO 20 IN.
- 5 OR 6 FT. RIGID PLASTIC PIPE IS SUD DOWN OVER TOP OF POST TO GROUND LEVEL.
- 2 X 2 ON BOTTOM OF ASSY-A IS THEN SUD INTO OPENING OF RIGID PLASTIC PIPE,



Wesley Morse holding the box with the modifications he constructed to prevent snake predation on his trail in southeastern Kansas.

# COMMON BARN-OWL: THE CAT WITH WINGS

Patrick J. Burke

The Common Barn-Owl (*Tyto alba*) is one of the most beautiful and beneficial owls in the world. Its white, heart-shaped face and long wing span (3½-4 feet) make it easily recognizable. It is distinguished by whitish or pale cinnamon underparts (which look ghostly at night) and buffy or rusty upper plumage. Fourteen to seventeen inches in length and weighing about one pound, this "cat with wings" is revered by farmers who know its merits such as its tremendous appetite for rodents (gophers, mice, and rats), and valued as an alternative to poisons and traps for controlling rodents. State laws and harsh penalties have been enacted to protect these valuable birds of prey.

In a food habits study near Fallbrook, California, a pair of barn-owls, in a five week period, ate 94 pocket gophers, 89 field mice, 27 kangaroo rats, four ground squirrels, three brush rabbits, and 17 unidentifiable animals. This is truly a "cat with wings."

In San Diego County, California, the Common Barn-Owl has made the Audubon Society's "Blue List," which is considered one step away from the Endangered Species list. There are very few nesting cavities for the barn-owl, and without them reproduction is low. Barn-owls mate for life.

Barn-owls do not build their own nests. Instead, they lay their eggs in open cavities in trees, cliffs, on building ledges, in silos, abandoned buildings, or old barns (hence their name). They take readily to manmade nesting boxes. Barn-owls are decreasing in number because most cavities that would provide a suitable home are being destroyed by development.

In an effort to increase barn-owl populations, the Palomar Resource Conservation District (RCD), Escondido, California, and the Ramona-Julian Resource Conservation District (RCD), Ramona, California, assisted by Patrick J. Burke, District Conservationist, USDA, Soil Conservation Service (SCS), has begun a wildlife management project. They are promoting a program to encourage farmers, ranchers, and homeowners to provide nesting boxes to replace the dwindling supply of natural sites.

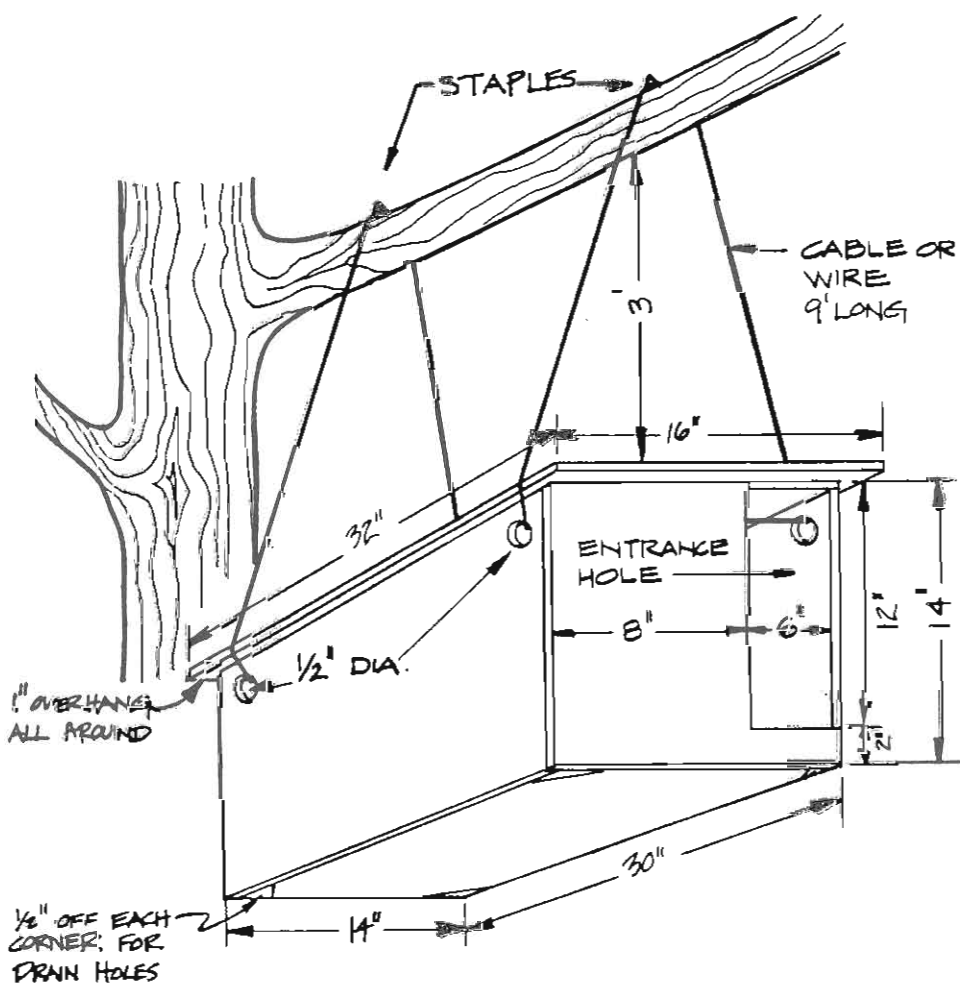


Good locations for barn-owl nest boxes are open fields and meadows with a few trees or wooded areas. Oak and sycamore are ideal tree species in which to place the nest boxes, or they may be placed on a post 15 to 20 feet high, with a predator guard to repel raccoons, opossums, and cats.

Placement of a nest box does not automatically guarantee barn-owls, and occasionally honeybees find the boxes make good homes, too. Last year, the Ramona-Julian RCD received a \$2,100 grant from the San Diego County Fish and Wildlife Advisory Commission to build 300 barn-owl nest boxes. The California Conservation Corps, Escondido Center, is working with the Ramona-Julian RCD in construction of the boxes, which will be placed on public lands (parks, etc.). A

(text continued on page 92)

# BARN OWL NEST BOX Plans



## Building A Nest Box

Barn owl nest boxes are easy to build. Ideal material is 3/8-inch or 1/2-inch plywood. Nest boxes should be painted using a camouflage pattern of drab green, black, and brown to reduce human disturbance. Painting also helps prevent warping. Place a 2-inch layer of sawdust or wood chips in the bottom of the box and replace each year.

## Guide

1. Make the entrance hole 6 inches wide by 12 inches high.
2. Hang or mount the box 15 to 30 feet above the ground and, if in a tree, 3 feet below a sturdy branch.
3. Use scrap exterior grade 3/8-inch or 1/2-inch plywood.
4. Use #4 or #5 galvanized hot dipped box nails.
5. Use a marine grade plastic resin or exterior wood glue for assembly.
6. Make the roof 16 inches by 26 inches to give a 1-inch overhang all around.
7. Use wire staples to keep the cable from moving on the branch.
8. Use at least a 9 foot long piece of wire to hang boxes.

## Picking A Nest Box Site

Good locations for barn owl nest boxes are open fields and meadows with a few trees or wooded areas. Oak and sycamore are ideal tree species. The box can face any direction. It can be hung 3 feet below a stout tree limb and be suspended by cables or mounted on poles 15 to 30 feet above the ground. The entrance should be unobstructed and the box positioned so it does not attract human attention. Place about 6 boxes per square mile. Boxes mounted high in barns or abandoned buildings also are readily occupied by owls. If the nest box is placed on a post, the post should be wrapped with an 18" metal, conical predator guard.

## Important Facts to Consider

Honey bees frequently take over barn owl nest boxes, which make them useless for nesting. About one-fourth of the nest boxes in coastal southern California are used by honey bees.

About 85 percent of barn owl nesting attempts produce fledgling young. Reasons for mortality include human disturbance, limb breakage, and attacks by raccoons, opossums, skunks, and bobcats.

Summer is the best time to erect a barn owl nest box. Boxes should not be disturbed during the nesting season or owls may desert them.

*Barn owl nest boxes can be especially useful on farms and ranches where rodent control is desired.*

---

retired Vista, California, man is building nest boxes for the Palomar RCD. They are then sold for \$11.

The cry of the Common Barn-Owl is a chilling scream, reminiscent of skidding car tires. This nocturnal bird of prey has huge eyes that look straight ahead in order to see more clearly. They cannot move up, down, or sideways, so the owl must turn its head to follow a moving object. Their head turns so far that they are able to see directly behind them, and further. They have gigantic ears (holes on each side of the skull) that can hear the sound of a mouse stepping on a twig 75 feet away. Their wing feathers have soft edges in order to fly quietly, listen for prey while in flight, and attack without being heard.

When an owl sees or hears an animal, it will swoop down, flying close to the ground. As it approaches its victim, it glides in silently for the attack. It will carry its prey in its bill unless it is too large. If this is the case, it will grab the prey in its stabbing claws (talons) from which escape is nearly impossible. These talons are very dangerous, and are used as a defense mechanism when needed.

The prey is usually swallowed whole including the teeth, bones, and fur. If it is too big, it is torn into small-

er pieces with the owl's sharp beak. The owl is not able to digest everything it swallows so teeth, bones, and hair are packed into pellets and regurgitated.

Depending on their geographical location, the owls may begin nesting any time from November through July. The female lays from one to eleven round, white eggs. Incubation is from 32 to 34 days. The male assists in the rearing of the owlets which takes from 52 to 56 days.

Why not put up a nest box in a suitable location and let "mother nature" supply the barn-owls? They help control the rodent population naturally, biologically without the use of pesticides, and they make for a more healthful environment for all.

Construction design plans and instructions for placement are available to the public, *free of charge*, from the Palomar Resource Conservation District and the USDA Soil Conservation Service in Escondido. For more information on how you can attract the "cat with wings" to your area, write to the following address and ask for "Barn Owl Nest Box Plans". ■

USDA, Soil Conservation Service  
1523 E. Valley Parkway, Suite 205  
Escondido, California 92027



# CANADIAN NESTING BOX REPORT, 1985

## Calgary Area Bluebird Trails

Calgary area bluebird trails increased to 952 boxes on 483 miles of line and fledged 1745 Mountain Bluebirds and 2250 Tree Swallows. The number of fledged bluebirds was down from last year primarily because 1984 had been such a phenomenal year.

Dave Elphinstone saw all three bluebird species on a wire fence in the foothills southwest of Calgary which was a first for Alberta. He reported seeing one Eastern Bluebird, four Western Bluebirds, and about 70 Mountain Bluebirds.

Ray Woods recovered a female bluebird which had been banded as an adult by Bryan Shantz near Ellis Bird Farm northeast of Red Deer. The recovery was made approximately 60 miles from its banding location. This was one of only three bluebirds that Bryan has banded which have been recovered outside his banding area. Don Stiles reported a female Tree Swallow recaptured for the third year in a row using the same nesting box. The bird had been banded in that box as an adult in 1981 making her at least five years old.

Tree Swallows were less successful than usual. On the East Didsbury trail, Don Stiles noted over 50% of the nests had dead nestlings when monitored in June. The cause may be related to the drought or possibly was caused by a disease related to the drought.

House Sparrows continue to

plague most monitors. Removing boxes from the vicinity of farm buildings helps but does not solve the problem completely. Marnie Armitage tried boiling the eggs and putting them back into the nest. If enough extra boxes are available, this may be a partial solution. Unfortunately, someone "helped out" on the trail and removed the nest so the method could not be proven this year. Jean Moore noted a Tree Swallow which sat on one egg for six weeks.

Mari Anne de Groot had five wren nests in new houses she set out in spruce habitat, but no chickadees which she had hoped to attract. Blake Stillings reported a deer mouse nest with Tree Swallow eggs underneath. A piece of tin wrapped around the post will keep mice from climbing to the nest.

Although some boxes are paired, the results are still mixed. Blake Stillings and Don Stiles reported 15 bluebird-Tree Swallow nestings out of 29 boxes. Ken Gardiner, who has all of his 31 boxes paired, had results similar to last year when he found about 1/3 of his boxes with a bluebird and a Tree Swallow in each and the remaining 2/3 with a Tree Swallow in one and the other vacant.

One nest of Black-capped Chickadees was the only native cavity nesting species reported other than bluebirds, swallows, and wrens.

This report was compiled by Donald J. Stiles.

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## Sixth Annual Mountain Bluebird Trail Report

### Lethbridge, Alberta

Although bluebirds arrived in southern Alberta on 11 March 1985, by nesting time many areas of the trail did not have the normal number of pairs. Tree Swallows, which are their chief competitors for nesting boxes, arrived two weeks earlier than normal and in greater numbers than previous years.

The immediate Lethbridge area fledged fewer than half the number of bluebirds fledged in the past two years. The foothills increased beyond our expectations, thereby increasing last year's overall total to a new high of 1958. An estimated 2064 Tree Swallows were fledged.

Thirty-eight monitors maintain the trail which is partly financed by Fish and Wildlife and Recreation, Parks and

Wildlife Foundation.

This report was compiled by Duncan Macintosh.

Table 1. Occupancy of Nesting Boxes on the Mountain Bluebird Trail, Lethbridge, Alberta, 1985.

|                                  |       |
|----------------------------------|-------|
| Nesting boxes available .....    | 1607  |
| Boxes used by bluebirds .....    | 424   |
| Bluebird eggs laid .....         | 2194  |
| Bluebirds fledged .....          | 1958  |
| Bluebird nestlings banded .....  | 1074  |
| Bluebird adults banded.....      | 70    |
| Sterile eggs.....                | 231   |
| Tree Swallow nests.....          | 452*  |
| Tree Swallow eggs .....          | 2587* |
| Tree Swallows fledged .....      | 2064* |
| Wren nests .....                 | 13    |
| Mountain Chickadee nests .....   | 1     |
| Mountain Chickadees fledged..... | 17    |
| Total number of boxes used ..... | 903   |

\*estimated

20 Lake Wapta Rise SE, Calgary, Alberta T2J 2M9 (Stiles); 1719-9th Ave., S., Lethbridge, Alberta T1J 1W4 (Mackintosh).

**Attention Canadian Trail Monitors:** Reports intended for the 1986 summary should reach the editor of this journal at 10617 Graeloch Rd., Laurel, MD 20707, no later than 15 April 1987. You may send them as early as the end of the 1986 breeding season. All reports are welcome. ■

## Tennessee Includes Bluebird in Homecoming '86

Governor Lamar Alexander has suggested that the Eastern Bluebird be a part of Tennessee's Homecoming '86. Homecoming '86 is a statewide effort involving programs and activities by towns and cities across the state to promote Tennessee to its inhabitants and visitors.

On 4 March 1986, a bluebird rally was held at the Cumberland Museum and Science Center in Nashville. Some of the guest speakers included David Pitts, Chairman of the Tennessee Ornithological Society's Bluebird Home-

coming '86 Committee; Sandy Rivens and Debbie Beasley of Warner Parks Nature Center who monitor a bluebird trail in the Warner Parks; and Bob Hatcher, Non-game and Endangered Species Coordinator with Tennessee Wildlife Resources Agency. The topics addressed by these individuals were "Bluebird Habitat Requirements and Population Trends," "Nest Box Design," and "Placement, Monitoring, and Landscaping for Food and Cover."

About 200 people attended the rally.

—Bill Wheeler

## Literature Review

T. David Pitts

**Gowaty, P.A., and A.A. Karlin. 1984. Multiple maternity and paternity in single broods of apparently monogamous Eastern Bluebirds (*Sialia sialis*). Behavioral Ecology and Sociobiology 15:91-95.**—Examination of selected proteins in nestlings and adult bluebirds resulted in the discovery that some nestlings were being cared for by adults who were not the parents of the nestlings. At least 5% (1 of 20) males and at least 15% (4 of 27) females were caring for young not their own. Twenty-five percent (4 of 16) of the complete families sampled showed evidence of multiple (i.e., more than two) parentage. One of the conclusions is the suggestion that Eastern Bluebirds should be considered polygamous rather than monogamous. I predict this study will quickly come to be considered a classic, not just for its significance to students of bluebirds, but for its value to all ornithologists and sociobiologists interested in mating systems.

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**Eakin, Jean. 1983. A study of the Eastern Bluebird at the Holden Arboretum, Lake County, Ohio. Kirtlandia 40:1-15.**—This study describes a 16 year (1965-1980) effort to increase bluebird numbers. The number of nest boxes was reduced from 230 at the beginning of the study to 86 boxes at the end. Bluebird numbers increased from 8 pairs to 18 or 19 pairs. The study illustrates the value of placing nest boxes in appropriate habitat. Perhaps the most valuable part of the study is the documentation of causes of nest failure.

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**Hegner, R.W. 1899. Photographing a bluebird. Bird-Lore 1:43-44. Herrick, F. H. 1900. Care of nest and young. Auk 27:100-103.**—Who was the first bluebird photographer? Who was the first

to publish a bluebird photograph? When and where was it published? The oldest bluebird photographs that I can find in my files are in the article by Hegner. His article includes two photographs of Eastern Bluebirds taken in the summer of 1898 at Decorah, Iowa. The birds were nesting in a hollow fence post. The article by Herrick also includes two Eastern Bluebird photographs. No date or location is given for them, although it is mentioned that they were made at a distance of 18 inches. Both show a female at a nest in a woodpecker hole in a tree. I suspect that other bluebird photographs were published before the ones described here. I would like to hear from any reader who has information about earlier bluebird photographs.

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**Weatherhead, P.J., and M.B. Charland. 1985. Habitat selection in an Ontario population of the snake, *Elaphe obsoleta*. Journal of Herpetology 19:12-19.**—While this study is obviously about rat snakes, some of the results are of value to bluebird trail operators. Movements of snakes with implanted radio transmitters were followed daily throughout the summer. During the bird breeding season, rat snakes preferred field habitat over forest; most of the observations were clustered along the junction of fields and forests. Following the bird breeding season the snakes did not show a preference for any habitat type. This study supports the idea that rat snakes patrol areas likely to have nesting birds. Of interest also is the conclusion that rat snakes prefer the field-forest junction, which is the area used by many cavity nesting birds. ■

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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.

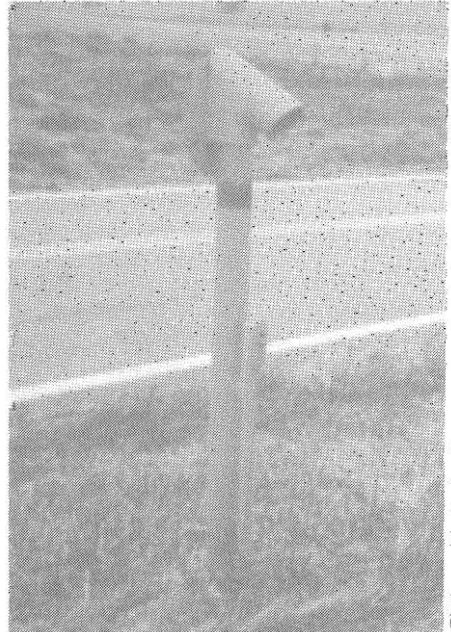
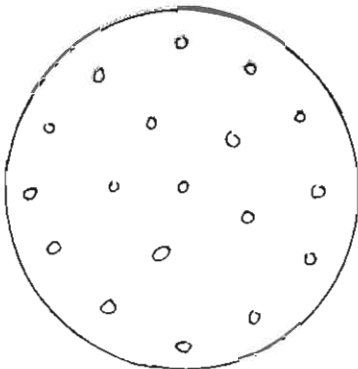
# Bluebird Nests Found in Gas Ventilator Pipes

Regina Cope

There is a petroleum pipeline not far from our home where I frequently walk. The pipeline is about 15 years old, but I noticed bluebirds nesting in the ventilator pipes about five years ago. The distance from the ground to the top of the pipe is five feet and the diameter of the entrance hole is four inches. The pipe is capped with a steel plate containing a number of small holes (Fig. 1). Bluebirds build their nests on this plate under the protective hood (Fig. 2) which means the nest cannot be seen. I found three pairs using these pipes in about one mile of pipeline in 1985. Several of the nests had eggs or young. ■

1181 Morgan Station Rd.  
Woodbine, MD 21797

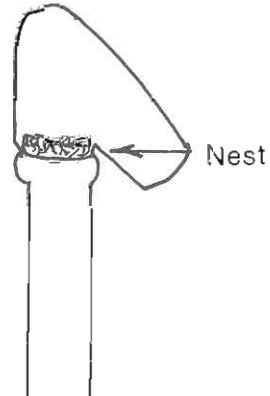
Fig. 1. Steel plate on which the nest rests.

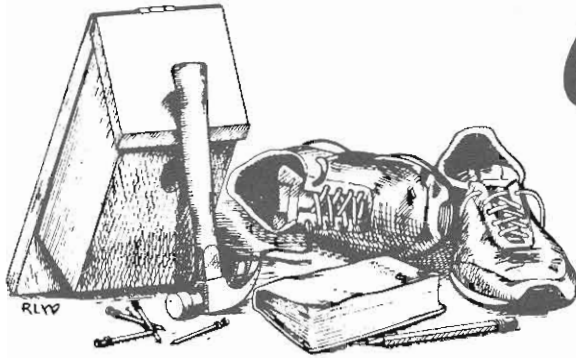


Photograph by Regina Cope

Exterior of ventilator pipe of type used by several pairs of bluebirds in Howard and Carroll counties.

Fig. 2. Cutaway view of ventilator pipe showing bluebird nest location.





# ON THE TRAIL

*"On the Trail" is intended to provide succinct information about bluebird and cavity nester trails. Let us know what is happening on your trail. Send trail reports, unusual observations, publicity efforts, etc., to the editor, 10617 Graeoch Rd., Laurel, MD 20707.*

**JOHNSON CITY, NEW YORK**—The Upstate New York Bluebird Society listed their 1985 results as follows: 46 people reported 695 successful nestings in 1,706 boxes for a total of 2,239 bluebirds fledged.

**CATAWBA, SOUTH CAROLINA**—The Bowater Carolina Company reports 1985 as another record year for bluebirds using their boxes. Forty-three percent of boxholders reported results with 7,202 birds fledged from 3,647 boxes in 21 states. Alvin Robinson of Union, SC, set a new record for the project with 22 birds fledged from a single box. This box had 23 eggs in four nestings. Overall, April and June were the most productive months. Over half the eggs were produced and hatched in those two months. The Carolinas, where most of the boxes are located, accounted for 6,375 bluebirds fledged.

**MOUNT SEQUOYAH, ARKANSAS**—Mount Sequoyah Jurisdictional Retreat Center has been named officially an "Outpost for Bluebirds" by the State of Arkansas. After the Fayetteville District youth constructed bluebird boxes, Rev. and Mrs. Don Waddell invited in neighbors and shared the idea of Sequoyah's becoming a sanctuary for the bluebird. Twenty-two boxes were put in place and another 30 are being placed on the grounds.

**BIRMINGHAM, ALABAMA**—On 5 December 1985 John Findlay III was honored for his work with bluebirds. His trails in the vicinity of Birmingham have produced more than 1,600 bluebirds. Charles D. Keiley, Director of Game and Fish Division, Alabama Department of Conservation and Natural Resources presented the W. Kelly Mosley Environmental Award for work in support of the State Nongame Wildlife and Bluebird Restoration Programs. Mr. Scott Colson, on behalf of the mayor, then presented Mr. Findlay with a citation recognizing his accomplishments and proclaiming December 6, 1985, as John Findlay III Day.

**HOWARD COUNTY, MARYLAND**—The more than 500 nesting boxes monitored by the Howard County Chapter of the Maryland Ornithological Society in 1985 fledged 1,343 bluebirds as well as Tufted Titmice, Carolina Chickadees, Carolina Wrens, House Wrens, Tree Swallows, and American Kestrels. Included in the totals were those from the "Bluebirds in the Parks" trail that the chapter co-sponsors with the Howard County Department of Recreation & Parks and the North American Bluebird Society. The 48 boxes are located on 11 pieces of county-owned parkland. ■

# QUESTION CORNER

Lawrence Zeleny



Two years ago bluebirds built a nest and laid five eggs in our box. When I noticed a lack of activity, I opened the box to find the female dead with a 1½ inch slit on the back of her head which looked like a deep cut. Do you have any idea what could have killed her?

Carleen L. Worstell  
St. Marys, West Virginia

A House Sparrow was the most likely culprit. These alien pests frequently kill both adult and nestling bluebirds in the nesting boxes, nearly always pecking them to death in the head and sometimes plucking out their eyes.

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If I attach bluebird boxes to metal posts 3½ feet above the ground, could chipmunks get to the nest? Are Mountain Bluebirds able to protect themselves and their nest against these intruders?

Don DeLong, Jr.  
Grand Lake, Colorado

Unless the metal posts are very smooth chipmunks are likely to be able to climb them. Keeping the posts coated with soft grease during the nesting season will usually keep them down. Bluebirds will usually attack and drive off chipmunks that come too close to their nests, but these little rodents are sometimes successful in raiding the nests during brief periods when the birds are not sufficiently attentive.

An unidentified reader in Wisconsin asks why nesting boxes with floor sizes less than the usually recommended 4 x 4 inches are not recommended for Eastern Bluebirds in view of the fact that the Downy Woodpecker nesting cavities commonly used by bluebirds usually have smaller floors.

It is quite true that bluebirds will accept and use successfully boxes with 3½ x 3½ inch or even 3 x 3 inch floors. However, in the case of large broods overcrowding is likely to occur in these small boxes, often resulting in serious sanitation problems. I made careful daily observations of a brood of six raised in a 3½ x 3½ inch box. After the nestlings were about 10 days old, the parent birds appeared to have great difficulty trying to keep the nest clean and an excessive amount of fecal material accumulated. During the last two or three days before fledging, two and sometimes three of the nestlings were always perched on top of their siblings since there was not enough room for them on the floor. (I hoped that these birds traded positions from time to time!)

Boxes with 5 x 5 inch floors are sometimes preferred for Mountain Bluebirds since they tend to have somewhat larger broods than either their Eastern or Western cousins. ■



# Hardware Cloth Snake-Proofs Nesting Boxes

Ollie Mae Knapper

When I first erected nesting boxes, I soon realized something had to be done to protect the boxes from snakes as the second nestings were usually lost. I finally came up with an idea which ended the snake problem for me.

Cut ¼-inch mesh hardware cloth (other size mesh may be used if it is stiff) in a 30-inch square. Cut the corners off for your own convenience. Make two slits at 90 degree angles in the center large enough to slip over the mounting post and fold back the corners (see Fig. 1). Use staples to attach the guard to a wooden post. This is not an expensive solution; it is neat and will last seemingly forever.

I have used this method for over 20 years. My nesting boxes are all made of redwood. The boxes, posts, and screens have been in use all those years. At one time I had 21 boxes but have since sold most of the land so I'm down to seven houses. Last year 20 bluebird nestlings fledged as well as wrens and chickadees.

Only once has a large animal torn the screen off; otherwise, there has



Photograph by Ollie Mae Knapper

Nesting box with hardware cloth predator guard attached to post. Whisperwood Gardens, Canton, Texas.

been no trouble with predators of any kind. The screen may bend under heavy snow which we seldom have here, but it is easy to remove during the winter months and can be bent upward if it slants too much. The birds appear to appreciate the screen and do most of their battles on it. It gives the bluebirds a better chance to fight off the sparrows. Normally, bluebird young do not come out on the screen but fly off directly from the house opening. If they did land on the screen, they could easily hold on. ■

Route 1, Box 34  
Canton, TX 75103

Fig. 1 Hardware Cloth Predator Guard



## Trail Directory Additions

If you have monitored a trail of 50 or more boxes for three years or more and would be willing to offer advice, tours, or a site for research give us your name, telephone, address, time tours would be possible, and the county, city and state where your trail is located.

Mail above information to Bluebird Trail Directory, NABS, Box 6295, Silver Spring, MD 20906-0295.

# PLANTINGS FOR BLUEBIRDS AND OTHER WILDLIFE

## Serviceberry For Summer Fruits

Karen Blackburn

The serviceberries are a widespread group of trees and shrubs which have given rise to numerous common names including Juneberry, Saskatoon, Shadblow and Shadbush. The latter two names were apparently inspired by the return of spawning shad to northeastern rivers at a time which coincides with the bloom of *Amelanchier* species.

Because serviceberries are among the earliest trees and shrubs to flower, many species are planted as ornamentals. Smooth Serviceberry, which usually attains the stature of a small tree, makes an attractive addition to the landscape in addition to providing summer food for wildlife.

### Smooth Serviceberry (*Amelanchier laevis*)

**Native Range**—From Newfoundland to Georgia, west to Minnesota and Kansas.

**Hardiness**—Zone 5

**Habitat**—Generally occurs in dry to moist woodlands, but may also be found on open sites.

**Habit**—A small deciduous tree reaching thirty feet in height. Finely-toothed leaves are arranged alternately along the branches. Autumn foliage is red-dish-bronze.

**Fruit and Flowers**—Clusters of white flowers appear in spring. Fruits are 1/4" dark purple pomes which are borne in loose clusters during the summer months. Fruits are edible.

**Landscape Value**—With its clusters of delicate white flowers, Smooth Serviceberry is attractive in the landscape whether used alone or planted with others of its kind in a natural woodland setting.



**Culture**—Tolerates full sun, but light shade is likely to be beneficial, particularly in southern portions of its range.

**Sources**—Mail-order nurseries frequently offer *Amelanchier* species.

**Wildlife Value**—Fruits of the Smooth Serviceberry are eaten by at least eighteen species of birds including the Ruffed Grouse, Mourning Dove, Eastern Kingbird, Eastern Phoebe, Gray Catbird, Brown Thrasher,

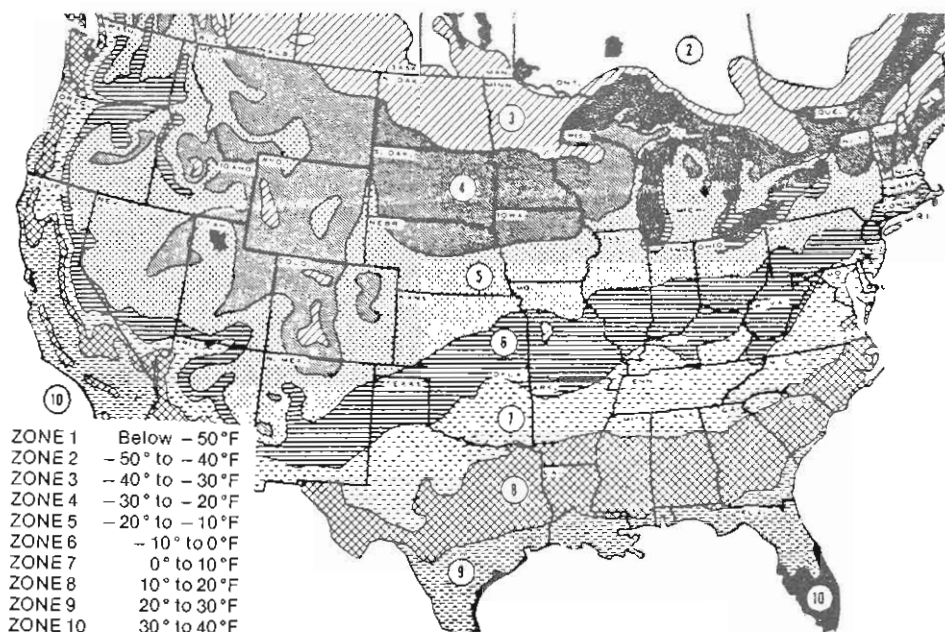


Figure 1. Hardiness Zones for the United States and southern Canada. Temperatures for each zone are the average annual minimum temperatures. When no zones are mentioned with the plant description, plants are hardy anywhere. If a zone is given, it indicates that plants are hardy within the zone and in all areas south of it. 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.

American Robin, Eastern Bluebird, Cedar Waxwing, American Redstart, Northern Oriole, Rose-breasted Grosbeak and American Goldfinch. Other consumers of serviceberry twigs, foliage, fruit or flowers include deer, beavers, rabbits, foxes, flying squirrels, red squirrels, chipmunks and bears.

Amelanchier species are found throughout North America. These may occur as shrubs or small trees in a wide variety of habitats ranging from wetlands to dry, rocky slopes. At least thirty-five species of birds are known to use the Amelanchier species within their ranges. ■

**Related Species**—A number of

Rt. 3, Box 213  
Marianna, FL 32446



### WANTED: Back Issues of *Sialia*

Many new members and libraries desire complete sets of back issues which we are unable to supply. The following issues are needed: Volume 1:1,2; Volume 3:2 and Volume 4:2. Mail these back issues to headquarters and claim a \$2.50 tax deduction for each.

North American Bluebird Society  
Box 6295  
Silver Spring, MD 20906-0295

# Nesting Box with Glass Front Fledges Fifteen Bluebirds

Horace Abee

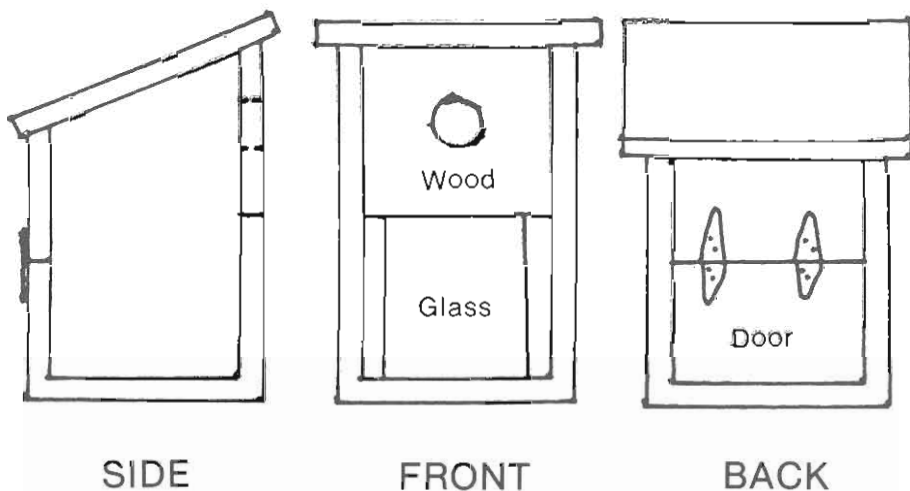
I ordered plans for bluebird nesting boxes from your organization a few years ago. They have worked out fine. I build new ones each year. Last spring I tried building a box to the usual dimensions but with a glass front in it so we could watch the bluebirds. I framed the unbreakable glass in the lower two-thirds of the front so it would not come out. I also put a door in the back in order to make it easier to clean the box after each nesting. I mounted the box in the front yard in front of a picture window so we could watch it.

The glass did not seem to bother the bluebirds. We could see the female sitting on eggs and later watch the young birds being fed. Three broods of five bluebirds were raised in the box during 1985 for a total of 15. The young birds came back frequently after they had left the nest. They would sit on the box and go in and out of it. ■

Route 5, Box 808  
Lincolnton, NC 28092

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*Editor's Note:* As intriguing as this idea sounds, especial care must be taken in the placement of the box. Use this design on private property only, and mount the box to face north or put it in sufficient shade so that it does not overheat on hot, sunny days.



Diagrams by Robert P. Solem based on those of Horace Abee

# What Happens When a Parent Bluebird Dies?

Lawrence Zeleny

**T**he hazards of being a bluebird or any other kind of bird are very great, and tragedy often befalls one of the parent birds during the crucial nesting period. What then happens to the eggs or young birds that may still be in the nest? Is there any way we can help to save them? One of my correspondents bemoaned the fact that the male bird of a pair of bluebirds nesting on his property died while his mate was incubating her eggs.

1. Should I destroy the nest?
2. Will the female leave the nest?
3. Will the female get another mate to help with the brood?
4. Will the female be able to sit two weeks without a mate to feed her? Will she sit there and starve to death?
5. Will she be able to feed the little birds by herself?
6. Will she take another mate for a second brood?

In answer to the first question, bluebird nests with eggs should never be disturbed or removed from their nesting boxes or cavities on the assumption that they have been abandoned unless one has positive proof that they are not being cared for. One should remember that newly laid eggs are left in the nest unattended usually until the last egg of the clutch is laid. One egg is laid each day until the clutch of from 3 to 6 eggs, rarely more, is complete. Even during the 13 or 14 day period of incubation the eggs may be left unattended for periods of up to an hour or

more, especially on warm sunny days when the eggs will not cool rapidly. If bluebird eggs remain unhatched in the nest for more than 16 days after the last egg is laid one can then usually assume that they will not hatch, although incubation periods as long as 21 days have been reported.

When the male bluebird dies while the female is incubating her eggs, the female may desert her nest, but there is a good chance that she will continue to incubate her eggs and raise her brood. It is unlikely that she will acquire another mate at this time, although she may remate later in the season in order to raise a second brood. She will not starve as long as food is available. Although, normally, the male bird supplies the female with occasional choice insects while she is incubating, this seems to be more of a token of his love and devotion than a major source of the female's food supply. She leaves her eggs often enough to obtain most of her own food and, if necessary, all of it.

When the young birds are hatched the widowed mother must indeed work hard to raise her brood, since she then must supply double the amount of food that she would need to furnish if she had the help of her mate. Unless the brood is large and the weather unfavorable for insects, she is usually quite capable of this difficult task. If the brood is the second or third of the season, one or more of the young birds of an earlier brood will occasionally help feed the new

brood. This kind of assistance in the feeding and care of younger siblings is relatively rare in the bird world, but it seems to occur more frequently among bluebirds than among most other species. In many ways bluebirds appear to have remarkably strong family ties and what, in human terms, would be thought of as a sense of family loyalty.

If the widowed mother bluebird has no help from others of her kind and if the weather is cold and wet so that insects are scarce, we may be able to help by supplying her with food. Small amounts of canned dog food, ground beef, or small pieces of hard-boiled egg yolk may be placed in a conspicuous spot near the nest, *never in the nest*. Meal worms, obtainable at many pet shops, are particularly good for this purpose. Do not attempt to feed the nestlings directly as the mother bird is much more skilled at this task.

A few years ago I made frequent and careful observations of a brood of bluebird nestlings which had quite obviously lost its father. The brood was being fed and cared for by three females, two adults and one immature. These were presumed to be the mother bird, an unmated adult female, and an immature female of an earlier brood. These three female birds were carrying on their domestic duties in complete harmony. They were frequently seen sitting together on a fence near the nest, each with an insect in its bill, carrying on friendly bluebird "conversation." Each took her turn feeding the nestlings and removing the fecal sacs from the nest. Here the widowed mother bird was not overworked and the nestlings were fledged on schedule in perfect health. In a case like this one

wonders whether the much-needed domestic help was solicited by the mother bird to ease her burden or whether it was provided voluntarily. No one knows the answer, but one might speculate that the unmated female was deriving a certain satisfaction from her work and that it was being done in partial fulfillment of her maternal instinct.

The male bluebird's devotion to his family is, in most respects, fully equal to that of the female, even though he will not incubate the eggs if the female should die before they are hatched. He is simply not physically or temperamentally equipped for the arduous task of incubation. But if the eggs are already hatched when the mother bird dies, the male will usually raise the brood with the same devotion to duty that the widowed female exhibits. If no help is forthcoming he will exert all possible effort to raise his family single-handedly, and he usually succeeds.

Several years ago a pair of bluebirds nested in a nesting box in our own backyard for the first time in many years. When the second brood of nestlings was seven days old the mother bird died, possibly as the result of a massive regional insecticide spraying operation on the preceding day. Naturally, we were concerned about the fate of the new brood. But the father bird never faltered in caring for his babies. Then to our surprise and immense satisfaction the two surviving young birds of the first brood, both males, soon joined their father in feeding their infant brothers and sisters. These juvenile male birds were only eight weeks old and had been capable of finding their own food for only about three weeks. Yet they con-



tributed their full share to the support of the family, carrying food to the baby birds every few minutes from dawn to dusk for nearly a month until the younger birds had left the nest, learned to fly and, finally, learned to find their own food.

Again one asks what prompted these very young and immature bluebirds to undertake such a difficult and time-consuming task that is normally not expected of young birds that age. Were they "ordered" to pitch in and help by the father bird? Did they "understand" the nature and seriousness of the family emergency and volunteer their services from a sense of family loyalty? Or was it by sheer coincidence that these two young male bluebirds should be among the few of their kind that feel the urge to feed their younger

siblings, and did they just happen to start doing this right at the crucial time when the family emergency arose? None of these explanations seems plausible, yet what other possible explanations can there be? We are warned against ascribing human attributes to "lower" animals, particularly to birds, which are presumed to have a low order of intelligence and to be guided only by blind instinct. Yet, when we have the time and patience to study intimately the lives of individual wild creatures, we are often filled with wonder and may ask ourselves if we are really as superior to all the rest of God's creatures as our conceit has led us to believe. ■

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*A substantial portion of this article first appeared in Purple Martin Capital News (now Nature Society News), May 30, 1973. It is reprinted with permission*

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## A MERRY MEETING

William McCarron

*In the northeast corner of Massachusetts where I live, spring is sometimes slow to arrive. During April of the year of this story there had been three long weeks of rain and cold. On the morning of the meeting, the weather had changed; it was beautifully sunny and warm.*

*My dog and I were walking in mixed pines and hardwoods. We met a flock of possibly sixteen chickadees. A pair of White-breasted Nuthatches was with them.*

*I had been feeding these birds all winter. I looked for a place to sit down. The birds followed me until I found a suitable spot. There was a moss-covered rock with a Black Birch growing against it which made a nice place to sit. Also, there was a stump within reach; I put a couple of handfuls of sunflower seed on it.*

*My jacket pockets were always filled with seeds before a hike in the woods. More seeds were put on the visor of my cap, and I held out some in the palm of my hand.*

*These birds had been tamed the fall before. Some chickadees felt safer on my hat where my eyes were invisible, but most of them came readily to my hand. The nuthatches never came to my hand, nor would they land on any part of me. A half hour passed. Most of the birds were now hiding their seeds. They usually took one seed although sometimes they took two*

if they could manage it.

I watched the nuthatches as they hammered their seeds into the bark crevices of a young hickory tree. The chickadees hid theirs in rough bark, too. They found many hiding places. Some seeds were put between the stones of a nearby wall. Tree crotches were also used. One chickadee tucked his seeds carefully into the moss of my stony chair.

Before resuming our walk, I waited patiently for the chickadee on my leg to fly away. He was staring intently downward and to my left. A plump snake, bright with yellow and brownish-black stripes lay there. It was a garter snake which was at least two feet long. It seemed likely that it was a female because the males are shorter and slimmer.

Very slowly my left hand reached down. Her split tongue flicked at my fingers and barely touched them. I felt nothing.

A chickadee left my right hand, flew under my right knee, under my left knee, and over the snake's head. The bird on my leg flew up, then down, under my right and left knees, and over the snake. One after another the chickadees came and finally the two nuthatches. All of them flew under my right and left knees and over the snake. There were no alarm calls; soon the birds started taking the seeds again.

The snake crawled along my outstretched legs. Her tongue tested my sun-warmed leather boots. She crawled right up there where she curled up in the warmth for a while, then came down on my right and toward my rock and turned left.

A thin stick lay in her path, its center held an inch or two above the ground. A chickadee landed right there in front of the snake!

My right hand dropped its seeds. I leaned over so that I could deliver a karate chop across the snake's back, if necessary. That bird wasn't going to be killed if I could help it.

The curiosity that slew a cat, now saved a snake. I wanted to find out if snakes actually do hypnotize birds. This was not a poisonous snake, and I could rescue the bird if I had to. The snake's tongue flicked at the bird's beak.

After hand-feeding birds for so many years I'm convinced of their intelligence. I have seen happiness, fear, anger, and other emotions on a bird's face, and the expression changes readily.

That chickadee's eyes remained bright and alert. He did not appear to be under hypnosis. He had a pleased expression. I have never had much chance to observe snakes at close range, but, to me, this one appeared to take an equal pleasure (or at least interest) in the bird's company.

What seemed like a long half minute went by. That chickadee flew away, and was replaced by another. This one only stayed a few seconds, and was replaced by a different one. Bird after bird landed in front of the snake. All seemed to "enjoy" the snake's company. I waited to see if the nuthatches would visit the snake, but they did not.

After the snake had gone off into the woods and when no birds were on me, I got up to leave. I left plenty of seeds behind me, and decided to go home and write down the details of this merry meeting. ■

# Bluebird Roosting in Cold Weather

Laurance Sawyer

*December 13, 1985*—A lone male bluebird occupies one of my boxes overnight.

*December 14-19*—A single male each night. Weather is cold. May freeze if left alone in the cold so we take him in each night.

*December 20-24, 1985*—Two bluebirds in the box.

*December 25, 1985*—Six in the box.

*December 26, 1985*—Ten in the box.

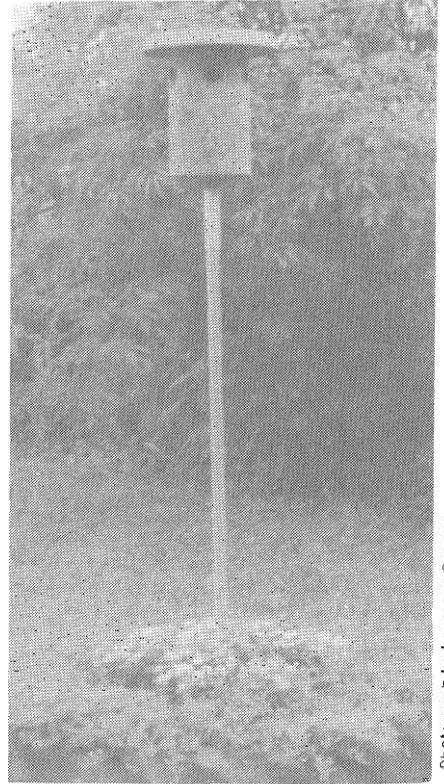
Better bluebird weather. No roosting birds for several days, then one or two occasionally.

*January 26, 1986*—Temperature about 5°F and snow. A half dozen or more bluebirds in one box and a couple in another.

*January 27, 1986*—A cold night. Counted the birds as they left the two boxes early the morning of the 28th. Four left one box and 17 left the other (a blue tail had hung from the entrance of that box during the night).

*January 28, 1986*—A 14-bird night in one house. The other sheltered six. Nice and warm in the boxes where they were roosting. Today's temperature is 40°F, not a problem for the bluebirds of Georgia.

Bluebirds roosting overnight in the company of one another in nesting boxes is interesting but not remarkable. The unusual twist is that in temperatures of 0°-20°F we bring the boxes, including the bluebirds, into our house. In order to be able to do this, the nesting box must be easily removable from its support and must be maintained in an upright position until set outside again at dawn. Our method of construction and mounting enables us to lift the box off its supporting tube and set it temporarily in another tube on a pedestal standing on a board across the bath tub. The bathroom door is then closed producing a cool (45°-50°F) but not freezing location for the night. We have, on occasion,

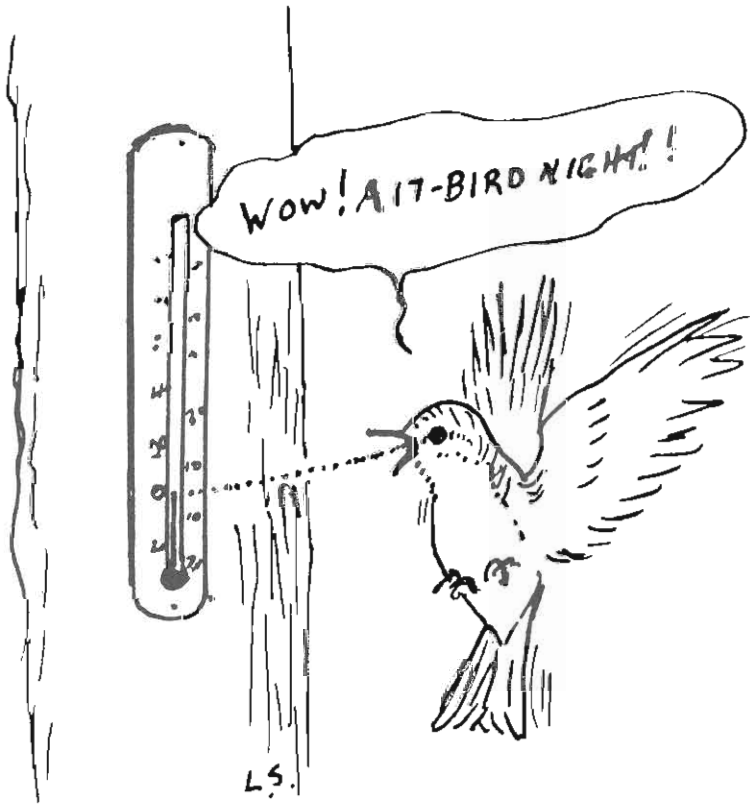


Photograph by Laurance Sawyer

Five-hole log nesting box of the type nightly used by bluebirds in cold weather. It is easily removed from the support pole.

allowed the bluebirds to exit through the bathroom window by raising the shade and lower sash before daylight making sure that the entrance hole on the box faces the window.

On cold winter nights just after dusk (or later) I go to the several nesting boxes on our property (all are hollowed logs with ¾ inch sides), remove each from its pole and, unless I can see inside readily, I lower my fist inside the box until it reaches birds or nest, whichever comes first. Usually, the warmth of the birds reveals their



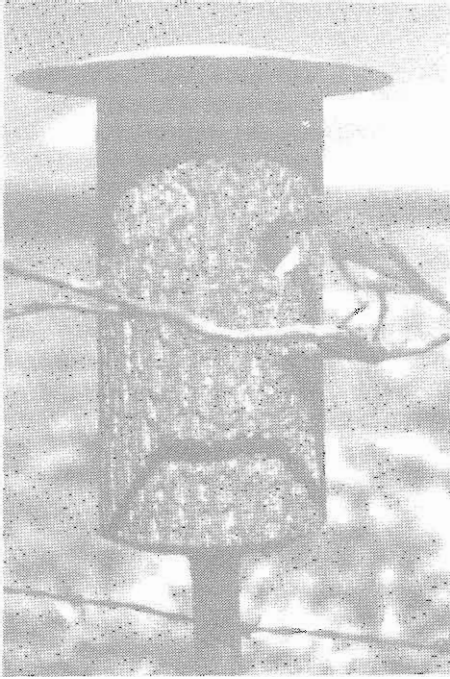
Cartoon by Laurence Sawyer

presence. If there are birds within, I bring the box inside. Normally, the box is placed on the open porch before sunrise.

We think that 3°F and 5°F (the temperature the two nights when 17 and 16 bluebirds respectively occupied the same nesting box) is cold enough to endanger the birds unless we intervene. Of course, we have no way of knowing for certain the critical night temperature which might kill a bluebird, but on a cold night the previous winter when 10 bluebirds shared a box, one was dead at the bottom. One of our customers found five frozen bluebirds in one of his boxes the same winter.

The number of bluebirds roosting in a box does make a difference in how much heat is generated. The night that the 17 roosted together I put my hand

inside the box after 16 had left in order to pick up the last one which was going around in circles, and the air felt very warm. That last bird might have been affected by a lack of oxygen; at any rate, after a few moments in the open he left my hand appearing to be all right. On the other hand, during several nights when the temperature was just below freezing, I checked boxes in which there were only one or two birds. Their back feathers were cold to my touch. One year we put a thermometer inside the box and found it registered 35°F when it showed 20°F outside the box. By the way, a possible record was set a few seasons ago when one individual found 25 bluebirds roosting in one box. According to the owner of the house, they all emerged after a night of bitter cold and lined up on a convenient fence rail where they could be counted easily.



Photograph by Laurance Sawyer

One of Laurance Sawyer's nesting logs with a Mountain Bluebird perched at it was photographed July 1985 at the Ellis Bird Farm, La Combe, Alberta.

For additional comfort and ease of cleaning, we have packed a layer of  $\frac{3}{4}$ -1 inch of short dry grass clippings into the bottom of the boxes forming a flat nest or floor covering carefully covering all drainage holes and corners. We keep dry grass on hand for this purpose during the winter months. To clean, we just up-end the box and jar it against the ground which shakes out droppings from the bottom of the cavity. Although a few may adhere to the side walls, an old table knife will scrape them off.

We also use another method of insuring survival in greater comfort for the birds which are packed into a box for the night. At the bottom of the heap there is not only the obvious pressure of the bodies above but a lack of air circulation. By lifting half of the birds, one at a time, from the chosen roosting box and moving them to a second box, there will be more room for each group.

Another method is to put all of them in a grass-floored cardboard box with a screened cover. It is also possible to lay the roosting box on its side (with the top removed) in the wire-covered box. The birds can rearrange themselves into more comfortable positions in this larger area. Just be sure to take the whole thing outside in the early morning and remove the screen. All of this must, of course, be done in darkness. The birds will usually not attempt flight unless they can see.

We have sometimes kept a large number of bluebirds in a cardboard box floored with dry grass. If a nesting box is fastened securely to a tree or pole so that it cannot be moved, we just lift the birds out carefully, one or two at a time, and place them in a box for the night in some cool place inside our home. They will leave at dawn when the box is uncovered out-of-doors. Holes for ventilation must be cut in the box, of course. Talk a bit while the birds are being moved. Subdued human voices seem to have a soothing effect on them.

What we do is rather "far out" perhaps, but if a few thousand bluebirds are saved by enthusiastic humans who intervene in this fashion, this eccentricity may be tolerated. ■

Rt. 1, Bluebird Lane  
Ringgold, GA 30736

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## Bluebird 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 Frustrated Bluebird

Helen Bruss

After distressing incidents with flying squirrels and cats, we have discovered another nemesis of the bluebird—his own reflection! The flying squirrel problem was solved by removing the nesting box from a tree and installing it on a post covered with PVC pipe. Later, after a neighbor's cat caused the birds to abandon a nest, we moved the box to the opposite side of our house where we could watch it better.

The very next day prospective tenants were examining it. A male bluebird perched on top of the box, flew to a nearby tree, returned and ventured inside. After two days of intermittently investigating the surrounding area, he brought his mate. She inspected the house thoroughly from all angles. Apparently, she approved for within a few days both birds were flying in and out of the box. However, before starting the nest, Mr. B. found a visitor he could not deter—he saw his reflection in the mirror of the pickup truck in our parking area about 40 feet from the nesting box.

All day he tried to discourage this handsome fellow, who was as persistent as himself. He circled the truck and saw the same bird in the mirror on the other side. Deciding to outstay the intruder, he perched on top of the mirror, periodically peeking down; and, inevitably, there was his identical twin staring back at him. At times, Mrs. B. tried to join him, but his usually soft "churlee" became more strident. He seemed to be saying, "Stay away from here until I get rid of this interloper." As dusk closed in, he remained at his post.

In the first light of dawn, I looked out a window and, yes, there was a stubborn bluebird sitting on the truck mirror. Nest building had definitely been put on hold.

In an effort to steer the birds back to the nesting box, we put paper bags over both truck mirrors. The antics of Mr. B. soon became comical. He assumed every possible observational position. He sat on the hood, clung to the window ledge and the top of the truck, swung from an overhanging twig, then flew below the mirror and tried to look up into the paper bag. Finally, glancing ever downward, he landed on top of one of the bags.

At this point, my husband said, "Enough!" He parked the truck some distance away, out of sight. But it was too late. Evidently, the bluebirds had become convinced that the other bird must be hiding somewhere in the vicinity, for they disappeared and did not return. ■

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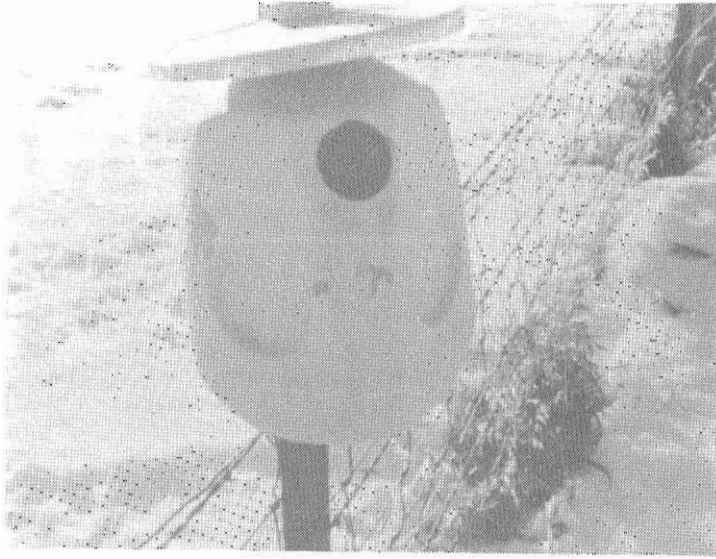
## Television Commercial Available for Loan

A 30 second public service announcement (PSA) TV commercial promoting bluebird conservation has been produced by NABS. Copies of the tape are available for loan to members.

Six copies of the 3/4-inch video tape cassette are available for a small charge to cover postage, mailer, and handling. In order to obtain a copy of the commercial, write to Richard J. Dolesh, 17800 Croom Road, Brandywine, MD 20613. Enclose a check to NABS for \$2.50. The tape should be returned in the enclosed self-addressed mailer within 10 days. Loan is on a first-come, first-served basis.

# Ice Cream Carton Lids Shade Plastic Jug Boxes

Donna Rourick



In order to provide some shade for my plastic jug boxes to reduce the inside temperature, I make roofs from the lids of 5½ quart pails of ice cream. The lids are 8½ inches in diameter. They are large enough to shade and keep rain from the entrance hole as well as covering part of the rest of the jug.

I measure in about 2½ inches from one edge (Fig. 1) for the center of the hole which is cut out to fit over the jug's opening. Use the top or the cap of the jug for a pattern and draw around it. Cut the hole slightly *smaller* than this mark. Force the lid over the threads of the jug and replace the cap. Paint the lid along with the jug. I have had some problem with paint peeling and would appreciate any suggestions as to how to prevent it.

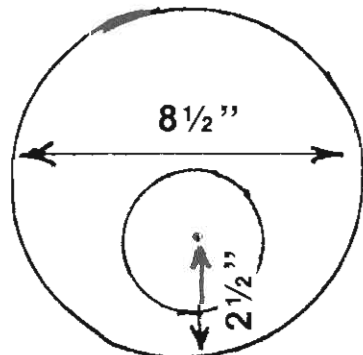
I had five or six plastic jug boxes on my trail last year and fledged four bluebirds from one. I have had no problems with House Sparrows claiming them so far and that is a real plus in my area. I am adding another 15 plastic boxes this season. Most of them are used as a second box near a wooden

one.

Another tip that may be useful: I use nylon hose to tie the handle of the jug to a steel post. The nylon conforms to the shape of the post and makes the box very secure. I then wire it below the handle for further stability. ■

RR #1  
Wiota, IA 50274

Fig. 1. Ice Cream Carton Lid for Plastic Jug Box



# 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:

Please never let my subscription expire; it is part of my life.

Elizabeth C. Gailliot  
Alexandria, Virginia

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Dear Editor:

Between the first and middle of February when I see House Sparrows investigating my bluebird box, I place a stick so that it protrudes out of the entrance hole.

I remove the stick about five or six weeks later. Usually (but not always) the sparrows will not return then. I have had bluebirds move into the box just a day or two after I remove the stick.

E. Shoemaker  
Sophia, North Carolina

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Dear Editor:

Last winter we moved into a new residential development, Hershey's Mill, northwest of West Chester. Early in the spring I built and mounted three nesting boxes using your plans. Although I had not seen a bluebird in 40 years, within a week two of the boxes were occupied. The whole neighborhood is excited and many more boxes were built and mounted near the golf course. I hope to start a trail around the course. It's a most rewarding endeavor.

John E. Miner  
West Chester, Pennsylvania

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Dear Editor:

My wife and I have been putting up nest boxes for the past four years here in the Littleton area. We now have over 300 nesting boxes with good results with the Mountain Bluebird and Western Bluebird.

We noticed the letters about numbering the boxes. I'm sure I'm not the only one to think of this, but a wood burning tool works beautifully in numbering the boxes. The numbers will last the life of the box, there is nothing to attach and fall off, and nothing for vandals to steal. It's an easy, economical method. I've had the best results from using a round tip.

I do have a question about House Sparrow control with the roof streamers. Do these streamers deter other native cavity nesting birds such as Violet-green Swallows? We would hate to lose these "acrobats of the sky."

Glenn F. Savage  
Littleton, Colorado

Dear Mr. Savage:

*Thanks for the tip. Burning the numbers on the box has definite advantages. We can't answer your question about the swallows because no one has reported the results with that species. We know that titmice, chickadees, and wrens are not bothered. Why don't you try it with a few boxes and let us know how the swallows react?*

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Dear Editor:

A study of the nesting record of a pair of bluebirds nesting near our residence in 1985 disclosed the following: If a careful record is kept of the date the last egg of any clutch is laid, the young birds will leave the nesting box on almost exactly the same date the following month. It may be one day earlier or one day later because some months have 30 days and others 31.

Morris Green, Jr.  
Walkersville, Maryland

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Dear Editor:

Our method of control is to let the female House Sparrow build her nest and lay her eggs and then destroy the whole thing. After a couple of tries, she will get discouraged and go elsewhere, or perhaps the urge to reproduce is gone. It works for us.

H. and L. Poulter  
Shenandoah, Virginia

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Dear Editor:

I would like to reestablish bluebirds in New Jersey where I own 11 acres of wooded land.

Please send me all of the available information on bluebirds and information on where and how I could obtain two or more pairs of breeding bluebirds, youngsters, or bluebird eggs to start this project.

Besides loving these little feathered insectivores, I'm a breeder of homing pigeons.

Sandor Gaspar  
Bound Brook, New Jersey

Dear Mr. Gaspar:

Sorry, bluebirds cannot be bred like pigeons. Federal and state laws preclude possession. Erecting nesting boxes in the correct habitat, monitoring them carefully to prevent occupation by House Sparrows, and the planting of native berry-bearing trees and shrubs are all methods by which bluebirds can be aided.

Dear Editor:

I am enclosing a clipping from this year's "Gardener's Supply Co." catalogue in which they, once again, tout their "exclusive" Red Spheres that trap apple maggot flies. (An apple-like sphere is coated with an adhesive substance.) Unfortunately, the spheres are also killers of songbirds which become stuck to the surface and die horribly there.

I have written to the company urging them to discontinue the product or, at the very least, place a warning on them about the risk to our songbirds. Please publish a warning in *Sialia*.

Ehrenberg  
Rochester, Minnesota

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Dear Editor:

I made a very interesting and tragic observation in one of my bluebird houses in the early summer of 1984. While observing the male bluebird bringing food to the mother sitting on the nest, a female Red-cockaded Woodpecker stuck her head in the hole of the nesting box and killed the mother bluebird by pecking a hole in her head. I would like to know how I can discourage this type of cannibalism without having to declare war on all sapsuckers and woodpeckers.

J.S. Pilkington  
Riverside, Alabama

Dr. Zeleny answers as follows:

Dear Mr. Pilkington:

Your observation of a Red-cockaded Woodpecker killing a female bluebird on its nest is believed to be unique. In fact, we have never before heard of any species of woodpecker behaving in this manner. Even if this should prove to be a common habit of the Red-cockaded it could hardly be considered a serious threat to the bluebird because of the rarity and very restricted range of this woodpecker. We have been told, however, of instances where bluebirds have taken possession of nesting cavities that Red-cockaded Woodpeckers had so laboriously hewn in living trees. ■

# Bluebird Tales

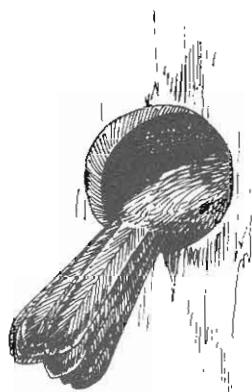
Mary D. Janetatos

This was the year of "musical nest boxes" at NABS headquarters. The yard contains three "formal" nest boxes: one Sawyer loghouse; one standard NABS type, and one front-opening style along with two "informal" nest sites: a deco-type which hangs on the flag clip attached to the front of the house and the Sawyer many-holed hollow log feeder. The players are a pair each of bluebirds, House Wrens, Tufted Titmice and Carolina Chickadees. The bluebirds built a nest in both the NABS nest box and the front-opening one. Then they deserted the yard—was it because the female couldn't drive off the reflection she kept attacking? The chickadees started three nests building in the NABS nest box, in the log house and in the deco-box. They finally settled in one of the many holes in the log feeder where the female laid seven tiny eggs. The House Wrens after marauding all the cavity nesters in sight finally moved on, without nesting. The Tufted Titmice examined everything, and then quietly beat out the House Sparrows (with some human help) to nest (with five eggs) in the NABS nest box. The final installment (perhaps) occurred when Joann T. of nearby Burtonsville, MD, called to say she has a female bluebird attacking her reflection in a window. Is that where the backyard bluebird pair went?

**Norman Wilcox** of Grayson, GA, reports that he unwittingly removed a Tufted Titmouse nest (illegal, as they are a federally protected species) and placed it in another box. When the female laid five eggs in the bare bottom of the same nest box, Norman replaced the nest *under* the eggs! In another case a woman said that it seemed to her that a House Wren had moved her own eggs from one box to another!

This seems preposterous, but can be topped by **Carol Gebhalian** of the Caroline County (MD) Bird Club who said someone showed her a nest box with five chickadee eggs and four bluebird eggs. She wondered what would happen. We'll keep tabs on it because all of these happenings—plus **Larry Zeleny's** trail results to date which show a retarded season compared with last year—bespeak a WEIRD but lovely spring.

This year those with nesting bluebirds may later decide to try WINTER Feeding of bluebirds. This can be a highly speculative



practice. It is *not* so speculative for North Carolina veteran bluebirders **Gay Duncan**, **Jack Finch** and their cohorts, who harvest the dogwood berries and place them inside the special Finch nest boxes. [For more details, write to Bluebird Homes, Rt. 1, Box 341, Bailey, NC 27807.] Others question whether bluebirds can winter in their area, or report success feeding them. **Carol Retzlaff**, of Spartanburg, SC, asks, "Where do they winter?" It seems to me we see bluebirds briefly every few weeks throughout the entire winter. I have the idea they drop by to check on their house, to find out if it is still going to be available later." I think you've answered your own question, Carol. **Sarah Heddings** of Northumberland, PA, says, "This winter I have had seven at one time." From Kennett Square, PA, **Susan Beach** reports, "Eight bluebirds roost every night in backyard—they came in at 5 p.m. So exciting!" **E.V. Bauch** used a vintage NABS survey form and wrote, "This is our third season with bluebirds. They stay all year—we feed them crushed peanuts in Winter—mashed, scrambled egg yolks when babies are small." **Edith Miller** of Kings Mountain, NC, says, "At present we have a hollowed coconut shell suspended from a wire attached to a long pole held by a flag clip on our deck and the parents are feeding the young the mix." So, try winter feeding and tell me if it works.

Mountain and Western Bluebirds are receiving notice. **J.V. Hurst** of Port Stanley, Ontario, sent a clipping from *The Globe and Mail* dated in June 1985. "The only Mountain Bluebird known to be in Ontario this spring raised a family... With no female of its species likely closer than western Manitoba, the eastern edge of their range, the stranger mated with a female Eastern Bluebird... The nest was in a bluebird box oper-

ated by **Joe Hurst** near Port Stanley on Lake Erie... **Ross James** said the mountain-eastern hybrid occurs sometimes where the ranges overlap on the prairies." The January-February issue of *Idaho Wildlife* features "Welcoming Idaho's Bluebirds Back Home" by **Clarice Herrmann**. The article mentions **Al Larson** of Boise and his "107 nesting boxes on trails near Silver City." It also features the work of **Al and Mary Perry**, also of Boise. **Clarence Hagerman** of Pinehurst, ID, bands bluebirds and has enlisted the help of his daughter, **Donna**, who lives in Nevada which, like Idaho, boasts the Mountain Bluebird as its official state bird.

The April 1986 issue of USAir's magazine featured an article by **John Doria** entitled "Bluebirds Are Coming Back." NABS' address was given and hundreds of inquiries have been received. Some individuals ask to be put in touch with NABS charter member **Beresford Procter**, of Mamaroneck, NY, who has built boxes and promoted bluebird conservation for many years.

In one USAir response, **Tom Smith**, of Surickley, PA, remarked on the work of **Oliver Smith**, also of Surickley, and asked for NABS information for himself and for **Mr. Smith**, not realizing that **Oliver Smith** has been a long-time NABS activist!

The *Mother Earth News* contained a bluebird article giving NABS' address, which prompted **Berks County (PA) Prison Warden George A. Wagner** to ask for the Society's information on bluebird conservation procedures. I can't think of a finer way to work toward rehabilitation—of the prison population and the bluebird population.

**William G. Thomas**, outdoor education teacher at **Romulus (MI) Junior High School** sent word of being "able to begin a project to help restore the bluebird" through his classes there.

Many bluebirders are devoted to providing on a large scale the most needed basic element in bluebirds' lives: housing. Among those whose names have recently surfaced are **Joe Suess** of Brookeville, MD, **John Davidson**, of Dickerson, MD, **Ed Weaver**, of Perry, GA, **C.H. Clevenger**, of Winchester, VA, **Jerry Newman**, of Rising Sun, MD, **Milam Cater**, of the Culpeper (VA) Baptist Retirement Community, **R.J. Bradley**, of Charlottesville, VA, and **Clif Grant**, of Columbia, MD.

Bluebirders who promote NABS and who have recently come to my attention are **Bob and Carol La Pres**, of Twin Lake, MT, and **Fran Libertare**, of Germantown, MD. **Christine Schaefer**, active in the **Muncy, Pennsylvania Bluebird Rescue Commit-**

tee, sent an article from *The Luminary* (February 1986).

Remaining unknown is not the method employed by **Dave Pardoe**, **Ellicott City, MD**, NABS Board Member, who is also an official of the National Wildlife Federation. Since **Dave** correctly perceives the natural magnetism of bluebird conservation, he has chosen this aspect of conservation to launch his new National Audubon chapter. A foremost objective has been the installation of hundreds of nesting boxes along central Maryland's Interstate Highway 70 between **Ellicott City** and **Frederick**. Assisting in supplying boxes were **John Sullivan's** **Fulton-based Boy Scout Troop 797**, using lumber supplied by **James Russell**, of **Laurel, MD**.

A mainstay of NABS' educational effort is the NABS Speakers Bureau. The continuing efforts of **Bob Schutsky** cause great anticipation in the **Downingtown, PA**, area. For six years now the children of **Uwchlan Hills School** have eagerly responded to "Mr. Bob coming out to tell us about bluebirds!" **Emil Klanchar** and **Al Goga** of the **Irwin, PA**, area, spoke to the children of **Calvary Christian School**. **Principal Thomas Byerly** writes, "Four of the children received bluebird houses as gifts and were so thrilled with them. Thank you so much for making this type of program available to schools." In **Statesboro, GA**, **Mr. and Mrs. Edgar Godfrey** reached the "Mr. and Mrs. Garden Club," while in **Birmingham, AL**, **John Findlay** continues his bluebird conservation campaign, even getting his work mentioned in the *Neighbors*, a publication of the **Alabama Farm Bureau**. **Susan Cross** of **Lexington, KY**, gave the program to several groups. She also has an appeal for bluebirders to monitor her trails... "two 25 box trails (5 miles apart) that have been abandoned by researchers in eastern Kentucky (**Breathitt County**). It is a prolific trail—approximately 250 eggs laid per season, but snake predation and vandalism require attention by some willing trail monitor. Perhaps you could publish my plea." **Nancy Purdy** of **Heritage Hills in Somers, NY**, gave the slide program to eager audiences, as did **Ken Angle** in **Rohersville, MD**. **Betty McCormack** of **Kearneysville, WV**, says the slide program as she gave it to the **Martinsburg Veterans Administration Medical Center** was enthusiastically received. **Ranger-naturalist Anthony Fraundorf** of **Goshen, TN**, says, "Continue your work in developing this stewardship for our earth."

**Mary Kassenbrock** of **Goshen, IN**, told a tale with a humorous twist. "I've recently moved into a delightful rural neighborhood

adjoining a nice wooded area, and it has turned out to be the bluebirds' paradise. Shortly after I had moved in last July, I noticed a man in front of my house surveying the woods. Having once lived on a farm which was overrun with uninvited hunters, I presumed he was preparing to go squirrel hunting. Rushing out with my first clenched ready to do him in, he explained he was a bird watcher. Well, I had heard many excuses from the trespassers before, but this was a new wrinkle. As we began to talk, I learned that he was truly what he said. This gentleman turned out to be **Morris Green**, one of your avid members. He was visiting in my neighborhood, and had come down to observe the population. Since then he has kindly sent me all sorts of valuable information and advice....I've also gotten my neighbor hooked and he's getting a box too. In the same vein, I got a chuckle out of **Wes Morse** of Fall River, KS. His account suggested that we try "*skunk jell* on bottom

of boxes or supporting poles to deter snakes. Skunks are a natural enemy of snakes and I have had good results from using it." **Mrs. Florlene Edwards** of Mexico, MO, reports nesting bluebirds in her yard in a mobile park. She said she "fought off the sparrows and it paid off." I hope that **Yvonne Snyder**, of Dover, PA, sends NABS the article and picture which appeared in the York (Pennsylvania) *Sunday News*. Yvonne won First Prize for designing a bluebird poster showing a t-shirt decorated with dried plant materials. The bluebird conservation message was ingeniously and colorfully done.

Yes, dear reader, all the varied aspects of bluebirding are richly rewarding to hear of, read about, and see. It does help to dissipate my own fleeting frustration at not having the pleasure of their company in my yard. And with **M. Morse** of Iion, NY, I can say, "may the Lord bless your endeavor to preserve some beautiful items of His Creation." ■

## North American Bluebird Society Ninth Annual Meeting

October 24-26, 1986

Western Hills Guest Ranch, Sequoyah State Park  
Wagoner, Oklahoma

Informative Sessions, Annual Meeting, Field Trips

For information write:

Charlotte Jernigan  
Route 2, Box 404A  
Wagoner, OK 74467

### 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, businesses, and organizations on this initial list 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 a 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. Bonus decals will be sent for each category. All contributions are tax deductible. Mail your check to NABS Boosters, P.O. Box 6295, Silver Spring, MD 20906-0295.*

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Prepared for *Sialia* by Nancy E. MacClintock—Indexes

## NABS RESEARCH GRANT AWARDS

The North American Bluebird Society is proud to announce the presentation of the third annual research grant awards. The 1986 recipients are as follows:

### BLUEBIRD GRANT

Anthony J. Savereno

Topic: Movements and Habitat Use of Juvenile Eastern Bluebirds.

R. Craig Hensley

Topic: Predation of Eastern Bluebird Nests by Black Rat Snakes Based on Nestbox Location.

### GENERAL GRANT

Jeffrey R. Waters

Topic: A Comparative and Experimental Study of the Nesting Habitat of a Cavity-Nesting Bird Community.

Gregg Zuberbier

Topic: Effects of Blowfly Larvae on Nestling Passerines in both Laboratory and Natural Environments.

Barry Bermudez

Topic: Development of a House Sparrow/Starling Proof Nest Box Design that is Acceptable to Native Cavity Nesters.

### STUDENT GRANT

Karen J. Wilson

Topic: Validating a Pileated Woodpecker Habitat Suitability Index Model for the Northern Rocky Mountains.

The North American Bluebird Society annually provides research grants in aid for ornithological research directed toward cavity nesting species of North America with an emphasis on the genus *Sialia*. Information and application materials are available from Theodore W. Gutzke, Research Committee Chairman, P.O. Box 121, Kenmare, North Dakota 58746.

## Bits of Blue

The sky is falling!  
One bit of blue, then two  
Come tumbling off the wing  
And settle for a swing on the high wire.

Two bits of blue by and by  
Rise and fly afield—  
Two tiny mirrors for the sky  
Deep in the sweep of green grass.

Bits of Blue  
If you ever knew  
Your status here on earth,  
You'd know as we  
Two bits can be  
Of inestimable worth.

Karen Blackburn

## Bluebird in a High Tree

Evasive bird, why do you sing  
High in a hickory tree?  
Come down to earth, at least halfway—  
And sing your song to me.

Atop the tree the sun still shines  
Below the shadows fall,  
One more encore before the night  
When only night birds call.

If I could soar, if I could fly,  
If I were just as free,  
I, too, would sing the world a song  
High in a hickory tree.

Orlands G. Wade

### ART CREDITS

Jon E. Boone: 82, 112  
Suzanne Pennell Turner: 89, 98, 114  
Richard L. Woodward: 97, 100, 101 cicada killer



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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.

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