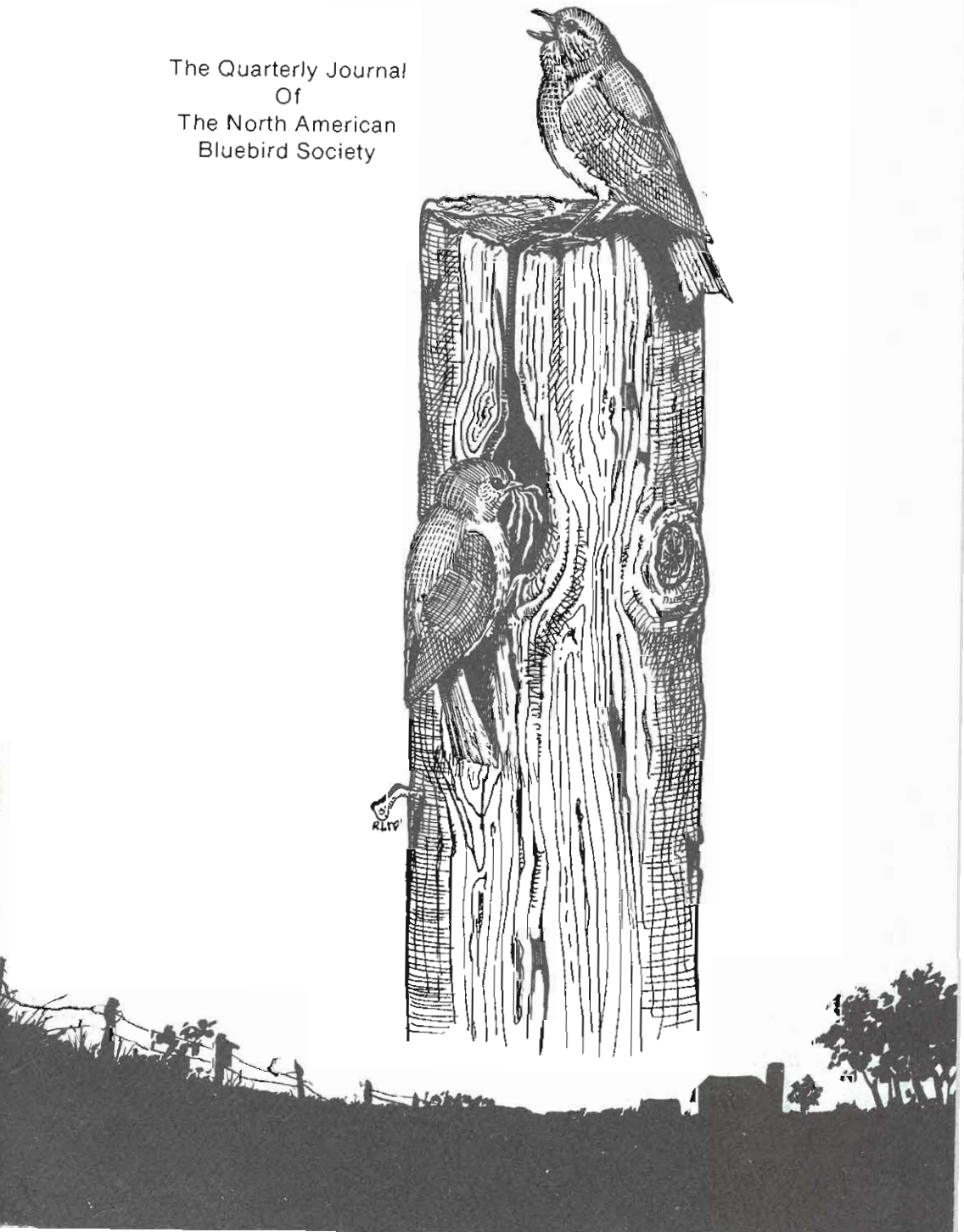
Sialia

Volume 8, Number 2
Spring 1986
Pages 41-80

The Quarterly Journal
Of
The North American
Bluebird Society



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 *Motacilia* which is now reserved for the wagtails. It was William Swainson (1789-1855), who, in 1827, decided that the bluebirds needed a genus of their own within the thrush family (*Turdidae*). He selected the generic name *Sialia* which he simply adapted from the species name *sialis* which Linnaeus had used. Therefore, the scientific name for the Eastern Bluebird is *Sialia sialis* (pronounced see-ahl'-ee-ah see'-ahliss). Similarly, the Western Bluebird and Mountain Bluebird, the two other species within the genus, were named *Sialia mexicana* and *Sialia currucoides* (coo-roo-coydees) 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.

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The Quarterly Journal About Bluebirds

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COVER

Art Editor Richard L. Woodward depicts a pair of bluebirds nesting in a fencepost. Harry Krueger describes an instance of post nesting on page 60.

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 Graeloch Road, Laurel, Maryland 20707.

Presidential Points

Sadie Dorber

With the bustle of the holidays over, most people don't look forward to the month of January. I feel just the opposite about its arrival, as this starts a new year of birding.

Serious bird watching starts right after Christmas, when my bird club participates in the annual Audubon Christmas Bird Count.

NABS member Ann Casselberry and I started off at daybreak to count all birds in our designated territory. We breathed a sigh of relief that snow wasn't forecast and that, for once, it was above zero. The 34 degrees seemed almost balmy (except for the time spent on the river banks searching for waterfowl.)

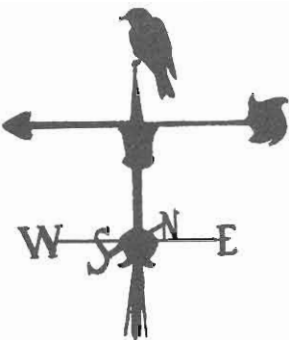
By 10:00 a.m. we had sighted 17 species and commented that we were doing great. We both knew, however, that additional species wouldn't come so quickly.

Throughout the day we checked quite a few "things" in barren trees that turned out to be a single dead leaf that hadn't yet broken loose. I noticed a leaf that appeared to have a tail. After hauling out the scope for a better look, we were rewarded with the sighting of a Northern Shrike.

The snowfalls of the week before made mountain tops a little tricky with drifts and blowing snow. While trying to steer my little Honda through a large drift, a beautiful flock of Snow Buntings crossed the road in front of us. They flitted across a cornfield and were quickly out of sight.

We worked hard for additional sightings and as darkness settled in, we called it a day. We ended with 26 different species and 878 total birds. Though we had hoped to find at least 30 different species, we were pleased with our count.

January 2nd was the start of the eagle survey. I'm fortunate to live near New York City reservoirs that provide habitat for wintering Bald Eagles. The count extended over a 15 day period with two days being designated as specific target dates. The New York State DEC in cooperation with the National Wildlife Federation, tries to have the state fully covered by people on foot



and provides coverage by airplanes on the target dates of January 10th and 11th.

Target day (January 11th) arrived mild and sunny, the first time I could ever remember that it wasn't below zero. The day was spent observing Bald Eagles. In all the years I've participated in the count, I must confess my heart still skips a beat when I watch that beautiful bird soar.

The waterfowl count (also on January 11th) is organized by the New York Bird Federation and though all the rivers and reservoirs are surveyed in my area, we can't really add great numbers compared to the counters on the Great Lakes and along Long Island Sound.

My first introduction to waterfowl came shortly after I moved here. One very cold, sunny day, my husband suggested we drive to Montezuema Refuge located at the top of Cayuga Lake to observe the Canada Geese migrating north. When we arrived within the refuge, state troopers were out directing traffic. Geese were in the refuge, in the fields, and on all the highways. Cars were stopped to allow geese to cross the road. At that time I fell in love with waterfowl.

At Cannonsville Reservoir, where we were conducting our count, the small constant release of water from the reservoir helps keep the river open. The water and nearby cornfields provide a wintering habitat for several species, mainly Mallards and American Black Ducks. We were thrilled with the sighting of a pair of Green-winged Teal.

As I write this, my mountainside home is literally a marshmallow world with the recent accumulation of 18 inches of snow. The feeders are full of birds and I find it hard to spend time at my typewriter. ■

Eastern Bluebirds Raise Brood in Barn Swallow Nest

Patricia Newforth

A naturalist friend and I were comparing notes of our spring bird sightings one day early in March of 1985 when I mentioned that I had observed a pair of Eastern Bluebirds (*Sialia sialis*) checking out my backyard that morning. Although I had seen them off and on the entire previous summer I had never located a nest. My friend insisted that if I put up a bluebird box, given the location and habitat, I would have them nesting in the yard in no time flat. He proceeded to build and present me with a nesting box the following week. I procrastinated a bit so that the box sat in my basement until early April when it was finally secured to a wild cherry tree.

It wasn't long before bluebirds were inspecting the new home. To my dismay, however, so were the House Sparrows (*Passer domesticus*) who finally ruled and began to build. Many birders encouraged me to destroy the nest and give the bluebirds another chance, but I had mixed emotions and let the sparrows alone.

The bluebirds continued to visit the yard throughout the rest of the spring, so I was sure they had found a home nearby. Barn Swallows (*Hirundo rustica*) raised a brood in the area as did several robins, mockingbirds, Chipping Sparrows, and later on even Killdeer. So, all in all, I didn't mind. There was plenty to occupy me without a bluebird nest.

Then, in early July, I began to notice that the bluebirds were hardly ever leaving the yard and seemed somewhat agitated when I went near the garage. My curiosity didn't peak until I noticed the male with food sitting patiently on an electric wire, obviously waiting for me to move on. I watched him and he watched me—it was a standoff. I began to search the immediate area for suitable nesting cavities. (Since the sparrows had already started a second family in the nesting box, it was futile to look there.) I was perplexed to find nothing, and shortly thereafter went away for a vacation.

It was 27 July before I again stood at the garage door. On that day both the male and the female bluebird flew at me repeatedly, fluttering threateningly which induced an upward glance at the abandoned Barn Swallow nest on the floodlight overhead. Could bluebirds possibly use an open, mud-and-grass Barn Swallow nest? I got a ladder and went up to discover the two nestlings just beginning to feather. Well, maybe they were swallows. I concealed myself and waited. It was a short wait. Within ten minutes both adults had carried food to the nest. If these were young swallows, they had been adopted by bluebird parents.

Over the next week I observed and photographed the rapidly growing young birds until on Friday, 2 August, they fledged. They were of the thrush family, positively *Sialia sialis*. After consulting a number of sources, I have yet to find a previous record of Eastern Bluebirds raising young in the relatively open nest of a Barn Swallow. In fact, author Lawrence Zeleny on pages 34 and 35 in *The Bluebird* (1976) published by Indiana University Press writes as follows:

> "Bluebirds are cavity-nesting birds. With rare exceptions, they will nest only in some kind of small enclosure, which may be either natural or artificial. Except where nesting boxes are supplied nearly all bluebird nests are built in cavities in dead trees or wooden fence posts....the supply of natural cavities in which bluebirds can nest is steadily being reduced, and areas which formerly supported heavy bluebird populations can now often support few, if any, of these birds during the breeding season."

Was this a "rare exception" or is it evidence of a behavioral adaptation evolving in response to the shortage of nesting cavities? Will this year's fledglings continue the new nesting practice of their parents? The possibility is there and I will certainly be watching for a repeat performance in the years to come. ■

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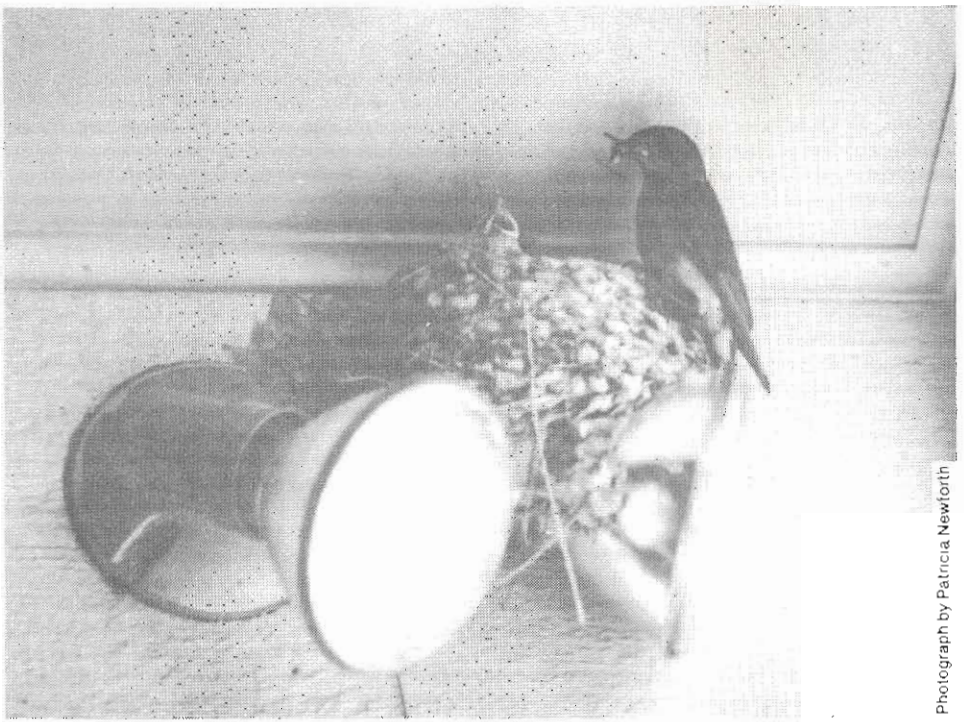

Photograph by Patricia Newforth

Adult male Eastern Bluebird carrying food to two bluebird nestlings occupying a used Barn Swallow nest in southwestern Indiana during July 1985.

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EUROPEAN STARLING-EASTERN BLUEBIRD NEST SITE COMPETITION REVISITED

Peter A. Zerhusen

In a previous article this author documented the intensity and duration of nest site competition between the Eastern Bluebird (*Sialia sialis)* and the European Starling (*Sturnus vulgaris)* using the 1984 nesting season (Zerhusen, 1984). The author found considerable competition between the two birds for available nesting sites with a total of 59 starlings being trapped (48 adults and 11 immatures). The present study is a replication of the previous one. It attempts to measure whether the intensity and/or duration of the competition is changing, and if so, to what extent.

The method used to determine the level of competition was to place a single nesting box in suitable bluebird habitat. The dimensions of the nesting box, which the author will call a starling box, were 5½ x 6 x 13 inches. Though somewhat larger than most bluebird box dimensions, these dimensions were used to facilitate trapping. The opening of the starling box was 2½ inches to permit easy access by the birds.

To gather information on the degree of competition, starlings were live-trapped and then disposed of to ensure that each bird would be counted only once. The trapping procedure used was the manual trap developed by Morris Green, and described in his 1984 article (Green, 1984).

The starling box was put out on 16 February, 1985. The first starling was seen at the box the next day. A pair visited the house on 18 February. The first starling was trapped on 9 March. A starling was first seen carrying nesting material on the same date. These dates coincide with the bluebird nesting timetable.

Table 1 records the number of starlings trapped in the starling box by month from 16 February through 27 August, 1985. Typically, the box was observed by the author each morning and afternoon before and after work. Weekends permitted additional observation time. Trapping occurred, without prolonged interruptions due to vacations, from 16 February through 31 July. The author was on vacation from 1 August through 15 August. The starling box was not observed during this latter period. Starlings were captured with sufficient frequency that a clutch of eggs was never laid. It must be mentioned that the author's schedule permitted considerably more observation time this year than the previous year.

A comparison of the totals for each month suggests fairly consistent and intensive use with the exceptions of February and August. Perhaps no birds were captured in February because the location of the chosen nesting site is not firmly established until March. Only 3 birds were captured in August perhaps because the author was on vacation from 1 to 15 August. During the previous year, August was a good month for trapping immature starlings.

A high of 4 adult birds was trapped in one day on both 26 March and 20 April. The 4 birds of 26 March were captured within a one hour and fifteen minute period suggesting intensive use. During the week of 24-30 March, a high of 8 adult birds was caught. The adult birds had exclusive use of the starling box during the months of February, March, April, and May.

Beginning in June, immature starlings began frequenting the box. The

Table 1. Monthly Numbers of Trapped Starlings from 16 February through 27 August 1985.

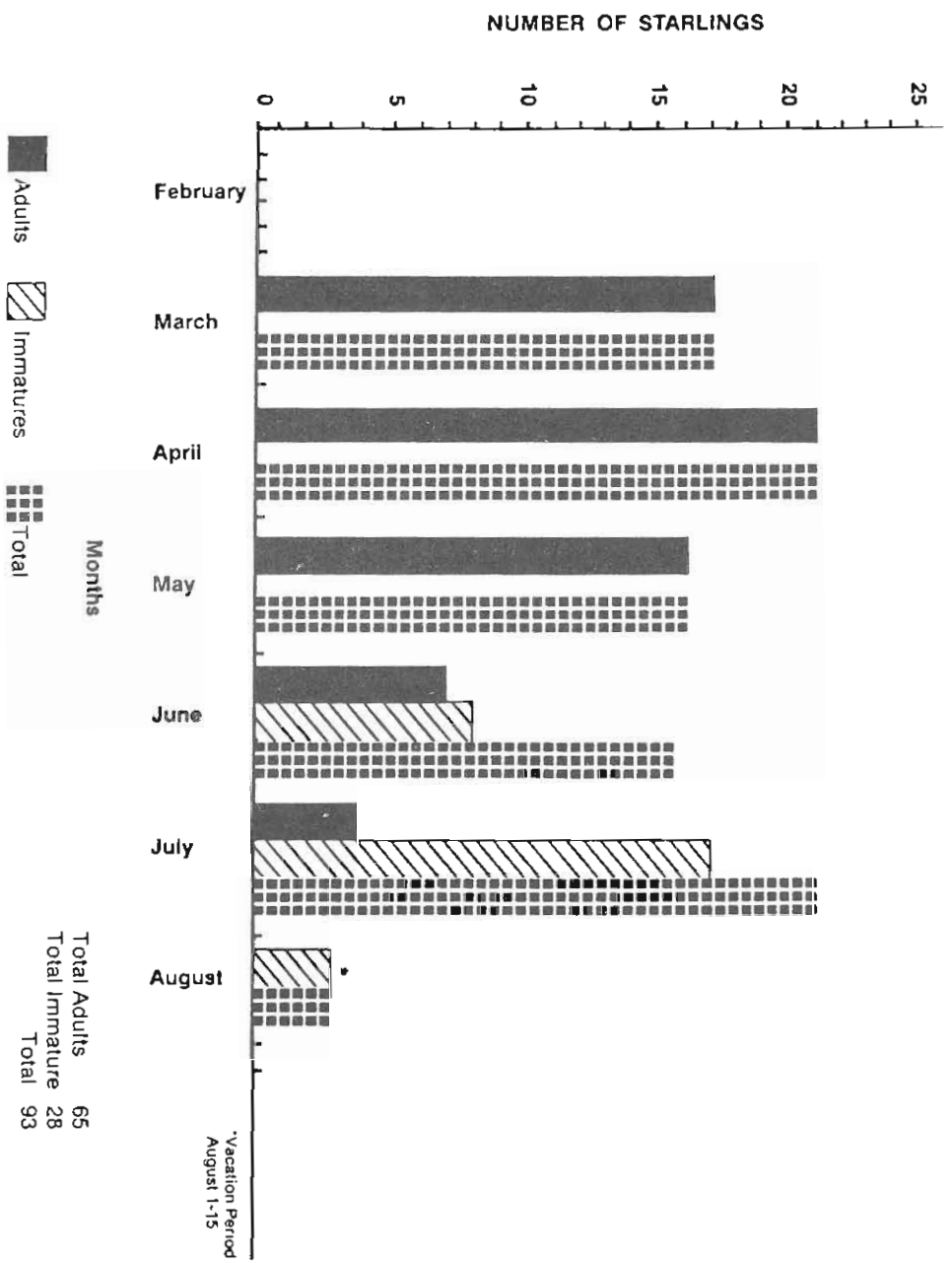

Table 2. Comparison of 1984 and 1985 Results.

	1984	1985	net change	percentage increase
Adults	48	65	+17	35%
Immatures	11	28	+17	154%
Total	59	93	+34	57%

box was used equally by immature and adult birds during this month. By July the nesting box was used much more heavily by immature birds. This result may be artificial since mature birds were not permitted to nest successfully. On 30 July 5 immature starlings were caught. The weekly high for trapped immatures was 10. This occurred from 24-30 July.

A comparison of the number of trapped birds between the two years suggests some interesting findings (Table 2). In 1984 a total of 48 adult birds was captured. This compares with 65 in 1985. This represents a 35% increase. It is difficult to know whether this increase reflects more intensive pressure by starlings for available nesting sites or whether it is a function of increased observation time. However, it is safe to say that the level of competition has certainly not decreased.

A comparison of immature birds for the two years is substantially more dramatic. In 1984 11 immature birds were trapped. In the current study, 28 were captured. This represents an increase of 154%. Such a large increase cannot be solely explained by increased observation time or vacation. Instead, what is suggested is that starling numbers are continuing to increase, which will ultimately have a deleterious effect on the bluebird population. Furthermore, this superabundance of immature starlings commences flooding the nesting site at the beginning of June, which is when bluebirds start their second nesting. This oversupply of immature birds continues until the end of the bluebird nesting season.

A comparison of the 1984-85 trapped starling totals further supports the finding of increased competition for nesting sites between the two species. The 1984 total was 59. In the current study, 93 were captured, an increase of over 57%.

From these findings two additional conclusions can be drawn. The first was mentioned in the previous study, but bears reiterating. Efforts directed at increasing the population of bluebirds must necessarily include attempts at reducing the starling populations. Live-trapping and disposal is one method. Perhaps another is the sterilization of some trapped male starlings to be released again into the wild. This could prove to be an important biological control.

The second conclusion is somewhat more tentative. Given the uninterrupted flow of starlings to the nesting box, this author wonders seriously if there are not currently more adult birds than available nesting sites. If this proves true, the availability of nest sites will serve as its own control over continued growth in the starling population. However, what could result is a substantial population of non-breeding adults. What effect this would have on bluebird populations is not known. ■

12554 Indian Hill Drive
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Green, M. 1984. A simple manual trap for House Sparrows. *Sialia*,6(1):8-11.

Zerhusen, P. 1984. European Starling-Eastern Bluebird nest site competition. *Sialia*, 6(4):125-126.

Literature Review

T. David Pitts

Brawn, J.D. 1984. Defense of nest boxes by Western Bluebirds during the post-breeding period. Condor 86:494-495.—Immature male Western Bluebirds from the first breeding period of the year defended nest boxes against other male Western Bluebirds. Immatures from later nests did not defend nest boxes. Boxes defended were near sites where the immatures were reared; however, immatures did not defend their natal nest boxes. Box defense could: (1) reduce future competition; (2) be a result of hormone induced aggressiveness; or (3) represent a method by which males prepare for the competition for nest sites. While the exact function of this behavior is unclear, nest box defense by immatures may be related to a limited supply of nest sites.

Bachman, John. 1836. On the migration of the birds of North America. Silliman's American Journal of Science 30(1):81-100.—Of special interest is the statement on page 97, "A blue bird that was marked so as to be known, built its nest, for ten successive years, in a box that had been prepared for the purple martin." No information is given about the location (possibly Charleston, South Carolina, where Bachman lived), the dates, or how the bird was marked. Presumably the marking was some type of abnormality such as a patch of white feathers. Since the bird nested for 10 years it would have been at least 11 years old, 3 years older than the modern record. Possibly the details of this record are stored with Bachman's notes, waiting to be uncovered by some NABS member.

Munro, H.L., and R.C. Rounds. 1985. Selection of artificial nest sites by five sympatric passerines. Journal of Wildlife Management 49:264-276.—Nestbox properties, location, and habitat were analyzed for 1,169 nest boxes in southwestern Manitoba. Tree Swallows selected a variety of sites and habitats; the presence of a nest box with an entrance greater than 33 mm in diameter was the most important factor influencing Tree Swallow use. Mountain Bluebirds could enter nest boxes with holes less than 38 mm in diameter, but they preferred holes greater than 39 mm in diameter; they also preferred boxes more than 16 cm deep. House Sparrows preferred nest boxes less than 400 m from buildings and with entrance hole diameters between 30 and 38 mm. Eastern Bluebirds preferred wooded pastures with perches and short ground-cover. House Wrens preferred nest boxes less than 30 m from trees or tall shrubs.

Klimkiewicz, M.K., R.B. Clapp, and A.G. Futcher. 1983. Longevity records of North American birds: Remizidae through Parulinae. Journal of Field Ornithology 54:287-294.—Of 140,099 Eastern Bluebirds banded, 1618 had been recovered through August 1982. The oldest was found dead 8 years after banding; it was banded as an immature at Chapel Hill, North Carolina, and was recovered in the same area. Of 6736 Western Bluebirds banded, 114 were recovered. The oldest was banded as an adult was at least 4 years and 3 months old when recaptured. Of 31,383 Mountain Bluebirds banded, 114 were recovered. The oldest was banded as an immature and was recovered 4 years and 10 months later. The identical number of recoveries for Western Bluebirds and Mountain Bluebirds may be coincidence or typographical error.■

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 Belligerence

Patricia Adair Gowaty

Ferocious fights between female Eastern Bluebirds may signal a clash of maternal strategies

A European colleague of mine recently called Eastern Bluebirds (*Sialia sialis*) the North American symbol of harmonious family life. Another writer has called them the most gentle and pacific of creatures. But despite their reputation for harmony and peace, my research indicates that bluebirds are often belligerent to individuals of other species as well as to other bluebirds. Aggression between bluebirds can be violent and dramatic, and what surprises many observers is that females are often fiercer fighters than males. Two, perhaps unrelated, questions—why females fight and why female aggression surprises theoreticians—interested me.

Bluebirds nest in cavities, and since the introduction and proliferation in North America of European Starlings and House Sparrows, which compete with bluebirds for nesting and roosting holes, Eastern Bluebirds have done almost all of their nesting in boxes built specifically for them. Most bluebird fights I have seen, whether with House Sparrows or other bluebirds, seem related to this limited resource.

Like 90 percent of other bird species, bluebirds are sociographically monogamous—that is, one male and one female seem to interact primarily with each other, but their absolute fidelity cannot be confirmed. I studied bluebirds in northwestern South Carolina on 27,000 acres of farmland owned by Clemson University. In more than 95 percent of the 833 nesting attempts I observed, one male nested with one female. Females build nests and incubate the eggs, but the males—as in many songbird species—help feed the nestlings and fledglings. Both sexes defend their territory from other birds and guard against predators, but conflict between members of a pair is rare.

In early spring, males sing and chase away male territorial intruders. These chases sometimes end in attacks in which the birds grabble with their feet and flail at one another with their wings as they topple to the ground. Resident females that have procured nesting cavities also fight with female interlopers at this time. Females fight less often than males, but their battles are sometimes more fierce. I have seen female bluebirds maim and even kill each other, outcomes I have never witnessed in fights between males.

I suspected these fights had something to do with nest sites, but I needed to quantify changes in aggressive behavior under controlled conditions before I could be sure. I placed stuffed skins, mounted on frames in lifelike perched positions, of male or female bluebirds in the territories of breeding bluebirds. I counted all the reactions of the birds—physical attacks, dive-bombings, and vocalizations—for ten minutes. Later I compared frequencies of these actions in each stage of the nesting cycle—nest building and egg laying, incubation, and feeding of nestlings.

I found that male bluebirds are most aggressive to male interlopers (both living birds and models) during the nest building and egg laying stages. Male-to-male aggression tapers off during incubation and is almost nonexistent when nestlings are being fed. Even when nest building and egg laying occurred in June and July (relatively late), males were still belligerent, indicating that the change

of season is not a cue to alter aggressiveness. And since I had presented the model to any pair only once during the season, I knew that the decrease in aggressiveness during the nesting cycle was not due simply to habituation to the models.

These observations left me with two evolutionary explanations for male-to-male aggression. First, a male might be guarding his mate, preventing her from copulating with another male. Such mate guarding is adaptive if it protects males from investing parental effort in another male's offspring. The mate-guarding explanation fits neatly with the evidence: Aggression hits a peak during nest building and egg laying, the times when copulations will produce offspring. Alternatively, aggressive bluebirds might be guarding their valuable nest sites, an adaptive behavior if—as I think is the case—bluebirds seldom or never breed successfully without access to nesting cavities. Cavity guarding would also explain the peak in aggression during nest building and egg laying, because nest sites are most vulnerable to takeover when few or no eggs or nestlings are present.

The pattern of female-to-female aggression resembled that of males; intense during egg laying, it was almost nonexistent after the eggs had hatched. But explaining this seemingly unusual female-to-female combativeness was more difficult. Perhaps resident females are guarding their nests from intruding females trying to lay eggs. Evidence in support of this hypothesis came from exclusion studies that, though designed to rule out paternity, enabled us to rule out mothers as well. A.A. Karlin (an ecological geneticist now at the University of Arkansas) and I began analyzing blood proteins of bluebirds in my study area to see whether some nestlings were in fact genetically unrelated to the adults caring for them. (The procedure is similar to the one commonly used to rule out human paternity.) Only a very small amount of blood is necessary to perform the test. In a process that seldom took more than five minutes, I captured the birds, bled them, and released them.

We tested blood in twenty-seven bluebird "families," that is, groups of nestlings and adults associating in single nest sites, and found that fully one-quarter of the families showed evidence of unrelatedness between adults and young. This outcome raised a number of questions. Under what circumstances, for instance, would an adult care for an unrelated hatchling? A male might do so if his mate had copulated with another male or if she had incubated the egg of an intruding female already mated to an outside male. When a resident female cares for an unrelated hatchling, there is usually only one explanation: an outside female has managed to lay an egg in the resident's nest. In this case, the resident male may or may not be the father. This second possibility was especially interesting to us because 15 percent of our female birds (but only 5 percent of males) took care of an unrelated nestling.

Could defense against intraspecific nest parasitism be the explanation for female-to-female aggression? I think so. Fights among bluebirds seemed most frequent and intense when nest parasitism was most likely to yield living offspring—when host females were laying eggs. Intraspecific nest parasitism also has been seen among other songbirds, particularly cavity nesters. Does something about nesting in holes predispose these species to high levels of "stolen" parentage? A bluebird cannot simply excavate a nest cavity the way a woodpecker can, and in recent years, starlings and House Sparrows have increased the competition over already-made holes. Because bluebird nest sites are in short supply, perhaps the only way some females can successfully reproduce is to be opportunists—to lay their fertile eggs in nests holding some other bluebird mother's eggs.

It may also be that cavities and the nests they contain are easy for other birds to find, thus encouraging parasitism. Or it simply may be that or-

nithologists study cavity nesters more often than they do other birds, and therefore more frequently associate parasitism with cavity nesters.

Another puzzle remains: Why do bluebird fights occur only between individuals of the same sex? Shouldn't males also want to drive off females about to lay an egg already fertilized? One theory suggests that if a male is not aggressive to an intruding female, he may have a later opportunity to mate with her, thereby giving him the evolutionary advantage of producing extra offspring. Laboratory and field data have so far told us little about these possibilities, but I suspect that bluebird mating relationships will prove to be more complex than our theories have led us to believe.

Curiously, ornithologists have only recently begun to study nest parasitism within one species and to ponder its consequence—uncertain maternity. Could it be that we have ignored the potentially strong selective force of alternative female reproductive strategies because we are mammals, animals for which only paternity is questionable? ■

Patricia Adair Gowaty is research associate/assistant professor in the Department of Biological Sciences at Clemson University.

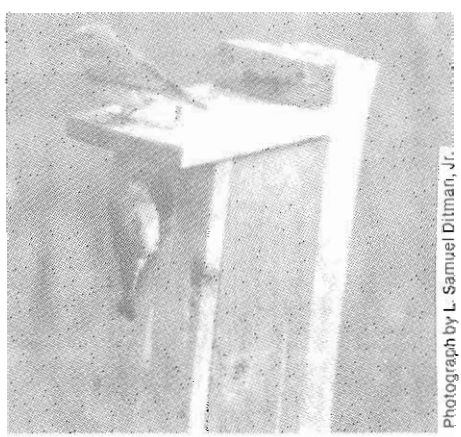
Thirty Years to See a Bluebird

Henry M. Ditman

I live on a farm in west-central Maryland. Bluebirds are very abundant here now, but I had never seen one until about five years ago even though I had visited this farm every weekend for over 30 years before finally moving here a year ago. My first sighting was startling to me.

About five years ago as my brother and I were standing in front of the barn, a male bluebird landed on a wire fence only 20 feet away. As he sat quietly we stood in amazement. It was the first bluebird that either of us had ever seen. About two years after this sighting, I was walking toward the barn in early February when I happened to glance up at the roof of the shed across from the barn. Six birds were perched at the edge of the roof drinking melted snow water as it ran down. I saw red breasts and thought to myself that it was too early for robins. Then the sun struck their backs and revealed the prettiest blue in all of nature on six male bluebirds.

I have two bluebird boxes near our house. The box nearest the house always seems to be taken over by House Wrens after the bluebirds start nesting. The other box is on a utility pole 100 yards on the other side of the house. When I went to check the box, the female looked out the hole at me so I did not bother to disturb her. ■



Photograph by L. Samuel Ditman, Jr.

Male (on roof) and female bluebird on nesting box near Westminster, Maryland.

2800 Sykesville Rd.
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QUESTION CORNER

Lawrence Zeleny

Would you expect a proliferation of falcons in response to an increase in the bluebird population as a result of the increased use of nesting boxes?

Don Stiles
Calgary, Alberta

Falcons such as the American Kestrel and Merlin, like other birds, tend to become more numerous when their food supplies increase. Since these falcons sometimes include small birds in their diet, they may increase in numbers somewhat where bluebirds and other small birds become numerous. Falcons, however, are not generally considered a serious threat to bluebirds.

Are bluebirds occupying a niche that may be occupied by other species and is increasing numbers detrimental to some other species?

Greg Robart
Assistant Biologist of the Central Oregon Department of Fish and Wildlife

When any species of bird or animal (or even plant) becomes overpopulated, various other species are likely to suffer population declines. Competition for food supplies is the most common cause and, in the case of cavity nesting birds, competition for nesting sites may also be a major factor.

One of the most outstanding examples of this phenomenon is the case of the European Starling. In less than a century this species, starting with a zero population in this country, has become one of our most abundant birds. In the eastern half of the country, starlings have exerted enormous pressure on the bluebird population by usurping vast numbers of the old woodpecker holes and other natural cavities required by the bluebirds for nesting. Likewise, huge hordes of starlings frequently strip berry-bearing trees and shrubs of their fruit in October or November, leaving none for the bluebirds and other native birds that depend on such fruit for winter survival. This scourge, as you know, is now spreading rapidly in the West as well.

Theoretically, of course, our efforts to help the bluebirds could become so successful that they too might have an adverse effect on other species in some areas. However, it is my belief that the chance of this happening at any time in the foreseeable future is exceedingly remote. Our task now is to try to prevent any further decline in the bluebird population and, if possible, to restore it to a more normal and safe level. ■

1985 Nesting Box Report

Delos C. Dupree

Records fell everywhere as the results from 1,035 nesting box reports for 1985 were tallied. More boxes were monitored and more bluebirds used these boxes. The reward was an increase of more than 7700 fledglings over last year.

Central

The Arkansas Game and Fish Commission Bluebird Trail Program directed by Karen Cole contributed significantly to the large increase in the Central Region. Lela Sandfort, for example, monitored 195 nesting boxes on the Bella Vista Golf Courses. From the 97 boxes used successfully by bluebirds, 521 young were fledged. Johnie Lewis, Jr. and Clint Lucy helped the cause by successfully fledging young bluebirds from gourds. Due to the excellent weather in Arkansas, third nestings were more the rule than the exception.

In Minnesota favorable weather more than compensated for fewer reports. Dorene Scriven reported a 59% increase in fledglings (6803 vs. 4282 in 1984) even though 725 fewer houses were monitored.

While some individuals complained about sparrows, wrens, or other problems, Pat Soehnlen of Navarre, OH, did something. Each year she replaced wooden nesting boxes used primarily by sparrows with bleach jugs. Last year 8 of her 14 plastic jugs were used by bluebirds which successfully fledged 33 young. Donna Roupich of Wiota, IA, even made a roof for her plastic jugs by using the lid from a plastic five quart ice cream pail.

Earl Boggs of Nicholasville, KY, who successfully hand-raised five orphaned bluebirds, had some problem with Red-headed Woodpeckers enlarging holes in nesting boxes. Metal rings around the entrance will prevent this, but there are some people who would rather see the woodpecker.

Rita Efta of Iowa and Dick Walker of Loogotee, IN, have been using PVC nesting boxes to control predators successfully. A very hopeful sign for the future, according to Bill Ohde of the Iowa Conservation Department, was a flock of well over 200 bluebirds seen near Ronald M. Cross' trail in Wapello, IA.

Cowbird eggs were found in two nesting boxes by John Findlay III of Birmingham, AL. One advantage of regular monitoring is discovering things like this which could interfere with bluebirds successfully raising young. In Zachary, LA, four Prothonotary Warblers were fledged from one of Janice Shehanes' eight nesting boxes. Cowbirds have been known to parasitize Prothonotary Warblers to a great extent. Providing nesting boxes for the warblers could reduce competition from cowbirds because their eggs could be removed easily.

Bluebirds are getting closer and closer to Linda Glickerts' farm in Millstadt, IL. Linda helps monitor 179 nesting boxes nearby in hopes that they will soon nest in her boxes. As an Eagle Scout project, Luca Bernau set up and maintained a bluebird trail in south-central WI. Lucas had to destroy 97 House Sparrow nests, but succeeded in fledging 15 bluebirds.

East

During 1984 bluebirds fledged 6194 young from 1769 boxes in the East. An amazing 11,820 were fledged from 2455 boxes in 1985 or almost dou-

ble the number of the previous year. Good weather, less predation, and a longer nesting season all contributed to the banner year. Also, the older the trails become the greater the possibility that more of the boxes will be used by bluebirds.

John Trott of Greenway, VA, found that by checking nesting boxes at least every five days House Sparrow nesting could be controlled to the point where bluebirds could nest successfully. Since this program was started two years ago, the number of fledglings has doubled.

Pairing nesting boxes for bluebirds and swallows has been a project of John H. Rogers of Brewerton, NY, since 1983. You be the judge of the success attained. In 1983, there were 209 bluebird fledglings from 146 potential bluebird nest locations using a total of 191 boxes. During 1985, there were 471 bluebird fledglings from 261 potential bluebird nest locations using a total of 416 boxes. Successfully raising bluebirds while helping another beautiful native cavity nesting bird, the Tree Swallow, has to be the best of two worlds. Why some members continue to complain about swallows use of nesting boxes is a mystery.

More and more reports are coming in about other native cavity nesting birds that have been helped by putting up nesting boxes. Joseph R. Sedlacek of Johnson City, NY, has had success with both Wood Duck and American Kestrel boxes. Joe also has a martin complex and is waiting patiently for occupants. He says that using a thicker raccoon guardbut less than 2¼ inches thick, has reduced predation and that pairing boxes has helped solve territorial disputes between bluebirds and swallows.

John Zuiker of Annadale, VA, reporting on the Huntley Meadows 1985 Nest Box Survey, says that 76 Wood Ducks were fledged during the breeding season. This compares to 13 fledged the first season in 1982. Other cavity nesters fledged besides bluebirds were chickadees, titmice, and House Wrens.

Next year Voni Strasser of Wayne County, PA, will put up two more American Kestrel and Eastern Screech-Owl boxes. Success with 2 Wood Duck boxes which fledged 23 young has stimulated interest in other cavity nesters. Ethelyn Baker of Madrid, NY, had an occupied Northern Flicker house. Third nestings of bluebirds have been reported for the first time by Thomas J. Mulvey of Pine Beach, NJ, and Morton Miller of Accord, NY. That is getting quite far north for third nestings.

Ed and Tink Reish of Montoursville, PA, raise meal worms to feed their bluebirds during the summer, while Helen S. Beister of Carnesville, GA, collects sumac berries to feed them during the winter. Bird baths are another way of keeping the birds around an area. Running water attracts more birds than does calm water.

Muriel S. Cooper of Nest River, MD, reports that using rat board has helped reduce predation by climbing pests such as snakes, raccoons, and cats. The rat boards, obtained from any exterminator, have a sticky substance on the surface which discourages any climber. Be sure to mount the rat board underneath the box though or birds will get stuck to them also.

Brown-headed Nuthatches were reported this year by Linda Phillips of Summerfield, NC, and Richard W. Griffin of Norwood, NC. The numbers of Bewick's Wrens and Carolina Wrens using nesting boxes is steadily increasing. More and more members are enjoying other native birds while monitoring their bluebird trails.

West

Several reports from the West had not been received by press time; however, 2529 young Mountain Bluebirds, 1109 Western Bluebirds and 10 Eastern Bluebirds were listed as fledged. In her first try in establishing a bluebird trail, Jean Adams of Sundance, WY, had two broods of Eastern Bluebirds in a box which fledged 10 young. Jean said that birdwatchers from all over the state came to see a species unusual for Wyoming. What an exciting beginning!

Table 1. 1985 Bluebird Nesting Box Data According to Geographic Region.

Type of Boxes Used	4" × 4"			5" × 5"			Open-Top			Jug			Other			Total
Region	E	C	W	E	C	W	E	C	W	E	C	W	E	C	W	
Total No. of Boxes	3,727	10,241	371	1,645	1,519	2,554	16	61	0	12	63	4	336	439	0	20,988
Boxes Used by Bluebirds	1,691	3,523	83	658	622	674	7	22	0	6	13	0	93	155	0	7,547
No. of Bluebirds Fledged	7,799	13,449	478	3,462	3,148	3,170	25	81	0	35	41	0	499	653	0	32,840
Boxes Used: Chickadees	107	164	5	41	57	14	2	0	0	0	0	0	16	5	0	411
Boxes Used: Titmice	28	40	8	19	25	7	0	0	0	0	0	0	2	4	0	133
Boxes Used: Nuthatches	7	9	3	5	4	3	0	0	0	0	0	0	1	5	0	37
Boxes Used: Swallows	142	241	122	228	231	505	0	4	0	0	5	0	22	60	0	1,560
Boxes Used: Wrens	155	88	49	110	101	96	0	0	0	0	3	0	40	18	0	660
Boxes Used: Flycatchers	14	6	0	7	2	7	0	0	0	0	0	2	3	0	0	41
Total No. Boxes Used	2,144	4,071	270	1,068	1,042	1,306	9	26	0	6	21	2	177	247	0	10,389
% of Boxes Used by All Species	57	39	72	64	68	51	56	42	0	50	33	50	52	56	0	49
% of Boxes Used by Bluebirds	45	34	22	40	40	26	43	36	0	50	20	0	27	35	0	35
% of Boxes Used by Others	12	5	50	24	28	25	13	6	0	0	13	50	25	21	0	14

E — East (344 reports)
C — Central (618 reports)
W — West (73 reports)
Total — (1,035 reports)

Geographic Regions According to States and Provinces

Esst: Bermuda, Connecticut, Delaware, Florida, Georgia, Maine, Maryland, Massachusetts, New Brunswick, New Hampshire, New Jersey, New York, North Carolina, Nova Scotia, Pennsylvania, Quebec, Rhode Island, South Carolina, Vermont, Virginia, Washington, D.C.
Central: Alabama, Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Ohio, Oklahoma, Ontario, Tennessee, Texas, West Virginia, Wisconsin.
West: Alaska, Alberta, Arizona, British Columbia, California, Colorado, Idaho, Manitoba, Montana, Nevada, New Mexico, North Dakota, Oregon, Saskatchewan, South Dakota, Utah, Washington, Wyoming.

The Mountain Bluebird Trails sixth annual report compiled by Duncan Mackintosh of Lethbridge, Alberta, showed 1958 Mountain Bluebirds fledged. This compares with 247 fledged when the trail was started in 1980. Thirty-eight monitors now maintain the trail.

Ash-throated Flycatchers and Violet-green Swallows were reported by many as using the nesting boxes, but there were scattered reports of other native cavity nesting species as well. Mountain Chickadees were reported by Lary Kleeman of Park County, CO, W.J. Ryan of Yakima, WA, and Donna Hagerman of Reno, NE. Donna also had Plain Titmice nesting. Chestnut-backed Chickadees nested in a box mounted by Wallace W. Wilkins, Jr., of Tacoma, WA. Wallace describes the nest as made of moss, cedar branch tips, and a black furry material like cat fur.

When 1985 is reviewed, the nesting season will be remembered as one of the best in recent history. Favorable weather over much of the country during the breeding season, a more dedicated monitoring of nesting boxes, and the ability to cope with problems have all contributed to a highly successful season. The added enjoyment of raising other native cavity nesting birds has certainly stimulated interest in areas not previously explored.

The 1986 nesting season is now upon us. You will find the 1986 bluebird nesting survey enclosed. Enjoy a successful season and share your good fortune with the rest of us by sending in the report no later than November 1, 1986. ■

A Progress Report on a Starling-Proof Winter Feeding Station for Bluebirds

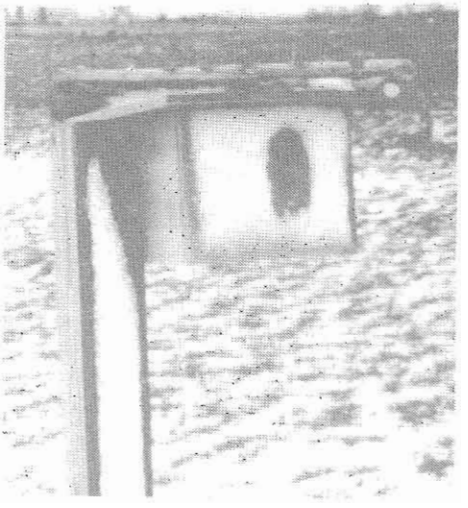
Morris M. Green, Jr.

Three Changes in Design

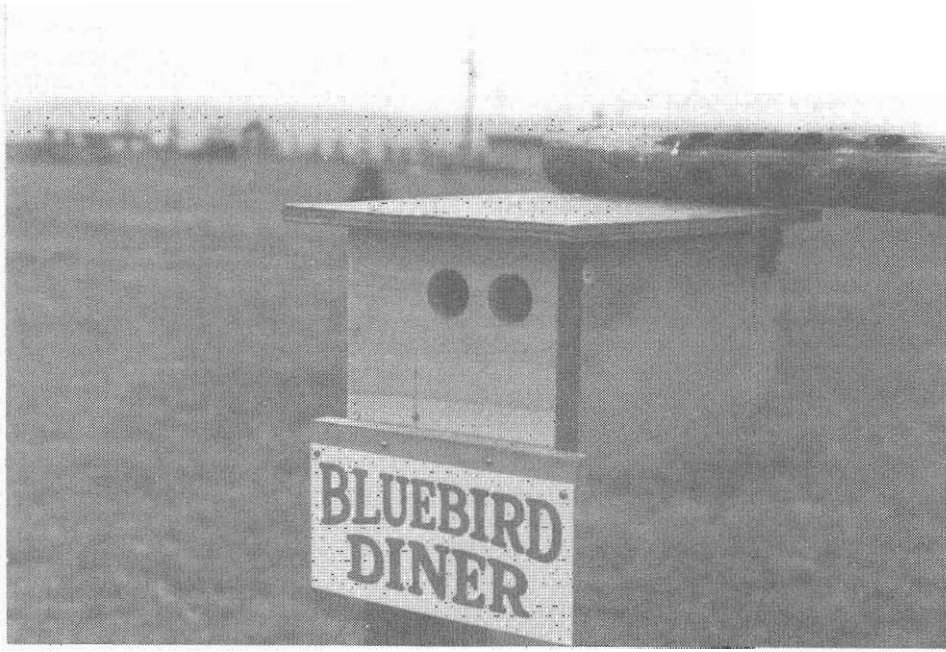
Since the original article was published (*Sialia* 7(3):91-95), I have made three changes in the feeding station which might be of interest to others who plan to build this feeder:

1) Hinges have been placed on the bottom of the side cover (in lieu of a wood screw);
2) Two dividers have been made in the food trough in order to create three compartments;
3) Two entrance holes have been put in the front of the feeder.

The third change was made in early January 1986 when a flock of seven bluebirds started making almost daily visits to our feeder. Much confusion resulted when one bird tried to enter as another was leaving. Sometimes one perched on the outside of the entrance hole blocking others from



Original design with single entrance hole after a snow squall showing how bluebird use has worn snow away below entrance.



New design for feeder with two entrance holes.

entering or leaving. The second hole has relieved, to a large extent, this "traffic congestion."

The old front board was completely replaced with a new one with two holes. The centers of both holes are 2 inches below the upper edge of the front board. The center of the hole on the right is 1-¾ inches from the right edge of the board, while the center of the left hole is 4 inches from the left edge.

Miracle Meal

We are much indebted to Mrs. Carol Harmon of Quinlan, Texas, for her recommendation of "Miracle Meal" as a food to attract bluebirds during the winter months. We mix it in the following proportions:

3 cups of yellow corn meal
1 cup of flour
2 cups of peanut hearts
½ pound of lard.

Mrs. Harmon recommends lard, an animal shortening. She states that solid vegetable shortenings should not be used. If the lard is stored in the refrigerator, allow it to come to room temperature before mixing it with the other ingredients. When we cannot purchase peanut hearts, we buy peanut "bits" which are very similar.

Ground Suet

Another bluebird food I have experimented with is suet ground just like hamburger. It works best when spread on the ground in a SUNNY area. It will freeze at night, but thaws out when it gets full sunlight the following day. The starlings will eat a large proportion of it, but it is cheap and can be replenished every other day or so. The bluebirds eat it right along with the starlings. The meat department at our local supermarket grinds the suet for us when we buy it. Three or four pounds last us a couple of weeks.

Ground suet does NOT work well inside the bluebird feeder. It freezes during the night and does not thaw out quickly the next day because it never does get full sunlight.

Our feeder is located in the middle of a large expanse of open lawn. On cold, windy days when the wind chill factor is very low, the bluebirds may not visit our feeder at all; if possible, locate your feeder in the lee of a good windbreak such as a grove of evergreen trees or a large barn. Also, if possible, try to position the feeder so some morning sun falls on the entrance hole(s).

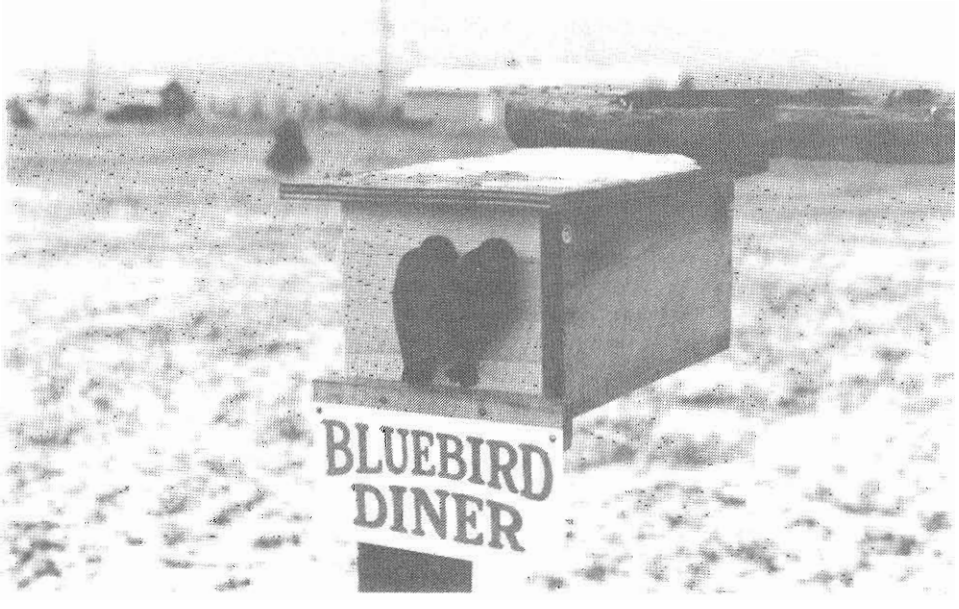
Our primary feeder (we have two) faces southeast so that it gets morning sun on the entrance board. During late January about 6-8 (once as many as 15) bluebirds would show up about 7:30 a.m. Several would go into the feeder and stay there feeding. It is difficult to keep count of how many are inside, but we are sure that at least three have been in it at one time on some mornings.

During February, March, and April bluebirds will be actively searching for nest sites. A feeder put up at that time will very likely be investigated by any bluebirds in the area. Once they enter and sample the "Miracle Meal," there is a good chance they will return for more.

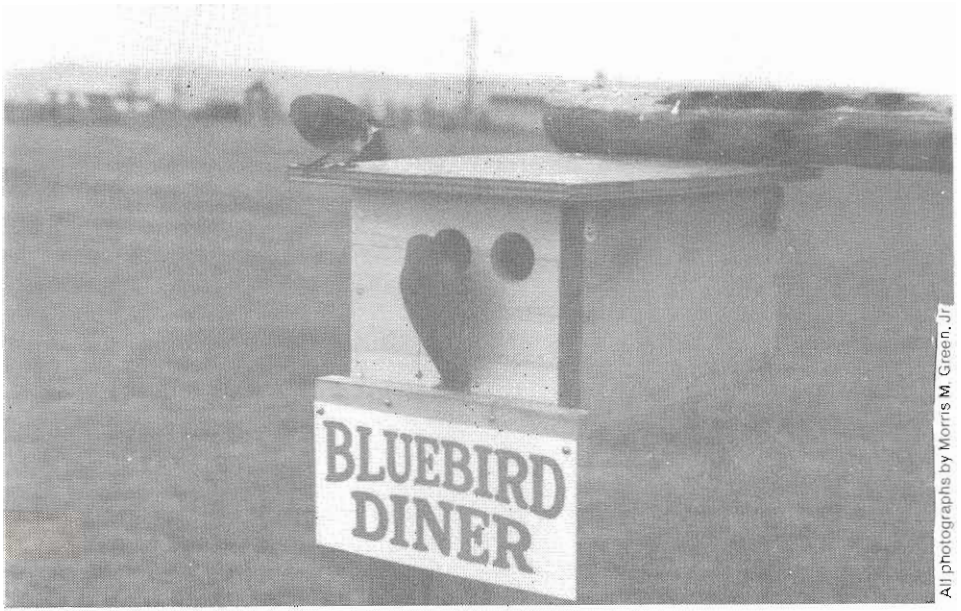
The feeder can be a great help to a female bluebird if snow and freezing weather occur after she has laid her first clutch of eggs and begun to brood them. Last spring the female bluebird in our yard finished her first nest in late March. The fifth, and last, egg was laid 7 April. On 9 April we had two quick snow squalls. By the morning of the 10th the temperature had fallen to 20°F which is very cold for April here. The ground was frozen and it would have been difficult for the female to feed herself under normal circumstances. It was important that she not leave the eggs exposed to the cold for more than a short time.

On that cold morning she came out of the nesting box, made a "bee-line" for the feeder, went in and ate. When she came out she sat on the feeder for about a minute and then went right back to her nest.

I feel that the feeder helped this pair to fledge their first brood success-



A bluebird clinging to each of the two entrance holes of the feeder.



All photographs by Morris M. Green, Jr.

Bluebirds at Morris Green's "Bluebird Diner."

fully by early May. This early fledging enabled them to raise three broods in 1985.

T-Shaped Perches

About 17 feet in front of our primary feeder, I drove a 2 x 2 inch stake into the ground with a sledgehammer so that it protruded to a height of about 5 feet. After it was in the ground, I nailed a light piece of wood (about ½ x ½ inch, 18 inches long) across the top of the stake to make a perch in the shape of a T. This perch is used all day long by the bluebirds prior to entering and right after leaving the feeder. At times we have seen three bluebirds perched on it at one time. (These perches are an improvement over those described by Tom Betts in his article in *Sialia* 2(3):108-109 because they provide a larger perching capacity.)

The stake was made by asking a lumber yard to rip a piece of 2 x 4 inch 8 foot long lumber into two pieces. After taking these two pieces home, I cut off about two feet from each, sharpening one end of each of the long pieces with a hatchet. If a person can use at least four perches, the most economical way to buy the lumber is to order a 2 x 4 inch board 12 feet long. Have the lumber yard make two cuts: 1) rip the piece down the center into 2 x 2 inch pieces each 12 feet long, 2) then cut the two pieces in half. This produces four 6 foot perches without any waste. Placed in front of a feeder or nesting box, these perches get heavy use by bluebirds.

I think my original feeder model is unnecessarily long for residential use where the "Miracle Meal" can be replenished frequently. However, if I build any more for use in our section of Frederick County, Maryland, I am going to stick to the original size because the bluebirds in our area now instantly recognize it as a feeder box, not a nesting box. ■

8407 East Lassie Court
Walkersville, MD 21793

Rotted Wooden Posts Attractive to Bluebirds

Harry A. Krueger

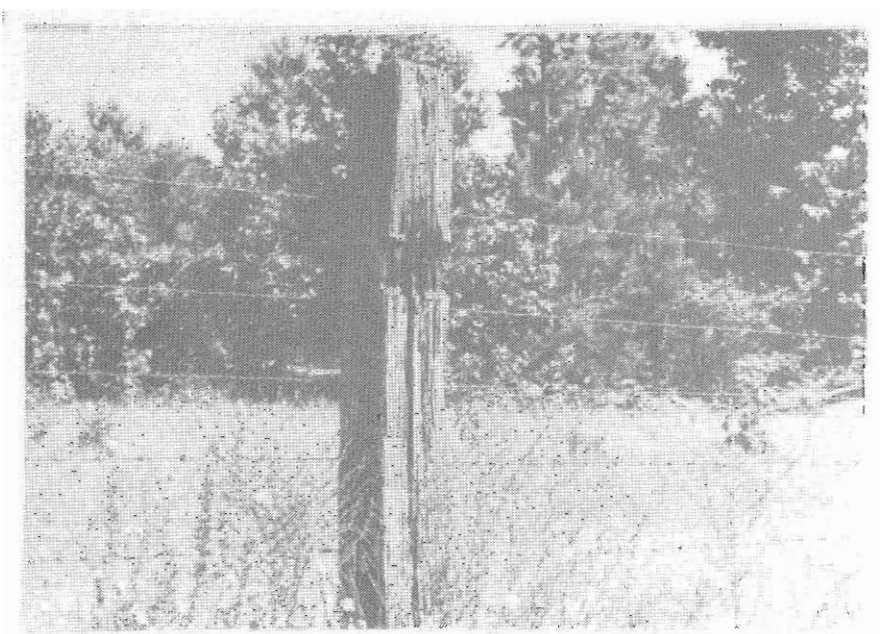
The enclosed photographs are in response to the vitriolic letter from John Bargar and his reference to "old, leaky, drafty bird-killing boxes" (7(2):77).

Here in northeast Texas, farmers and ranchers put a 6 x 8 inch wooden post at intervals for extra support for their barbed wire fences. They also use these 6 x 8 inch posts at gates for added strength. The posts are pressure-creosoted and when they rot, it is from the inside out.

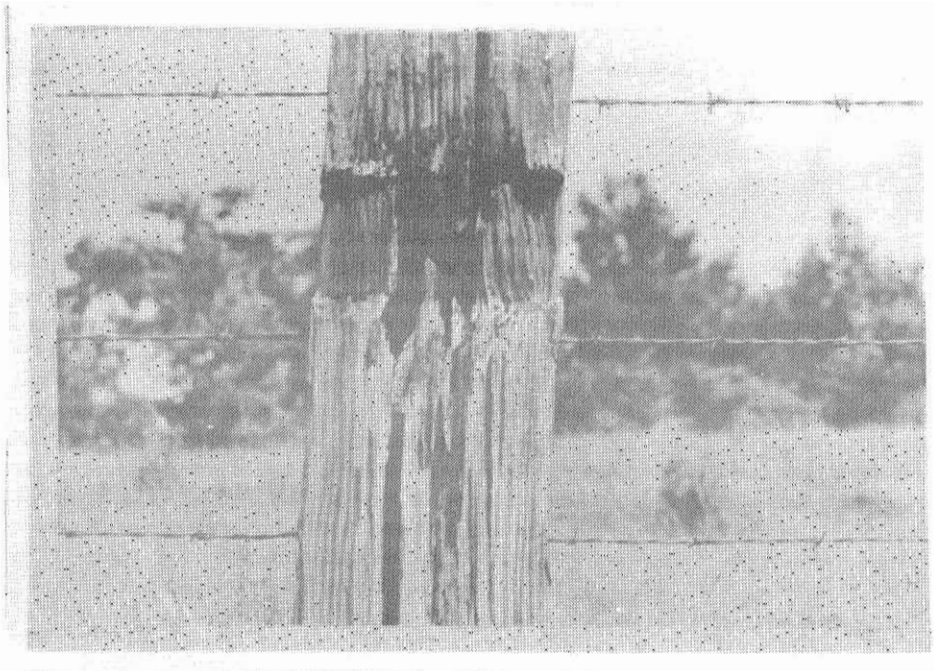
Photograph number 1 depicts one of these posts that has provided a space for two bluebird nests. The second nest was built over the first nest. The first nest produced four eggs and on 28 April 1985, successfully fledged four nestlings. By 23 May 1985, five eggs were laid in the second nest. Five hatched and fledged from this second nest.

When I first discovered that bluebirds were nesting in the cavity of the fence post, I was curious as to the dimensions of the crack that the adult bluebirds were using to enter and exit the cavity. I thought that it was an example of adults squeezing through an opening smaller than we normally use in our nesting boxes. At the point where the wood was polished smooth, I measured the width of the opening and it was exactly 1½ inches wide.

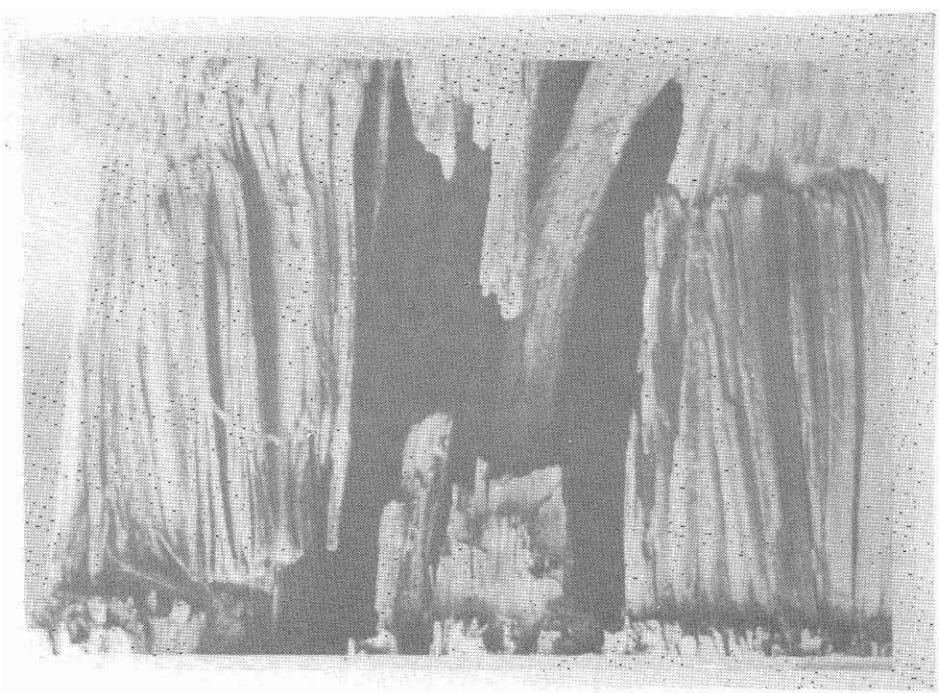
Photograph number 2 is a



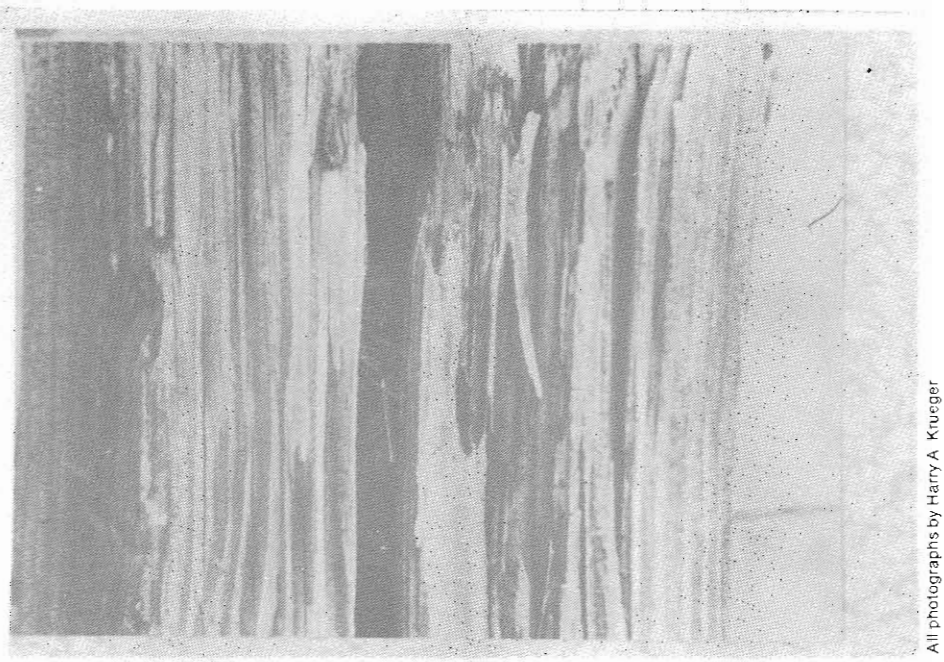
Photograph 1. Wooden fence post containing rotted cavity used by bluebirds.



Photograph 2. Opening to cavity in fence post.



Photograph 3. Point at which bluebirds entered and exited cavity measuring exactly 1½ inches.



All photographs by Harry A. Krueger

Photograph 4. Bluebird nesting material visible through crack in post. Despite the leaky nature of the location, two broods fledged successfully.

closer shot of the cavity. Number 3 shows the point at which the adult birds entered and exited the cavity and number 4 shows the nesting material inside the hollow post.

This successful nesting site is old, very leaky, and drafty. On 27 April 1985, I monitored this fence cavity and there were four, wide-awake, fully feathered nestlings. On 28 April, we had a three inch blowing rain from the west, which is the direction that the fence post cavity faced. On 29 April, I witnessed the fledging of the last two of four nestlings. Even after a heavy, driving rain, these young birds fledged successfully.

I did not witness the second fledging; however, I did not find any evidence to indicate that it was not successful.

Sometime in the fall or winter I will use a hooked wire to remove the nesting material so the bluebirds can again use this cavity in 1986. ■

Route 2, Box OR28
Ore City, TX 75683

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.

Cold Weather May Kill Bluebird Nestlings

Lawrence Zeleny

Bluebird nestlings of early broods frequently perish in their nests during periods of cold wet weather. Almost every year reports of this kind are received from one or another part of the continent. Perhaps the worst instance of this that I have personally observed occurred on my own trail in late May, 1973. Unseasonably cold weather and almost continuous rain prevailed for the six-day period from May 23 through May 28. Temperatures were mostly in the 40s and 50s. This coincided with the period when the greatest number of young bluebirds of the first brood were in the nestling stage, although a few broods had already fledged. Thirty-three of the 96 nestlings on my trail died during the last three days of that period. Similar results were reported from many areas in the Central Atlantic States. In all it appeared that probably about one-third of all bluebird nestlings in that region died.

It has usually been assumed that losses of bluebird nestlings during cold wet weather are due to an insufficient supply of food. Yet during the 1973 episode I repeatedly watched parent bluebirds bringing normal amounts of insect food to their broods every few minutes. Unlike martins and other swallows, bluebirds obtain most of their food from the ground and are not dependent on flying insects. Thus it seems likely that some factor other than a shortage of food may play a part in this kind of disaster.

Parasitic blowflies, when present, may weaken the bluebird nestlings sufficiently to cause them to succumb when other conditions are unfavorable. The larvae of these blowflies attach themselves to the nestlings at night and suck their blood. Yet in the case of my trail none of these blowfly larvae were in the nests where the nestlings died.

Some respiratory disease similar to pneumonia resulting from cold wet conditions has been suggested as the cause of the trouble. Yet when cold dying nestlings are discovered while they still retain a spark of life, they can usually be revived to vigorous health simply by warming and force-feeding them. This would seem to rule out disease as an important factor.

One curious aspect usually observed is that during these cold wet periods nestlings over a week or ten days old are much more commonly found dead than are younger nestlings. One would expect that the older nestlings would be better able to withstand adverse conditions than the delicate newly-hatched baby birds.

Based on the above observations it seems possible that chilling alone may be the important factor in the death of bluebird nestlings during cold wet weather. Very young nestlings are brooded by the mother bird a large part of the time including all the nighttime hours, and are thus kept warm. Older nestlings are brooded for shorter periods of time and are eventually left unattended in the nest during the night. If the night

is unusually cold and the nest is damp it seems possible that these unbrooded nestlings may become badly chilled. If their body temperature should drop sufficiently they would be incapable of responding when the parent birds arrive with food in the morning. Thus they would not be fed even though food were plentiful, and they would rapidly weaken and die. A shortage of food on the previous day would likely, of course, make this situation even worse.

I once watched both parent bluebirds try repeatedly and unsuccessfully to feed their week-old nestlings in the early morning after an unusually cold and rainy May night. They entered their nesting box over and over again, each time with an insect, only to come back out in a minute or two with the insect still in their bills. On opening the box I found the nestlings to be very cold and seemingly almost dead. I removed them and warmed them for about 15 minutes in my hands and against my body. I then replaced them in the box and the parents quickly returned and fed them successfully. They all survived. I guessed that they had just gone through their first night without being brooded and that they had become so chilled that they could not accept food until their normal body temperature had been restored.

This explanation of a cause of bluebird nestling deaths is admittedly hypothetical but it does conform in general with the observed facts. Carefully controlled scientific observations are needed before we can say for sure why we lose so many nestlings during cold wet weather.

Even with existing knowledge there are a few things we can do to minimize these losses. These are listed as follows:

1. Make sure that the bluebird boxes are as water tight as possible. Entrance holes and all ventilation openings should be protected by overhanging roofs.
2. Make sure that the drainage holes in the floor are open.
3. If a nest containing nestlings less than 13 days old is found to be badly water soaked during cold weather or if the nest is known to be badly infested with blowfly larvae, remove the nest and replace it with dry grass well packed into the bottom of the box. Replace the nestlings and leave the area promptly. In some cases this will save the lives of the nestlings.
4. If it appears that the parent birds are not able to obtain sufficient food during extremely bad weather some supplementary feeding may help. Canned dog food, ground raw beef, hard boiled egg yolks, peanut hearts, raisins, or meal worms can be placed in a protected place near the nest, but not in the nesting box. These foods may be eaten by the adult birds or they may feed them to their nestlings. Do not try to feed the nestlings directly. The parent birds can do this much more skillfully.

Fortunately, bluebirds that have lost their first broods of the season will quickly renest and may still be able to raise two successful broods before time runs out. In this respect they have a great advantage over birds such as martins which will usually not renest. ■

A substantial portion of this article first appeared in Purple Martin Capital News *(now* Nature Society News*) June 27, 1973. It is reprinted with permission.*

Green's Starling-Proof Winter Feeder Featuring a View Window

Lawrence Herbert and George Clausen

For a couple of years now the idea of an enclosed winter feeder that would prevent squirrels and starlings from dominating a feeder shelf has been entertained. Thus, spurred by Morris Green's article "A Starling-Proof Winter Feeding Station For Bluebirds" (Green, 1985), my neighbor, George Clausen, and I built a modified version of Green's feeder.

Our feeder, which is used as a supplement with other feeders, features a sliding glass side for viewing with a louvered awning that provides protection from solar heat (Fig. 1). This particular box is 16 X 10 X 10 with a 1½ inch entrance hole. That size entrance, of course, allows chickadees, nuthatches, Downy Woodpeckers, etc., but prevents the European Starlings from entering. House Sparrows frequently explore it, but, since only suet without seed is offered, they do not take over. An entrance hole on each of the three wooden sides may be advantageous. There may be a question as to whether the glass confuses the birds. It seems to perplex them more in trying to get in than in exiting. There have been no incidents so far of birds being trapped in this experimental feeder.

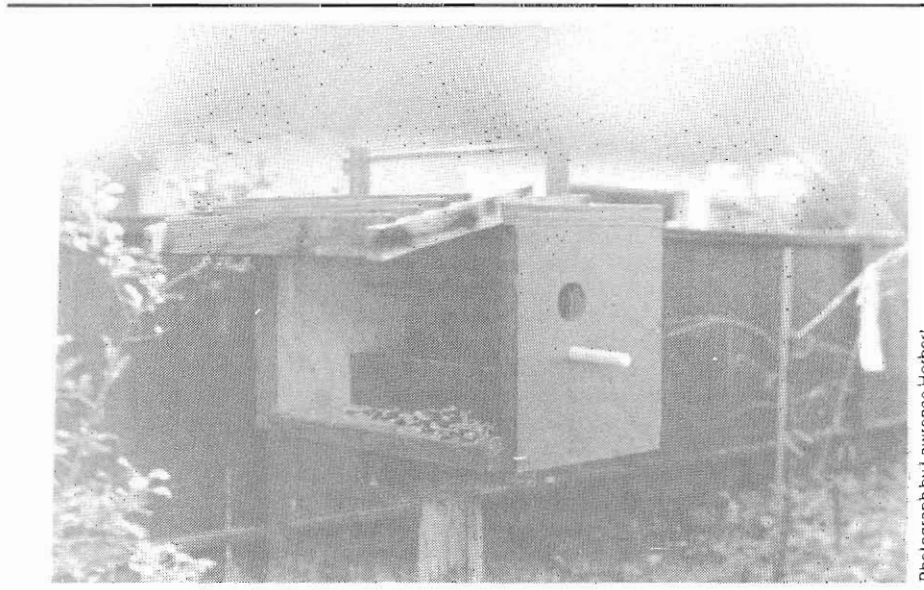
The view window and overhang will take a little more skill to make, but the rewards have been worth the effort. ■

Literature Cited

Green Jr., M. 1985. A starling-proof winter feeding station for bluebirds. *Sialia* 7(3): 91-95.

608 N. 11th, Garden City, KS 67846 (Herbert); 610 N. 11th, Garden City, KS 67846 (Clausen)

Editor's note: If you use a feeder with a glass side we would appreciate word of your experience with it.



Photograph by Lawrence Herbert

Fig. 1 Modified model of Green's starling-proof feeder featuring a glass side and louvered wooden awning. Entrance is 1½ inch on right end.

PLANTINGS FOR BLUEBIRDS AND OTHER WILDLIFE

Common Chokecherry

Karen Blackburn

It's no secret that birds love cherries, so it naturally follows that the presence of a cherry tree is sure to attract a number of fruit-eating species to the yard. Of the cherry species native to North America, the Common Chokecherry is the most widely distributed, occurring throughout much of Canada and the United States. An extremely hardy and adaptable plant, it may be found in a wide variety of habitats ranging from old fields to sand dunes and open woodlands. Common Chokecherry has a shrubby growth habit and is capable of forming extensive thickets. For this reason, it is a good selection for naturalistic wildlife plantings.

Common Chokecherry
(Prunus virginiana)

Native Range—Newfoundland south to northern Georgia and west to California.

Hardiness—Zone 2.

Habitat—A very adaptable species occurring in a wide variety of habitats including old fields, roadsides, sand dunes, and river banks.

Habit—A small tree or shrub reaching 25 feet in height under optimum conditions. A deciduous species with finely-toothed leaves spaced alternately along the branches. May form thickets.

Fruit and Flowers—In spring, the fragrant white flowers appear in elongated clusters up to 6 inches in length. Fruits are purplish-black to dark red drupes and are borne in clusters in late summer.

Landscape Value—Best for naturalistic plantings. Plant away from sidewalks and other areas where dropped fruits might present a problem. Fruits and flowers are attractive. Autumn foliage is yellow.

Culture—Young trees transplant easily. Best growth is achieved on rich, moist soil in full sun, but will tolerate light shade and drier soils. Propagation is by seed collected and sown in fall.

Undesirable Traits—Vulnerable to attacks of insects and disease. Should not be planted near orchards of peach, cherry or other related trees. Since the wilted leaves of this and other cherry species are poisonous to livestock, Common Chokecherry should not be planted or maintained near pastures.

Special Uses—Tart fruits are sometimes used in pies or jellies.

Related Species—More than a dozen species of wild cherry are found in the United States. Of major importance to wildlife are the Black Cherry (*P. serotina*), Bitter Cherry (*P. emarginata*), Pin Cherry (*P. pensylvanica*) and Common Chokecherry.

Wildlife Value—Nearly 50 species of birds are attracted to the fruits of the Common Chokecherry. Chokecherries are a preferred food of the Ruffed Grouse, Ring-necked Pheasant, Pileated, Red-bellied and Red-headed Woodpeckers, Eastern Kingbird, American Crow, Gray Catbird, Brown Thrasher, American Robin, Wood, Swainson's and Gray-cheeked Thrushes, Eastern Bluebird, European Starling, and Rose-breasted and Evening Grosbeaks. Thickets of Common Chokecherry provide cover for small mammals and nesting birds. ■

Rt. 3, Box 213
Marianna, FL 32446

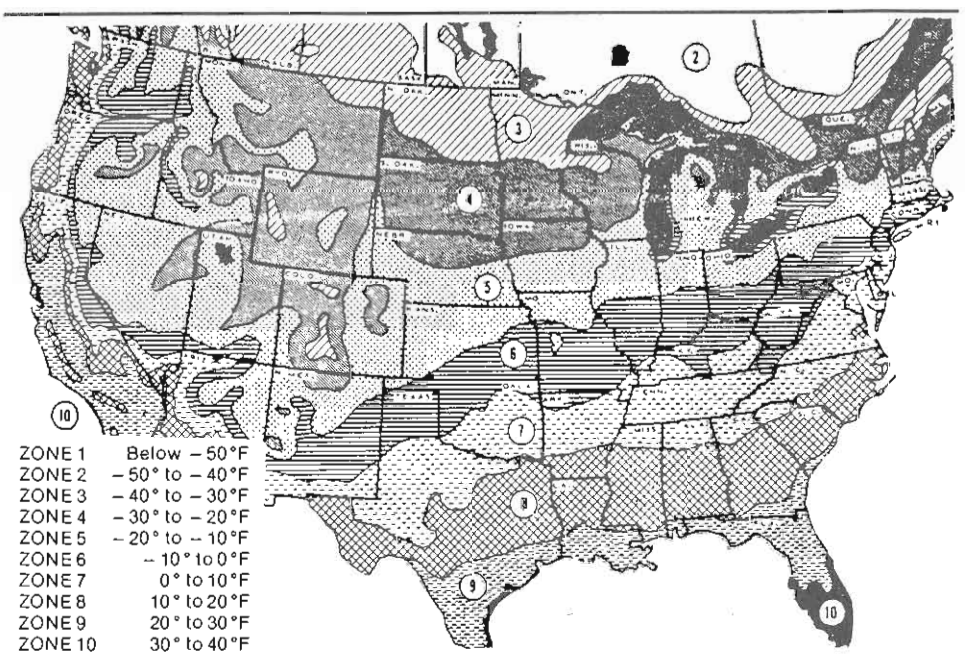
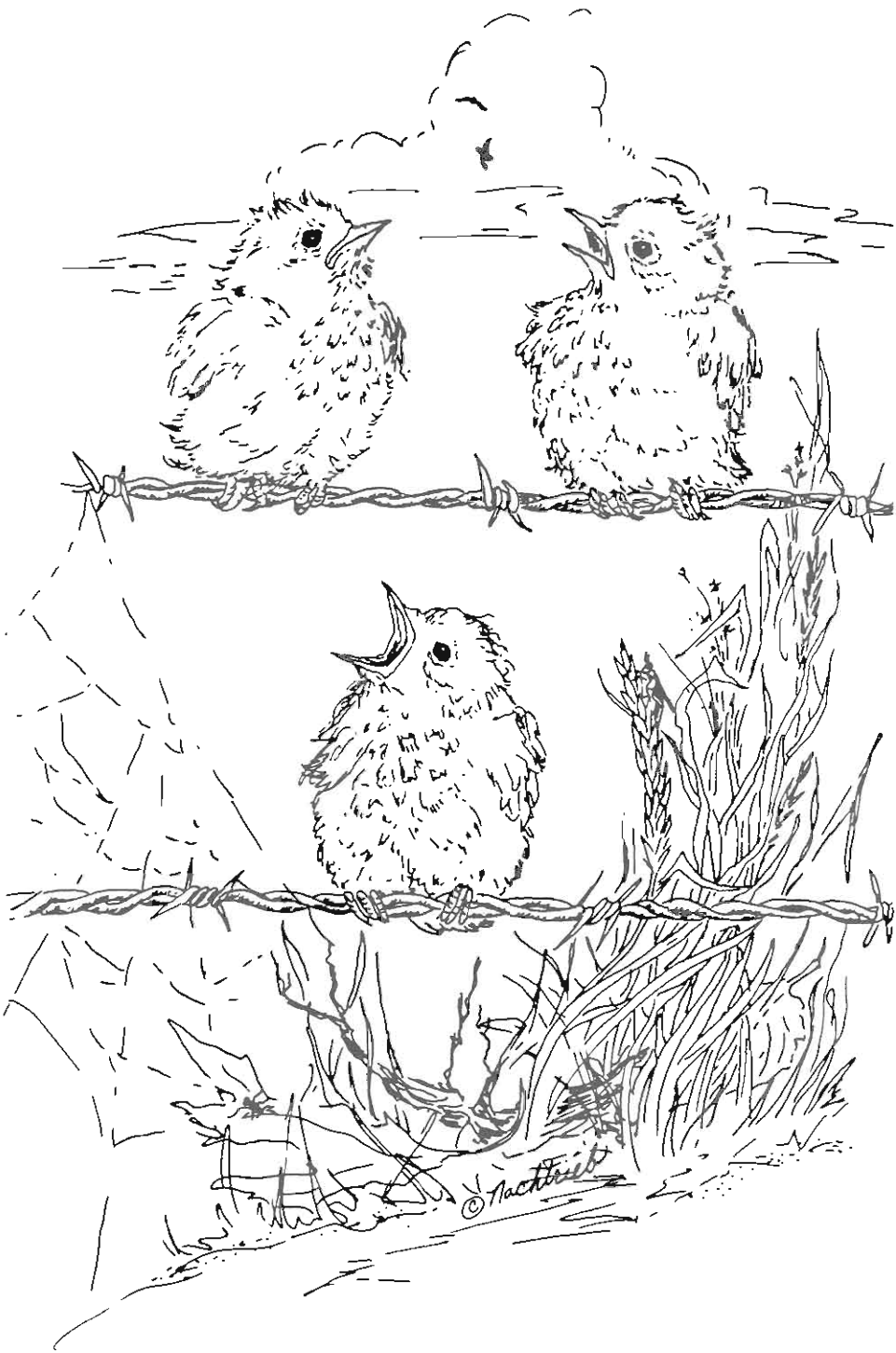


Figure 1. Hardiness Zones for the United States and southern Canada. Temperatures for each zone are the average annual minimum temperatures. When no zones are mentioned with the plant description, plants are hardy anywhere. If a zone is given, it indicates that plants are hardy within the zone and in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



A New (and Successful) Bluebird Experience

John Findlay, III

During this off-season the word "serendipity" comes to mind as I think about my bluebird trails in Shelby County near Birmingham, Alabama. There is always the unexpected awaiting at the next nesting box as well as en route. Monotony has no opportunity to set in if one is truly dedicated, vitally interested, and takes time on the trail to "smell the roses" (even if sometimes pricked by the thorns).

After more than eight years of bluebird trail operation (over 1650 young fledged, more than 550 nestlings banded, and thousands of nestings) I encountered something new to my experience.

On 17 August 1985, I monitored Box 3A where a few days before Tom Imhof, author of *Alabama Birds,* and I had banded four bluebird nestlings. I expected to routinely clean the nesting box; however, I was surprised to find that only three of the young had fledged. One lone, healthy, but hungry nestling remained who was apparently the runt of the family and had not been ready to leave the box when the rest of the brood left days before.

A birding companion who had been gardening near the nesting box the day before had not seen the parents come to feed the young over a period of a few hours. We waited patiently for some time to see if the male or female bluebird would return. We did not see or hear any bluebirds in the vicinity. Finally, reluctantly, we concluded that "Junior" had been forgotten—unintentionally abandoned.

My journal for that day contains the following: "What to do? I finally decided to remove the nestling from the box. I caused it to squeak and otherwise call out while I moved about its parents' territory. I even let it fly short distances, at which time it would sound off more often and more loudly, and then recover it after abrupt landings. We were hoping all the while to attract the attention of the parent birds who were probably preoccupied with the rest of the family, hopefully close by. It worked!!! Bluebirds soon came flying in. They seemed both excitedly disturbed and happy to find the forgotten one. The youngster, after its short-lived taste of freedom, was returned to its nest. I made sure the adult bluebirds saw me placing it in the nest box. If our plan works, they will resume feeding and caring for it until it is ready to fledge and rejoin its family."

My final Box 3A notation was this: "8-22-85 S 1 fledged. Total 4. Nest removed." ■

2129 Greentree Drive
Birmingham, AL 35216

AMELIA R. LASKEY, 1885-1973

Bill Wheeler

It is a chilly October morning at the Warner Parks in Nashville, Tennessee. About 14 birders are out with naturalists from Warner Parks Nature Center. In my opinion, a bird outing of this kind is not complete without sighting bluebirds. Our group was not to be dis-

appointed, thanks largely to the efforts of a single researcher, Amelia R. Laskey.

Warner Parks consists of 2,665 acres made up of woods and open fields which was acquired between 1927 and 1930 through the efforts of three Nashville men: Colonel Luke Lea, Percy Warner and Edwin Warner.

For more than fifty years the Warner Parks have brought in scores of visitors through its diversified topography and excellent programming. Warner Parks is a living field laboratory for field trips and research projects.

Mrs. Amelia R. Laskey, a noted ornithologist, resided in Nashville prior to her death in 1973. She became a member of the American Ornithologists Union in 1933 and was elected a Fellow in 1966. She was also a member of the Northeastern Bird Banding Association. Her bird banding permit from the U.S. Fish and Wildlife Service dated to 1931.

Her studies of more than ten species of birds for more than 40 years included the beloved Eastern Bluebird.

Mrs. Laskey began a trail of bluebird boxes in the Warner Parks in 1936. Records indicate that in that year 26 boxes were erected.

By 1942 Mrs. Laskey had a 63 box trail throughout the park. That year 61 of those boxes were used resulting in 281 bluebirds fledged. At the height of Mrs. Laskey's study she had 100 boxes.

One of Mrs. Laskey's interests in the bluebird was that of third generation progeny that could indicate the inheritance pattern of a white egg-laying character.

Mrs. Laskey's project in the Warner Parks is one of the oldest continuous bluebird research projects known in Tennessee and in the country. Since her death in 1973, her research program continues to be carried out by the Warner Parks Nature Center staff and volunteers.

Mrs. Laskey is a living legend in the field of bluebirding and banding. It is through her research and that of others like her that our knowledge of bluebirds and other species has been enlarged. ■

655 Chitwood Drive
Lafayette, TN 37083

Amelia R. Laskey was posthumously awarded the North American Bluebird Society Research Award at the Sixth Annual Meeting in Binghamton, New York, September 30-October 2, 1983.

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.

The Amity Lake Bluebird Trail

Vivian Mills Pitzrick

Nestling on the site of a former beaver pond in the southern tier of western New York, 43-acre Amity Lake lies in Allegany County about a mile east of Belmont.

Here in March 1971, using specifications from 4-H leader Bruce Smalley, I set my first box which a pair of Eastern Bluebirds (*Sialia sialis*) inspected in mid-April but for some time contested with a pair of Tree Swallows (*Tachycineta bicolor*). Finally, on 17 May the female bluebird was found inside incubating three blue eggs from which two young fledged (one egg was infertile). During this period, the Tree Swallows kept watch to take over the box as soon as it was empty driving away the bluebirds when they tried for a second nesting.

Each year a few boxes have been added to the trail which now totals 124—a modest number beside many trails, but quite enough for a 71 year old lady to care for and monitor. Included in that total are 39 boxes belonging to kindly neighbors, a few of which are martin houses or wren boxes. Other cooperative neighbors have given me permission to erect boxes on their property, a large acreage being necessary to accommodate the 200 feet between sites for the birds.

The first boxes were donated by the Sportsman's Club and 4-H workers. I built many from scrap lumber, Clifford Button has donated several, and, most recently, some have been obtained for a nominal fee from Clarence Klingensmith, a fellow member of the Alleghany County Bird Club.

Care of the trail requires yearround attention. Each season there are a few broken posts to replace and some boxes to repair or replace; other boxes are moved to potentially better habitat or away from predator-prone or vandal-infested areas. During the actual nesting season my first job is the cleaning and dusting of boxes to control mites, using 1% garden rotenone dust containing no other chemicals. Then there is the careful record keeping, monitoring each five to seven days, and cleaning and dusting of boxes after the first nesting to prepare for the next. Finally, at the close of the nesting season boxes are cleaned and dusted again.

This trail, like all others, has problems. Solutions are not always easy.

I have mentioned the bluebird-swallow competition. In 1981 I began erecting paired boxes with about ten feet between them. Although both species are territorial, this pairing of boxes allows one for each as they will tolerate one another. Clusters of boxes are avoided as then the Tree Swallows tend to become overaggressive, discouraging the bluebirds.

Tree Swallows are welcome, however, as they are not only beautiful in their flashing iridescent plumage, but they also devour countless mosquitoes and other flying insects. Because of this voracious appetite, it is possible that the side-by-side nesting of Tree Swallows and bluebirds may benefit the latter by lowering the population of blowflies (*Protocalliphora*) whose larvae in nests suck the blood of nestlings.

The blowfly problem here at Amity Lake seems particularly grave possibly because, like much of Allegany County, the soil is underlain by an impervious layer of glacial rock flour with resultant poor drainage and countless spring seeps. An attempt to control the insect is made by dusting each nest and eggs with rotenone dust as soon as the clutch is complete. Even with this treatment sometimes the larvae are so numerous that I change the nesting material and at the same time inspect the nestlings for attached larvae, always exercising extreme care in handling the fragile young birds as well as protecting them from wind, rain or sun.

Late in 1984 I discovered a paper published in *The Journal of Wildlife*

Management in July 1944 by E.A. Mason on "Parasitism by Protocalliphora and Management of Cavity-nesting Birds." From a ten-year study Mr. Mason noted that most artificial methods of *Protocalliphora* control seem ineffective, but that a more helpful natural secondary parasite, a chalcid (*Mormoniella vitripennis*), preys upon the *Protocalliphora*. However, the double-brooded *Mormoniella* mature in both the first year and early summer of the next, since many overwinter. To allow these insects the most control over the blowfly, nest material should not be removed until late spring, possibly when birds first return from the South, to allow the overwintering *Mormoniella* to mature. As all of my boxes were cleaned out by the fall of 1984, it was too late to take advantage of this knowledge for 1985. However, this last season, since birds prefer clean boxes, I cleaned all boxes as usual following the first nestings. Then, when second nestings were complete, I left the nesting material in those boxes in order to preserve the *Mormoniella* that survive the winter.

Because most of the Amity Lake boxes are at a distance from buildings, there is little trouble from House Sparrows (*Passer domesticus*); however, during the 1984 season they were found at two boxes. As an experiment, in each case I removed the tongue from a mouse trap and suspended the trap by the trip wire so that it hung down beside the opening on the front of the box. The bluebirds looked it over, and then continued nesting as usual. The House Sparrows looked it over—and left the area! Apparently they had seen such a device before or they were more wary than the bluebirds. Again, during the last nesting season a mouse trap either on top of a box or beside the hole was effective.

As habitat here becomes more and more brushy, House Wrens (*Troglodytes aedon*) are an increasing problem. There is a temptation to prevail upon the land owners to clear the land just for bluebirds. Each year boxes must be relocated in more open habitat away from woodsy areas which the wrens enjoy.

Raccoons can be more than a nuisance. They can wipe out box after box. The well-known "coon guard" block over the entrance hole usually is effective unless the raccoon happens to find the adult bird on the nest. Then he may be able to reach in and kill her as she flutters in panic. Two new devices were suggested recently: first, by Frances Rew, a cross-hatching of sharp nails projecting from the roof of the box, and second, by Bernadean Stein, as used beneath a feeder, a metal sheathing around the pole below the box cut to make sharp points projecting downward and at a slight angle out from the post. Grease on the post dries too fast to be effective here.

Fortunately, there is little theft and vandalism on this trail. The most vicious bit of the latter occurred in 1984 when two boxes were deliberately wrenched from the supporting posts and thrown into a water-filled ditch. Apparently the House Wren young had already fledged from one box. The other was lying in water but, fortunately, on its side so that the adult Tree Swallows had been able to reach the entrance and feed the young inside. Changing the nesting material and erecting the box in a nearby tree where the adult birds immediately began nurturing their offspring, made this a successful nesting after all.

To attempt to outwit predators in general, the "T" approach is recommended. Instead of going directly to a box or nest, walk as though you were planning to bypass it by eight or ten feet. When opposite the box, step off your trail and onto a path perpendicular to your first trail. Go to the nest to check and do whatever is necessary. Then walk back to your original trail and proceed in the same direction as before. Predators tend to follow your first path, missing the box.

Through the years "my" bluebirds have had both ups and downs:

1971—1 pair producing 2 young
1972 to 1974—4 pairs each year fledging a total 18 young
1975—5 pairs, 9 young fledged
1976—2 pairs, 9 young fledged

1977—4 pairs, 19 young fledged
1978—3 pairs, 12 young fledged
1979—8 pairs, 45 young fledged
1980—13 pairs, 69 young fledged
1981—11 pairs, 54 young fledged
1982—14 pairs, 77 young fledged
1983—17 pairs, 87 young fledged
1984—21 pairs, 89 young fledged
1985—25 pairs, 128 young fledged

Even though it takes time and effort to maintain a bluebird trail properly, and perpetual problems confuse and confound, the rewards are satisfying. ■

Amity Lake
Belmont, NY 14813

CERTIFICATE OF APPRECIATION

awarded to

North American Bluebird Society

for their conservation efforts in the

Arkansas Game & Fish Commission's

Bluebird Trail Program

10-11-85
Date

Steve N. Wilson
Director

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:

Our trail is in rural southern Chester County, 12 miles north of the Maryland line near Oxford, Pennsylvania. It consists of five boxes spaced about 100 yards apart in a lawn, an orchard, and a meadow.

Each year since 1981 we have fledged an average of nine birds, each nest having four or five eggs. After mid-July nesting activities stop for the season. However, something unusual happened this year.

Because of favorable weather our nesting pair had already fledged two sets of young, a total of eight birds, by early July. Thinking that would be all for this year, I neglected checking the box again until September 15th when, to my total astonishment, I found two well-developed baby bluebirds. On September 17th they fledged.

As baby bluebirds, to my knowledge, all fledge on the same day, I surmised that there were only two eggs and two birds. No other eggs were found on the ground or in the empty nest.

I checked with Bob Schutsky of Muddy Run Park in Lancaster County concerning this. Of all his boxes (75, I think) the latest any bluebirds fledged in any year was September 5th. Therefore, I believe this occurrence is worthy of note.

William B. Townsend, Jr.
Akron, Pennsylvania

Dear Editor:

I wonder if you have heard of forest-nesting bluebirds?

I have two bluebird boxes: one is near woods facing a wide lawn and garden and has been occupied successfully by nesting bluebirds the last five years; the other, set up last year 30 feet inside dense, mature woods, was used to draw nesting House Wrens from competition for the first box some 200 feet away.

This year the bluebirds chose the box in the woods and raised 11 fledglings in three broods. Wrens arriving later than the bluebirds, chose the lawn-and-garden box and raised 12 fledglings in two broods.

This seemed to be an interesting switch of normal nesting locations. Have your readers noted similar behavior?

Edward A. Mainland
McLean, Virginia

Dear Edward A. Mainland:

It is quite unusual for bluebirds to nest 30 feet or more inside of a densely wooded area like that you describe; however, this is known to happen occasionally. House Wrens prefer to nest within or close to wooded or brushy areas but will often nest 100 feet or more from such areas.

Dear NABS:

Please renew my membership in the North American Bluebird Society. I very much enjoy the publication.

Judith C. Hancock
Lake City, Florida

Dear Editor:

My name is Christina M. Connelly, age 10, and I'm in the fifth grade. I live in University Park, Maryland. I like dogs and cats, but I like bluebirds the best. I especially like to go with my good friend Larry Zeleny on his bluebird trail. He lets me help. I look in the boxes and tell him what is there—eggs, babies or whatever I see. He lets me keep the record. I have learned a lot about the birds. I have many friends my age who think I am nuts, but I like what I do and Larry says it is the kids my age who will have to help the bluebirds later on.

I also like to work in the NABS office where I help stuff *Sialias* and put them in the envelopes, open mail or anything else needed. I clean the bird bath and sweep the patio. I am proud to be a member of NABS.

Christina Connelly
Hyattsville, Maryland

Dear Christina:

You are fortunate to be able to help Larry Zeleny on his trail, but he is also fortunate to have the assistance of someone as enthusiastic and concerned as you are. We hope you and others like you will grow up to be leaders in promoting and protecting a healthy environment, not only for bluebirds, but for all living things. ■

Dear Editor:

I would like to call attention to a temporary solution for your readers who live in good bluebird territory but are bothered by sparrows. As described in the enclosed note I published in *EBBA News* 31:271-272, 1968, a paper half-gallon milk carton painted and nailed to a tree is readily accepted by bluebirds. House Wrens will take them if they are nailed to buildings or there are brushy areas nearby, but in the 20 years I have used these on a farm in northwestern Minnesota I have never had a House Sparrow, even though sparrows are common there and readily take a standard box.

Wayne H. Davis
Lexington, Kentucky

Dear Wayne H. Davis:

Paper milk cartons have the virtue of being readily available as well as providing an opportunity to recycle an item. We wish you success in attempting to design a more permanent box which proves unacceptable to European Starlings and House Sparrows.

Dear Editor:

We have a new country club located in the Lake Norman, NC, area. In the spring of 1983 we came upon the idea of placing bluebird houses on the 150 yard markers. Since the club is named Mallard Head Country Club, we felt the bluebird house markers would fit the decor well.

I obtained scrap exterior siding from several houses being built on the course, plus scrap electrical conduit from an electrical contractor. I built 13 houses and placed them on the course.

With the use of the golf carts, I ran these houses weekly. I am keeping a log of when the nests were built, eggs laid and number of bluebirds hatched and fledged.

In 1983 we fledged 69 bluebirds and after placing three more houses around the club house, we fledged 76 birds this past summer [1984]....

I also built and erected a 24 room martin house on the golf course last summer. We had visitors but no residents. We hope to have better results with the martins this summer.

Robert F. Pancoast
Mooresville, North Carolina

Dear Editor:

Four years ago I witnessed the exit of a black snake from my bluebird nesting box. A local birder, Paul Saunier, suggested that I try dipping a rag in crankcase oil and large amounts of red pepper. I wrapped the rag around the pole holding the nesting box. I redip the rag every spring.

I see many black snakes but none in my bluebird box.

Harriet Mohler
Charlottesville, Virginia

Bluebird Tales

Mary D. Janetatos

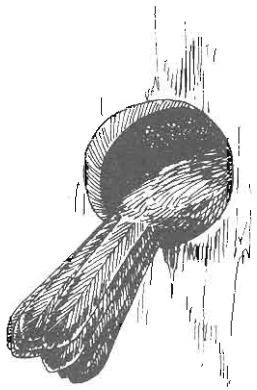
Snow falls gently, steadily as one of the backyard cardinals huddles on a Canadian hemlock branch in his fluffed-out red cloak and waits. He's waiting for spring, and I'm waiting for bluebirds. It's enough to give me spring fever. Bluebirders get spring fever early due to early migration habits of bluebirds. Frantic telephone calls are already coming in, "The bluebirds are here! How can we get nesting boxes?"

Some calls are from Texas and Alabama—no surprise because bluebirds winter in those areas. One caller from West Virginia urgently claimed to "need" a bluebird box right away. I reassured the caller that the average delivery time (about 2½ weeks) would still be in plenty of time for bluebirds in WV to find it and nest there this spring.

NABS' cedar/pine nesting box supplier, **Orville M. Rowe** (rhymes with "how") reports that, as he has now reached his upper 80's, he's slowing down a bit and his retired son **Jack** has been assisting him in building the high quality, reasonably priced nesting boxes. Orville, who is a World War I veteran, has been supplying bluebirders with the most crucially necessary item—bluebird houses—for many years. Tens of thousands of nesting boxes built by Orville have been set out and have provided the vitally needed homes for bluebird pairs.

Donna Tarr of Herndon, VA, expressed her gratitude for Orville's prompt service, "The six cedar bluebird boxes you sent me just arrived. Thank you for responding to my call last week and making sure that I got them before Feb. 12."

Many people are inspired to become involved in bluebird conservation in other ways, such as when they see a presentation of the NABS slide program or attend a workshop sponsored by a fish and game commission. **James Matarazzo** from Greensburg, PA and **Mrs. Leta O. Wiekagen** of Harrison City, PA, told us of more talks in the marathon series given by **Emil Kianchar** and **Al Goga.** The Arkansas Fish & Game Commission conducted workshops last winter, then had an extensive nesting program which yielded outstanding results reporting 2,616 young bluebirds fledged. **Karen Cole**, urban biologist in the Endangered, Nongame & Urban Wildlife Section, was the guiding light in these pioneering bluebird efforts. NABS was honored to receive an award from the Arkansas Commission. (See elsewhere in *Sialia.*)



Wisconsin is another state which has recently begun a bluebird program through their Department of Natural History. A phone call came from **Mike Mossman** of the Bureau of Endangered Resources. He asked for any help NABS could give to their state. Another call came from **Eric Thomas** in Manchester, CT, who, as an educator in the Children's Museum in that city, wants to begin a bluebird project using some of the free lumber available from the state's nongame wildlife unit for nesting boxes. In our talk, Eric told me that Connecticut has no nongame checkoff for state income tax payers because it does not have a state income tax. Now, before you all rush to move to Connecticut, be aware that it doesn't have a whole lot of bluebirds, either. But, besides Eric, there are many bluebirders including **Art Gingert** of Sharon who have been energetically promoting bluebird conservation in that state.

In the Bay State, **Lil Files**, of Tyngsboro, NABS' past president, has been busily educating all within her reach about bluebirds. She even has lots of visitors coming there. Recently the nationally distributed *Grit* magazine printed a story about Lil's efforts to help bluebirds and another whole audience responded. Among those was **Russell Yates** of West Paris, ME, who wrote to NABS describing that he had had Lil come to West Paris and give her bluebird program. He said that Lil is certainly a true friend of the bluebird who "really puts enthusiasm into her slide lecture program." He further stated that he made some bluebird boxes and "if God is willing I shall try to entice some bluebirds to be our neighbors next summer." Lil's other responses came from such diverse locations as Boulder, CO, and Big Calein, OK.

Have any of you readers seen the new film on bluebirds made by **Walter** and **Myr-**

na Berlet? This beautiful color portrait of bluebirders across the continent includes glimpses of **Larry Zeleny**, as well as veteran bluebirder **Dick Peterson** of Brooklyn Center, MN, and **Tom Hodgson**, NABS Board Member. It should be a powerful motivator in furthering bluebirding across the country. Why not call your local PBS television station and inquire about the "Profiles of Nature," #2. In the film the narrator describes the statewide bluebird recovery program in Minnesota. Along interstate highways, cedar fenceposts are hollowed out by the Minnesota Department of Wildlife to provide nesting sites for bluebirds. The program has been highly successful. It joins a similar program previously initiated in South Carolina and in Ohio. NABS member **Dick Knapp** of Salem, OH, recently received a letter from the Ohio Department of Natural Resources saying that approximately 2,000 of these cavities had been created to date.

Publicity efforts continue in many ways. **Mrs. Frank Miller** of new Bern, NC, reports seeing a NABS brochure displayed in a "lovely library near Avon, CT." **Nellie Meadows** wrote from Clay City, KY. She is the artist responsible for one of NABS newest stationery offerings, the beautiful "male bluebird" notecards. Nellie told us that she has been giving the NABS slide program to many audiences: art fairs, 4-H groups, etc. She is another real NABS promoter.

Farther north, in Ontario, Canada, to be exact, **Albert Lambert** is active in the Pembroke area. He says his goal is to have Renfrew County completely "bluebird trailed" by 1995. His wife has jested that she is a bluebird "widow"!

People like to advertise their love of bluebirds. **Katie Fedder** of Donalsonville, GA, asks about bumper stickers. She says she already has a decal on her car and she ordered a prestige license plate for '86 with SIALIA on it. **Delin Bankhead** also has SIALIA on her Virginia plates. Bird bander **Sally Nelson** wrote from Fort Myers, FL, about a newly started bluebird trail at the Weld, ME, Elementary School. She says she had banded four young bluebirds on June 17th. "On Sept. 1, 1985, I caught the first one banded in my nets at my home next door to their nesting area. Before the summer was over I had banded 11 in all in their boxes. The teacher is using Lawrence Zeleny's book for design of the boxes and where to place them. We are hoping for another successful summer."

In Birmingham, AL, **John Findlay III** was honored with a proclamation declaring December 2, 1985, to be John Findlay III Day. This was done in recognition of John's work for conservation in general and bluebirds in particular. From his extensive bluebird trails over 1,600 nestlings were fledged in 1985. **Jim Boozer**, of Bluebird Bunkers by Boozer, of Brevard, NC, will be featured in an article in the April-May issue of *The Mother Earth News*. On a more somber note, **Gay Duncan**, of Southern Pines, NC, recently lost her mother, **Mrs. H.C. Tate**, who was a generous benefactor of NABS. Gay, our heartfelt sympathies are with you as we reflect on the joy you both had together with your bluebirds.

Pesticides often come under fire when bluebirders talk things over. One correspondent, **Phyllis Perkins** from Montpelier, VA, wrote as follows: "The day we moved to Lombardy Farm, here in Harner County, six years ago, we saw two Eastern Bluebirds. They were the first I had seen in my adult life of 48 years. We made a vow to never use pesticides or insecticides on this farm. Although in this farming community, the surrounding land is thoroughly doused with chemicals, at least there is an 80 acre haven here for wildlife. It has paid off! We have had multiple bluebird families move into our boxes and trees in the surrounding woods. They also nest in the "Williamsburg bird bottles."

There have been many historic mansions which have established bluebird trails, and now we know an instance where a famous garden has begun a bluebird restoration project. This is Callaway Gardens at Pine Mountain, GA, where **LuAnn Craighton**, interpretive naturalist at the gardens, sponsored a "Build a Bluebird Nestbox Day" in cooperation with the Columbus (GA) Audubon Society. Her efforts were written up in a UPI story which appeared in the *New York Times* of February 9, 1986. One discrepancy occurred when the article stated that a 1½" hole would bar starlings *and sparrows*. A quick letter to the *Times* Letters to the Editor column correcting this statement was sent off, and when you read this we'll know if it was ever printed. Every bluebirder knows how annoying sparrows continue to be. One instance where that was *not* the case was when **Don Sparrow** built several bluebird nesting boxes and gave them to the Rossmoor (MO) bluebird committee (chaired by **Florence Porter**). In *that* instance, the Sparrow was downright helpful!

Olympia LeBeau of Springfield, VT, yearns to know, "How, when and where did the phrase 'bluebird of happiness' originate? As the 'bluebird lady' of Ascutney Mountain Audubon Society, I have been asked the question several

times. Having an answer would be a definite plus for me." Well, Olympia, my own answer was quite lame, but you didn't say the answer had to be correct. When I asked Larry Zeleny about this, he said he surmised that the phrase got started with Maeterlinck's story *L'Oiseau Bleu* in which two children go in quest of the bluebird of happiness.

You see, dear reader, how the people who write to us move around from place to place, giving us updates on how bluebirds fare here and there. But one mystifying postcard came to NABS from a 14 year old who asks "The bluebirds came to our box the whole month of February and never built a nest. Now August 8th they returned and are still checking the box out until August 15th when I sent this card. Do you think the bluebirds still might nest?" Our question answerers at NABS might be able to take a stab at answering, dear reader, except that there was *no signature*, and *no address*. The postcard had a picture of the *U.S.S. Forrestal*, but that is hardly an adequate address. But, dear reader, I hope that in your neighborhood this spring, the bluebirds have YOUR address—and that they do drop in! ■

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.

IN MEMORIAM

Each year the Spring issue of *Sialia* carries a list of memorial gifts which have been received by the North American Bluebird Society during the preceding year. Contributions can be made as general donations to the Society or can be specified for research, education, or gift memberships.

In memory of Robert B. Grindrad. By Mrs. Robert (Larraine) Grindrad.

In memory of John C. Franklin. By Ellis S. Womack.

In memory of James R. Dalziel. By Mr. & Mrs. Ellis S. Womack.

In memory of Laura Lederman. By Patricia Mumbach Jeffery.

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

Alexander Wilson (1766-1813) is often referred to as the "Father of American Ornithology." His extensive observations and drawings were published in his nine volume American Ornithology. *The following poem appeared in Volume 1, pp. 60-61, published in 1808 in Philadelphia. Because several of the terms are no longer in general use they are footnoted. Our thanks to Robert M. Patterson for passing it along.*

BLUE-BIRD

The ploughman is pleased when he gleans[1] in his train,[2]
Now searching the furrows—now mounting to cheer him;
The gardener delights in his sweet simple strain,
And leans on his spade to survey and to hear him;
The slow ling'ring schoolboys forget they'll be chid,[3]
While gazing intent as he warbles before 'em
In mantle of sky-blue, and bosom so red,
That each little loiterer seems to adore him.

When all the gay scenes of the summer are o'er,
And autumn slow enters so silent and sallow,
And millions of warblers, that charmed us before,
Have fled in the train of the sun-seeking swallow;
The Blue-bird, forsaken, yet true to his home,
Still lingers, and looks for a milder to-morrow,
Till forced by the horrors of winter to roam,
He sings his adieu in a lone note of sorrow.

While spring's lovely season, serene, dewy, warm,
The green face of earth, and the pure blue of heav'n,
Or love's native music have influence to charm,
Or sympathy's glow to our feelings are giv'n,
Still dear to each bosom the Blue-bird shall be;
His voice, like the thrillings of hope, is a treasure;
For, thro bleakest storms if a calm he but see,
He comes to remind us of sunshine and pleasure!

When winter's cold tempests and snows are no more,
Green meadows and brown furrow's fields re-appearing,
The fishermen hauling their shad to the shore,
And cloud-cleaving geese to the Lakes are a-steering;
When first the lone butterfly flits on the wing;
When red glow the maples, so fresh and so pleasing,
O then comes the Blue-bird, the HERALD OF SPRING!
And hails with his warblings the charms of the season.

Then loud piping frogs make the marshes to ring;
Then warm glows the sunshine, and fine is the weather;
The blue woodland flowers just beginning to spring,
And spicewood and sassafras budding together:
O then to your gardens ye housewives repair!
Your walks border up; sow and plant at your leisure;
The Blue-bird will chant from his box such an air,
That all your hard toils will seem truly a pleasure.

He flits through the orchard, he visits each tree,
The red flowering peach and the apple's sweet blossoms;
He snaps up *destroyers* wherever they be,
And seizes the caitiffs[4] that lurk in their bosoms;
He drags the vile *grub* from the corn he devours;
The worms from their webs where they riot and welter;
His song and his services freely are ours,
And all that he asks is, in summer a shelter.

Alexander Wilson

[1]makes out, discerns
[2]path followed by the horse
[3]chided, scolded
[4]captive, prisoner, in the sense of an insect trapped within a blossom finding it difficult to escape

NORTH AMERICAN BLUEBIRD SOCIETY, INC.
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
NOVEMBER 1, 1984 THROUGH OCTOBER 31, 1985

Cash Balance - November 1, 1984		$ 1,940 63
Add:		
Cash Received		
Sale of *Sialia* Magazine	$ 20,252.22	
Sales of boxes, books, stationery, etc.	51,173.10	
Contributions	13,159.54	
Membership Dues	21,596 25	
Interest	18.91	
Sales tax collected	301.10	$106,501.12
		$108 441.75
Less:		
Cash Disbursements		
Boxes, books, stationery, etc	$ 38,373 46	
Sialia Magazine	19,616.90	
Educational material	12,618.41	
Membership fulfillment	15,252 16	
Research	5,303.76	
Salaries	2,086.00	
Expense accounts	10.867.19	
Office supplies	430 06	
Bank charges	693.19	
Maryland sales tax remitted	330,93	
Loans repaid	1,000.00	
Office furniture	772 99	$107,345 05
Cash Balance - October 31, 1985		$ 1,096.70
Assets		
Checking account	$ 26.15	
Savings account	1,070.55	
Value of inventory	16,917.81	
Value of furniture	1,673 99	
Liabilities		
Outstanding loans	$ 3,000.00	$ 3,000 00
Net Worth		$ 16,688.50

Respectfully submitted,

Delos C Dupree, Treasurer NABS

ART CREDITS

Jon E. Boone: 42, 74
Shirley Eley Nachtrieb: 68
Suzanne Pennell Turner: 52, 76, 78
Richard L. Woodward: 66

Correction

The "On the Trail" column 8(1):14 contained an error. John Grivich works for bluebirds in Huntsville, *Texas*. We apologize for moving him to Alabama.

BLUEBIRD BOOSTERS

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

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

Membership: Students (under 21) and Senior (over 60), $7.50; Regular, $10; Sustaining, $30; Supporting, $50; Contributing, $100; Corporate, $100; Donor, $250. Amounts over $5 are tax deductible.

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