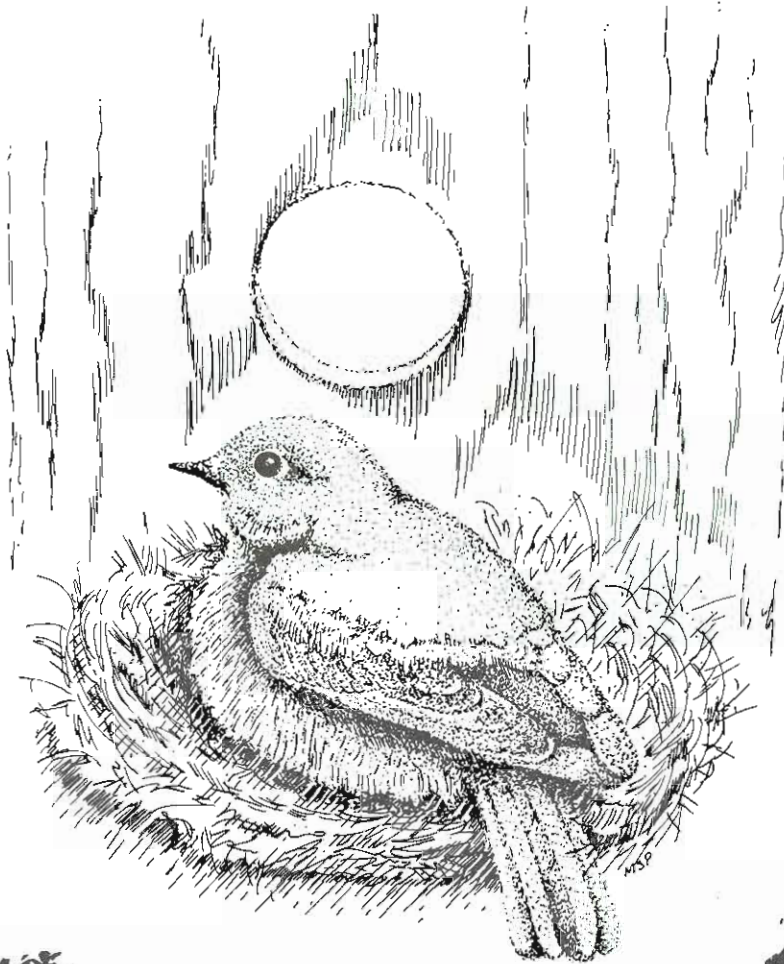


Sialia

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Autumn 1988
Pages 121-160

The Quarterly Journal
Of
The North American
Bluebird Society



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

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

Sialia is published quarterly by the North American Bluebird Society, Box 6295, Silver Spring, MD 20906-0295. Subscription price is included in annual membership dues. Single copies: \$2.50. Write for information about bulk quantities. Checks and money orders should be made payable to North American Bluebird Society and should be in United States funds. Issues are dated Winter, Spring, Summer and Autumn and appear approximately on the fifteenth of January, April, July and October respectively. Deadline for submission of material is three months prior to date of publication; dated items only, two months.

Sialia

The Quarterly Journal
About Bluebirds

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EDITOR
Joanne K. Solem
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EDITOR**
Lawrence Zeleny
ART EDITOR
M. Suzanne Probst

COVER

New Art Editor M. Suzanne Probst has chosen the Western Bluebird for her initial cover. See the article on page 123 concerning nestlings and fledglings of this species.

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 Grae Loch Road, Laurel, Maryland 20707.

Presidential Points

Sadie Dorber

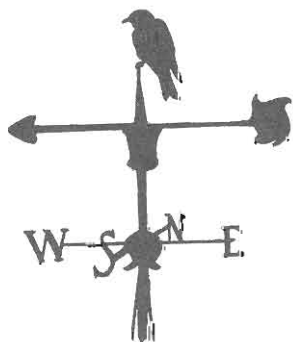
We decided to make the trip to the annual meeting in Montreal one of leisure and also work a little birding into our schedule. We departed Vestal early on Wednesday morning and planned to spend the night on Lake Champlain. As we reached the northern part of New York, we drove through miles of apple orchards. We spotted bluebird boxes that were placed on posts at the edge of the orchards; on two occasions we sighted bluebirds perched on top of the boxes.

We arrived at the northern tip of the lake by early afternoon which gave us time to walk along the water watching the gulls and trying to identify the ones in hatching year plumage. Swallows of several species were in abundance. They're enjoyable to watch and hard to keep up with as you look at them through binoculars. Many of the buildings and homes around the village are quite old with large brick chimneys. The abundance of Chimney Swifts over these buildings was more than we usually see out in the country. Their chatter constantly filled the air.

The next morning, as we continued the trip to Montreal, Upland Sandpipers were sighted on fenceposts. As we crossed the bridge over the St. Lawrence River, the shore and small islands of the seaway were visible. They were virtually white with gulls while a few cormorants were sitting on walls.

Most people coming for the meeting started arriving on Thursday afternoon—it wasn't long until the lobby of the hotel was full of bluebirders.

Friday found all of us up early for the field trips. In several previous conversations with Treasurer Chuck Dupree, we'd expressed the hope that we might find a Yellow Rail in Lac Boivin Marsh, so both of us chose to go on that trip. The other group was headed for Parc Paul Sauve in Oka to see a bluebird trail and canoe the river. Lil Files of Massachusetts was trying to find a canoe partner, so we paired her



with Dr. Zeleny, telling both of them, "Don't tip the canoe over."

The heat wave was also present in Montreal so that by the time we arrived at the marsh the birds had quieted down. A Great Blue Heron was resting on a log and a few ducks with their families were in the water. No, we didn't see the Yellow Rail, but naturally we said, "next time." We were told the marsh is a virtual hot spot during migration. With boardwalks winding along the water's edge and through cattails, you could just envision what it would be like in autumn.

Saturday was a full day of presentations, all of which were excellent and informative. John Trott told us about the bluebird trail at Madeira School (for girls) in McLean, Virginia. The interest of the girls in ornithology and bluebirds has been somewhat overwhelming to John. I believe all of us can be assured that we'll still have bluebirders in years to come.

I was pleased to hear from Steve Parren, of Vermont Fish and Wildlife Service, that yet another state has started a bluebird network. The public visibility with this program has been so evident in my own state that I'm always happy to hear of others joining in the movement.

Not many people can imitate the call of the bluebird, but I'd been told that Andre Cyr not only could do the call, but would entertain us at the banquet. Lights were lowered and Andre requested that people close their eyes in order to imagine they were out in the field listening for birds. He started with

(Continued on page 129)

Parental Care in Western Bluebirds During the Nestling and Fledgling Periods

Kimberly A. With

Introduction

Feeding offspring is the primary component of parental care in birds with altricial young (i.e., young that hatch naked and helpless in contrast to precocial young such as ducklings). A number of factors such as brood size (number of offspring), offspring age, and the relative contributions of the parents in providing food affect the amount of care given to offspring. Feeding offspring is potentially an energetically stressful activity for the parents, who must meet the energetic demands of their offspring in addition to their own energetic requirements. It has been hypothesized that clutch size in birds has evolved to correspond with the maximum number of nestlings which the parents can feed (Lack 1947). Brood size is frequently variable within a species, however, and it is expected that parents will adjust the number of feeding visits to young in accordance with the energetic requirements of the brood. Thus, it is predicted that larger broods should receive more feeding visits by the parents because they require more food relative to smaller broods. Furthermore, parents should increase feeding visits over time as the energy requirements of young increase due to growth and development.

The type of mating system—that is, the role of the sexes in providing for offspring—is an additional factor that may affect parental care. Most passerines (including bluebirds) have a system of biparental care in which both parents care equally for the young (Verner and Willson 1969). Biparental care thus has been interpreted as essential for the successful rearing of an entire brood, in that more offspring can be raised by two parents than by one.

Studies of parental care are conducted primarily during the nestling period, totally ignoring the importance of the fledgling period (after the young leave the nest) and subsequent effects on parental care. Altricial young generally remain dependent upon their parents for food after fledging until they develop foraging skills of their own; the duration of this dependence upon the parents may be as long or longer than the nestling period. The metabolism of a fledgling is roughly equivalent to that of an adult (Royama 1966), which may necessitate increased demands by young on parental provisioning. Parents may encounter difficulty in locating young during this fledgling stage due to the mobility of young and their dispersal away from the nest and each other, thus increasing the energetic costs to parents in provisioning young. Because of these additional factors parents encounter during the fledgling period, it has been suggested that the fledgling period is a "period of crisis" in terms of energetic demands of the young on the parents (Royama 1966). As a consequence, it may be this period and not the nestling period that determines clutch size in birds. Thus, investigation of parental care of fledglings is crucial to any study on parental care, and a comparison of the nestling and fledgling periods is required to evaluate the relative importance of these two developmental stages.

I studied the effects of brood size, offspring age, and the relative contributions of the parents in feeding offspring on parental care during both the nestling and fledgling periods in Western Bluebirds (*Sialia mexicana*). Western Bluebirds were selected for study as they readily used nest boxes in the ponderosa pine (*Pinus ponderosa*)

forests of northern Arizona (Brawn 1987), and thus were accessible for detailed observation.

Methods

This study was conducted during the summers (April-August) of 1986 and 1987 on a 20 acre [8.5 ha] plot of the USDA Forest Service Beaver Creek Watershed, Coconino County, approximately 27 miles [43 km] south of Flagstaff, Arizona. The study area is at 6930 ft. [2100 m] elevation and the dominant vegetation consists of ponderosa pine and Gambel's oak (*Quercus gambellii*). Thirty nest boxes were installed on this plot during the winter of 1979-1980 (see Brawn 1987 for details).

Boxes were checked for nests beginning in mid-March. Western Bluebirds typically lay five eggs (range = 4-6); 74% of the nests ($n = 27$) in this study contained five eggs, 15% contained four eggs, and 11% contained six eggs. Incubation lasted about 14 days (range = 13-17 days). All but 10% of the eggs hatched resulting in an average nestling brood size of four young; 60% of the nestling broods initially contained five young, 28% contained four young, 12% contained one or two young, and 4% contained six young.

Observations of parental feeding visits to the young were initiated once the eggs hatched and continued until the young fledged (= nestling period). The nestling period was about 21 days in duration (range = 17-23). Twenty-one nests were watched for 1 hour on each of 9 days throughout the nestling period. Data were collected on brood size, offspring age, and sex of visiting parent. From these data it was possible to ascertain the effects of brood size and brood age on the hourly number of feeding visits made to the brood. Because of the paucity of nestling brood sizes at the extremes (i.e., sizes lower and higher than the modal size of five young), I evaluated the effects of modal (five young) and below-modal (≤ 4 young) brood sizes on parental care. To facilitate comparison between nestling ages, I used four age categories: ≤ 5 , 6-10, 11-15, and > 15

days since hatching. I evaluated the relative contributions of the two parents in feeding offspring during the nestling period by examining the percentage of total feeding visits attributable to males (which is the reciprocal of female visits); values of 40-60% were considered as indication of shared parental care.

Seventy-five percent of the nestlings survived to fledge such that the average fledgling brood size was three young; 60% of the fledgling broods contained five young, 30% contained four young, and the remaining 10% contained three or fewer young. Once the young fledged (= fledgling period), I observed feeding visits to individual offspring (an entire brood could not usually be observed at once as during the nestling period). It was not possible to observe fledglings for a consistent amount of time as they frequently would fly away before the end of an hour. I watched 53 fledglings from 16 broods for at least 20 min ($\bar{x} = 50$ min) during each observation period and was then able to calculate a measure of parental feeding rate (no. of visits/min) that I used to examine the effects of brood size during the fledgling period. I also evaluated the relative proportion of care provided by each parent.

I compared parental feeding rates during the nestling and fledgling period. To obtain a measure of feeding rates during the nestling period (where data had been obtained as the number of visits/brood/hour), I divided the hourly number of visits by brood size and divided this value by 60 min to obtain a value with terms commensurate with the data collected during the fledgling period (number of visits/nestling/min).

Results and Discussion

Parents visited modal broods more frequently than below-modal broods during the nestling period (Figure 1). Below-modal broods received an average of 9 visits/hour, whereas modal broods received 12 visits/hour. Males delivered food an average of 5 times/hour to below-modal broods and 6 times/hour to modal broods, whereas

females fed young 4 and 6 times/hour, respectively. Thus, parents visited larger broods slightly more frequently than smaller broods and both parents provided equal care during the nestling period. Each nestling, therefore, received approximately the same number of feeding visits (about 2/hour) irrespective of brood size. This is in agreement with feeding rates for nestling Eastern Bluebirds (*Sialia sialis*) which also were found to be independent of brood size (Pinkowski 1978). Shared parental care is further demonstrated by examining the proportion of total feeding visits to nestlings attributable to males (Figure 2); 71% of the males contributed half of the feeding visits with an average male contribution of 50.4%. Male and female Eastern Bluebirds likewise shared parental care during the nestling period as males contributed about 55% of the feeding visits to young (Pinkowski 1978).

Nestling age affected parental care in below-modal broods more than in modal broods; an average difference of three visits occurred between the age categories of Figure 1 for below-modal broods whereas there was only a one visit difference between ages for modal broods. This difference in total number of feeding visits represented an increase with nestling age for modal broods, but no such pattern emerged for below-modal broods. Males were more consistent than females in feeding young throughout the nestling period. There was only an average difference of one visit between age categories for males and a two visit difference for females feeding below-modal broods; males fed young of modal broods essentially the same number of times regardless of age whereas females differed an average of one visit between age categories. This difference between the parents in feeding young as a consequence of nestling age is due to the greater role the female plays in brooding the young early in the nestling period (≤ 5 days of age; Figure 1). In contrast, male Eastern Bluebirds were found to decrease their feeding visits to nestlings and a few

discontinued feeding young after they fledged (Pinkowski 1978).

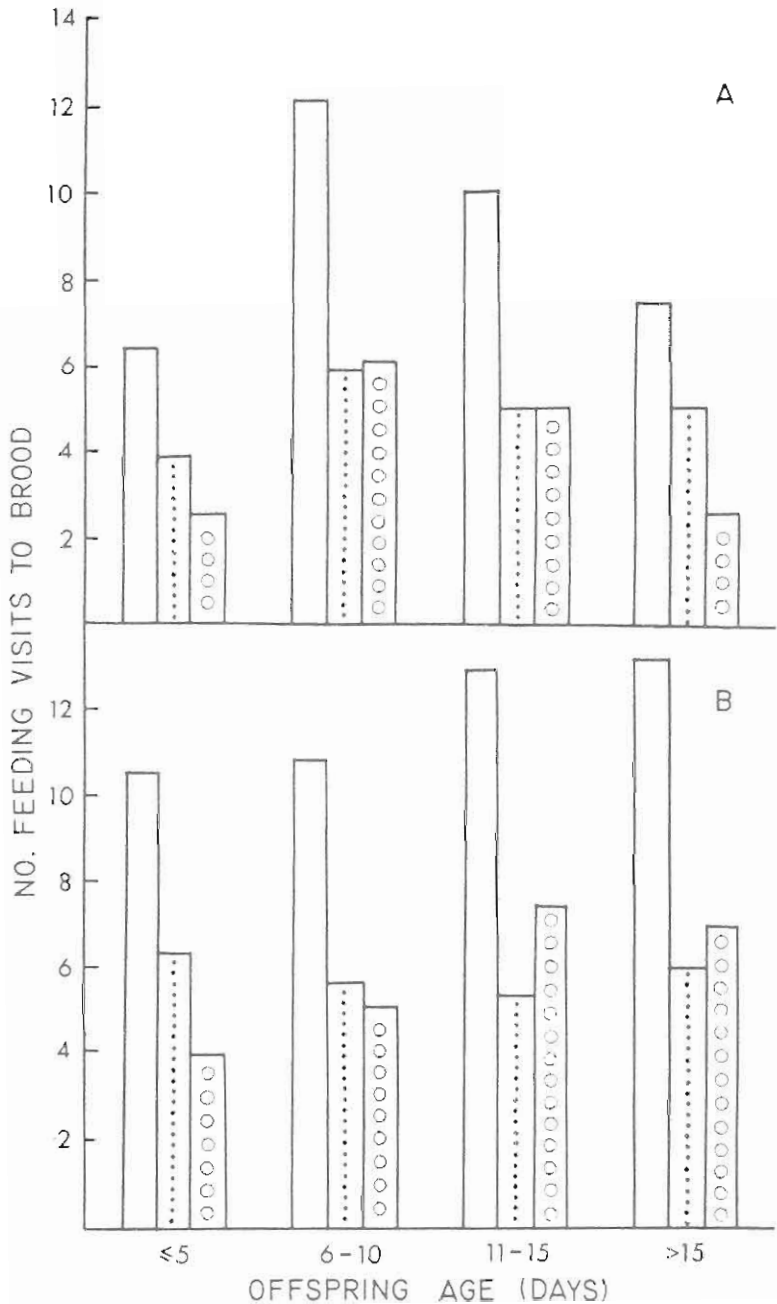
During the fledgling period, offspring from below-modal broods were fed at higher rates than young from modal broods (Figure 3). Each fledgling from below-modal broods received 0.03 more visits/min than fledglings from modal broods, which extrapolates to an additional 2 visits/hour relative to fledglings from modal broods. This result is converse to that found for the nestling period and perhaps is a reflection of the additional difficulty parents experienced in locating all of the young from large broods relative to small ones. Most (57%) parents contributed equally in the feeding of fledglings; males averaged 43% of total feeding visits to fledglings (Figure 2).

A comparison of feeding rates during the nestling and fledgling periods revealed a 53% increase from an average of 3 visits/offspring/hour during the nestling period to 5 visits/hour during the fledgling period. A 44% increase in feeding rate between nestling and fledgling periods has been found in Song Sparrows (*Melospiza melodia*) (Smith 1978). This suggests that parents are perhaps foraging more intensely during the fledgling period to meet the increased energetic demands of fledglings. Caution must be exercised in the interpretation of these findings, however. Increased feeding rates during the fledgling period may be a consequence of increased food abundance relative to the nestling period (thus food is easier to find), or commuting distances of parents from food source to offspring may be shorter during the fledgling period relative to the nestling period if the young follow the parents as they forage. Both of these alternative explanations would result in reduced energetic costs of parents provisioning young during the fledgling period relative to the nestling period.

Results of my study thus show that Western Bluebirds increased number of feeding visits with increases in brood size as predicted, but that offspring age was not a factor that af-

(Text continued on page 128)

Figure 1. Mean number of parental feeding visits to below-modal (≤ 4 young; A) and modal (5 young; B) broods during the nestling period by Western Bluebirds as a function of offspring age during 1986 and 1987 on the Beaver Creek Watershed, Coconino County, Arizona. Open bars represent total feeding visits to broods, stippled bars represent male visits, and bars with open circles are visits by females.



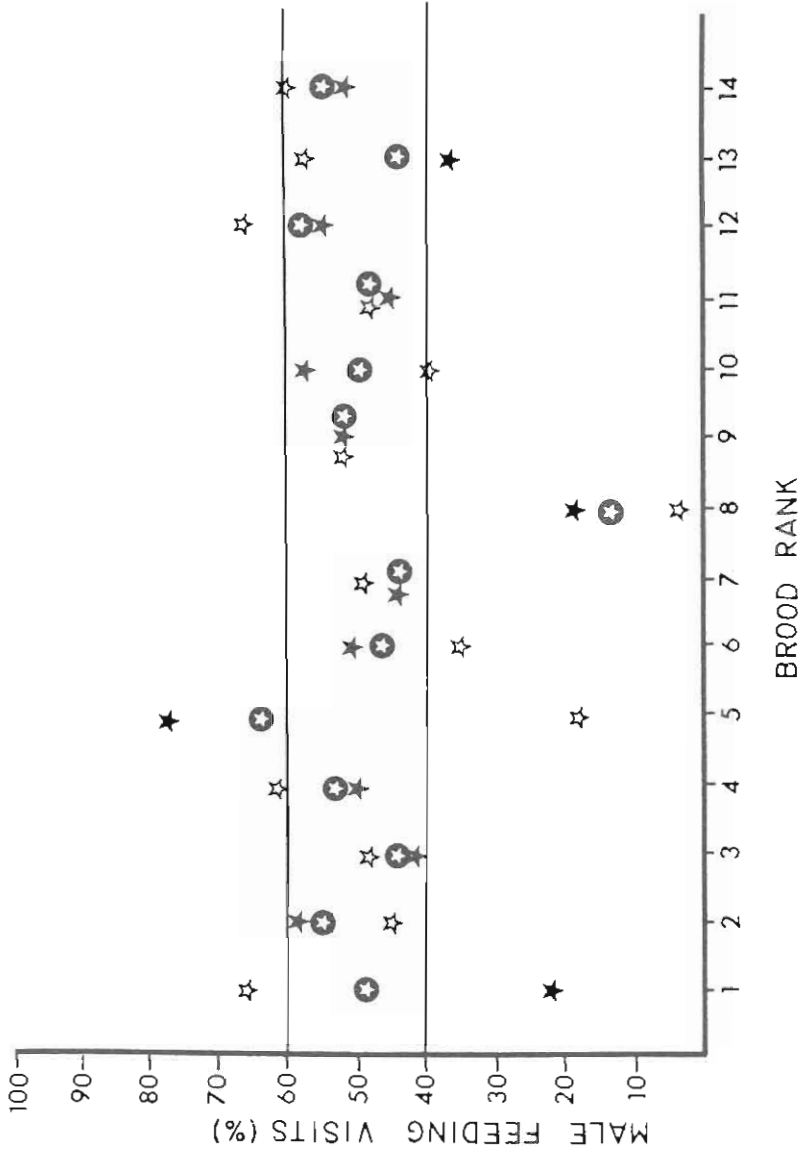
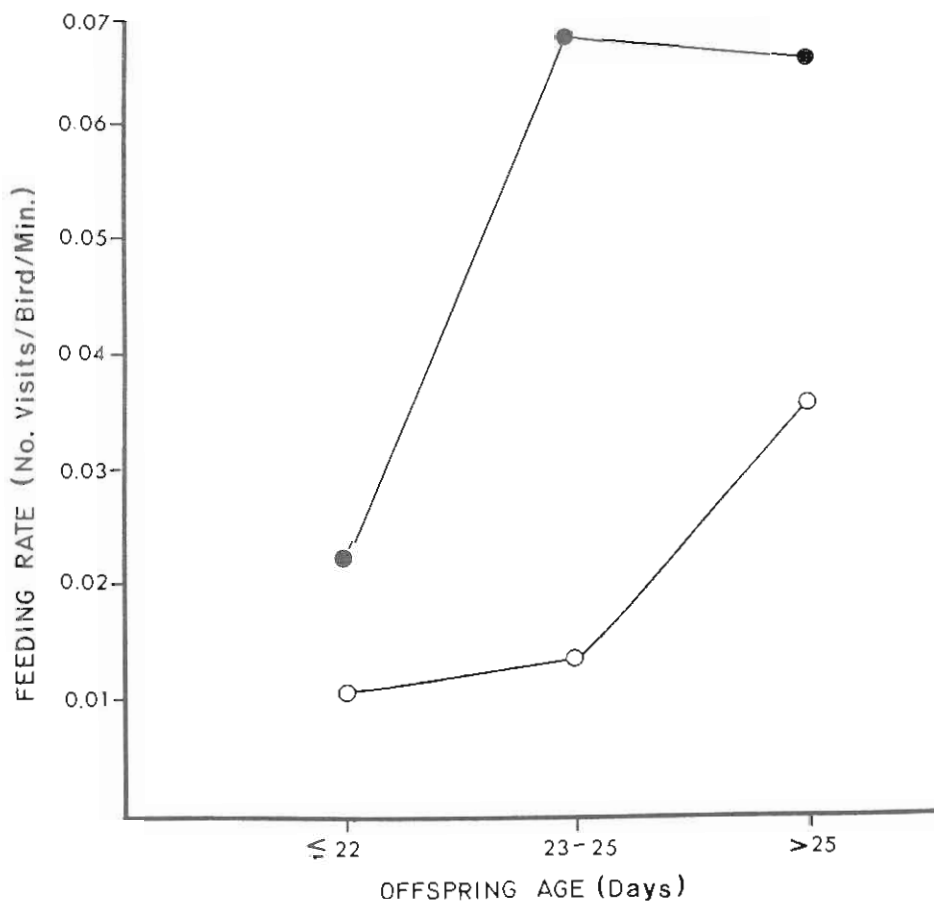


Figure 2. Percentage of male Western Bluebird feeding visits during 1986 and 1987 to 14 broods on the Beaver Creek Watershed, Coconino County, Arizona. Values falling within the 40-60% range are considered to be indicative of shared parental care. Closed stars are percentages of male feeding visits during the nestling period, open stars are percentages of male visits during the fledgling period, and starred circles are percentages of male visits over both periods.

Figure 3. Parental feeding rates by Western Bluebirds during the fledgling period as a function of offspring age during 1986 and 1987 on the Beaver Creek Watershed, Coconino County, Arizona. Closed circles represent feeding rates of below-modal (≤ 4 young) and open circles represent feeding rates of modal (5 young) broods.



(Continued from page 125)

affected parental care. Male and females played an equivalent role in feeding offspring during both the nestling and fledgling period. Although parental feeding rates increased during the fledgling period from the nestling period, a better measurement of energetic stress than feeding rate is required before it is possible to ascertain whether the fledgling period is a "period of crisis" relative to the nestling period for parents caring for offspring. ■

Acknowledgments

I am grateful to the North American Bluebird Society for funding my research in 1987. I also thank Sigma Xi and the Frank M. Chapman Memorial Fund for supplying additional financial support for this project. For assistance with field work, I thank Michael Morrison and Cara Staab; Michael Morrison's critical review of an earlier draft of this manuscript was most appreciated. I conducted this research while in pursuit of a MS under the guidance of Russell Balda in the Department of Biological Sciences at Northern Arizona University, Flagstaff, AZ.

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Ms. With received a research grant from the North American Bluebird Society in 1987 for the "Effects of Brood Size on the Parental Care of Western Bluebirds."

(PRESIDENTIAL POINTS—Continued from page 122)

the beautiful, plaintive call of the White-throated Sparrow and proceeded to imitate many birds. Yes, you really thought you were hearing birds and his bluebird call was perfect.

Andre Dion has often spoken of his garden and his beloved martins. All of us finally got to see firsthand the paradise he's created. Most everything around Andre's home has been planted for the birds. Dead trees are cut off, leaving a tall stump of about 15 feet for the woodpeckers. Vines are planted around old stumps to create a "bird castle." The vines provide protection from both predators and weather elements. The feeders are always full and several areas have running water for the birds to use. The deck railing is lined with planters of impatiens to attract the hummingbirds and other flowers are found around the garden. Then there are the martins—oh, so many martins chattering all the time. The martin houses are at eye level with the deck and located so near that it was possible to watch the young put their heads out to take food from the parents. I left there wanting a martin house and some "bird castles."

A lot of hard work goes into hosting an annual meeting. A special thanks to Andre Cyr and the Dions for a very special weekend for the bluebirders. I know that each time I see martins, I will think of Andre Dion. ■

Bluebird Boosters

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

You, too, can become a Bluebird Booster. For a donation of \$25.00 per issue or \$75.00 per four issues, you can be designated as an Eastern, Western or Mountain Bluebird Booster (your choice); for \$15.00 per issue or \$50.00 per four issues, be a Fledgling Booster; while \$10.00 per issue or \$25.00 per four issues makes you a Nestling Booster.

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

Index Coming

As part of its tenth year anniversary this year, NABS will issue an index covering volumes 1-9. It will be published separately from the regular issues of the journal and will be available for a small fee.

Literature Review

T. David Pitts

Krissinger, W.A. 1984. The life history of *Lutzrema monenteron* (Price and McIntosh, 1935) Travassos, 1941 (Trematoda: Dicrocoeliidae). *Proceedings of the Helminthological Society of Washington* 51:275-281.—The effects of parasites on bluebird populations are poorly understood. Parasites are generally divided into two major groups based on where the parasite lives on its host. Ectoparasites, such as mites and fleas, live on the outside of the host, while endoparasites live inside the body of the host. Many of the endoparasites have complex life cycles; the parasite may spend part of its life in one type of animal (called the intermediate host) before moving to another animal (the final host) to complete its reproductive cycle. Few studies have investigated the relationships between endoparasites, their intermediate hosts, and bluebirds. This article describes the life history of a trematode parasite of thrushes and other songbirds. The parasite was found in the only Eastern Bluebird checked; approximately two-thirds of the 52 American Robins autopsied carried the parasite. While the article has little new information specifically dealing with bluebirds, the findings that land snails and millipeds (both of which are used for food by bluebirds) can serve as intermediate hosts for the parasite raise the possibility that this parasite may infest many bluebirds in some areas. The specific effects of various parasite loads on individual bluebirds remain to be determined. Students searching for research projects dealing with population changes might profitably consider the effects of such parasites on bluebirds.

McComb, W.C., W.H. Davis, and P.N. Allaire. 1987. Excluding starlings from a slot-entrance bluebird nest box. *Wildlife Society Bulletin* 15:204-207.—Three types of nest boxes were placed on reclaimed surface coal mines in Ken-

tucky in 1982. Boxes were similar except for the entrance design. One type of box had a standard 3.8 cm (1.5 inch) diameter circular entrance on the front; the second type had a slot opening 3.8 × 13 cm (5.1 in.) on the front; and, the third type had a 3.8 × 13 cm slot opening on the top. Only Eastern Bluebirds used boxes with 3.8 cm circular openings; however, both bluebirds and European Starlings strongly preferred boxes with a slot opening on the front. Starlings were able to enter such boxes even though they are normally not able to enter 3.8 cm diameter circular openings. In subsequent years, 1983-1985, nest boxes with differing slot widths were offered. Results indicate that nest boxes with front slots 3.0 cm (1.2 in.) wide allowed access to bluebirds but not starlings. The third type of nest box design, with a slot in the top, was rarely used by either bluebirds or starlings. Based on these results, nest boxes with 3.0 cm wide slots on the front are recommended over nest boxes having the standard 3.8 cm diameter round opening. Since House Sparrows were apparently not present in the area, no conclusions could be reached about their choice of entrance type.

Hayes, D.J., R.R. Felton, and R.R. Cohen. 1985. A natural occurrence of foster parenting by a female Mountain Bluebird. *Auk* 102:191-193.—A male Mountain Bluebird that was paired with one female expanded his territory and acquired a second mate. When the first female disappeared, the second female abandoned her nest and helped the male feed and care for the nestlings of the first female. Possible causes and consequences of this apparently altruistic, and uncommon, behavior are discussed.

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.

Dead Wood for Wildlife

Jerry D. Hassinger and Jack Payne

Last month we discussed how valuable dead wood is for wildlife. This month we'll outline timber management strategies woodland owners can implement to provide the needs of wildlife.

Leaving dead wood for wildlife instead of burning it in the woodstove requires some choices. The fuelwood value of a hollow tree can be weighed, for example, against the possible value of a squirrel potpie. A raccoon den in a hollow oak could yield four young raccoons per year. If a prime pelt is worth \$10, is the tree worth \$40 per year? Aside from food or dollar values, the recreational value of wildlife is, for many of us, worth leaving a few hollow trees and logs on every acre. You may be hunting squirrels, Wood Ducks or grouse, or trying to take that special photograph of a bluebird. Consider the entertaining chickadee on your bird feeder; it was born in a hollow aspen tree on the back forty. These values are not measured by dollars, but by feeling. Robert Frost puts one such intangible value in simple perspective:

*"The day a crow shook down
on me,
a dust of snow from a hemlock
tree,
has changed my mood,
and saved a part of a day
I had rued."*

The regulation of insect populations is perhaps the least understood yet most valuable service of wildlife. Insects are a major food source for 80 percent of the birds listed in Table 1 (see *Sialia* 10(3):91). Nine of 20 mammals using tree cavities also predate on insects. The shrews, salamanders and reptiles that make some use of logs, stumps, bark and slash constitute another 50 species that forage for insects.

According to Beebe (1974):¹

Insect damage in American forests is a

significant cause of annual growth-loss. As a component of natural biotic control insectivorous hole-nesting birds, in many cases, play an important role in the regulation of forest insect populations. Food capacity of individual avian predators is high, and both functional and numerical responses to changes in insect prey density have been demonstrated. The most important role of birds is the prevention, rather than the suppression, of insect epidemics.

Through simplification of the forest ecosystem forestry practices decrease the suitability of the forest as habitat for hole-nesting birds, while increasing the susceptibility of the forest to insect outbreaks. The protection of hole-nesting bird populations by promoting diversity, leaving snags and other means is advocated as an economical means to help prevent insect outbreaks in the managed forest.

Most of us are familiar with the Purple Martin's ability to consume large numbers of flying insects. A single martin may consume hundreds of mosquitoes in one evening. But bats are the champs. They are the *only* major predator of nocturnal flying insects. A single big brown bat can consume thousands of mosquitoes before dawn. The point is that your woodlot will be better protected by a full complement of species, including birds, mammals, reptiles and amphibians. The alternative could be loss of annual tree growth or expensive spraying.

Can you afford to devote wood for wildlife, to leave some dying and dead trees plus a few hollow logs on every acre? The question might be better phrased: Can you afford not to do this?

For Cavity Nesters, The Future is Now

It may take 40 years for a cavity tree to develop; twice as long for trees with cavities large enough to house Wood Ducks and raccoons. Yet it takes only a few minutes to cut such trees down. That is the problem.

In some locations, cavity trees are being removed faster than they can be

replaced—if they are replaced. This is most serious in open areas, and is reflected by the fact that of the 35 species of cavity nesting birds in Pennsylvania, the only ones considered imperilled are ones that need large fields with scattered den trees.

There is little doubt that the lack of suitable nesting sites is one of the important factors contributing to the endangerment and vulnerability of some species that need edge and openland habitats. The positive response of bluebirds to proper placement of artificial nest boxes illustrates this.

Loss of habitat due to development, larger fields and fewer fence-rows, fewer wooden fenceposts, increased fuelwood cutting—particularly along forest edges—timber harvests with no wildlife considerations, and the newer designs of barns and silos have each contributed to a decline in suitable nest sites.

Competition for remaining nest sites is most severe: 1) in largely open areas with few trees, 2) in areas attractive to the greatest variety and number of cavity nesters (forest-field edges, 24 bird species, and near water, 27 bird species) and 3) where conditions are favorable for aggressive exotics like starlings and House Sparrows. For example, the Northern Flicker and the Red-headed Woodpecker are often victimized by starlings. The House Sparrow has been called the bluebird's worst enemy.

It follows that reserving all kinds of cavity trees along fence-rows and woodlot edge zones is one of the most important things a landowner can do to assure a future for most cavity nesting birds in Pennsylvania. Also, because 75 percent of the cavity nesting birds that use forest-field edges are also attracted to recent clearcut sites, it's important to reserve cavity trees on sites that will be clearcut.

Guidelines for Reserving Cavity Trees, and Dead and Down Woody Material

Dead parts of live trees and dead trees, whether standing (snags) or fall-

en (logs, slash) can be utilized for both woody products and wildlife benefits. Based on the assumption that you're interested in managing your woodlot for this mix of values, the following tips largely represent a compromise. Neither production of woody products (fuelwood, pulp) nor wildlife values will be maximized.

In the following list of guidelines, the term "reservations" refers collectively to partially live trees and dead trees (i.e., snags with or without cavities), and to fallen trees.

1. Cutting, especially fuelwood, is most likely to be concentrated in easily accessible areas, and where clean farming practices are applied. This results in removal of snags and logs from woodland borders and fence-rows, and from wooded bottoms bordering streams and roads. These are precisely the sites where wildlife use and competition for available nesting and cover sites is greatest. Therefore, reservations in these situations will provide the greatest benefits for a variety of wildlife species. Short of not cutting in these zones, the following guidelines should yield wildlife benefits:

a) Avoid cutting or removing hollow trees and limbs, prone or standing, live or dead, within 15 yards of a field. In the woodland areas immediately adjacent to this zone, reserve, on the average, 5 to 10 den trees per acre. Retain, also all existing logs with varying degrees of rot and at least four new logs—hollow but sections of felled trees, for example—per acre.

b) Avoid cutting or removing hollow trees and limbs, as above, but within 30 yards of streams and ponds. In woodlands immediately adjacent to water, reserve 10 to 25 den trees per acre. Retain logs as in "a" above.

c) As used here, a stand is any group of trees sufficiently uniform in appearance that it can be distinguished from adjacent groups. Retain 5 to 10 cavity trees and two new logs per acre in boundary zones of adjacent stands. One acre of this zone can be thought of as 30 yards wide (15 yards into each stand) and 160 yards long. For example, within 15 yards of where a stand of

evergreens abuts a stand of deciduous trees, make a special effort to reserve den trees and logs.

d) For partial cuts in woodland acres not meeting the above criteria, retain an average of 3 to 7 den trees. In addition save an equal number of snags without cavities and two new logs (over 12 inches in diameter at the thick end) per acre.

2. When an area in the forest is cut, the resulting temporary opening and edge can attract, among other wildlife, 27 species of cavity nesting birds and most mammals that use cavities if the following guidelines are applied.

Special note: The removal of all trees from a given area will cause a long-term detrimental impact on wildlife dependent on reservations. The young trees that spring up following clearcutting are not large enough to provide the configuration of dead wood inherent in larger trunks, logs and limbs. Compared to the amount and kinds of dead wood found in mature stands before clearcutting, a dead wood deficit develops about 15 years after cutting. This occurs sooner if slash and stumps are removed by whole tree chippers or fuelwood cutters. This deficit may span 40 or more years. For example, depending on its location, a clean 20-acre clearcut site will be unattractive to 100 or more species of wildlife for 40 or more years. Conversely, by following the guidelines below, the habitat needs of these same species will be provided.

a) Do not clearcut within 30 yards of water. Partial cutting in this water-side buffer strip should be limited to solid, live hardwood trees. Note: steeper slopes next to streams should have wider buffer strips.

b) Within clearcuts, reserve a 1/3- to 1/5-acre clump of trees for every five acres clearcut. Each clump should contain one or more live trees with squirrel-size or larger dens. Partial cutting within these tree clusters should be avoided.

c) In addition to the clumps, individual den trees and other snags can be reserved at an average of 6 to 13 trees per acre. If these are left near clearcut boundaries, in finger draws

and at the lower end of slopes, it's less likely they will be blown down. Blow-downs, however, are not wholly objectionable as logs on the forest floor benefit other wildlife species.

d) Logs are important as wildlife habitat because they last longer than slash. The noncommercial sections of butt logs are ideal for this purpose. They should not be dragged to and piled on the log loading site, though. Instead, they should be cut from the salable portion of the log where the tree is felled. Logs oriented along the contour will slow erosion and trap debris. In addition to all older logs with varying degrees of rot, at least two new logs (over 12 inches in diameter at the large end) should be retained for every acre cut.

Table 3. Cavity Nesting Birds of Special Concern

Species	Status
Bewick's Wren	Endangered
Common Barn-Owl	Vulnerable
Red-headed Woodpecker	Vulnerable
Purple Martin	Vulnerable
Eastern Bluebird	Vulnerable

e) Woody debris (slash) should be left on at least 10 percent of the area being clearcut.

f) Furthermore, the edge of a clearcut should be treated as a stand boundary as in 1.c above.

3. a) It's impossible to have everything on every acre. In effect, all of the above guidelines should be prefixed with: "If the choice exists..."

b) A uniform distribution of cavity trees may be both impractical and, from the standpoint of wildlife, undesirable. That is the reason the guideline figures are qualified as averages. A few acres probably have an excess of reservation possibilities. This excess can be reserved to compensate for the many acres that have few or no cavity trees.

c) If the choice exists, large (over 19 inches dbh), medium (10 to 19 inches dbh) and small (less than 10 inches

dbh) den trees should be reserved on the same acre, especially in edge zones. Again, a mixture of both live and dead cavity trees is desirable.

d) Black oaks decay faster than white oaks or pines. Because trees that decay more slowly remain standing longer, they have the potential to develop a greater number of cavities. Special efforts, therefore, should be made to retain slow decaying tree species such as white pines and white oaks.

e) If cavity trees do not exist where you want them, reserve trees with a high potential for developing cavities. Candidates are dead or partially dead trees, a live tree with a broken top, for example.

Summary

Dead wood, both standing and down, is important for many species of

wildlife. Animals evolved in forests where dead wood was never removed in the name of forest management. The increasing demand for forest products has, in many cases, resulted in a lack of dead wood habitat for many species. Application of these guidelines can help to provide some of this important habitat.

Some may question whether they can afford to leave some dead and dying trees and a few hollow logs in their woodlands. Considering the many values of wildlife dependent upon this resource, the question might better be: Can a forest owner afford not to do this?

¹Beebe, Spencer B., 1974, *Relationships Between Insectivorous Hole-Nesting Birds and Forest Management*. Yale University School of Forestry and Environmental Studies, New Haven, CT. ■

The first of two articles under this title appeared in the Summer issue of Sialia. The material is reprinted by permission of the Pennsylvania Game News © 1987 by the Pennsylvania Game Commission. This article was published originally in the April 1987 issue, pp 6-10.

Speakers of the Quarter

Emil Klanchar and Al Goga

Jerry Newman

The speakers in the spotlight this quarter are two men who were given a John and Norah Lane Award for their outstanding contribution to bluebird conservation at the Eleventh Annual Meeting. EMIL KLANCHAR and AL GOGA work as a team encouraging others to become involved in aiding the bluebird.

NABS headquarters has received many compliments about Emil and Al, praising them for the programs they put on. In the 14

years that this team has been helping to save the bluebird, they have constructed over 1,500 nesting boxes. Besides the boxes which they place throughout the county, they sell some of them and give away four to six at each program. They have a large sign that reads HELP SAVE THE BLUEBIRD - PUT UP A HOUSE. For the period 1982-1987 they have put on at least 82 programs reaching a total audience of 3,621. They've been on television once and in the daily news a few times. (See page 152.) ■

For Gizzard's Sake?

Laurance Sawyer

The chunks of dried, clay-like mud on the roof of the bluebird house aroused my curiosity. Had they been left by a squirrel's muddy feet? Were they a leftover from a dove's visit? I brushed the offending crumbs off the stone (yes, a stone) and lifted the roof to look within.

Seven wee White-breasted Nuthatches greeted my gaze with wide-open beaks. They occupied a neat chickadee-like nest in this unique stone house. Slabs of quarried rock formed the sides and the roof. It had housed bluebirds and titmice previously, now a nuthatch occupied it.

By stages, I managed to move the box with the nuthatches to our front yard where we could observe the adults coming and going to feed the nestlings. Small larvae and worms appeared to be the daily fare; the large brood kept both parents busy.

A few days later there were again crumbs of dried mud on the top of the box, and, once again, I dutifully brushed them off. Then, one of the pair appeared bearing a half thimble-sized chunk of the stuff, deposited it on the roof, and pecked it into small pellets which were then carried inside.

At this stage, some of the mud was found about the nest as though discarded or rejected as useless. We were curious. Is it offered as food to the young? Do they eat it? If so, is it essential in the diet as food, or is it an aid to digestion? Is there a grittiness needed to grind up food in the little gizzards of the nestlings? If this is its purpose, will the advancing season reveal the shell-covered bodies of beetles and the hard legs of larger insects fed to the young taking the place of the present supplement of gritty mud? Has anyone else observed this phenomenon?



Photograph by Laurance Sawyer

White-breasted Nuthatch atop stone nesting box with mud which the pair placed there and then carried into the box which contained seven nestlings.

We would never have observed it if the birds had not had such a handy anvil on which to prepare the mud.

The young nuthatches fledged from the nest about 26 May. I had replaced the original nest with one of paper toweling so any mud left in the nest could easily be seen. After they left, examination of nest and contents revealed no slightest particle of the mud, yet the parents had been carrying it into the box daily for about three weeks. The only reasonable conclusion is that their diet included the necessary grit and bulk found in this, to me,

unusual supplement. It certainly did no harm for the whole brood was unusually active and alert. We were able to follow the activities of the adults more easily than one might expect because the female, defying the illustrations in all our field guides, had a distinctive thin black band on her lower throat. My wife and I found the nesting activities of these nuthatches a most interesting addition to our knowledge of bird behavior. ■

Rt. 1, Bluebird Lane
Ringgold, GA 30736

Winter Feeding Problem Solved

Harry Krueger

On 17 January, I was watching the bluebirds feeding. The bluebird feeder is only 10 yards from my back door window, but I had been using the binoculars to carefully monitor the food the bluebirds were taking. I have never had any trouble with them consuming dogwood berries, but all last year they ignored the raisins which stayed in the feeder baskets until as dry and hard as small rocks. At that point I would remove them.

Although I had a bountiful supply of dogwood berries for the 1988 feeder season, a mid-winter sleet storm increased consumption to about three times normal, so I decided to try raisins again, along with the dogwood berries.

I had about five pounds of raisins left over from the 1986-87 season. They were in their original boxes which had been stored in the refrigerator. I opened one box. The raisins appeared to be dry and hard, and when I tried to pour them into a bowl they stayed stuck together. I tore the box off the raisins and boiled some water. I poured the boiling water over the raisins, kept stirring them, and let them soak for five to ten minutes in a large bowl. After draining off the surplus water, I put them in a plastic container. The raisins were now soft, full-sized, and succulent.

Now when I fill the feeders, I put the raisins in first, then sprinkle dogwood berries among the raisins. Of course, the dogwood berries are taken first, but when the bluebirds return they accept the raisins and, in some cases, take the raisins even when there are dogwood berries available.

Are the softened raisins the reason they are more readily accepted? I do know they are appealing—I eat a few every time I fill the feeder. ■

Rt. 2, Box OR28
Ore City, TX 75683

The above material, here in slightly abbreviated form, first appeared in Bluebird News 1(2):1-2 and is reprinted with permission.

More Ways to Discourage Predators

Greg Fuerst

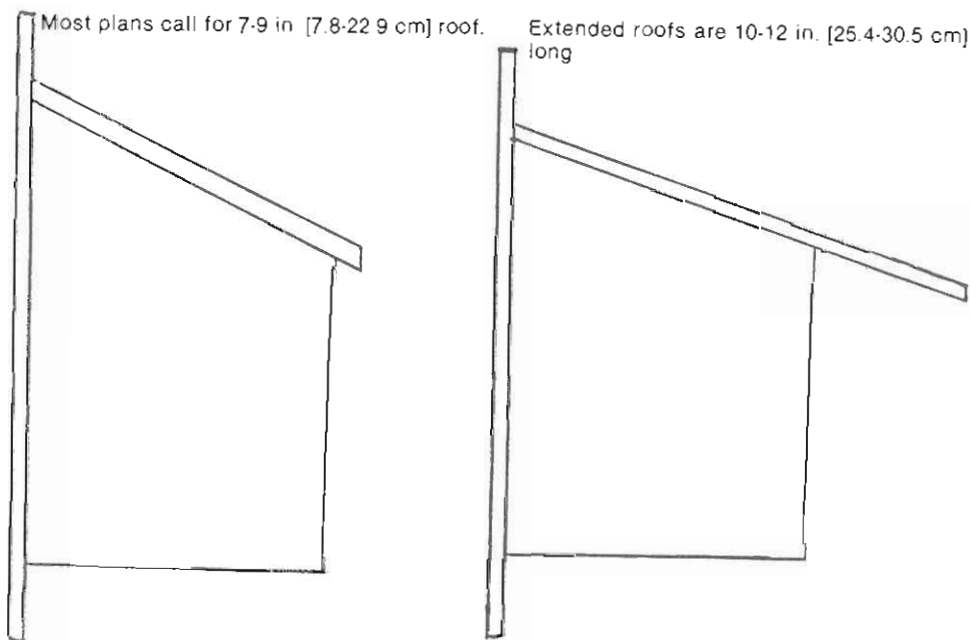
Most bluebirders know that sick feeling when one encounters a destroyed bluebird nest. The question is, what can be done to stop it?

The following hints have proven successful on two bluebird trails in Steuben County, New York. While no method has proven completely predator-proof, all bluebirders should take as many precautions as possible to avoid creating death traps for the bluebirds.

Hint number one is simple and can be employed on nesting boxes as they are built. Simply adding 3 inches [7.6 cm] to the length of the roof makes

entry difficult for cats and raccoons (Figure 1). For a predator perched on top of the box trying to reach in, the added length adds distance for them to reach (a similar line of thinking is the reason for the raccoon guard placed over the entrance hole). For predators approaching from the bottom on the face of the box, the longer roof makes a tighter angle, therefore, making it more difficult for the marauder to get his head and shoulder up close when trying to reach in. The added length does not deter the birds' entry in any way.

Figure 1. Extended Roof to Deter Predators.



The second hint is incorporated in the mounting technique (Figure 2). Considerably less predation has occurred in nesting boxes mounted on metal delineator or fenceposts than

those on wooden posts. However, height does seem to come into play here. Many bluebirders mount nesting boxes 3.5 feet [9-1.5 m] off the ground for the convenience of checking the

boxes. This may be too low. A metal delineator post 8 feet [2.4 m] in length driven 18 in. [45.7 cm] into the ground leaves the top of the post at 6.5 ft [2.0 m]. By using two woodscrews in the very bottom of the nesting box back, the box is left at 6.5-7 ft. [2.0-2.1 m] off the ground. The bluebirds don't seem to mind the extra height; after all, many natural cavities are commonly 15-20 ft. [4.6-6.1 m] or more in the air.

The cost of metal pipe, fencepost or delineator post may be a limiting factor for many bluebirders. Quite often this cost problem can be overcome

with a visit to the local highway department's scrap pile. Town, county, and state highway garages usually have no use for bent delineator posts and are happy to get rid of them. Of course you will want to get permission before helping yourself. A few minutes in a vise or a few raps with a sledge hammer and the post is like new. As for checking these high-rise boxes, most 5.5-6 ft. [1.7-1.8 m] people can reach into a front-opening box. A galvanized #8 siding nail placed in an oversized hole at an upward angle (Figure 3) nicely secures the door and allows for easy entry without tools. ■

Figure 2. Metal Mounting Post to Deter Predators.

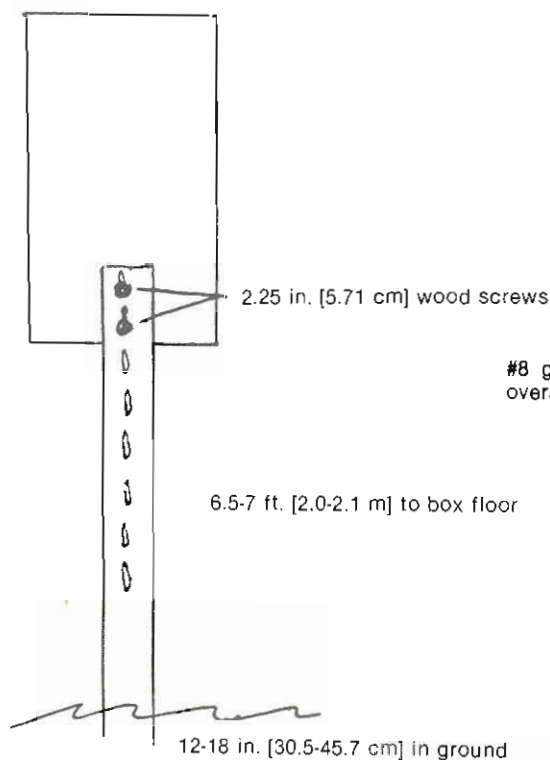
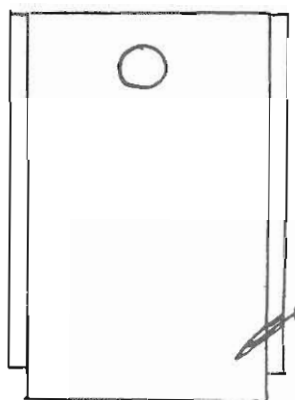


Figure 3. Easy Entry to Front-opening Nesting Box

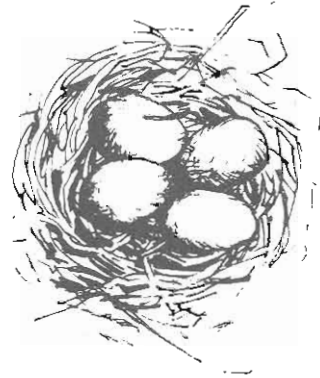


#8 galvanized nail doesn't rust closed in oversized hole. Easily pulls out by hand.

NY State Dept. of Environmental
Conservation
115 Library St.
Bath, NY 14810

QUESTION CORNER

Lawrence Zeleny



We have enjoyed six or seven bluebirds near our yard for the past four years from July all through the winter. This past winter we had about 20 or 30 bluebirds for about three months. All of a sudden in March they left. I have not seen even one in our area except at a friend's farm about five miles away. We have plenty of acres for them and year-round water. Tell me, what am I doing wrong?

Dottie Reeves
Dublin, Texas

From the information supplied, it would appear that you have done nothing wrong. My guess would be that your bluebirds have become accustomed to nesting in a different area and that they returned to that familiar area to raise their families. March marks the beginning of the nesting season in Texas. There is a good chance that many of these birds will return to your property with their families later in the season. Sooner or later, some of them will probably remain and nest on your property since you now have nesting boxes for them.

It is also quite possible that at least some of the bluebirds that you have in the winter are from much farther north. Bluebirds that spend the summers and raise their families in the northern states move south in the winter and most of them again go north in the early spring. Thus, it is almost certain that there are a lot more bluebirds in Texas in the winter than in the summer.

Will bluebirds object to the use of outside-treated lumber known as Wolmanized lumber?

J. Nick Davis
Asheville, North Carolina

Wolmanized lumber and various other types of treated lumber are impregnated with chemicals that cause the lumber to resist decay. Generally, birds do not hesitate to use boxes made from such lumber. However, there is always the possibility that the birds using them may be affected unfavorably by the chemicals, all of which are more or less toxic. Even though no immediate adverse effects may be apparent, it is difficult to rule out the possibility of delayed effects such as carcinogenic, mutagenic, or even sterility producing effects that might not show up until later generations.

Until more is learned about the possible hazards involved in the use of such treated lumbars, it seems prudent to avoid them in making nesting boxes. Boxes made of cedar, redwood, or cypress will last for many years without painting or treatment of any kind. Exterior grade plywood is also quite good in this respect. Western red cedar boards of a grade intended for fencing may often be obtained at a very reasonable price and are excellent for making nesting boxes. Boxes made of pine will last quite well if they are painted with a light-colored exterior grade of latex paint. They should be painted on the outside only. ■

PLANTINGS FOR BLUEBIRDS AND OTHER WILDLIFE

Wild Grapes: Fruits With Bluebird Appeal

Karen Blackburn

The many species of wild grapes which range from Canada throughout most of the United States are of significant value to wildlife. Not only are the fruits used by nearly one hundred species of birds, but the vines themselves provide preferred nest sites for many species, including the Eastern Kingbird, Northern Mockingbird, Gray Catbird and Brown Thrasher. The dense foliage and tangled vines also offer protective cover for wildlife, and, in addition, a number of birds, such as the Veery, Cedar Waxwing and many warblers, use the shredded bark of grapevines in constructing their nests. Last, but not least, here is a food source favored by all three species of bluebirds.

Wild Grapes (*Vitis* spp.)

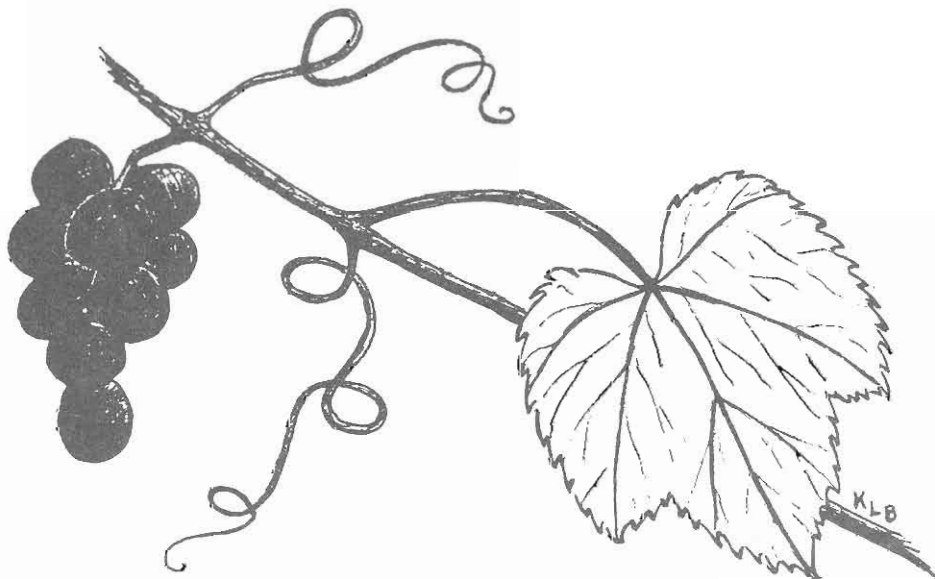
Native Range—Many native species, ranging from Canada throughout most of the United States.

Hardiness—Varies with species

Habitat—Commonly found along stream banks, forest margins, in thickets and fence rows; often climbs high into trees.

Habit—Vigorous, deciduous vines, climbing by means of tendrils which cling to any available support. The toothed leaves are heart-shaped at the base, are usually lobed, and are 2 to 9 inches (5.08 to 22.86 cm) in length, varying among species. Bark usually shredded.

Fruit and Flowers—Flowers are inconspicuous, growing in clusters. Sexes may be on the same plant or separate plants, depending upon species.



Fruits, ripening from late summer to early fall, may be blue, amber, purple or black and may measure up to 1 inch (2.54 cm) in diameter in some species.

Landscape Value—As with cultivated grapes, may be grown on an arbor or fence, but optimum wildlife value is derived when grapevines are allowed to grow in a natural tangle over stumps or brush piles.

Culture—All species prefer full sun, and most prefer moist, fertile soils. Easily propagated by layering.

Wildlife Value—When allowed to ramble over brush or stumps, grapevines offer protective cover as well as nest sites for many songbirds during the summer months. Strips of bark are frequently used as nesting material. Nearly one hundred species of birds are known to utilize the fruits which are taken as they ripen or during the winter months when dried on the vine. Birds

that take grapes as a preferred food include Eastern, Western and Mountain Bluebirds, Wild Turkey, Ruffed Grouse, Pileated, Red-bellied and Red-headed Woodpeckers, Northern Mockingbird, Gray Catbird, Brown Thrasher, American Robin, Wood, Hermit, Swainson's and Gray-cheeked Thrushes, Cedar Waxwing, Red-eyed and Warbling Vireos, Ovenbird, American Redstart, House Sparrow, Scarlet Tanager, Northern Cardinal, Phainopepla and Fox Sparrow. Black bears, opossums, raccoons, skunks and fox squirrels also favor the fruits.

Undesirable Traits—Vigorous growth habit may be considered undesirable on some sites. Vines are capable of smothering surrounding vegetation; caution is advised when selecting a planting site. Fruit yields generally fluctuate from year to year. ■

Rt. 3, Box 650
Marianna, FL 32446

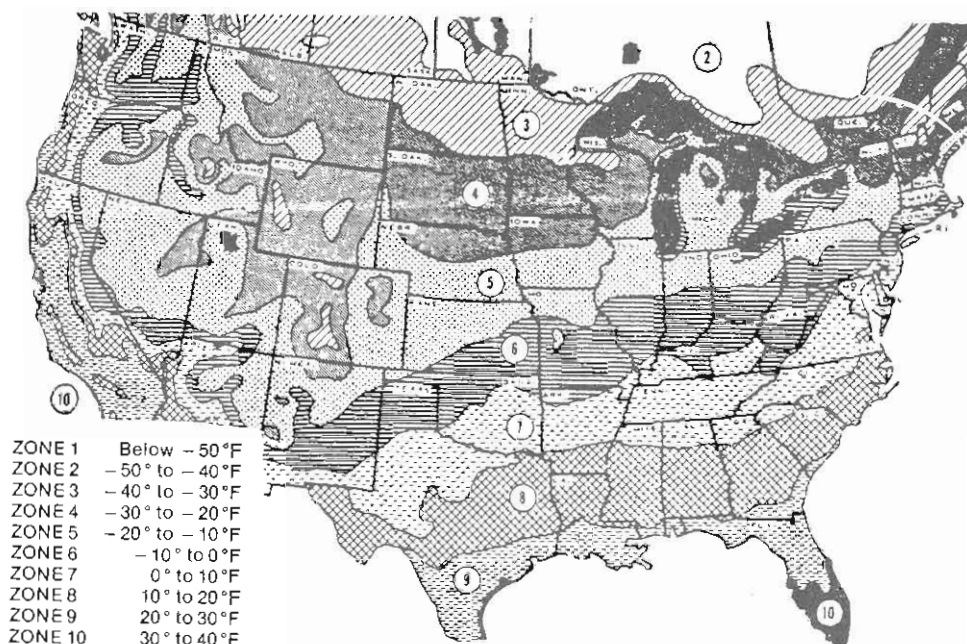


Figure 1. Hardiness Zones for the United States and southern Canada. Temperatures for each zone are the average annual minimum temperatures. When no zones are mentioned in the plant description, plants are hardy anywhere. Factors within zones such as altitude, exposure, soil type, moisture, etc. can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

Bluebird Book for Libraries

Jerry Newman

Each year we try to think of new ways to help the bluebirds and other native cavity nesting birds. Many people have rather large bluebird trails and, although a few extra boxes can be added, one can only be stretched so thin. If neglected, a trail soon turns into a wasp trail or a haven for House Sparrows. Remember, unless monitored regularly, more nesting boxes are not necessarily better; in fact, if you can't monitor your trail, it is best to leave the boxes in your garage/basement. Unmonitored boxes can eventually become death traps for bluebirds, their eggs and/or young as successive nests place them nearer the entrance hole leaving them easy prey for predators.

So what else is left? I know of at least two things that many of you can do. (1) Join the Speakers Bureau, but I'll leave that subject for another time. (2) Purchase the book *The Bluebird* by Lawrence Zeleny and donate it to your local library. Believe me they'll appreciate it. You can even do better than that. Why not make a commitment to furnish all the libraries in your county with this book? They don't all have to be purchased at one time. *The Bluebird* can be purchased through the Society (refer to the order blank that comes with each issue of *Sialia*). I recently talked to our librarian (I had previously donated a copy to them) about donating a copy to each branch library in the county (plus the main library) and she thought it was an excellent idea. I would especially like to see members of the Speakers Bureau donate a book to the library in each town where they hold a workshop or lecture and to inform the audience that the book is available at the library. Also, if the library has a little extra space, maybe you can arrange with the librarian to set up a small bluebird display: the book, bluebird brochures, a nest box,

and other related items. After the display is removed the book would be available for checkout, or have two books, one for display and one for checkout.

Try as you might it's impossible for one person to cover all the miles in one's own area mounting and monitoring bluebird boxes. It will take many people to do this. Through the Speakers Bureau we educate as many people as we can, but we are only scratching the surface of the population. Yes, the library book will only reach a small number of people, but if they check the book out, most of them have more than a passing interest in the bluebird and might be inclined to follow through with a nest box or even a small bluebird trail. As many of you know, bluebirding is contagious. If you can get one person interested, many of them will get their friends and relatives involved. I can cite many examples of this.

I hope the readers of *Sialia* will pick up this challenge to fill the libraries of America/Canada with copies of *The Bluebird*. Your donation will be available for many many years to come for readers to enjoy. To make this an ongoing project, the Society has established Library Boosters and the names of libraries and donors will be listed in *Sialia*. Send your name and the name of the library to which a book was donated to LIBRARY BOOSTERS, PO Box 6295, Silver Spring, MD 20906-0295. ■

See *Sialia* 2(3):97-98 for article by Jon Belisle, "Bluebird Books Donated to Libraries" in which he describes donating *The Bluebird* to more than 100 libraries in southern Minnesota, southern Wisconsin, and Iowa. Be sure to check to see whether the library already contains the book and if they would be willing to receive a copy before donating it.

BLUEBIRDS ACROSS VERMONT: Statewide Bluebird Network Created

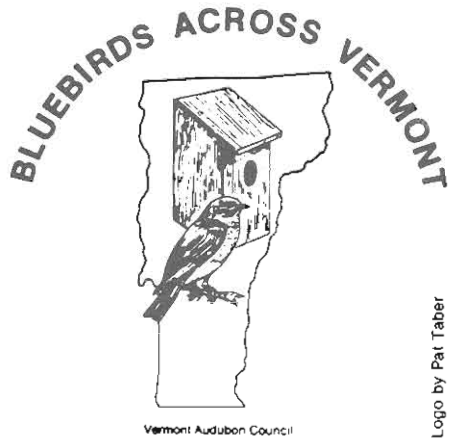
Steven G. Parren

The Vermont Audubon Council (a coalition of 10 conservation organizations) began planning a statewide bluebird network in 1986. Although many individuals and local groups had provided Eastern Bluebirds in Vermont with nest boxes, these efforts were limited in scope. We saw the need for a comprehensive program that would create a web of nest boxes across Vermont, promote citizen involvement, and serve as a clearing house for information on bluebirds and other cavity nesters.

One important element to the success of our network was securing a supply of well-built and affordable nest boxes. A bountiful source was found thanks to the efforts of a retired couple who shared our concern for the bluebird. They produced over 1000 boxes in 1987, the first year of our network. We now have several local suppliers of nest boxes in the six dollar range and a box can be mail ordered for \$7.75.

We produced a brochure, a nest box survey form, and a 24 page booklet which was reviewed by many individuals including NABS Founder Lawrence Zeieny. Seed money was needed to print these materials and to get the program started. Major contributors included the Vermont Fish & Wildlife Department, The Cecil Howard Charitable Trust, an anonymous donor, National Audubon Society, and member organizations of the Vermont Audubon Council.

Bluebirds Across Vermont was launched in February of 1987. Press releases were sent out and we did both a 15 minute TV program and a 30 minute radio broadcast. We distributed 10,000 brochures, showed the NABS slide show to numerous groups, and signed up over 500 members. We estimate that over 2,000 nest boxes were placed in Vermont during 1987.



Logo by Pat Taber

Membership in Bluebirds Across Vermont costs a one-time fee of \$10, but we waive this if it presents a hardship. Members receive the network's booklet, an annual nest box survey form, a listing of local coordinators, and two newsletters per year. The network continues to receive partial funding from the Vermont Fish & Wildlife Department's Nongame Wildlife Fund. This fund was recently created by law, due in large measure to the efforts of the Vermont Audubon Council. Voluntary contributions to the fund are made via the state income tax form.

More than 100 nest box surveys for 1987 were returned. Of the reported 648 boxes, bluebirds attempted to nest in 128 of them (see table). In addition to the nest box survey form reports, I was able to provide information on another 75 nest sites due to my involvement in an independent study and personal contacts. Known nest sites were located in 81 of Vermont's 255 towns. We estimated that between 700 and 800 fledgling bluebirds were produced

Table 1. 1987 Nest Box Survey Results

	Eastern Bluebird	Tree Swallow	House Wren	All three species
Boxes in which nesting occurred	128	241	61	430
Boxes from which young fledged	98	161	35	294

from nest sites of which we had knowledge. Bluebirds used 20% of the reported boxes and averages of 5.1 eggs and 4.1 fledglings per box were calculated.

Tree Swallows were reported in twice as many nest boxes as bluebirds, but were less successful in those boxes in which nesting was attempted; bluebirds were successful in 77% compared to 67% for swallows. Swallows averaged 4.6 eggs and 4.1 fledglings per box. The 241 reported boxes in which swallows attempted to nest probably produced between 700 and 1000 fledglings. We believe swallows were much more abundant in the state than our reports indicated. Over 40 pairs of Tree Swallows have been known to nest on a ten-acre island in Lake Champlain.

Wrens only used 9% of the reported nest boxes and this includes dummy nests. They produced 4.2 eggs and 3.8 fledglings per selected box. Between 170 and 230 young are likely to have fledged.

Loss of eggs or nestlings was attributed to (in this order) weather, cats, wrens, squirrels, raccoons, and House Sparrows. House Sparrows do pose a problem in Vermont, but one of much smaller magnitude than appears to be the case in other areas of North America.

We have not confirmed any case of third broods by bluebirds in Vermont. One bluebird pair was still raising young in September after their second nesting was disrupted by House

Sparrows.

Bluebirds preferred boxes placed in open areas such as lawns, meadows, pastures, and orchards compared to brushy areas such as woodland edge and hedgerows. In open areas bluebirds used 26% of the boxes compared to only 6% in brushy areas.

Members of Bluebirds Across Vermont successfully used pairing of nest boxes within 25 feet to reduce competition between bluebirds and other native species, primarily Tree Swallows.

Bluebird trails have been created by many groups including the Vermont Fish & Wildlife Department in each of their five regional districts, the Missisquoi National Wildlife Refuge, the Veteran's Administration Hospital, the Green Mountain Audubon Society, and others. There have been numerous school, scout, and 4-H bluebird nest box construction projects and the Vermont Fish & Wildlife Department's Conservation Camps now include construction of bluebird boxes—about 800 new nest boxes every year—as part of their activities. One elementary school had each student build a nest box in 1987 and named their project "Bluebirds Across Huntington." They are building more boxes this year and the entire town is involved.

The future looks bright for the Eastern Bluebird in Vermont and we are all enjoying ourselves in the process. ■

R.R. #1, Box 605
Hinesburg, VT 05461

Diary of a New Bluebirder

Euanna Holloway

April 17, 1986—All my life I have read about bluebirds and have wanted to see them. I had hoped that I could someday put up a bluebird box or two and attract a pair to my yard. This morning I looked out of my kitchen window and there, to my great surprise and delight, was a pair of bluebirds on the swing set in the backyard just six feet from my window. I watched them as she investigated the end of the top pipe while he sat a short distance down the pipe.

April 19—I had called my daughter in a nearby city and shared with her news of the beautiful birds that were visiting. They checked their books to find the right size for a house and started to make me one. They came down today with the house almost finished; my son-in-law did the finishing work and mounted it just below the top of the swing set. A friend found a place where I could get another one and we mounted that one on a post closer to the back of my yard.

April 26—Finally the bluebirds chose where they will make their nest—the house close to the window on the swing set which they had investigated first. It was interesting to watch them all week. I have a feeder halfway between the two houses. They flew from one place to the other. They sat as if trying to decide just which would be the right place. They would look this way and that and then come to the swing set and do the same. They flew to the nearby stand of trees and shrubs and back again to the post and swing set. The decision was made. They would nest where I had hoped they would, in the box on the swing set. It wasn't long until the female started the work of making the nest, gathering things here and there and taking them into the box. He seemed to be letting the rest of the birds know that this was their home as he would sit on a post and fly up into the air some six feet and back down again; then he flew to the feeder and, again, up in the air and down. He did not bother the birds at the feeder though he was always there keeping watch.

April 30—Friends who are bird lovers came to watch the pair of bluebirds. This morning, as we were watching, the male chased away the birds from the area. This was different than he had ever done. Any bird that came to the feeder would soon see the blue streak come and they knew he meant business. He did this for a few days.

May 3—After seeing the beautiful bluebird, I had come to quickly find him in the stand of trees behind my lot, but I haven't seen him at all. He just is not around. She is still going in and out of the nest box, but no male bird is to be seen.

May 10—I finally found my bird books and read that it is all right to look into the nest and so I did. There were five beautiful little eggs. Of course all my grandchildren should see this happening so I showed them. Still haven't seen the male.

May 17—Daughter's college graduation; the family all viewed the eggs. Still no male.

May 20—It has rained for three days so I haven't looked into the box to see if the eggs have hatched. It should be this week. I haven't seen the female today. When the rain stopped, I checked the nest. There were three or four babies. I was excited to see them but concerned because I had not seen the mother bluebird.

May 21—It is 4:45 p.m. and there on the swing set are two beautiful birds. The mother bird is on a lower bar and the father is at the opening to the nest looking in. She looks up at him and it looks like she says, "See, papa, there are your babies. Aren't you proud?" He went into the nest, greeted his babies. A short time later he flew out. They both were gone briefly, then came back with insects for the family.

May 22—As the mother feeds the babies, the father sits on the post and sings. I recorded some of this and now can easily recognize their songs even when they are in the trees. She stays in the nest for some 15 minutes at a time.

May 23—An interesting thing happened this morning and has happened several times more since. It seems when there may be danger or some question if the babies are all right, she calls the male. He is near the box and then goes to the nest and checks it out, even going inside. This has happened several times so it is a pattern. This morning there was another female bluebird that came close to the nest box and the mother quickly went after her. The father then stayed close to the box and after she came back he again went into the nest as if to check the babies. I have observed her calling him and he is there quickly.

May 25—It seems that the other female wants to cause some trouble as she came back again but was promptly chased away by the female. The male came and checked things out to make sure the babies are all right again. It is interesting to note this awareness of possible danger to his family.

Today for the first time he was at the other box. Previously, he has flown to the post that the box is mounted on, but now he goes to the opening and keeps looking into the box.

May 26—We have looked at the babies about every other day and they are growing, all four of them.

June 5—The feeding routine goes on and the mother makes visits to the nest more often than before and does not linger. Sometimes she only clings to the front of the box and moves in enough to feed the babies.

The father has gone to the other box many more times and, I believe, he has claimed it for the next family. He chases other birds from the nest. I looked at the babies and they have speckled feathers. According to one of the books and articles I have read, it may be this weekend that the babies will fly out of the nest. Looking forward to that. There are still four babies in the nest.

June 9—I have been watching the baby bluebirds look out of the box and come close to flying out. Finally I thought one was out farther than usual. Sure enough, out it flew to the large tree at the back of my lot some 100 feet away. It seemed to have no trouble flying.

I checked the nest and that was the last one to leave the nest. I was fortunate to see that. I cleaned the nest box so that if they chose to have the second family there, it would be ready for them.

Next few weeks—I could see the activity of the bluebird family in the grove of trees at the back of my lot. By next year I hope to have a pair of binoculars to see more at a distance.

By the third week of June I could see that the female had again chosen the nest box close to the house for her second family. She began to make her nest and it wasn't long until there were five eggs again.

The following week I missed seeing her come and go, so I checked the nest and the eggs were gone. It was too soon for them to have hatched. There was not a single piece of shell. I was puzzled as to what had happened to the eggs and very disappointed. I would not again experience watching the babies grow. Also, I had read the first family helps to feed the second and I had hoped to see that. Now I shall have to wait until next year when they return. Yes, I am sure they will return.

September 29—As I looked out the kitchen window, to my surprise, there were the father and mother bluebird. It had been weeks since I had seen them, though I had

heard their song in the distance. She was at the box near the house and two female House Finches were there with her. It was like she was showing them where her babies had been raised. Or maybe they wanted to rent it out while they were down south where it was warm. The male was out on the other box, then after the House Finch flew away, he flew up to the box where she was. They were there for a short while and off they flew.

September 30—Another visit from bluebirds but today there are three. I believe they were the young birds. There were two males and one female. All three of them seemed to be smaller than the mother and father that had come yesterday. Their color was like their parents. I didn't notice any speckles. They were there around the box and on the swing set for a few minutes, then they flew off.

Maybe they will return before they fly south. I hope they will. I wish there were some way to repay the hours of enjoyment they have given me this summer and now into fall. With House Finches at my feeder all summer and some chickadees and nuthatches as well as the bright yellow goldfinches and the other birds, I know my winter will continue to be exciting as my friends stay near. Of course, when the juncos arrive I will know it is soon winter, but with the warmth of beautiful summer memories of bluebirds and the expectation of their return, I am sure it will be a great winter. ■

945 Grass St.
Huntington, IN 46750

NORTH AMERICAN BLUEBIRD SOCIETY RESEARCH GRANTS

The North American Bluebird Society announces the sixth annual grants in aid for ornithological research directed toward cavity nesting species of North America with emphasis on the genus *Sialia*. Presently three annual grants of single or multiple awards totalling \$10,000.00 are available and include these items:

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

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

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

Further guidelines and application materials are available upon request from Cathy Blohowiak, Research Committee Chairman, 106 South Pebble Beach Ct., Slidell, LA 70460. Completed applications must be received by December 1, 1988; decisions will be announced by January 15, 1989.

TAKE PRIDE IN AMERICA

The North American Bluebird Society has been awarded a "Certificate of Merit" in the TAKE PRIDE IN AMERICA 1987 National Awards Program. NABS Founder Larry Zeleny, NABS Treasurer Delos C. (Chuck) Dupree and NABS Executive Director Mary Janetatos attended the National Awards Ceremony on July 26, 1988, which was held on the South Lawn of the White House in Washington, D.C. The dignified and entertaining program included an address by President Ronald Reagan to the assembled audience numbering about 1500 nominees.

The Certificate was given for "Meritorious Stewardship of America's Natural and Cultural Resources." The Society was chosen from thousands of nominees by a blue ribbon panel of judges co-chaired by Interior Secretary Donald P. Hodel, Education Secretary William J. Bennett, and Agriculture Secretary Richard E. Lyng. The TAKE PRIDE IN AMERICA campaign is a partnership of government, private organizations and individuals who are committed to ensuring that America's land, water, and historic places are used wisely for the benefit of this and future generations.

The continent-wide effort to ensure the welfare of bluebirds and other native cavity nesting birds which has been spearheaded by the North American Bluebird Society richly deserves this recognition. It shows that all who are involved in "bluebirding" really do TAKE PRIDE IN AMERICA!

—Mary D. Janetatos

Tenth Anniversary Issues Available

The tenth anniversary issue of *Sialia*, which was sent to all members a few months ago as a membership bonus, is now available singly or at special prices for multiple copies.

Single copies are \$2.50. In larger multiples they are 4 for \$7.50, 10 for \$15.00, and, if a minimum of 25 are ordered, they are \$1.00 each. All prices are postpaid.

This one issue contains a wealth of bluebirding information in a concise form and is designed to compliment *The Bluebird* by Lawrence Zeleny. It is of particular value to individuals who present the NABS slide show or who organ-

ize a bluebird workshop. The special issue makes a thoughtful gift to a friend, relative or acquaintance who may be beginning to show an interest in bluebirding.

Send orders to NABS, Box 6295, Silver Spring, MD 20906-0295. ■

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.

Eleventh Annual Meeting Report

Mary D. Janetatos

The Eleventh Annual Meeting of the North American Bluebird Society was held in Laval, Quebec on July 7-10, 1988. Headquartered at Hotel Sheraton/Laval in suburban Montreal, the meeting was attended by approximately 125 persons from many states and provinces. The meeting was given jointly with Societe des amis du Merle-bleu de l'Est de l'Amérique, whose founder, Andre Dion and President, France Dion, are avid attendees at other NABS meetings. Andre Cyr, professor of biology at the Université de Sherbrooke shared responsibility and also credit for the success of the meeting.

Friday the field trips began at 8:00 a.m. to the following places: Lac Boivin, Granby and Parc Paul Sauve, Oka. Andre Cyr described the "Gannets at Bonaventure Island"; a one hour film session followed.

On Saturday morning, a trip was scheduled to France and Andre Dion's garden, where cavities galore await bird "tenants." Also demonstrated at that time were dormitories and starling traps, without which any cavity nesting bird would search in vain for a nesting site! Rejean Gingras demonstrated the effective traps, whereby thousands of starlings are live-trapped. Electrical traps were shown. These are capable of hidden triggering enabling the bluebirder to release birds other than House Sparrows if any are inadvertently caught. Marcel Monter Pare was the presenter of the electrical trap. Andre Dion gave an "in-the-field" talk on "How to control a bluebird trail." Bluebirders know that providing nest boxes for bluebirds and other native users is but half the battle—and Andre provided earnest motivation for the important task of *monitoring* the trail.

Arriving back at the hotel everyone gathered for the 10:00 a.m. opening session and welcome. Ruby Finch of Bailey, NC, began with a reading of Psalm 8 followed by a prayer of thanks.

France Dion, Presidente of the SAMBEA, delivered a warm welcome to the assembly, and NABS President Sadie Dorber gracefully accepted it. The first speaker was Dr. Shirl Brunell, of Texarkana, Arkansas, who described how Hodges Gardens, Louisiana, received its bluebird trail. This came about as Shirl (who is a NABS Board Member as well as a clinical psychologist) realized that this largest of all privately owned botanical gardens in the U.S. contained much desirable bluebird habitat and would surely be further beautified if the lovely birds could be a part of their landscape. Shirl consulted with her "friends" in the animal world surrounding her Texarkana home, got busy building the nest boxes, loaded them into her car, and delivered them to a grateful staff at the gardens whom she had, of course, consulted previously.

John Trott, teacher, naturalist, and photographer of McLean, Virginia, next described his project of attracting to bluebirding the teenage girls at the private all-girl Madiera School where he teaches. John used his prize-winning photographic techniques to demonstrate the seriousness with which his students approached the bluebird conservation work and the success of the trail.

An insight into the intricacies of translation was given as Jane Brierley of Montreal related her experiences in translating Andre Dion's latest book, *A Garden of Birds*. The guide books in English as well as in-the-field observations were sandwiched between family responsibilities as Jane and Andre collaborated in their second offering. *The Return of the Bluebird*, published in 1981, was an allegory designed to inspire; the new book aids the reader in accomplishing the goal already achieved by France and Andre in their own little paradise—truly, "a garden of birds"!

Western Canadian bluebird history was related when Norah Lane detailed the pioneering work of her late husband, John Lane. "The Life of the Bluebird Man" gave many nostalgic insights into the work of John and Norah as they launched the Brandon (Manitoba) Junior Birders. During his career with the Canadian Pacific Railroad, John was able first to observe the dearth of bluebirds across his Canadian route, and then to plant boxes all across the provinces he travelled, thus creating the famed "longest bluebird trail in the world." After his death in 1972, Norah took up the banner for bluebirds. She became a founding board member of the North American Bluebird Society, and annually presents the NABS John and Norah Lane Award to outstanding bluebirders.

After lunch, President Sadie Dorber opened the annual business meeting at which officers were elected and award plaques given. The valued efforts of outgoing Recording Secretary Mark Raabe were noted and he was given a ringing round of applause. As a generous and competent attorney, Mark has always been ready with support and advice for the society. The Award honorees will be discussed in a separate article in this issue.

The statewide bluebird network created in Vermont was described by Steven G. Parren, whose position with the U.S. Fish and Wildlife Service in Vermont allows him to collaborate with the Vermont Audubon Council (a coalition of 10 conservation organizations) and NABS members to place criss-crossing trails in the Mountain State. The tremendous amount of progress accomplished there can inspire other states to bring the bluebirds back ever more plentifully.

A refreshment break allowed the attendees to visit the exhibit room. The exhibits ranged from hummingbird feeders made with silk flowers, beautiful art prints, and lifelike wood carvings to the exquisite china paintings by Fran Hanes and the enlightening display by Les Amis du Merle-bleu de l'Est de l'Amerique.

The program continued with the demonstration of a school science kit about bluebirds and other cavity nesting birds. Presented by one of its designers, teacher/naturalist Michael O'Brien, this kit shows a pair of youngsters who watch a woodpecker building its nest. They go on to learn more about birds who nest in cavities in a lively skit using professional child actors. Myrna Pearman, biologist for the Ellis Bird Farm in Alberta, was co-developer of the kit which comes complete with Teacher's Guide, Independent Student Study Unit, overhead transparencies, and video programs. Commissioned by Ellis Bird Farm, the completed kit will be distributed as a free resource to 14 centralized school lending facilities in Alberta. A limited number of the kits will be made available for sale outside of the province.

Past President Lillian Files described the monitoring of her Tyngsboro, Massachusetts, bluebird trail which she does on her moped! Lil uses her trail as a marvelous interpretive tool and has become "the bluebird lady" of the New England states. Lil also heads the Nominating Committee for NABS.

In a change of pace if not subject, David Bird described work done with raptors at the Raptor Center, MacDonal College, Ste-Anne de Bellevue. The report was met with interest as bluebirders wondered apprehensively whether their tenants could ever end up as a raptor's dinner? Possibly, but not very likely. Bluebirders remain wary, but can applaud the efforts of those who advance enlightened conservation of the dramatically beautiful birds of prey.

More time to visit exhibits and "bird-chattering" followed. Among the missing exhibitors this year were Laurance and Adelaide Sawyer, of Ringgold, Georgia. Laurance had injured himself with the tool he perfected for hollowing out logs to make bluebird nest boxes. We hope his recovery will be accomplished by the time this is published.

The traditional Saturday evening banquet followed. The proceedings

were chaired, as they had been during the day, by President Sadie Dorber. NABS Founder Larry Zeleny spoke movingly about the fact that he was gratified that the cause of bluebird conservation was being advanced so ably by so many good people. He was warmly applauded by all who were buoyed by his presence. Andre Dion also addressed the group. His wife, France, and their four daughters and granddaughter joined him on the podium bringing a massive bouquet of red and pink long-stemmed roses to their jubilant parents. Andre Cyr, the young biology professor, moved around the room doing whistled bird calls which were highly realistic. Shirl Brunell played her musical saw and then ad-

ressed the group briefly in French. This was received enthusiastically by the French-speaking hosts. To conclude the program, a solo troubadour serenaded the gathering, even eliciting some audience participation.

Sunday morning the group traveled to the Trappist Monastery in Oka to view the grounds and watch the plentiful Purple Martins. A film was shown about the life of the monks which was followed by brunch. Mass was optional. The gift shop sold the famed Oka cheese (perfected by the monks). This trip was the final scheduled activity in a very full and smoothly organized annual meeting which stands as one of the very best in NABS' experience. ■

HUBERT PRESCOTT

Hubert Prescott, noted Pacific Northwest bluebird authority, writer, researcher and founder of the Hubert Prescott Western Bluebird Trail, died June 8, 1988, at the age of 89. Prescott authored a number of articles for *Sialia*, was a founding director and charter member of the North American Bluebird Society, and in 1983 was given the John and Norah Lane Award for his outstanding contributions to bluebird conservation.

His lifelong interest in birds, animals and insects was bolstered by his professional training in zoology and chemistry and his career as an entomologist.

Hubert noted the total disappearance of flocks of bluebirds in the Willamette Valley when he returned from a 6½ year (1945-1951) research assignment in Montana and determined to reverse the process if it were not too late. In 1971 he began a search for the elusive bluebird and eventually found a few on the upper reaches of Chehalem Mountain near Newberg, Oregon. This eventually led to the formation of a very active group of bluebird trail enthusiasts who monitored nest boxes on Chehalem, Parrett, and Cooper Mountains, and at other elevations.

Although Mr. Prescott built between 1200-1500 nest boxes, he did not confine his work solely to bluebirds, but also worked with or conducted research relating to Purple Martins, Common Barn-Owls, flycatchers of several species, Violet-green Swallows, Tree Swallows, House Sparrows, European Starlings, and other cavity nesters. He was a prolific writer and an excellent photographer with many of his articles and pictures appearing in nationally known papers and magazines.

Both Hubert and his wife, Justine, were very active Portland Audubon Society members. He will be missed!

—Earl Gillis

Awards Presented

The Awards Committee of the North American Bluebird Society has given annual recognition to bluebirders across the continent who have achieved great results on behalf of bluebird conservation. At the Eleventh Annual Meeting in Laval, Quebec, on 9 July 1988, the following were honored with award plaques:

**The Tennessee Valley Authority, Inc.
Andre and France Dion, of Ste. Placide, Quebec
Beresford Proctor, of Mamaroneck, New York
Alberth Goga and
Emil Klanchar, both of western Pennsylvania**

The Lawrence Zeleny Award was made to the Tennessee Valley Authority, Inc. which has been a benefactor of bluebirds for many years through the good offices of John Judy. There are many productive trails on TVA lands. Education efforts have been extensive. This was especially evident in 1987 when the State of Tennessee needed a poster and TVA was instrumental in producing the large, beautiful poster called "It's Great to Be in Tennessee" featuring the bluebird.

John and Norah Lane Awards for outstanding contributions to bluebird conservation by individuals were made to the following people:

Andre and France Dion, of St. Placide, Quebec, Canada, have been actively engaged in building, setting out and monitoring bluebird nesting boxes and Purple Martin houses over many years. Andre is the author of several books intended to benefit bluebirds: *The Return of the Bluebird*, a poetic description of the bluebird's plight; a book on building nest boxes; and the latest one—on planting to benefit birds. France, a dynamo of action diminutive in form, under Andre's inspiration founded the Societe des Merles Bleus in Quebec.

Beresford Proctor, a veteran bluebirder from Mamaroneck, New York, has built and given away thousands of nest boxes over about a 15-year period. He had maintained his own bluebird trail as long as his health permitted, using his specially devised plan which has many bluebird benefiting features. His prolific work has been the subject of a myriad of articles which appeared in publications such as the *New York Times* and *USAir*.

Pennsylvanians Emil Klanchar and Alberth Goga have been team bluebirders for many years. Al Goga, the charter member, recruited Emil and the two men have been giving their bluebird talks up and down, in and out of their Huntingdon and Irwin areas to all who would listen! Garry Houston wrote in January 1988 from Trafford, PA: "On behalf of Royal Rangers of Christian Life Church, I would like to thank Al Goga and Emil Klanchar for their presentation.... We are going to set up the bird houses (they donated)... God bless your work!"

Their work on behalf of bluebirds has been an inspiration to many and deserves the congratulations of the entire Society! ■

—Mary D. Janetatos

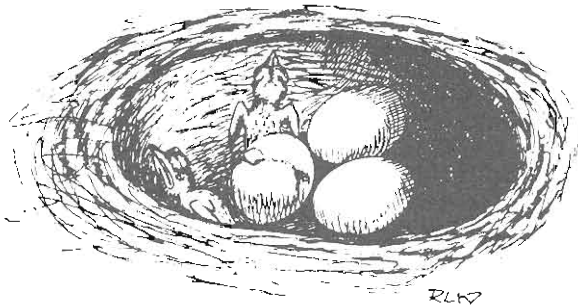


Past-President Lillian Lund Files (left) presents a NABS award for an outstanding contribution to bluebird conservation to Beresford Proctor of Mamaroneck, New York.

BOARD and AWARDS NOMINEES

The North American Bluebird Society is accepting resumes for positions on the Board of Directors and for individuals deserving of an award. If you are interested in being considered for a board appointment, please mail a resume to Nominating Chairman, Lillian Files, Scribner Hill, Tyngsboro, MA 01879.

Resumes for individuals that have done outstanding work in restoring the bluebird can be sent to President Sadie Dorber, Underwood Road RR #4, Vestal, NY 13850.



BLUEBIRD EXPRESS

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

Dear Editor:

I wish to share a rare experience that happened to me recently when I was checking my bluebird boxes.

As I approached one box, a burst of yellow seemed to explode from the opening. My friend, Michelle Cousineau, who is a skilled birder and wildlife artist, quickly identified that unusual display of color at a bluebird box as a Prothonotary Warbler. Later, we observed such a bird nearby in a willow tree overhanging a small stream of water.

I believe that this is a rare bird to be found in a bluebird house in southeast Kansas. When we inspected the box, we found it to contain a nest, one off-white egg with brown spots on it, and three tiny hatchlings. These were the most uniquely shaped birds that I have ever seen. Each was geometrically symmetrical consisting of one little ball of dark gray down balanced on two stem-like legs with spidery feet. On top of this ball was another smaller ball with a very small flat beak between two yellow "lips" that reached halfway around the ball which was balanced on a short thicker stem of a neck. A delineation of this tiny bird was what one might expect to find scratched on the wall of a cave drawn by a prehistoric artist. About a week later, when I inspected the house again, I found the hatchlings transformed and stretched out in the nest as little birds do, about



the size and shape of bluebirds at the same age. A week later they had started to show coloring as if nature's artist had only yellow in his brush, still with the dark gray down, but the yellow showed tints of green as any good artist would expect. Later inspection found the one unhatched egg; the three young had fledged.

My analogy of this experience is that if my boxes were lottery tickets, I had just hit the jackpot!

Wes Morse
P.O. Box 196
Fall River, KS 67047

Dear Editor:

Do the House Sparrows undermine your efforts to help the bluebirds? My method may work for you: I am convinced that the phases of the moon influence the bluebirds.

During the last week in January, place a stick so that it protrudes out of the entrance hole of your bluebird box. *It is important to position the stick so it will not fall out.*

If the new moon is in the last of March, remove the stick then (if the weather is cold, wait two or three days). If the new moon is in the middle of March and April, wait until the last quarter in April.

I usually try to remove the stick when I see bluebirds in the yard. I watch the box closely for a while; if sparrows come to the box, I frighten them away before they can go inside. I then re-

place the stick and try again a day or two later. Most of the time bluebirds will come right to the box and be able to defend it against the sparrows.

Emily Shoemaker
Rt. 1, Box 133
Sophia, NC 27350

Space limitations prevented printing the 1979-1988 nesting timetable for the North Carolina Piedmont enclosed by this correspondent—Ed.

Dear Editor:

The meeting in Canada was truly a good one. The Canadian people were warm and friendly. The field trip to the University de Sherbrooke was just great. The Father there sure is a friend of the bluebird. On that same field trip Albert and Dollie Guilbault saw their first bluebird. Wonderful to see people with such interest even when they do not have bluebirds at home. The Guilbaults are from Canada and hope to have bluebirds before long.

Do you know of someone, maybe someone that does not have an opportunity in another way, that would like to have a bluebird penpal? I would like to write to and receive letters from someone like that. Please, let me know if you have any ideas.

Christine B. Ammons
Rt. 1, Box 242
Union Mills, NC 28167

Dear Christine Ammons:

We're glad you found the annual meeting so stimulating. Many who attend regularly find each meeting better than the last.

Occasionally, individuals have expressed an interest in corresponding with other bluebirders concerning some item that has been published which is why we now use complete addresses with our letters. We can't use this column as an exchange for penpals, but we'd like to offer an alternative. For those in our readership who are interested in finding a bluebird penpal, send your name and address along with a stamped, self-addressed long

envelope to NABS Penpals, Box 6295, Silver Spring, MD 20906-0295 in order to receive a list of people who have registered to be penpals.

Dear Editor:

Please find enclosed a money order for my membership renewal and a gift. Please send a gift subscription to Stony Plain Fish and Game Assoc., c / o Dale Loosemore, R.R. 4, Site 400, Box 23, Stony Plain, Alberta, Canada T0E 2G0. I found that they have bluebird "lines" but didn't know about *Sialia*!

R. Kathleen Williams
15312 Rio Terrace Dr.
Edmonton, Alberta
Canada T5R 5M5

The 1987 summary Mrs. Williams enclosed indicated 452 bluebirds and 708 Tree Swallows were fledged from 433 boxes—Ed.

Dear Editor:

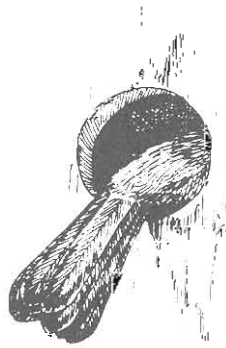
I live on the edge of a 127 acre park called the County Farm Park of Washtenaw County, [Michigan]. This spring the county put up its first bluebird trail, a dozen boxes, which we've added to. My husband and I are the official nest box watchers. Two weeks ago I saw and heard my first bluebird ever (and I'm 38 years old). Last week we counted one nest with five eggs in it. I'm hooked!

I was fortunate enough to grow up with parents who loved and respected wildlife, and who passed those values on to me. I joined NABS last year on a whim. I heard about it at the Dahlem Bluebird Festival and it sounded like a good idea to me. I never believed I'd be walking a nest box trail or making my own boxes, but here I am. Reading *Sialia* has ignited the passion in me and rewarded me with a glimpse of a bird I never thought I'd see. Keep up the good work!

Gloria Krysz
2759 Canterbury Rd.
Ann Arbor, MI 48104

Bluebird Tales

Mary D. Janetatos



"Take Pride in America!" was the song as hundred of finalists and semi-finalists gathered on the White House lawn on the hot, sunny morning of July 26, 1988. NABS Founder **Larry Zeleny**, Treasurer **Chuck Dupree**, and I, as Executive Director, had responded to a White House invitation from **Secretary of the Interior Donald Hodel** and were attending the ceremony to be held between 9:30 and 11:00 a.m. The 1,500 people represented groups which had been nominated as representatives of volunteer organizations whose efforts had advanced conservation, beautification and cultural causes. There was a "Continental breakfast" which featured flaky pastries, coffee, and orange juice. We found a wrought iron bench in the shade of a stately tree and settled on it in order to savor the surroundings and watch the events. The ceremonies began with the "Star Spangled Banner" played by the United States Marine Band. Secretary Donald Hodel then introduced the essay contest winner and government dignitaries. The red-coated Marine Band played stirring march music on the balcony. Following "Ruffles and Flourishes" and "Hail to the Chief," **President Ronald Reagan** strode out of the White House to the South Lawn microphone.

The President spoke in appreciative, glowing terms of the citizens who volunteer their time, efforts, and resources all across the country. These people contribute to the greatness of this wonderful country. As he did so, I breathed a prayer of thanks for all of the bluebirders across the continent who had each done so much toward making this recognition—that of a semi-finalist—possible.

It is veteran bluebirders like **Mrs. Steve Pace** of Perry, GA, who inspired yet another bluebird trail as reported by the trail's novice monitor **Mrs. G.W. Daniel** of Cuthbert, GA, who helped. **Deedee deSibour**, of Blue Hill, ME, began bluebirding to carry on the tradition started by her late sister, **Gay Duncan** of Southern Pines, NC. **Betsy Nichols** of Middletown, MD, gave her bluebird talk in the Urbana area for the third time and said, "I was most impressed with news from several persons of the *quick occupancy* of the boxes once they were placed in the proper location. **Jim Boozer**, Brevard, NC, continued his marathon efforts as reported in an early spring '88 issue of *Nature Society News*. "Bluebirds" columnist **Lyle Bradley** says of Jim, "Look what bluebirds have done for Jim.

He has achieved excellent senior citizen mental and physical health, has made hundreds of friends among wildlife enthusiasts, and his name is known in most USA states." From **Carl Cronmer** in Southern Pines, NC, there was the report of the bluebird trail at the country club which has completed a full decade of successful operation thanks to the efforts of the Bluebird Home Builders Association of the Southern Pines Elks Lodge 1692.

Walter Greenaway of Myrtle Beach, SC, wrote, "I established a bluebird trail at the Gunpowder Golf Club with help from Dr. Zeleny. Hundreds of eggs were hatched. I introduced another trail at the golf course in Manhattan, Kansas. On retirement in South Carolina, I have started a trail at the golf club at Holly Hill. At least 1,000 birds came from those boxes!" **Fred Sah!** told of his Ruritan Club in Church Road, VA, sponsoring a trial bluebird project. "This year we made and gave 25 approved bluebird boxes to interested members and neighbors. With each box I gave a copy of the educational material made possible by a grant from the Jane E. Marrilley Foundation of DC, and I supervised locating and placing the boxes. To date, May 22, 1988, we have fledged 92 birds, and three hens are sitting on 16 eggs." But where was **Graydon B. Cummins** of Mount Vernon, KY, all these years? NABS never heard of him before **Barry Benson** of WHAS-TV in Louisville called and told us of the TV special being done on this veteran bluebird of the Louisville area. Is Mr. Cummins known to any of you, dear readers?

Also sharing recognition in furthering the bluebird conservation cause should be those who try to stimulate interest among young people, such as **Edward Lopez** of Germantown, MD, who is Scoutmaster of Troop #444. This spring he wrote to thank us for our help with their bluebird project. "It started 1½ years ago and we had almost given up. We built more than 25 boxes and placed them in Seneca Creek State Park, at

Messiah Luthern Church, and near some local homes. This past week we found three boxes at Messiah Lutheran Church that had sat dormant for all this time now have a bluebird nest in each box. In another state, with similar park names to those in Maryland, Sue and Jim Dabbelt wrote: "(We) are volunteers at Germantown Nature Center which is part of the Montgomery County Park District. As part of our duties we help run some bluebird trails in Germantown Reserve. We are students at Ohio State University studying to become interpretive naturalists because we enjoy our volunteer work so much. We are currently engaged in an independent study course: the topic which we have chosen is bluebirds. We wish to produce a bluebird slide and audio tape presentation that could be used for groups such as 4-H clubs or scouts who might be interested in building bluebird boxes and maintaining a bluebird trail."

Hugh Medford, of Indian Trail, NC, related his Eagle Scout project "With the help of scouts from Troop 12, we put up 50 houses at Cane Creek Park. This is a large park located here in Union County. I have sent a map with the bird house locations to Mr. Ben Myers, Director of Cane Creek Park. He has agreed to have the staff at the park clean the boxes after each brood. The Mecklenburg Audubon Society has been notified so they can monitor the houses." NABS member Michael Patterson of Colleyville, TX, told about being a public school teacher in north-central Texas. "For quite some time now I have been allowing seventh grade students in my history-geography classes to build bluebird houses (as per your plans) in order to gain extra credit. So far this season lots of young bluebirds have hatched in the kids' boxes. Several of the nearby landowners have said they'd like to have two or three boxes of their own to watch. I would like to buy about 50 of the colored brochures (the ones with the circular photo and 'Where Have All the Bluebirds Gone?' on the front) so that I could give one along with the houses. To date, we have erected over 200 boxes in Tarrant, Wise, Montague and Palo Pinto counties here. I am beginning to have a monitoring problem so I want to start getting some landowners involved. Your brochure will do much more than my impromptu conferences in getting them to properly care for the houses on their land." It's great to hear bluebird promoters telling their listeners to monitor those boxes so enthusiastically put out! Mrs. Carmil's third grade class of Lincoln Elementary School in Royal Oak, MI, sent some charming drawings and letters filled with thoughtful questions which

proved that they had paid close attention as their teacher instructed them.

Writing for the Dogwood Garden Club in Union, KY, Tille Rankin sent a copy of her letter to club members encouraging them to put out nesting boxes. She concluded by exhorting them to win: "Let's go for it. Let's win that national award for our beautiful state."

Olivia Quick used a unique sticker on her letter: "I Am An Organic Gardener. I raise fruit, veg and flowers with God's Help." Don Love of Danville, PA, wrote last winter "Having just joined NABS two weeks ago, I don't know if my five enclosed photos of Eastern Bluebirds feeding (on currants) very close to my house, in groups, is unusual or not." I'm glad to know that Don had patience, for another correspondent, Sea Captain A.D. Healey of Framingham, MA, said: "I have mounted them [boxes] on trees at the edges of the pastures and cleared brush from around them. I believe that I have done everything *except be patient* in order to attract a pair of bluebirds. I was wondering if you have any members in my area (near Bellows Falls, VT) that have nesting pairs or have seen them. Have you any knowledge of bluebirds migrating northwards resting on the ships at sea? For instance, yesterday as we were heading southwards off the Florida coast we had a Bobolink aboard. I keep a bird book aboard as we come across quite a variety. Trip before we had three Baltimore Orioles." But the most plaintive letter came from prisoner John E. Fentral, of the Augusta, GA, Correctional Institution: "I have run across many stories on the study of survival of the bluebird. I asked my supervisor if I could build a bird house; he in turn asked his superior, which was okayed. Two days after I put it up, a pair of bluebirds began to investigate it. Was not long before other bluebirds were trying to move in also. I now have built a total of six of these bird houses and have a pair in each house. Since I have built these bird houses, several employees have shown a desire to have one, to take home and put in their yard. Since I am trying to spend my time constructively while here, I would like to ask you to send me information on these birds and nesting boxes, both in a kit and prebuilt." It is *indeed* a constructive way to spend time, constructing bluebird houses!

There are times in the nesting season when we get frantic phone calls regarding the pesky sparrows many people encounter. Dorothy Orlinsky of Allison Park, PA, said following one of these calls "Thanks so very much for taking the time to talk to me the night I called, so upset by the sparrow killing of our bluebird babies. But the

greatest of thanks goes out to you for the copy of the bluebird box trap for sparrows and the two articles. We made the gizmo and it WORKED, trapping the male killer which my husband disposed of. We learned a lot from your articles, especially about the male sparrow's 'love affair' with his house!" **Sally Trzaska** of Spring City, PA, tried a different remedy: "Thank you for your helpful suggestions in winning my war with House Sparrows. I have had bluebirds nesting in my yard for about seven years—ever since I received nesting box plans from you in the mail—and became *hooked* on bluebirds. As House Sparrows became a problem about four years ago I began removing their nests, thus allowing bluebirds to nest by June or so. Two years ago I took your suggestions of trapping the sparrows in the box. Last year I used a trip trap all winter with much success. This February I had a particularly smart sparrow nesting in the bluebird box. He would not enter if my trap was there. On your suggestion I tried putting cloth streamers about two feet above the box with the bottom of the streamers just touching the top of the box. The sparrows have left it alone since and the bluebirds moved in immediately. . . ."

Joe Suhling called from Jacksonville, IL, 200 miles south of Chicago and 80 miles north of St. Louis, to say that in his work as maintenance foreman with Kraft Food he can promote bluebirding, and that after reading the article on bluebirds in *Southern Living* last year, he had built three boxes in April. It was July when the first bluebird he had seen for many years arrived! So the call was to inform *someone* who would care as much as *he* did. **Jodell Pitts** of Sheridan, AR, also responded this past summer to the *Southern Living* article: "We live on a farm of 360 acres, have cattle, raise trees. We have a creek running through it, ponds which are spring fed, and it is pretty much left natural. I am handicapped and am very much interested in bluebirds. . . . I enjoy my bluebirds. They are so sweet! I have even seen a male in early spring feed a female a bug on a tall branch. Maybe that is common. But it almost brought me to tears. It seemed to me to be a courting gesture as if to say to the female, 'I would be a good mate! See what good juicy bugs I can find.' I don't share this information with just anybody because most people around here are not interested." Also responding to an article from the past was **Mrs. Maurice Dean** of Watkins Glen, NY, who wrote, "Every so often it's necessary to sort and part with the collection of home magazines. I'm in the process of taking the articles I want to keep. In *House Beautiful* I have *Dee*

Hardie's feature 'View From Thornhill Farm,' and she, too, loves bluebirds. On one occasion she writes how dear these little bundles of happiness are, and she gives your address. So I'm writing to ask about bluebirds and their houses. . . . Do you think we could ever have bluebirds here? And if so, how can we attract them?"

As reported elsewhere in this issue, the Annual Meeting in Montreal was a huge success, masterminded by **France Dion** and **Andre Cyr**. **Lucette Depadova**, biologist from Roxboro, Quebec, wrote, "I was at your 11th Annual Meeting, held in Montreal in July and I was very fond of it. . . . Thanks a lot again for the quality of the meeting, the kindness of the people and I hope that your work will go farther."

Many letters come praising what bluebirds have done for people: "The [bluebird] family in the nesting box outside my window has done more to speed the recovery of my broken hip and me than my doctor!" "My congratulations on such a wonderful interest and devoted efforts by your organization. I remember the bluebird quite well when growing up in the country in W.Va. It's exciting to see them again." "Thank you for having this society to help our little friend. God bless you all!" "I surely enjoy your journals. In Butte we don't have too many bluebirds, although I see a few of them farther out in the country. One bluebird visited my box but just stole the swallow's feathers from the nest and flew away." So keep those letters coming, and tell me all about *your* bluebirds. ■

Historian Requests Articles

NABS Historian Bob Bodine wishes to receive published material relating to bluebirds from newspapers, newsletters and magazines. Items featuring NABS members are especially welcome. All articles are preserved in scrapbooks. Please include your name and address and the name and date of the publication. If you send this material to headquarters or to the editor to be forwarded, be sure that the address of the publication is also enclosed. Very few newspaper articles are reprinted as published, but there are times when it would be desirable to contact an individual mentioned or obtain a photograph. Please send material to NABS Historian Bob Bodine, 61 Gordons Drive, Media, PA 19063. ■

Golf Course Blues

Don Johnson

On the morning of 15 June, I was walking the dog on the nearby golf course when I heard a bluebird singing. The song came from a grove of elm and pine near the end of the driving range. I had successfully fledged four blues last year on another part of the golf course but had no nest this year [1987]. I hurried home to get a box. I strapped it to a tree in the center of the grove. Several days later, it contained the beginning of a bluebird nest.

On 5 July one egg was laid. My wife and I went on a weekend camping trip and, on our return, expected to see at least three, maybe four eggs in the nest. To our surprise, the egg was alone in the nest. I immediately brought the tape player to the site. Both parents appeared to listen to their taped relatives. A couple of days passed but no more eggs appeared, so I called my good bluebird friend John and told him of my plight. John had two eggs from an abandoned nest which I placed with the other egg. About the 23rd, one egg hatched and, after several more days, I removed the two unhatched eggs. I showed off the single youngster to our grandchildren and the bird's parents showed off to us by coming very close; in fact, they were the closest I have ever been to a pair of bluebirds.

On my visit on 3 August, both parents began diving at me just like the Tree Swallows do. I just hoped they were that way when the flock of crows was in their vicinity. On 6 August we were approaching the box when a flash of blue flew in front of us. It was the male checking us out. He flew past and landed on the 250 yard marker. I reached into the nest and, to my surprise, there was no baby. The nest was empty. I heard and saw the female above me flitting from branch to branch chirping madly. We thought the chick was on the ground so checked the area, but no baby. We scanned the tree branches for the little one and finally heard a chirp, chirp. There directly

above us was a baby bluebird standing on a branch while the mother darted back and forth above it.

We stayed and watched the antics of the mother for ten minutes. About a week later, a flash of blue caught my attention while walking along the edge of the golf course. Three bluebirds were moving through the trees. Occasionally, one of the birds would dart out onto the fairway to snatch an insect. There was no way to prove it, but I felt sure they were the three from my box. ■

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Art Editor Named

M. Suzanne Probst is a native of Maryland and currently resides in the new town of Columbia. She graduated from Catonsville Community College with a major in graphic arts and has been employed as a graphic artist for 11 years. She has produced note cards for a local bird club and design illustrations for commercial publications. ■

Project FeederWatch

Cornell University's Laboratory of Ornithology began Project FeederWatch last year as a cooperative research venture with Canada's Long Point Bird Observatory. It involves many participants (4,000 in its pilot year) watching feeders all across the continent to help answer numerous questions about feeder birds. You must be able to identify the common birds that come to your feeder.

Project FeederWatch requires an annual registration fee of \$9, which helps to pay for data forms, analysis and preparation, and mailing of reports and newsletters. To join, write to Erica Dunn, Coordinator, Project FeederWatch, Cornell Laboratory of Ornithology, Sapsucker Woods, Ithaca, NY 14850. Include your name and address, state whether you wish to contribute observations from your feeder or just receive reports, and enclose your check for \$9 made payable to Project FeederWatch. ■

Where Do All the Bluebirds Go?

Where do all the bluebirds go when they leave the nest?
What distance do they fly before their tiny wings must rest?
What super power guides them when they leave their summer home
On wings that must propel them over miles of land unknown?

They learn to hop from branch to branch and fly from tree to tree,
Then soar aloft and vanish in thin air, it seems to me.
One day, on weekly check, I held a fledgling in my hand,
To better count the siblings and record them on demand.

I held him gently, firmly, but he wriggled free and flew,
And in seconds he was but a tiny speck off up in the blue.
Then I wondered how these little creatures learned to soar so high
When housed from birth within this box till strong enough to fly,

And where they went, and how they lived, till joined by all the rest,
As one by one they'd fly away and leave an empty nest.
I wondered how they could survive in this big world alone,
When fed by parents in the nest until they're fully grown.

Do they wander far and wide for bugs to fill their tummies,
Or do they loaf, as robins do, dependent on their mummies?
They seem to vanish in the air, then reappear at times,
Till Nature bades them to depart and fly to warmer climes.

The answers to these questions I don't think I'll ever know,
But still will keep me wondering, just where do bluebirds go?

Hazel A. Bowie

ART CREDITS

Karen Blackburn: 140
Jon E. Boone: 122, 154
Susan Pennell: 139, 156
Richard L. Woodward: 153

We welcome all reports of plant use by wildlife. Please be as specific as possible, including such information as the name of the plant (botanical name when known) and the approximate time of year when the observations were made. Send your reports to Karen Blackburn, Rt. 3, Box 650, Marianna, FL 32446.

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

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

Membership: Student (under 21) and Senior (over 60), \$7.50; Regular, \$15; Sustaining, \$30; Supporting, \$50; Contributing, \$100; Corporate, \$100; Donor, \$250. Add \$2 per year for Canada and Mexico and \$3 per year for other countries (surface mail). U.S. funds only, please. Amounts over \$6 are tax deductible.

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