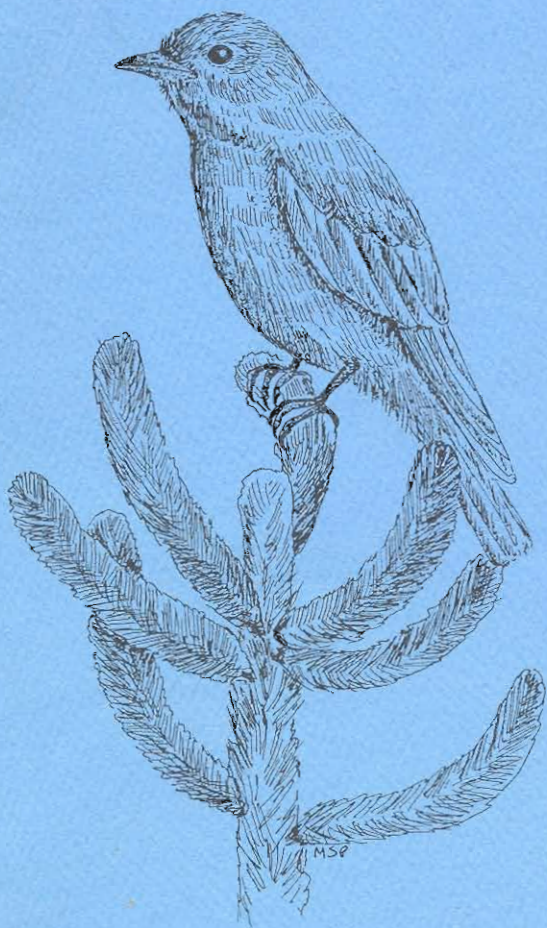


Sialia

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Winter 1994
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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 *sialia*, 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.

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Sialia

The Quarterly Journal
About Bluebirds

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Joanne K. Solem
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COVER

A Western Bluebird perches on a small spruce tree in Art Editor M. Suzanne Probst's cover drawing.

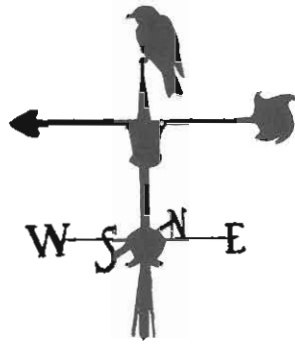
CONTENTS

Presidential Points	2
Charlotte Jernigan	
Factors Limiting the Recovery of the Eastern Bluebird in Niagara, Orleans, Monroe and Wayne Counties in New York State	3
Jeanne Wigen-Ayers	
Teaching Bluebird Trail Management at OWJL Academic Camp (Part 1)	9
Richard M. Tuttle	
Tree Branch Bluebird Box	13
Frank A. Zuern	
Poetry: Rix	20
A Bird in the Bush	21
Karen Blackburn	
One Box Does Make a Difference	22
Tom A. Barber	
Bluebird Exchange	23
Sixteenth Annual Meeting Report	28
Mary D. Janetalos	
Awards Presented	32
Bluebird Express	36
Bluebird Tales	38
Mary D. Janetalos	
Financial Statement	40

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

Presidential Points

Charlotte Jernigan



This past fall as I walked through some of our wooded areas and down into an area near our home known as Cyclone Hollow, I was watching for birds and thinking about the impact with which a caring and knowledgeable woman had cushioned our existence. That woman was Rachel Carson. Thirty years ago last fall her book, *Silent Spring*, alerted the world to the dangerous effects on human health and the environment of the pesticides chlordane and heptachlor.

Rachel Carson's appreciation for and involvement with the natural world gave her tools with which to open eyes. We are thus able to avoid being locked into a deadly downward spiral bringing many of our birds and other wildlife to the brink of extinction.

Her example has encouraged many of us to become more aware of our surroundings. Members of NABS have helped people to better understand how to preserve this planet's animal and plant life in all its amazing and wonderful forms. Both plants and animals are important. We probably comprehend little about the importance of some of the observations that we make; however, it is our willingness to look for answers and to share them that blesses us.

A few springs ago I observed a Carolina Chickadee going into a nest box-feeder designed for bluebirds. Immediately the little busybody peered out the entrance hole carrying a raisin in its beak. It flew to a yet leafless Grape Myrtle bush about 20 feet away. I thought I was going to see a chickadee eat raisins, but that was not the case. As soon as the bird landed, it tilted its little head and dropped the

raisin to the ground. It flew to the feeder-box repeatedly. Each time it exited with another raisin which it took to the very same branch and dropped. Much of the morning was dedicated to this activity, and I concluded that a plan was unfolding. The next day soft, green moss was being arranged in the box, while 20 feet away a robin was enjoying a banquet of raisins under the Grape Myrtle.

Early in the evening on the following day, bluebirding neighbors dropped by. The wonder of a newly-built chickadee nest is a sight to behold, so, since the box was easily accessible and near the sidewalk, I invited them to take a peek. As I lifted the front opening, breath left me. In the left-hand corner of the box, in perfect condition except for his eyes being completely pecked out, was a beautiful male bluebird. He had entered the box at some point when there was about an inch of moss in the box. Exactly what took place I can only guess, but the chickadees ultimately had proceeded to build on top of his body.

I carefully removed the bluebird which showed no damage anywhere except for the loss of both eyes. I have seen bluebirds interfere outside a box refusing to let chickadees enter a box in which they had already built a nest. Evidently a battle inside a box creates an atmosphere that may reveal a different turn of events. ■

Factors Limiting the Recovery of the Eastern Bluebird in Niagara, Orleans, Monroe and Wayne Counties in New York State

Jeanne Wigen-Ayers

Abstract

Historically, the Eastern Bluebird (*Sialia sialis*) was a common summer resident in the four Lake Ontario Plain counties of Niagara, Orleans, Monroe, and Wayne in New York State (Eaton 1910). In 1988, *The Atlas of Breeding Birds in New York State* showed a definite void of breeding Eastern Bluebirds in the lake plain region. Recovery efforts in other regions of the state have raised the population of the Eastern Bluebird to the point where the Department of Environmental Conservation is now considering removing the bluebird from the state's list of species of "special concern" (Miller pers. comm. 1991). Comparisons throughout this discussion are between the four lake plain counties and Schoharie County. Schoharie County was chosen for the comparison because it has consistently fledged more bluebirds than any other county in New York State. Although several factors may be limiting the recovery of the Eastern Bluebird in the lake plain counties, the lack of available nest boxes appears to be the most critical limiting factor.

Discussion

The four counties of Niagara, Orleans, Monroe, and Wayne lie to the south of Lake Ontario in the Great Lakes Plain. In this relatively level terrain, farms and fruit orchards predominate (Anderle and Carroll 1988). The climate of the region is modified by both Lake Erie and Lake Ontario. The water of the lakes warms slowly during the spring retarding atmospheric warming over the adjacent land area and delaying vegetative growth (Ruffner 1978). Cool, wet springs may be a factor limiting the nesting success of Eastern Bluebirds. During the spring of 1990 an extended period of cool, rainy weather in the northeast caused a high mortality rate among nestling Eastern Bluebirds during the early nesting season (Berner *et al.* 1990). The cool, rainy weather in the lake plain region could be affecting the nesting success of bluebirds.

During cool, wet periods adult birds are unable to forage successful-

ly due to inhibited insect mobility. Insects and other invertebrates remain motionless on the topsoil during cool, wet weather conditions. Tests show birds do not recognize motionless insects as prey (Elkins 1983). A comparison of the average spring temperatures and precipitation of the four lake plain counties to Schoharie County indicates little variation. The average temperatures in April and May in the lake plain region were slightly warmer than the average temperatures in Schoharie County, for the same months. In a seven year comparison, there was more snowfall in the lake plain counties in the spring of most years, especially during April. In May of 1989, there was significant snowfall in the region that could have had serious consequences for bluebirds with nestlings at that time (Climatological Data 1989). Bluebirds, however, have recovered from other weather-related setbacks in the past (Eaton 1914). Since, historically, the Eastern Bluebird was a common summer resident in all four of

the lake plain counties, it is unlikely that the weather in the region is a limiting factor. It is possible that they may suffer population setbacks following an unusually harsh winter or cold, wet spring.

Robert Anderle, co-editor of *The Atlas of Breeding Birds in New York State*, noticed, in his experience, a propensity for the Eastern Bluebird to be attracted to a more hilly and rolling terrain (Anderle pers. comm. 1992). Roger Jensen, bluebird trail monitor in Wayne County, observed those bluebird boxes placed on a rise in the land are more attractive to the bluebirds than ones in lower or more level areas (Jensen pers. comm. 1992). Since the topography of the lake plain region is relatively level, it may be that bluebirds are first selecting areas with more variable terrain and are only colonizing the more level regions after territories with more diversified terrain are occupied. The entire lake plain region has an elevation range from 400 to 600 feet (122 m-183 m). Schoharie County, however, has an elevation range from 1200 to 2000 feet (366 m-610 m). The southern portion of the county is quite hilly and the northern portion is more gently rolling hills (Clements 1989). This more diversified terrain may be a more desirable habitat.

Open land, with low ground cover and available foraging perches, is an important element of good bluebird habitat. Forest land does not make good bluebird habitat. Niagara, Orleans, and Monroe counties are approximately 15% forested. Wayne County has 25% forest. Schoharie County is 20% forested in the northern portion and 47% forested in the southern portion (Clements 1989).

Frances Albrecht, a "bluebirder" from Wayne County, recalled bluebirds being common around her family's farm, when she was young. She said they nested in fence posts along the pasture and in the apple orchard, typical bluebird habitat (Albrecht pers. comm. 1992). Farmland acreage throughout New York has decreased from 80% in 1880 to 23% statewide in 1977. The lake plain counties, however,

have more land in farm production than the state average and more than Schoharie County (New York State Dept. of Commerce). The land use chart (Fig. 1) shows the percentage of farmland plus the percentage in cultivation in the four counties and in Schoharie County. The four lake plain counties have more acres in fruit production than does Schoharie County.

Modern farming practices have detrimental effects on bluebird habitat. The removal of hedgerows, to increase field size in order to accommodate larger modern farm machinery, has diminished available nesting cavities and foraging perches. There has been a reduction of livestock in the lake plain counties resulting in the loss of permanent and rotational pastures (Scharping pers. comm. 1992). Modern orchards are not like the family farm orchards of years ago. Trees are pruned to stay short and open (Staples pers. comm. 1992). Large old trees with dead limbs and nesting cavities are no longer found.

Intensive growing techniques and single fruit orchards need chemical sprays to control fungus, scab, mites, and insects. Pesticides especially have detrimental effects on insect-eating birds. Tests have shown that following an application of an insecticide the number of birds using an area declines. This decreased bird use is not an indication the birds have died because of the treatment, but, rather, that their food supply has been reduced so they are no longer attracted to the area (Heinz *et al.* 1978). Destroying the food source for an insect-eating species, such as the Eastern Bluebird, could have a limiting effect on the population. The Environmental Impact Quotient (EIQ) which determines the total environmental effect of common fruit and vegetable chemical sprays includes a bird effect factor. Malathion, oil, captan, and metalaxyl have low bird effect factors. In one investigation in Michigan, part of a large bluebird trail was partially inside an area to be treated with malathion; after the treatment it was determined that no harm was done to the adults or the young

Figure 1. Land Use of Five New York Counties. (Clements 1989)

	Niagara	Orleans	Monroe	Wayne	Schoharie
Total land	336,832	250,342	424,486	387,264	518,662
Number of farms	955	600	705	1,100	590
Acreage in farms	146,537	152,354	134,670	191,389	82,878
% of land in farms	44	61	32	45	33
% under cultivation	85	82	85	61	65
Pasture/range*	9,743	11,659	12,224	19,335	19,023
All fruits*	10,590	8,097	3,353	26,784	807
Forest land*	9,900	13,500	9,000	24,000	27,100

* acres

(Heinz *et al.* 1978). Chemicals with a moderate EIQ rating include fenarimol, carbaryl, esfenvalerate, fenvalerate, and permethrin. More toxic chemicals are myclobutanil, triforine, mevinphos, sulfur, and azinphos-methyl. Sulfur, commonly used in organic orchards, has a high EIQ rating of 45.5 because it is applied more frequently than more effective chemicals (Kovach *et al.* 1992). Mevinphos is extremely toxic to birds and in one incident killed approximately 120 songbirds when applied to cole crops. Azinphos-methyl, in a Washington study, killed birds when applied to apple orchards and is relatively persistent in the environment (Stinson and Bromely). The table in Fig. 2 shows the chemical name and trade names of sprays in common usage in New York, the bird effect factor, and the total EIQ (Kovach *et al.* 1992).

Two trail monitors in the lake plain region report that, on their trails, sprays do not appear to adversely affect the nesting success of the Eastern Bluebird. Ed Staples, a fruit grower in Niagara County, has a bluebird trail along one side of his orchard and has successfully fledged bluebirds and Tree Swallows (*Iridoprocne bicolor*) (Staples pers. comm. 1992). Roger Jensen, with a bluebird trail in northeastern Wayne County, has boxes next to orchards and has successfully fledged bluebirds (Jensen pers. comm. 1992).

Competition from other species is

especially critical if there are a limited number of nesting cavities. The European Starling (*Sturnus vulgaris*) and the House Sparrow (*Passer domesticus*) are considered to be the main cause of the decline of the Eastern Bluebird in the United States. Both species were introduced in the 1800s and spread rapidly throughout the country. Both species are more aggressive than the bluebird when competing for available nesting cavities. While there were adequate natural cavities, the bluebird population remained fairly stable (Eaton 1914). Modern farming practices such as replacing wooden fence posts with metal and cutting hedgerows have caused a decrease in natural nesting cavities. The decline of small family orchards also contributed to the decrease in natural cavities. As cavities diminished, competition from other cavity nesting species increased. By 1974 the Eastern Bluebird was becoming scarce even around the farms and orchards (Bull 1974).

Bluebird nest box projects have been instrumental in the recovery of the Eastern Bluebird. Throughout New York State, dedicated individuals have monitored trails of nest boxes resulting in a steady bluebird population growth. In Schoharie County, the number of bluebirds fledged has increased steadily each year from 500 in 1985 to 1634 in 1991 (Berner pers. comm. 1991). There is a definite correlation between the number of bluebird trail monitors

Figure 2. Chemicals in Common Usage in New York State Orchards.

Common Name	Trade Name	Bird Effect **	EIQ *
captan	Orthocide	6.0	26.7
fenarimol	Rubigan	9.0	27.3
metalaxyl	Ridomil	6.0	29.2
myclobutanil	Nova	12.2	41.2
sulfur	Sulfur	15.0	45.5
triforine	Funginex	12.2	41.2
azinphosmethyl	Guthion	30.0	43.1
Bacillus thuringiensis	Dipel	6.0	13.5
carbaryl	Sevin	9.0	22.6
esfenvalerate	Asana	9.0	49.6
fenvarerate	Pydrin	9.0	49.6
malathion	Cythion	3.0	12.8
mevinphos	Phosdrin	15.0	28.2
oil	Oil	8.0	27.5
permethrin	Ambush	9.0	56.4

* EIQ—Environmental Impact Quotient is the total environment effect of a chemical spray.

** Bird Effect is a part of the overall EIQ.

and the bluebird population in each county: the higher the number of bluebird monitors, the higher the number of bluebirds fledged. A chart showing the numbers of bluebirds fledged compared with the number of bluebird monitors in each county in 1991 is given in Appendix A. Niagara and Orleans counties have few bluebird nest box trail monitors. Monroe County has several nest box programs and fledged over 100 bluebirds in 1991. Wayne County has several trail monitors and in 1991 fledged over 200 bluebirds. The lack of available nest boxes and people to monitor them, however, may be the most critical factor affecting the recovery of the Eastern Bluebird in the four lake plain counties.

Conclusion

Since the Eastern Bluebird was a common resident in all four lake plain counties in the past, the climate cannot be limiting the recovery of the bluebird in the region. Although weather has affected bluebird populations in the past, the population has always recovered within several years (Eaton 1914).

If bluebirds do prefer areas with a more variable terrain, this could be slowing the recovery of the bluebird in the region. Bluebirds may only be colonizing more level areas after all available nesting sites, in areas of more variable terrain, are fully occupied. Orleans County, the flattest of the four counties, has the lowest number of bluebirds fledged. More research concerning the effect of terrain on Eastern Bluebirds would be helpful.

Pesticide applications do affect insect-eating bird species like the Eastern Bluebird. Reducing the available food supply several times during the nesting season could have a negative effect. Several chemical sprays may be damaging both adults and young besides destroying their food source. Existing trails near fruit orchards need to be monitored to learn the effects of the sprays. Banding nestlings from these trails could determine if the fledglings survive to join the breeding population in subsequent years.

Available nesting cavities or nest boxes are crucial to the nesting success of the Eastern Bluebird. Bluebird

nest box projects have significantly raised bluebird populations in many areas of New York State. In areas of the lake plain counties where there are nest box trails, the bluebird population is thriving. Still large areas of the counties have few or no trails. If one factor is limiting the recovery of the Eastern Bluebird in the four lake plain counties, it is the lack of available nest boxes. The Eastern Bluebird thrives where it gets a helping hand from people. With so much competition from other cavity nesting species, more nest boxes and more trail monitors are needed if the bluebirds are to make a strong recovery in Niagara, Orleans, Monroe, and Wayne counties. ■

Acknowledgment

I want to thank all of the bluebirders in the lake plain region who shared their time and knowledge with me.

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Instructions to Authors

Authors planning to submit articles for publication in *Sialia* are encouraged to obtain "Instructions to Authors," a page which summarizes manuscript requirements.

Address requests to the editor at 10617 Graeoch Rd., Laurel, MD 20723.

Bluebird Boosters

Appearing on the inside back cover is a list of those individuals who have made a financial commitment to bluebirds and 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 20916 6295.

Appendix A. Eastern Bluebirds fledged per county in 1991 in comparison to bluebird trail monitors in the county.

County	Bluebirds Fledged	Members
Albany	49	44
Allegany	138	4
Broome	80	20
Cattaraugus	16	2
Cayuga	21	5
Chautauqua	10	1
Chenengo	4	5
Columbia	15	5
Delaware	21	24
Dutchess	657	*
Erie	291	17
Fulton	4	3
Greene	28	13
Hamilton	0	2
Herkimer	39	6
Jefferson	0	1
Lewis	8	6
Livingston	283	6
Madison	164	13
Monroe	106	27
Montgomery	37	26
Niagara	25	18
Oneida	904	20
Onondaga	519	25
Orleans	0	2
Oswego	280	37
Otsego	62	31
Putnam	0	1
Rensselaer	42	21
Saratoga	31	6
Schenectady	244	100
Schoharie	1634	1353
Schuyler	4	1
Seneca	74	2
St. Lawrence	21	9
Steuben	55	7
Sullivan	8	4
Tompkins	37	1
Ulster	421	3
Washington	9	3
Wayne	218	16
Westchester	555	5

Includes members of the New York State Bluebird Society, North American Bluebird Society, Schoharie County Bluebird Society, Normanskill Bird Club, and an unknown number of members (*) of the Ralph T. Waterman Bird Club.

Teaching Bluebird Trail Management at OWjL Academic Camp

Richard M. Tuttle

(Part I of II)

For the past five summers, I have taught bluebird trail management as part of a science curriculum for summer campers between the ages of 12 and 15 years. I report this experience with the hope that some techniques will be used by others to promote bluebird conservation and ornithology.

OWjL, pronounced "owl," is an acronym for Ohio Wesleyan University (OWU) and Junior League of Columbus, partners in developing and supporting a unique academic experience for nearly 500 young people each summer. OWjL Camp was developed 12 years ago after a study revealed a need to offer special educational opportunities for central Ohio's gifted and talented adolescents. During three one-week sessions prior to 4 July, campers are exposed to a preview of college by living in dormitories on the OWU campus and choosing courses from a field of more than 75 subjects taught by over 50 instructors. Academic courses and evening programs are designed to encompass a range of topics within the realm of liberal arts. Nonacademic activities such as evening pizza parties, skit nights, and dances promote social interaction and development among the campers, making OWjL Camp challenging and fun.

Day One

Bluebird Trail Management is a five day academic course that includes one classroom session, three field trips, and a period of building bluebird nest boxes. During a 75 minute class on the first day, I introduce students to the different branches of ornithology, describe the bluebird's history in Ohio, and examine the OWU Zoology Museum's collection of over 700 bird specimens.



As students enter the classroom, they gather 14 handouts, six of which are reprints from *Sialia*. Before I ask the campers to introduce themselves, I announce that I am the instructor because I have been raising cavity nesting birds since 1968, not because I am a middle school life science teacher. I see my first smiles as I announce that there will be no homework; the handouts are for reference once an interest in birds blooms.

After the campers introduce themselves, I direct their attention to the handout, "Bluebird Trails and Beyond," a bibliography of 11 books that I use to survey the broad spectrum of ornithology. I stand each book in the chalk tray as I briefly review its merits. Two books represent the Peterson Field Guide Series, *A Field Guide to Bird's Nests* and *A Field Guide to the Birds East of the Rockies*. Ohio's ornithological treasures are described and illustrated in Peterjohn and Zimmerman's *Birds of Ohio*, and *The Ohio Breeding Bird Atlas* co-written and compiled by Peterjohn and Rice. *Ornithology* by Gill is the college text that I refer to most often, and I give high marks to *The Audubon Society Guide to Attracting Birds* by Kress for living up to its title, especially for its wealth of bluebirding tips. Three bluebird conservation classics are represented: Zeleny's *The Bluebird*, Scriven's *Bluebirds in the Upper Midwest* (now *Bluebird Trails*:

A Guide to Success), and *The Bluebird Book* by Donald and Lillian Stokes.

I allocate the most time for endorsing two books, Joseph Kastner's *A World of Watchers*, "an informal history of the American passion for Birds," and Don Stapp's *A Parrot Without a Name*, which brings to life two ornithological expeditions conducted in the Peruvian rainforest. The combination of both books will more than survey the history of ornithology for the beginner, from ornithology's beginning in North America to the most recent techniques used to study birds in the tropical rainforest. Most veteran bluebirders, especially those that band birds, can identify with parts of both books. And, if the course does its magic, campers will be able to relive many of their trail experiences as they read both books later in the summer.

Next, I use a bluebird nest box; a log with a natural cavity; a five-chambered showcase (Tuttle 1980) containing nests of the Eastern Bluebird (*Sialia sialis*), Tufted Titmouse (*Parus bicolor*), House Wren (*Troglodytes aedon*), House Sparrow (*Passer domesticus*), and Tree Swallow (*Iridoprocne bicolor*); and 20 study skins from the OWU Zoology Museum to teach the history of

bluebirds in Ohio. Study skins lack the lifelike appearance of taxidermal mounts since their eyes and bodies have been replaced with cotton. Recently, I have learned to lay the study skins on a table before the students enter the room which allows them to choose their distance from the "dead birds." In the past, some students have been repulsed when I lifted the first study skin from a box. I always urge students to look beyond the fact that the birds are "dead" in order to appreciate their beauty.

I begin the history of bluebirds in Ohio by displaying study skins of two "blue birds" that are not bluebirds, a Blue Jay (*Cyanocitta cristata*) and a male Indigo Bunting (*Passerina cyanea*). I then display a male bluebird and ask, "What bird has a similar chest color?" The campers have never failed to answer, "Robin." I use a bluebird nestling and an American Robin (*Turdus migratorius*) fledgling to explain that both are members of the thrush family, and both, unlike other thrushes, trade their spotted chest feathers for solid colors during their first molt in the fall. The bluebird is the only thrush in Ohio to nest in cavities.



Photograph by R.M. Tuttle

On day one of "Bluebird Trail Management," 20 study skins, a nest showcase, a nest box, a natural cavity, and a Huber sparrow trap are props used to survey the history of bluebirds in Ohio. The chalk tray holds 10 books used by the author to reveal the science of ornithology.

I use a hollowed log and the study skins of seven woodpeckers native to Ohio to demonstrate that primary cavity nesters excavate cavities for secondary cavity nesters. A Cooper's Hawk (*Accipiter cooperii*) with its sharp bill and talons is used to remind the campers that small birds cannot be reckless, nor will they suffer from extended illness or the infirmities of old age, for they will be efficiently recycled into the flesh and energies of beautiful hawks at the slightest opportunity.

I briefly describe the typical Ohio farm of the late 1800s with its pastures, apple orchards, rail fences and fence posts—all used by bluebirds for nesting and hunting. The farm woodlot provided protection from hawks while fields along the forest edge were hunted for insects. Historically, their bright blue color and their territorial songs during the first bright sunny days in February made bluebirds the harbingers of spring. Bluebirds also nested in open neighborhoods, whether in town or city. More than any other bird, they became the central theme of poems, songs, and prose.

As I begin to recall the decline of the bluebird, I direct the campers' attention to the thick, sharp beak of a House Sparrow used to crack seeds and weave thick grasses into bulky nests. I compare the sparrows' massive finch bill to brass knuckles used in confrontations with bluebirds; the sparrow has an advantage of being able to crush the skull of its opponent. I describe the release of House Sparrows in New York City in 1851, the sparrows' preference for livestock grains, and its sweep throughout Ohio by the mid-1880s (Barrows 1889). Sparrows drove bluebirds from towns, city parks, and barn yards.

I pick up a European Starling (*Sturnus vulgaris*) and recall its introduction in New York City in 1890, its first sighting in central Ohio in 1915, and its recorded nesting throughout Ohio by 1925 (Hicks 1933). Starlings drove bluebirds from orchards and woodlots. As I place a starling study

skin at the entrance of the hollowed log, I demonstrate to the campers that only some entrances whittled by Downy Woodpeckers (*Picoides pubescens*) and Yellow-bellied Sapsuckers (*Sphyrapicus varius*) are small enough to exclude European Starlings. (I have compared entrance hole diameters reported by Terres (1980) to the minimum (1-5/8 inches) used by starlings.)

According to a local farmer, Mike Bevins, steel posts and wire fences began to appear in central Ohio just prior to World War I, which coincided with Ohio's starling invasion. Except at corners and gates, steel posts replaced wood which eliminated many nest sites. I then use much information gleaned from Colvin's (1985) classic Barn Owl study to recall changes in Ohio's farming practices. After the Great Depression, especially after the conclusion of World War II, farming practices changed drastically; work animals were replaced with tractors and many farmers switched from raising livestock to grain farming, both subtracted thousands of acres from pasture lands. During the 1950s, Ohio's production of corn and soybeans began to accelerate, expanding the use of pesticides and large farm machinery. Wide farm machinery was the doom of many fence lines since powerful tractors pulling wide plows need large turning radii. Many farmers cleared their interior fence rows to accommodate modern tractors, and ravenous raccoons (*Procyon lotor*), a fur-bearing species well managed at the close of World War II by Ohio's game department, sought avian snacks as they patrolled the remaining fence lines along the farm's perimeter. The status of the bluebird in the 1960s and 1970s was bleak; too few safe, natural nesting sites were available to sustain visible populations.

At this point, I announce that I am a bluebird conservationist, a "bluebirder." I started my conservation career in 1968, and at the age of 23 saw my first bluebird fly from one of my boxes. My mission is quite simple: I solve the bluebirds' problems so they can nest. I present a nest box mounted

on a pipe stand and announce that, as a bluebird, I solve the bluebirds' first problem when I locate habitats such as manicured lawns, fields, or pastures where bluebirds can hunt. I also look for wires, poles, security lights and signs that provide hunting perches. I erect nest boxes on steel pipes in ideal habitats and apply a thick layer of chassis grease, as thick as cake frosting, to the middle third of the mount to eliminate the raccoon problem.

The box entrance hole excludes starlings when it is 1-9/16 (40 mm) or smaller, making starlings a "non-problem." The sparrow is avoided by ignoring locations that contain active feedlots, famous for sustaining sparrow populations. If sparrows cannot be avoided, a number of in-house sparrow traps, particularly the Huber trap (Huber 1982), are available. Understandably, when I demonstrate a Huber trap, some students question the ethics of terminating an animal's life. If needed, I tell my first childhood experience of raising a bird, a sparrow named Charlie. But with nearly 250 nest boxes, I must seek a permanent solution to the sparrow problem. I explain that attitudes toward sparrows predictably evolve with unpleasant experiences on the trail, although personal solutions to solving sparrow competition vary. I try to avoid particulars in order to keep on a positive track.

I inform the campers that we will examine the niches of bluebirds, Tree Swallows and House Wrens on our field trips. For the last 25 minutes of the first session, we explore the OWU Zoology Museum. I pull out specimen trays to display the variety of bird species in Ohio, as well as birds from other regions. Campers are always impressed by one of the museum's oldest specimens, a Mountain Bluebird (*Sialia currucoides*) collected in New Mexico in 1887. As we wind up our first day, campers sense that ornithology is an important part of their instructor's life. They are primed and ready to experience live birds on field trips for the next three days. (To be concluded)

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311 West Central Ave.
Delaware, OH 43015

Memorial Gifts

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

Bluebird Song Available

The bluebird is often mentioned in songs, but a song has never been written exclusively about the bluebird.

At the request of the North American Bluebird Society, Douglas Wood of Sartell, Minnesota, has composed "Bluebird, Fly." The song explains the plight of the bluebird in a touching, beautiful way.

Doug has composed songs for the National Wildlife Federation, Minnesota Tourism and the Wildlife Rehabilitators Association. He is well-known at nature centers and outdoor education organizations for his nature oriented songs.

Cassette tapes are now available at NABS headquarters for \$5.00.

Tree Branch Bluebird Box

Frank A. Zuern

On 10 April 1980, my wife, Jane, and I were touring the Chickamauga, Georgia, Civil War battlefield. As we were leaving at sunset, a blur of blue disappeared into a nearby cannon. Upon checking, we observed a bluebird nest about three feet from the mouth. That observation was the first step in my designing a horizontal nest box.

The idea remained dormant, however, until two things occurred. First, several elderly individuals related observations of bluebird nests in horizontal, broken-off, hollow tree limbs. Although the nestings had taken place in Michigan, Iowa, and Wisconsin over the course of decades (mostly in the 1920s and 1930s), the nest placement was the same. Second, in the summer of 1988, I placed two nest boxes resembling mail boxes in bluebird habitat. Eastern Bluebirds and Tree Swallows promptly nested in them. By the summer of 1992, I was testing five prototypes with the same results. The other boxes on my 100 box trail were of several widely-used styles.

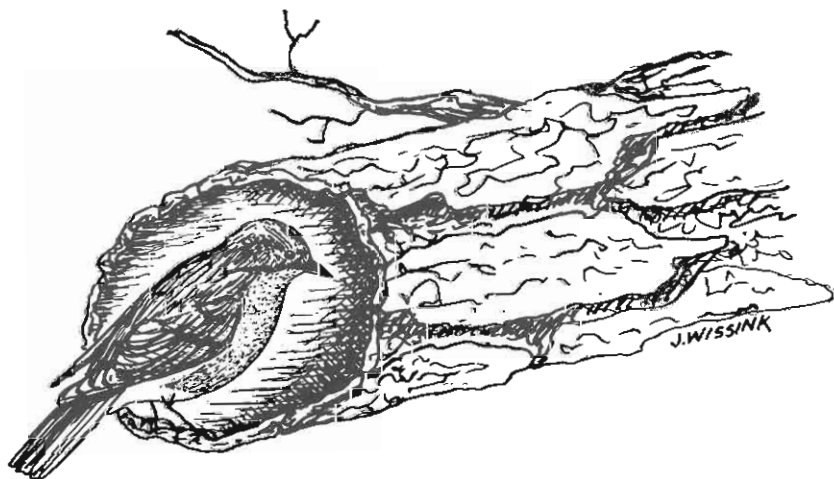
With these early successes and the anecdotes based on folk knowledge in mind, I resolved to develop a viable, safe horizontal nest box for bluebirds

and small cavity nesters.

Initial field tests of my designs established two facts: 1. the longer the box horizontally, the more attractive it was to Eastern Bluebirds and Tree Swallows; and 2. both species always nested at the far end of the box. Gradual changes and improvements were made. Testing of the current design has proven highly effective against large four-footed predators.

This horizontal box design has a number of advantages.

1. The small front offers no effective foothold for predators. The two inch thick front deters chewing pests and functions as a built-in predator guard.
2. The distance from the entrance to the front of the nest area is beyond the reach of raccoons, opossums, cats, and the newest restocked predator (in northern Wisconsin), the fisher.
3. The box allows adult bluebirds to escape a House Sparrow attack because the sparrow does not have room to jump on the bluebird's back and "mantle" it. The bluebird has room to avoid its attacker.
4. The box can be placed facing *any* direction without concern for the



weather. Place the entrance toward the most desirable habitat. Always face away from any roadway; the back door opening favors this safer orientation.

5. Even in the heaviest rains in the spring and summer of 1993, the nest material and nestlings in boxes of this design remained dry. Rainwater driving in the entrance never came close to the nest.

6. Under extremely wet conditions, the adult bluebirds do not "track in" excess moisture because of the distance traversed between the entrance and the nest.

7. The unique predator baffle *absolutely* stops nest snagging by predators when nests are built behind the baffle.

8. This box is easy to build and uses all standard lumber. It is easy to relocate. Cleaning can be accomplished efficiently by using a 15 inch Wonderbar[®] or "hive-tool," a pry bar with a 90° bend on one end.

9. The front drain holes usually do not clog which adds to a "soffit" effect which cools the box. The interior stays within 2°F of the outside air temperature even in the midday sun with no shade or wind. In cold, wet spring weather, put furnace tape over the side air vents; remove as the season warms.

10. The rear door offers quiet, easy access for control of blowfly larvae; the dry nest area tends to retard larvae survival.

I believe this box style offers hope in helping to reduce the high toll of nesting bluebirds taken by predators

from vertical boxes of various designs. Because bluebirds frequently elevate their nests, even in deep boxes, the eggs, nestlings, and incubating adults are often placed within easy reach of predators. We may not be able to change the way bluebirds build their nests, but we can build a box in which some of the major predators cannot reach the nest. Nest elevation is not a problem in the Tree Branch nest box. By going to a horizontal box, we are copying the hollow, broken branch that nature provided for centuries, in addition to the vertical cavities.

In 1993 I began more intensive testing of the Tree Branch box design. The survey summarized in Table 1 covered roughly 150 miles in central and northeastern Wisconsin from Marquette County to Marinette County. Many habitats were included: pine and sand barrens, meadows, pastures, fencerows, wetlands, hilly terrain, and clearings in woods. During the past summer a total of 44 bluebirders participated in this field test by building, installing, and monitoring 86 boxes.

Because the plans for this box were not available for distribution until late March of 1993, about half of the 86 boxes were not erected until after 1 May 1993. Eastern Bluebird males arrive in Wisconsin by mid-March and select breeding territories during March and April. Despite this delay in placement, occupancy rates and nesting success were highly acceptable. The unusually high rainfall during the breeding season was a good test of the

Table 1. Tree Branch Bluebird Box Field Test Results, 1993*

No of surveys returned	No. of boxes monitored	Successful E. Bluebird nests	Bluebirds fledged	Successful swallow nests	T. Swallows fledged	No. of H. Wren nests	No of H Sparrow nests
44	86	27	85	34	136	14	6

Predation: 1 House Sparrow nest by raccoon. (Nest built in front of baffle.) No other predation reported.

* Boxes installed between 1 April and 30 June.

Percent Occupancy of Tree Branch Bluebird Box [% number coincides with successful nestings number].

Eastern Bluebird . . . 32%
 Tree Swallow 40%
 House Wren 17%
 House Sparrow 07%
 Unused 04%

design. All boxes remained dry inside. Not only does the long horizontal box protect the contents from wind-blown rain, no matter what direction the entrance faces, but the three inch overhang protects against a slushy, freezing snow trapping adults inside.

Unsuccessful nesting attempts were not included in the table to simplify it. There were four unsuccessful Eastern Bluebird nests and five failed Tree Swallow nests. No House Wren attempts failed. None of these nest failures was due to raccoons, cats, or opossums. Bluebird losses were caused by House Sparrow or Tree Swallow competition. Tree Swallows suffered from cold, wet weather and low numbers of flying insects. In habitats that are used by both Eastern Bluebirds and Tree Swallows, pairing nest boxes may be necessary. Bluebirds often have nests and eggs by the time the swallows return in the spring. If there is only one nest box, the swallows tend to harass the bluebirds and take over the box. Placing two nest boxes within five to ten yards of each other minimizes this competition.

No adult bluebirds were found dead in any box. One nestling died in its nest of unknown causes.

A slight design modification to add additional vent holes increasing the air flow was the only change growing out of the 1993 breeding season's results. The first year's survey results underscored the value of this box for predator protection. Over 90% of all bluebird and swallow nests were built *behind* the predator baffle, which is out of reach of large four-footed predators. All House Sparrow and House Wren nests were built in *front* of the baffle.

When a wood post is used for support, cover it with galvanized metal about 24 inches wide. Don't use aluminum which most predators' claws can penetrate. This will help deter snakes. Use whatever deterrents you find most effective.

This first year of limited field testing bodes well for a test on a much larger geographic scale in the United States and Canada in 1994. I am especially interested in receiving results

from individuals whose habitats and temperatures may be quite different from those in central Wisconsin. Do swallow and bluebird nestlings move from the nest behind the baffle to closer to the entrance in the period before fledging? The lack of droppings seems to indicate that they do not, but observations are needed. I would like a copy of your results with the following information for each box: species using, date of nesting(s), use of nest pocket, number of eggs per nest, number of young per nest, habitat, predators (list evidence), presence of blowfly larvae, any other comments or observations. File a copy with your state or regional bluebird association and NABS as well as with me.

The plans in this article can be enlarged on most copy machines or I can provide a set free if you send me a stamped, self-addressed business envelope. I can also provide a source for boxes if you wish to purchase them already constructed. Price information for a custom-designed House Sparrow trap is available on request.

One of the nicest parts of this first year's survey was that there was no mention in any report of human vandalism. I believe this reflects the fact that our message is getting out to the public in a wide variety of ways.

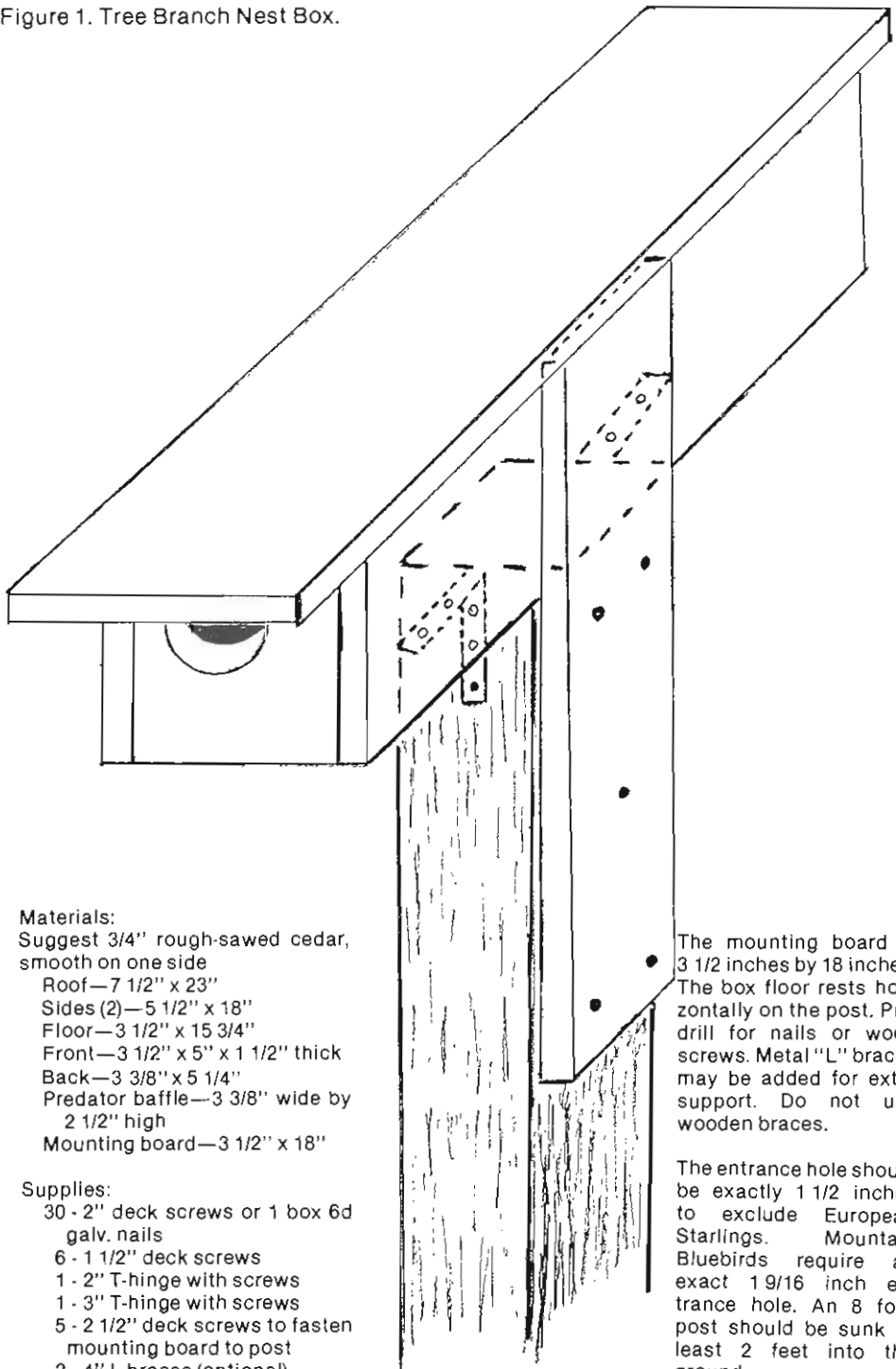
Acknowledgments

I would like to thank Wayne Belke, biology instructor at Princeton High School, Princeton, Wisconsin, who worked with other staff members and students to build and install 22 Tree Branch boxes in Green Lake County in the spring of 1993. (Their results are included in Table 1.) Appreciation is also expressed to Jess Will who turned my rough sketches into workable plans, Don Kopff and the Beaver Dam Senior's Center bluebird nest box crew, my wife Jane, and all bluebirders who are willing to try a new idea for the benefit of a species.

1040 Maricopa Dr.
Oshkosh, WI 54904

This portion of the material is used with permission of Wisconsin Bluebird 8(2):6 with changes by the author. Janet Wissink's drawing of a bluebird at a hollow tree branch appeared in the same issue and is used with the permission of the artist.

Figure 1. Tree Branch Nest Box.



Materials:

Suggest 3/4" rough-sawed cedar, smooth on one side

Roof—7 1/2" x 23"

Sides (2)—5 1/2" x 18"

Floor—3 1/2" x 15 3/4"

Front—3 1/2" x 5" x 1 1/2" thick

Back—3 3/8" x 5 1/4"

Predator baffle—3 3/8" wide by 2 1/2" high

Mounting board—3 1/2" x 18"

Supplies:

30 - 2" deck screws or 1 box 6d galv. nails

6 - 1 1/2" deck screws

1 - 2" T-hinge with screws

1 - 3" T-hinge with screws

5 - 2 1/2" deck screws to fasten mounting board to post

2 - 4" L braces (optional)

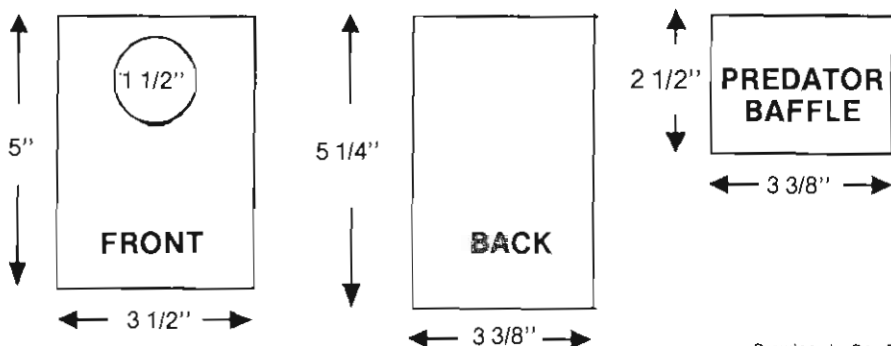
The mounting board is 3 1/2 inches by 18 inches. The box floor rests horizontally on the post. Pre-drill for nails or wood screws. Metal "L" braces may be added for extra support. Do not use wooden braces.

The entrance hole should be exactly 1 1/2 inches to exclude European Starlings. Mountain Bluebirds require an exact 19/16 inch entrance hole. An 8 foot post should be sunk at least 2 feet into the ground.

Design and drawing by Frank Zuern

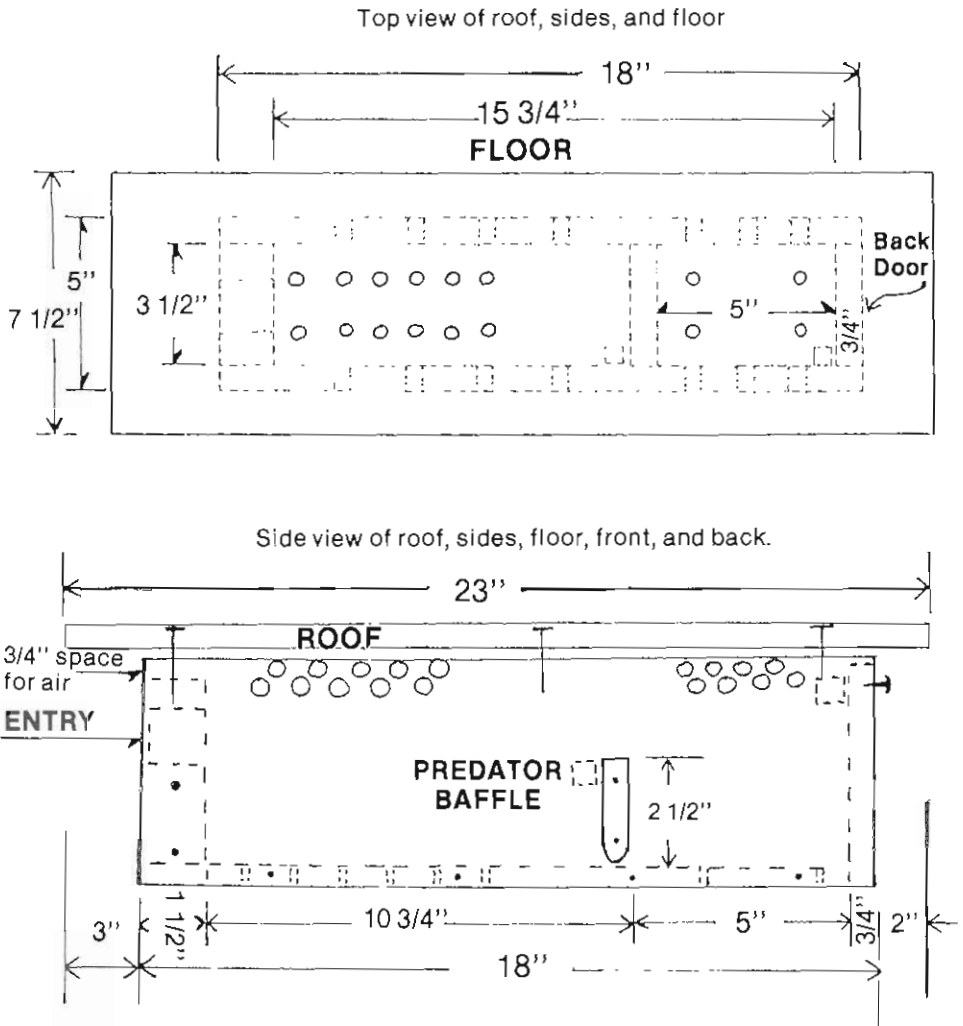
Assembly Instructions

- Wear eye protection. Pre-drill all holes. Countersink screws as needed. Put rough side of lumber out.
- Cut all pieces to size. Drill an exact 1 1/2 inch entrance hole to exclude starlings. Mountain Bluebirds require a 1 9/16 inch diameter entrance hole. Drill this hole before you cut the 2x4 to length. Smooth rough edges of hole with sandpaper.
- Drill 12 - 1/2 inch holes near the front of the floor for drain holes. Drill 4 - 3/8 inch holes toward the rear of the floor (see Fig. 2).
- Drill 8 - 3/8 inch vent holes along the *back* top edge of each of the two sides. Mark the entrance end of each side piece. Drill 10 - 1/2 inch vent holes along the *front* top edge of both sides.
- Install the mounting board vertically at the midpoint on the outside of one of the sides. Make sure the mounting board is flush with the top of the side to which it is attached. Use 5 - 1 1/2 inch screws. Complete this step prior to any other assembly.
- Test-fit sides to the bottom board. Fasten in the front piece in which entrance has been drilled. Check to be sure there is a 3/4 inch horizontal ventilation space between the top of the front and the roof.
- Round the bottom edges of the predator baffle if you are going to pivot it with nails. If you use the 2 inch T-hinge, the baffle should tip toward the *back* of the nest box. If the hinge is used, the baffle may have a flat bottom. Install the predator baffle at right angles to the floor and 5 inches
- in front of the back door. Using waterproof glue, fasten a cleat on the top near the front of the baffle if it is pivoted with nails. Drill oversize holes for nail baffle fasteners. This will permit the removal of slanted nails to drop the baffle when the box is cleaned from the rear. A 15 inch wonder bar is a good tool for use in cleaning.
- Install the back door. Place the small butt of the 3 inch T-hinge on the bottom of the door. Check position by swinging it. Check bend of hinge for proper fit. The long part of the hinge attaches to the outside bottom of the floor. Try to keep the air space at the top of the back door to no more than 1/4 inch to minimize predator attack to nest area. Place a screw near the top of the back door for a handle.
- Install the cleat. Drill oversize holes for the slanted nail fasteners. Screws may be substituted for the slanted fasteners.
- Install the roof securely.
- Do not support the box with wooden angle braces. Wooden braces aid predators.
- Allow for knots or other flaws when purchasing lumber.
- The roof overhangs 3 inches in the front, 2 inches in the back, and 1 inch around the sides. The floor is recessed slightly to allow a drip line along the front and sides.
- Alternate mounting instead of a 3 1/2" square wood post is a metal pipe or steel post. Place the top of these supports *under* the box.



Drawings by Don Bragg

Figure 2. Tree Branch Nest Box Construction Diagram.



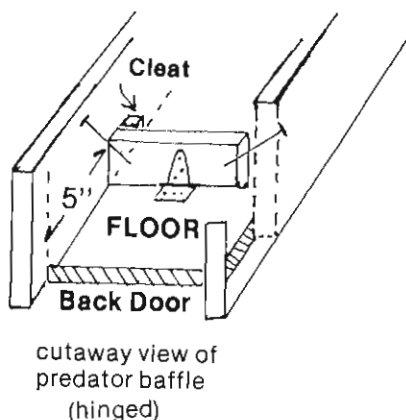
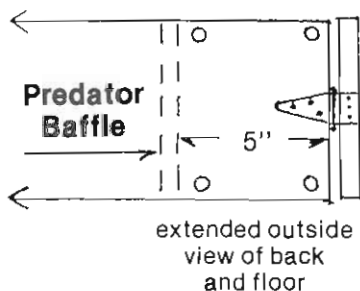
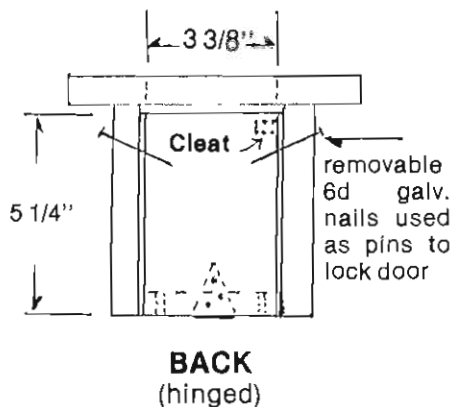
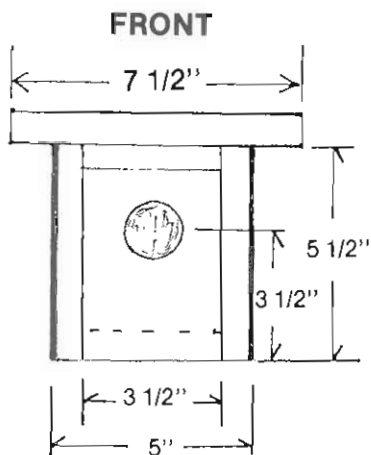
Drawings not to scale

Designed by Frank Zuern

Diagrams by Jess Will



Drawing by Don Bragg



Drawings not to scale

SEVENTEENTH
ANNUAL MEETING OF THE
NORTH AMERICAN BLUEBIRD SOCIETY

The seventeenth annual meeting of the North American Bluebird Society will be held in Boise, Idaho, June 9-11, 1994, at the Red Lion Hotel/Riverside.

The sponsor for the meeting will be the Golden Eagle Audubon Society.

Information and registration materials are included with this issue. Questions concerning the meeting should be directed to the following address:

Al Larson
3015 Silver St.
Boise, ID 83703

Ode to the Bluebirds

*I wonder where the bluebirds go
When there is so much ice and snow;
Each bird house stands alone and bare
(There is no bluebird family there).
Each day I take my daily stroll
And hope to see a sign or two;
A chickadee, a scampering squirrel,
But no little bird all dressed in blue.
The babbling brook I pass each day
Still flows so merrily on its way;
But I still hope for lovely spring,
When there'll be bluebirds on the wing.
I hope they're warm and comfy still,
Till they come back to Russell Hill.*

—Joan Rix

BLUEBIRD PACKET FOR TEACHERS

Sadie Dorber, who chairs the Education Committee of the North American Bluebird Society, announced at the 22 October 1993 board meeting that a teacher's packet about bluebirds will be available early in 1994.

It will include information and activities suitable for the fourth, fifth, and sixth grade levels, but it can be adapted for younger or older students.

All three species of bluebirds are featured.

Watch for a further announcement or contact headquarters for publication information.

North American Bluebird Society
Box 6295
Silver Spring, MD 20916-6295

A Bird in the Bush

Karen Blackburn

Readers from Ohio and New York have contributed some fascinating reports of plant use by wildlife. Artist and author Julie Zickefoose of Whipple, Ohio, shared her observations concerning Ruffed Grouse: "The understory here is quite impoverished due to erosion and land misuse, and Christmas Fern (*Polystichum acrostichoides*) is about the only ground cover in winter. I've found an interesting phenomenon with Ruffed Grouse; they strip all of the leaflets off of the Christmas Fern rachis [stem] and eat just the rachis!" Julie goes on to say that she has also seen rabbits exhibit this same feeding behavior, so her curiosity led her to try a taste test. Sampling the Christmas Fern, she found its leaflets to have "an acidic bite" while the rachis was "sweet and tender." (Perhaps it's time to raise the question of which salad dressing would best complement the delicate flavor of fern rachis!) Julie has also spotted Eastern Bluebirds, Hermit Thrushes, Northern Flickers, Pileated Woodpeckers, and European Starlings feeding on the fruits of Poison Ivy (*Toxicodendron radicans*), and has seen Pileated Woodpeckers taking the fruits of Smooth Sumac (*Rhus glabra*) as well. Both of these species of plants have been featured in previous issues of *Sialia* [6(1): 13 and 2(2):74-76] since both are known to be used by bluebirds.

From Vestal, New York, comes a report from Sadie Dorber. She writes, "Several years ago I was banding birds by using mist nets down one edge of the garden that also had ever-bearing raspberries. I caught 12 bluebirds in one net, and it was apparent that they had been feeding on the raspberries as they all had purple around their beaks. There were two adults and ten hatching year." During a severe snowstorm in February of 1993, Sadie also observed a lone robin which came daily to feed on crabapples that had per-



sisted on the tree throughout the winter. This once again illustrates the importance of plantings that provide fruit in the winter months. Such fruit can prevent many a bird from perishing. In general, the sumacs (*Rhus* sp.), hollies (*Ilex* sp.), red cedars and junipers (*Juniperus* sp.), bayberries (*Myrica* sp.), and roses (*Rosa* sp.) are the best sources of winter food for bluebirds and other wildlife.

In response to my letter warning of the potential hazard of garden netting (birds becoming entangled in the mesh), Sadie also wrote in with a suggestion. To protect blueberry bushes from birds, Sadie uses nylon netting (the type used for crafts) which can be purchased in fabric shops. She notes that such netting is available in earth tones that blend with the landscape and the material serves well for several growing seasons. To shape the netting around the bushes, Sadie uses clip clothespins. Sounds like a great idea!

We thank Sadie and Julie for their reports and invite contributions from other readers. If you have seen bluebirds or other wildlife making use of native plants or plantings in your area, please let us know. Your reports may encourage others to plant and preserve native plants for wildlife. Whenever possible, please include the scientific names of plants and other pertinent information, such as the time of year the observations were made. Let's hear from Mountain and Western Bluebirders, too! Please send your reports to Karen Blackburn, 185 Mica Hill Rd., Durham, CT 06422. ■

One Box Does Make A Difference

Tom A. Barber

I think many people are intimidated by bluebirders with large trails. They feel because they have only one or two boxes that their contribution to the "Save the Bluebird Campaign" is of little importance. This is untrue; my experience illustrates why.

I started out with four boxes in 1984. One of those boxes was in my backyard. After all, isn't that how most bluebirders start? That backyard box has produced 83 bluebird fledglings in the past decade. This is, without question, the most productive box of the 60 that I monitor today.

If everyone living outside of urban areas had just one bluebird box and monitored it faithfully once a week, just think how many more bluebirds there would be! Of course, that could never happen, but my point is that one box *can* make an incredible difference.

Bluebirds have double-nested in that original backyard box for 10 years in a row. One year they even nested three times. They have had only two failed nesting attempts in 23 tries. What a success percentage for this box despite its share of problems.

The nesting pole was climbed by a raccoon last year. Because the pole was greased and a brick was holding down the lid, the raccoon failed to get the eggs. The brick held the lid on because it had become loose over the years. Although the brick was dislodged and lying on the ground, the lid was still on. When I checked the nest, the eggs were still in the box. I quickly applied a very thick layer of grease, and put the brick back

on. The raccoon did not return.

One year a male House Sparrow took possession of the box in the early spring. I had a Joe Huber sparrow trap, so I set it. Guess what I caught—a male bluebird! What was really exciting was that he had a band on his leg. I wrote the number down and released the bird. When I checked my records, I found he had fledged from a box in a neighbor's yard one-half mile down the road.

I kept trying to catch that male sparrow. It took about a week before I finally succeeded.

The very next day Mr. Banded Bluebird and his lady were taking up house preparations. It seemed they had just been waiting for me to rid them of Mr. Nasty Sparrow so they could have a family.

At one of our annual Ohio Bluebird Society meetings we had a round table where everyone talked about their bluebird stories for that particular season. I can still remember a gentleman saying he was somewhat embarrassed to talk about his one bluebird box that he was so proud of because other bluebirders had these "large trails."

If you are involved enough to monitor that one box and to be concerned enough to do all you can to prevent predation, you are a true bluebirder—just as much as is the person with the big trail. My one yard bluebird box has proven that. ■

60406 Stewart Road
Cambridge, OH 43725

Bluebird Exchange

With this issue, a new feature is being added to the journal to provide a more widespread exchange of information among regional, state, and other bluebird groups.

Items will be extracted from newsletters and periodic publications. Within the space available, they will be summarized to highlight important and interesting ideas and developments.

To insure that your organization's news is included, please be certain that this editor is on the mailing list of your publication.

For this initial article, material has been taken from one or more newsletters. From now on, only the most recent issue will be used. Do not send summaries of trail statistics; those are compiled by the Research Chairman. Announcements of state and regional meetings are welcome. In case of space limitations, state and regional organizational news will receive preference.

If you are the editor of a newsletter for a regional, state, or county bluebird group, be sure that you credit the name and date of all publications from which you reprint articles.

ALBERTA—*Ellis Bird Farm*, Fall 1992

Ellis Bird Farm, Ltd. announced the release of the 80 page book *Nestboxes for Prairie Birds* by Myrna Pearman. The book, containing 54 color photographs, offers guidance for trail monitoring as well as how to build boxes for 40 species. Canadian cavity nester conservation is summarized.

While Black-billed Magpies may be an unknown menace at feeders in the eastern half of the continent, these large, attractive birds are often a problem in the West. A number of tips are provided for dealing with them at suet and sunflower feeders.

A photograph of an atypical bluebird nest in the corner rafters of a camp kitchen was provided by Chris Mountain of Innisfail. Seldom does a bluebird nest consist of a mound of material with a cup at the top as does this one.

—*Ellis Bird Farm Ltd.*

---*Mountain Bluebird Trails Annual Report*, 1993

The number of fledged bluebirds in 1993 was slightly more than 50% of the all-time high figure in 1992. The major problem causing this decline can be traced to an early snowstorm in August 1992 which wiped out unknown numbers of bluebirds before they set out on their winter migration. The return trip in the spring of 1993 was a difficult one for they arrived on their nesting grounds one month later than ever previously recorded. First broods fledged fairly well. Second broods experienced cool, wet weather in July resulting in a large number of dead young and abandoned nests.

No raccoon problems occurred in normally affected areas because 94 nest boxes had been fitted with wire mesh tunnels at the entrance.

—*Mountain Bluebird Trails Conservation Group*

GEORGIA—*The Georgia Blue Line*, Fall 1993

Bluebirds Over Georgia, along with the Georgia Department of Natural Resources, were hosts of the Sixteenth Annual Meeting of the North American Bluebird Society 22-24 October at Callaway Gardens, Pine Mountain, Georgia. The meeting is described elsewhere in this issue.

Governor Zell Miller declared 22 October 1993 as Georgia Bluebird Day throughout the state recognizing the efforts of Bluebirds Over Georgia in helping to establish a statewide program to bring bluebirds back to the state.

—*Bluebirds Over Georgia, Inc.*

IOWA—*Wings*, Summer 1993

In "The Great Wren Debate Revisited" Barbara Boyle summarizes some of Althea Sherman's observations of the House Wren published in the mid-1920s.

These warnings about the aggressive and destructive interactions of the House Wren with other species were met at the time with criticism, ridicule, and debate within the academic community. Sherman's methods and research could not be shaken, however, despite personal and highly emotional attacks. The question that is raised in this article is whether it is time to reopen the "great wren debate" and whether the House Wren should remain a federally protected species.

In 1993, flooding in Iowa during the breeding season had a disastrous impact on wildlife in general and bluebirds in particular. Most of the first bluebird broods were lost statewide and ground nesters suffered a major setback as well.

President Jim Walters initiated a discussion of ethics and the natural world and invited readers to respond. Questions particularly relevant to bluebirders include the following: "Should we be putting up bird houses at all," and "What about native versus non-native species of both plants and animals"?

—*Johnson County Songbird Project*

MAINE—*Downeast Bluebird*, Summer 1993

A suggestion is being considered to hold a bluebird count day once a year. Probably a date in August would be chosen and a two to three hour period in the morning would be designated.

The fourth annual meeting was held at Clay Hill Farm in Ogunquit on 27 June. In addition to the business meeting a banding demonstration was held. Wendy Howse was re-elected as coordinator.

For bluebirders who have problems with cats, June Flicker has had success in training a neighbor's cat to not sit under her bird feeder. She uses one of the super-sized water guns that have become so popular with young people.

This state organization has a unique problem with mistaken identity. There is another group called the Blue Bird Society of Maine which has nothing to do with birds—blue or any other color. It is a group of Maine ladies who knit and sew for Native American children!

—*Bluebird Association of Maine*

MINNESOTA—*Bluebird News*, May 1993

A sampling of articles concerning cavity nesters in the literature is summarized. The most interesting is by David Winkler of Cornell University who, in the Spring 1993 issue of *Living Bird Magazine*, described a definite correlation between the number of feathers lining Tree Swallows' nests and the length of time to fledging. Nests containing the most feathers had better-developed nestlings which should provide an edge after fledging.

The 1993 Bluebird Recovery Program research grant recipients are Tom Healy, Rice County [MN] Bird Club; Janice Simpkin, University of Nevada, Ph.D. candidate; Kevin Berner, State University of New York at Cobleskill; Neal Mundahl, Winona State University; and Eileen Stombaugh, Tamarac Nature Center.

Dorene Scriven returns as chairperson of the Bluebird Recovery Program. Mary Ellen Vetter, who had chaired the organization for almost seven years, stepped down to devote more time to other conservation causes but she will continue to maintain the membership list.

Recent widespread sales of corrugated cardboard and paperboard nest boxes have aroused a storm of protest. Bluebirders point out the vulnerability of these boxes to predators, the possibility of their overheating, an inability to monitor the boxes, and their lack of durability.

—*Bluebird Recovery Program*

NEW YORK—*Bluebird News*, Fall '93

The New York State Bluebird Society (NYSBS) booth at the Empire Farm Days Exhibition in Seneca Fall 10-12 August attracted a considerable amount of attention from the 70,000 attendees.

An article in the 31 August edition of the *New York Times*, based on an interview with NYSBS President Ray Briggs, produced letters and calls from all over the state and from neighboring states as well.

—*New York State Bluebird Society*

----*Bluebird Booster*, Summer 1993

Kevin Berner summarized some bluebird history from the Northeast to provide a better perspective after the "Blizzard of 1993." Severe winter storms have periodically had a major impact on bluebird populations. Elon Eaton in *Birds of New York* (1914) noted that following the dramatic drop in bluebird population after the winter of 1895-1896, the few bluebird broods he did find in 1896 were unusually large, sometimes containing as many as seven eggs.

Blowfly larvae infest most local bluebird nests. When nests are found to be infested, remove the nest and chicks. Replace the nest with one made from dried lawn clippings and replace the nestlings. Do not use rotenone in the box for it kills the valuable jewel wasp which is a blowfly parasite.

Kevin Berner's research in 1993 again showed a strong bluebird preference for the Peterson box style. Tree Swallow preference was less dramatic. Raccoon predation of Berner's boxes has been nearly eliminated by using a thick coating of lithium-based grease on metal pipe mounts.

—*Schoharie County Bluebird Society*

NORTH CAROLINA—*Bluebird Notes*, July 1993

President Lin Webb is coping with major changes in the makeup of the board. Editor of the newsletter is being temporarily filled. This issue borrows most articles from other sources to give North Carolina bluebirders tips on traps for House Sparrows, trapping techniques, sexing of nestlings, and other helpful topics.

—*North Carolina Bluebird Society*

OHIO—*Bluebird Monitor*, Autumn 1993

The Ohio Bluebird Society (OBS) with the assistance of the North American Bluebird Society sent press releases in the spring of 1993 to all Ohio newspapers offering information about bluebirds and about the two organizations. OBS was flooded with letters. President Gil Trail announced that co-OBS founders Reid and Teresa Caldwell stepped down as newsletter editors after six years. Jean Peters volunteered to take on the job.

Dean Sheldon in "Anybody Home?" provides hints about what one can expect to find inside a nest box by noting signs around the outside of the box before opening it.

Joe Huber discusses use, design, and monitoring of boxes using the sparrow trap he designed. He also describes the advantages of a built-in trap.

Dr. Wayne Davis encourages bluebirders to "Experiment!" on their trails. He is continuously engaged in research and suggests monitors can add to bluebird knowledge by trying new ideas. He makes the extremely important point that only one variable should be tested at a time.

Dick Tuttle has some well-documented material about the weight of dead nestlings that adult bluebirds are able to remove from a nest box. In another article he traces some facts and some speculation about a bluebird he had banded which he later found dead.

—*Ohio Bluebird Society*

OKLAHOMA—*Watchable Wildlife News*, Summer 1993

Progress on behalf of the Red-cockaded Woodpecker has been made in the McCurtain County Wilderness Area. Through a combination of cavity inserts, predator guards, and recruitment stands, the number of colonies of this endangered species has been increased from nine to eleven.

—*Oklahoma Nongame Program*

ONTARIO—*Ontario Eastern Bluebird Society Newsletter*, Fall 1992

Bill Read continued his banding studies on Eastern Bluebirds in southern Ontario apple orchards. This five year study is trying to find answers to such questions as what is the reproductive success of known-age birds nesting in this habitat; do nestlings from orchards seek other orchards or the same one in which to nest, and are older Eastern Bluebirds nesting successfully in apple orchards?

Two dead adult bluebirds were recovered from a rain barrel. Once in the water the birds were unable to get out and, therefore, drowned. This should serve as a reminder that steep-sided bird baths too deep to allow birds to touch bottom can cause the same result.

—*Ontario Eastern Bluebird Society*

OREGON—*Western Bluebird Newsletter*, October 1993

This volunteer group is continuing the program initiated more than 20 years ago by the late Hubert Prescott.

In addition to the 336 Western Bluebirds fledged in 1993, other cavity nesters fledged included 72 Violet-green Swallows, 18 Tree Swallows, 5 House Wrens, and 2 chickadees. Banded bluebirds totaled 242 nestlings and 23 adults.

When a cat killed a female bluebird on the Peavy property leaving four nestlings, a solitary male joined the father to help raise and fledge the young. Hand warmers in the box helped the nestlings until they could produce their own body heat. Neighbors Kurt and Terri Ellson helped by providing mealworms as needed.

Blowflies were not a problem in this area in 1993.

—*Hubert Prescott Western Bluebird Recovery Project*

TEXAS—*Bluebird News*, June 1993

John Findlay, III reports on the devastating effect the March 1993 snowstorm had on Alabama bluebirds. Some managed to survive, but this storm may have an effect on the population of bluebirds in the Southeast for many years to come.

Robert McKinney reports that the PVC nest box he promotes, which has an easily removable roof, was well-received at the Ark-La-Tex Trade Days.

—*Bluebird News*

VERMONT—*Bluebirds Across Vermont Newsletter*, Fall 1993

Sheri Crittendon, a teacher at Shaftsbury Elementary School, involved her second grade pupils in a bluebird project and then placed the completed boxes around Shaftsbury. The students shared some artwork, writings, experiences, and photographs.

An article about the history of the open-topped Bauldry box and a construction diagram is reprinted from the newsletter of the Bluebird Association of Maine.

The article "Bluebirds Across Vermont: Then and Now" details the early history of the organization from its beginnings in 1986 under Steve Parren to its more than 800 current members.

Bluebirds Across Vermont (BAV) receives numerous requests from people about feeding bluebirds. Because bluebirds have not traditionally overwintered in the state in any numbers, people would do better to concentrate on planting fruiting trees and shrubs rather than putting out bluebird feeders. Although increasing reports of overwintering bluebirds are being received, it still appears to be best to concentrate on plantings rather than feeders.

Steve Parren, Vermont Nongame and Natural Heritage Program, and BAV have developed a backyard habitat program which is geared to Vermont. A modestly priced booklet *Backyard Wildlife Habitat* is available and a slide program with script on the same subject can be scheduled.

—*Bluebirds Across Vermont*

WISCONSIN—*Wisconsin Bluebird, Summer 1993*

Frank Zuern's Tree Branch Nest Box is featured with construction diagrams and assembly instructions. This long, horizontal box contains a baffle near the rear which helps prevent predation by a number of four-footed predators.

Dick Nikolai suggests that bluebirders may help reduce unwanted species in their nest boxes by approaching owners of nearby unmonitored boxes to ask them to either remove the boxes or plug them if they are unwilling to make the effort to remove pest species. Martin houses that cannot be easily lowered may be a real problem. Every effort should be made to educate landowners and neighbors.

Don Bragg points out in another article that while individuals should be encouraged to establish new trails and actively monitor boxes, no one should place additional boxes in territories where a trail already exists. Find out whether the boxes are maintained. If they are, you can offer your services to the monitor or you can choose to go elsewhere. On the other hand, if the trail has been abandoned, you can provide a real service. Never add nest boxes to an existing trail without the permission of the monitor.

—*Bluebird Restoration Association of Wisconsin, Inc.*

NABS Gift Membership Premiums

For a limited time, the North American Bluebird Society is offering its members special premiums when they give a NABS membership as a gift.

On the enclosed order blank, fill in the name and address of the gift recipient. In the appropriate space on the order form, mark your choice of premium as described below and label it GIFT.

For *each* gift membership, you may choose *one* of the following attractive premiums:

A pack of 8 notes and envelopes of "Favorite Wild Birds of America," color reproductions of watercolors by John W. Allen. Specify A1-C (songbird assortment), A13-C (owls), A14-C (Red-breasted Nuthatch), or A15-C (Wood Duck) **OR**

A copy of *The Return of the Bluebird* by Andre Dion; a delightful story in narrative and song with art by Richard Lemire.

This premium offer is good through 31 April 1994.



NABS Executive Director Mary Janetatos reads "Bluebirds Seven" during a story hour at Fairfax County, Virginia's Ecoloday, 2 October 1993.

Sixteenth Annual Meeting Report

Mary D. Janetatos

The Sixteenth Annual Meeting of the North American Bluebird Society took place October 22-24, 1993 at Callaway Gardens Resort in Pine Mountain, Georgia. Hosts for the meeting were Bluebirds Over Georgia, Inc., and the Georgia Department of Natural Resources.

For early registrants, a "Welcome to Callaway" presentation was presented on Thursday evening by Lu Ann Craighton, interpretive naturalist at the gardens. Many unique features of Callaway Gardens were depicted in a slide program. These included a rare azalea which blooms in the autumn, and the rustic chapel dedicated in memory of Ida Cason Callaway, mother of the garden's founder: Cason J. Callaway.

On Friday, the program began with Susan Aude Fisher's moving invocation. "The Wonderful World of Butterflies" was presented by Lu Ann Craighton. Callaway's interpretive

naturalist described her evolution from bluebirding (she had spearheaded the bluebird trail system at Callaway Gardens) to an awareness that suddenly "butterflies had fluttered to center stage." Butterflies are such a delight to watch that one may sometimes ask, "But what *good* are they?" Of course, they furnish food for birds, especially in the caterpillar stage, and they do pollinate flowers. The distinction between butterflies and moths was pointed out. On the antennae, butterflies have a knob, as distinct from the feathery appendages of moths. The coloring of both moths and butterflies is provided via microscopic scales, which come off on contact. The fascinating metamorphosis of butterflies was shown in color slides in which each distinctive species of chrysalis could be observed. After the emergence of the full-grown butterfly, a resting period occurs while blood surges through the wings "inflating" them to



Photograph by Myrna D. Pearman

Three New York bluebirders compare notes. NABS Research Chairman Kevin Berner (left) and his wife Nancy Niles chat with Sadie Dorber, past-president.

their full size. And the process begins anew. The anticipation of a visit to the Day Butterfly Center was heightened by the presentation.

Following a break, Kevin Berner, Assistant Professor of Fisheries and Wildlife Technology at the State University of New York at Cobleskill, spoke on "Bluebird Trails and NABS Research." His continued research into use of various styles of nest boxes was described. Results over several years indicate the highest rate of use by bluebirds was observed in the Peterson nest box. This design, roughly triangular in shape, was devised years ago by Dick Peterson of the Minneapolis, Minnesota area. Kevin also commented on the poor weather conditions in the East in the spring (a late heavy snowstorm) and during the summer in the Midwest (the catastrophic flooding). These conditions resulted in bluebird population results which were far lower than in other years. Kevin also commented on the occasional confusion expressed by those completing the NABS nest box survey forms. He welcomes any comments. Write to him at State University of New York, Cobleskill, NY 12043.

"A Bluebird Legacy" was the title of the next presentation by Noel

Griese, APR, public affairs manager of Colonial Pipeline Company, Atlanta, Georgia. The slide program outlined Colonial's efforts in maintaining a public information resource on the nation's energy needs versus the environment. Since both are important to life in North America, the possibility of conflict must be minimized. Pipelines are necessary, as contrasted with the addition of fleets of tractor trailers which would even more adversely affect the environment. Colonial Pipeline Company (CPC) presented a proposal to the North American Bluebird Society in Mr. Griese's talk in which CPC would assist NABS in contacting the numerous landowners along the pipeline right-of-way. (The pipeline extends from Austin, Texas to New York City.) The permission of these landowners and their involvement in establishing bluebird trails would be sought where there was appropriate habitat. Later that evening a motion was made and seconded at the NABS Board of Director's meeting to cooperate with CPC. The prospect thus exists for a true partnership between the Colonial Pipeline Company and the North American Bluebird Society.

Friday afternoon the attendees paid a visit to the Cecil B. Day Butterfly



Photograph by Myrna D. Pearman

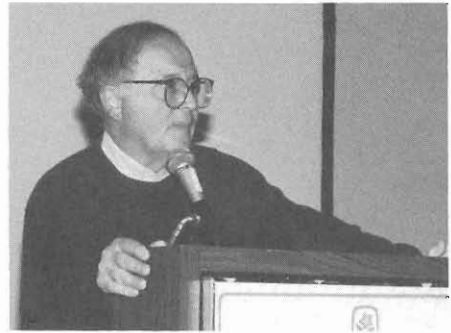
Marion Liles, board member from Oklahoma; Sandy Kridler, Texas; President Charlotte Jernigan and her husband, Bill, Oklahoma, relax before the banquet.

Center, the John A. Sibley Horticultural Center, and the Victory Garden (South) of public television fame. Although the clouds were heavy with rain, which occasionally did fall, the brilliance of the many plant species could not be dimmed. Flowers and vegetables, exotic and indigenous, greeted the throng of bluebirders. The white marigolds and the unfamiliar-to-northerners okra plants deserve special mention. At the Horticultural Center the ingenious groupings of chrysanthemums and the amusing topiary did not fail to fascinate the observers. The piece de resistance was the Day Butterfly Center.

Inside the enclosed glass structure, where a tropical atmosphere was maintained, fluttered hundreds of tropical butterflies of about 80 species. The most fascinating species to this observer was the "dead leaf" butterfly which resembled a brown dead leaf as it sat on a tree trunk or branch. Let it spread its wings flat, however, and it revealed a stunning purple and orange coloration totally hidden otherwise. There were many-hued fliers and flutterers and a sense of awe pervaded the observers. Cases of chrysalids held newly-developing butterflies to replace the attrition of the flying specimens. Many bluebirders made plans to return for another leisurely walk through this butterfly wonderland.

Mark Raabe, a former NABS secretary and currently monitor at Antietam National Battlefield Park, conducted a question/discussion period on Friday evening.

"Hummingbirds—Nature's Flying Jewels" was the first Saturday morning presentation, given by Michelle Stripling, information specialist, Non-game-Endangered Species, Georgia Department of Natural Resources. The lovely slides depicted the life cycle of these tiny wonders. The Ruby-throated Hummingbird is the only species to nest in the East, but several other species have been spotted in Georgia including Anna's and Black-chinned. The point was made that those who place hummingbird feeders outside should



Photograph by Myrna D. Pearman

Mark Raabe fields questions at the Friday night session.

not put red coloring in the sugar water. Other hints were given, and gardening to attract hummingbirds was discussed. These birds can be attracted by planting simple, brightly colored flowers such as zinnias and old-fashioned French marigolds. Leaflets were available to assist the gardener in planning plantings to attract both butterflies and hummingbirds.

"Neotropical Migrants in Trouble" by Georgann Schmalz, life science instructor at the Fernbank Science Center, Atlanta, Georgia, described the fragmentation of forests in both the Northern and Southern Hemispheres. This has led to a precipitous drop in populations of migratory birds. Efforts are being made to minimize this problem. Greater environmental awareness in the two hemispheres can help. A discussion of winter bird feeding followed, with one chief point which impressed this writer. If people stop feeding during the winter, birds do *not* face the prospect of starvation as previously thought. Other resources, including wild plants and berries, can be available to them. Ms. Schmalz's presentation could have been twice as long, so engrossed was her audience by the depth of her knowledge and by her lively delivery.

The last item on the agenda was the NABS business meeting, conducted by President Charlotte Jernigan. After Mrs. Jernigan called the meeting to order, Sadie Dorber, chairwoman of the Nominating Committee presented the slate of officers as follows: President Charlotte Jernigan,

Vice President Thomas Tait, Treasurer Delos C. Dupree, Recording Secretary Doug LeVasseur, and Corresponding Secretary Joseph Tait. The four Directors nominated were Louis Bruno, Marcia F. Hoepfner, Thomas Meyer, and Jim Walters. The slate was elected unanimously.

NABS Executive Director Mary Janetatos was invited to describe the day to day operations at headquarters. Her report concluded with recognition of all former NABS officers and board members in attendance. President Charlotte Jernigan expressed the appreciation of all attendees to Frances Sawyer of Stone Mountain, Georgia, and her committee members and to Lu Ann Creighton, staff member at Callaway Gardens. The meeting was adjourned before lunch, leaving the afternoon free for further exploration of Callaway Gardens and the surrounding countryside.

All reassembled for the banquet on Saturday evening. The menu (consisting of filet mignon, accompanying vegetables, and cheesecake for des-

sert) was enhanced by the dramatic centerpieces of cotton branches and greenery. Individual favors were small log bird feeders and suet-based food to put into them. The centerpieces were designed by Edwina Hahn, and the log feeders were made by Gary Martin of Fortson, Georgia.

Following dinner NABS President Charlotte Jernigan made individual, group, and research awards to outstanding bluebirders. Bluebirds Over Georgia, Inc. President Frances Sawyer also made an award to the outstanding Georgia bluebirder. She also presided over the distribution of numerous door prizes. The featured speaker at the banquet was Terry Johnson, program manager for Nongame Endangered Wildlife, Georgia Department of Natural Resources. "Wildlife and You!" enumerated the ways in which the Georgia Department of Natural Resources is striving to preserve habitat for endangered species: plants, insects, reptiles, amphibians, birds, and mammals. It was a fitting finale to the fine programs presented during the



Photograph by Myrna D. Pearman

The Outstanding Georgia Bluebirder award made to Virginia Hand Callaway, founder of Callaway Gardens, is presented to her grandson Cason Callaway by Frances Sawyer (left), president of Bluebirds Over Georgia, Inc.

meeting on the other popular topics: hummingbirds, butterflies, and bluebirds.

There was an unscheduled pleasant surprise to crown the evening. Myrna Pearman, a past board member and now director of Ellis Bird Farm, Ltd. in Alberta, gave a preview of the updated NABS slide program. Many bluebirders have provided slides and comments. (More information soon about when and how to order it.)

On Sunday morning, those not otherwise occupied were able to participate in a final early morning bird walk. Among species spotted were a Canada Warbler and Eastern Bluebirds! It was time to adjourn. The back of the program wished all participants a safe trip home and added, "May God bless us all, and may we always have bluebirds flying over His rainbow." ■



Photograph by Myrna D. Pearman

Adelaide Sawyer draws the winning number for one of the door prizes which was one of her husband, Laurance's, log bird houses held by her grandson. Ill health prevented Laurance's attending, but he sent a letter of greeting.

Awards Presented

The North American Bluebird Society annually recognizes individuals and groups who have made major contributions to bluebird conservation. The following award plaques were presented on 23 October 1993 at the Sixteenth Annual Meeting at Callaway Gardens Resort, Pine Mountain, Georgia.

**Robert P. Bodine
George A. Hurst
William F. Read
Dorene H. Scriven
Don Stiles
Mark D. Wallace**

**Oklahoma Department of Wildlife Conservation,
Nongame Wildlife Program**

Robert P. Bodine, Media, Pennsylvania—Individual Award

Bob Bodine became involved in bluebird conservation in 1968 after moving into a house in Media which was built in a former apple orchard where a few trees remained. When he observed Eastern Bluebirds nesting in natural cavities in these trees, he began learning all he could about them. He began to care for and expand existing bluebird trails at nearby Tyler Arboretum. Since the mid-1970s he has been the coordinator of those trails and has banded the nestling bluebirds there for the past half dozen years. He became a frequent speaker at the arboretum and has conducted workshops and walks for more than 15 years. In addition, he and a group of monitors care for boxes in central Delaware County. Bob has given programs to garden clubs, bird clubs, and school groups. He has helped several Eagle Scouts with bluebird projects and has assisted several nature centers in establishing bluebird trails. For the past 11 years he has written a nature column every other week for a local newspaper which has inspired many people to become active in bluebird

conservation. Bob has served on the NABS Board of Directors and was the program chairman for the Thirteenth Annual Meeting in Gettysburg, Pennsylvania in October 1990.

George A. Hurst, Starkville, Mississippi—Research Award

Dr. Hurst is currently Professor of Wildlife Management in the Department of Wildlife and Fisheries at Mississippi State University. He has been an active bluebirder for more than 20 years. His interest began while he was doing contract work on clearcut areas in the South. The bluebird trails he began establishing on clearcut pine plantations resulted in great success. His bluebird research continues. Dr. Hurst is the author of more than 200 articles. He has served on the NABS Board of Directors and is a member of the Research Committee.

William F. Read, Kitchener, Ontario—Individual Award

As a teacher William Read has helped many people learn about bluebirds. At Boyne Nature Center in the early 1980s, he was a teaching naturalist and involved with bluebird studies on the trails at Boyne. Currently he teaches science and Canadian history for the Waterloo Board of Education. As a science teacher, he started an Environmental Club with grade 9 students. Since 1989 he has worked with the Canadian Wildlife Service in a banding study of pesticide effects on bluebirds nesting in old apple orchards. His trail is one of those used in the research. In 1987, William Read founded the Ontario Eastern Bluebird Society. He has worked to establish a strong organization. He edits a newsletter published twice a year which includes a tabulation of the annual nesting reports. He has presented more than 50 lectures about bluebirds in many parts of the province and has obtained media publicity.

Dorene H. Scriven, Minneapolis, Minnesota—Individual Award

What started in the late 1970s as a way to answer the growing need for bluebird information has seen the *Midwest* Bluebird Recovery Program become simply the Bluebird Recovery Program. Dick and Vi Peterson felt that a major regional effort, in association with the Audubon Chapter of Minneapolis, could only be properly organized by one person: Dorene Scriven. And organize she did! Her leadership from its inception in 1981 to 1987 and her return to chair the program again in 1993 have established Minnesota squarely in the forefront of bluebird conservation, publication, and research. She edits *Bluebird News*, the newsletter of the organization, which is consistently the most all-encompassing of all the state or regional publications. She wrote the book *Bluebirds in the Upper Midwest—A Guide to Successful Trail Management*. When it was reprinted in 1993, the name was changed to *Bluebird Trails—A Guide to Success* in recognition of the fact that the material was widely applicable. Her book is based on solid experience for she monitors a trail of more than 100 boxes. She has served on the NABS Board of Directors and she organized the Fifteenth Annual Meeting in September 1992.

Don Stiles, Calgary, Alberta—Individual Award

Don is one of Alberta's most dedicated conservationists and bluebirders. In 1979 the Calgary Field Naturalists Society (CFNS) took over an extensive nest box trail established by Harold Pinel of Calgary. In 1980, Don became the coordinator of that trail after having established his own 50 box trail in 1977. The original group of seven monitors has grown to more than 30 and the boxes number more than 2,000 in southern Alberta. Don is a bander and carefully follows up band recoveries. Each autumn he hosts a meeting for all trail monitors. Initially, he compiled all the annual trail statistics. This mammoth job is now shared with an assistant. He chairs the Natural Areas Committee for CGNS which was responsible for saving Nose Hill, a large tract of prairie in Calgary. He co-authored a book about the area. Don has also been active with the Federation of Alberta Naturalists. While president of that organization he oversaw the completion of the Breeding Bird Atlas of Alberta.

Mark D. Wallace, Laurel, Maryland—Individual Award

Mark has been involved in bluebird conservation in Howard County for more than 15 years. He currently chairs the Howard County Bird Club's "Boost Bluebirds" project which annually fledges more than 1500 bluebirds. He personally monitors more than 375 boxes, bands more than 500 nestlings, and compiles the statistics for more than 900 boxes and almost 200 cooperators. An annual report appears in the club newsletter. With an assistant he has computerized all records. With the late Joe Suess he improved a box trap for House Sparrows. His inventiveness has resulted in a number of nest box or trap design changes. He has co-authored a bluebird booklet for the county which, in part, was based on his meticulous records. He has led bluebird trips for the bird club and has been featured in several major newspaper articles. He builds all his own boxes and traps and provides extras for club sale. Mark has become a major resource for dozens of people annually who rely on his advice and expertise.

Oklahoma Department of Wildlife Conservation, Nongame Wildlife Program—Group Award

The Oklahoma Bluebird Trails Project was initiated in 1985 with four goals: promote the conservation of bluebirds and other cavity nesting species; provide a unique avenue for informing the public about habitat requirements and trail monitoring; create an opportunity for volunteers; and expand opportunities for researchers interested in the biology of cavity nesting birds. The Nongame Department sponsors workshops and lends bluebird materials such as video tapes and slides. For a modest fee it makes two kits available, one contains a poster, brochure, and full-scale box plans; the second contains the same items plus a ready-to-assemble cedar box. It awards patches and certificates of appreciation to bluebird trail cooperators who also receive an annual summary of nest box results. In keeping with its goals, it is aiding the Red-cockaded Woodpecker in the McCurtain County Wilderness Area in southeastern Oklahoma. Using recruitment stands, cavity inserts, and predator guards, the number of colonies in that location of this endangered species has risen from nine to eleven.

Frances Sawyer, Stone Mountain, Georgia—Certificate of Appreciation

Frances Sawyer, founder and president of Bluebirds Over Georgia, Inc., was presented with a Certificate of Appreciation for her leadership in aiding the bluebird conservation effort in Georgia and for organizing the Sixteenth Annual Meeting. ■



Photograph by Myrna D. Pearman

Dorene Scriven (right), Minnesota, receives an individual award for bluebird conservation from Mary D. Janatos.



Photograph by Myrna D. Pearman

Dr. George A. Hurst, Mississippi State University, accepts the NABS Research Award from Mary Janetatos.



Photograph by Myrna D. Pearman

Bill Miller (right), receives the group award on behalf of Oklahoma's Department of Wildlife Conservation, Non-game Wildlife Program from Mary Janetatos.

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:

A long time dream was fulfilled in October when our kind friends from Minnesota, Richard and Mariys Hjort, invited us to ride along to beautiful Callaway Gardens for the annual NABS convention. We are now able to put faces with the names we keep reading about.

We see bluebirds nearly every day and hope they will continue the tradition of the last four years and visit our bird feeders these winter months. Bluebirds really do bring friends together.

Merlin J. Lehman
59980 C R 35 R1
Middlebury, IN 46540

Dear Editor:

I am a 13 year old boy and I would like to learn more about the North American Bluebird Society. My grandfather and I recently (last year) built 20 bluebird boxes and had amazing results! Our boxes yielded many clutches of baby Eastern Bluebirds. I wish I could find where I wrote down how many there were. I am also a Boy Scout and my scoutmaster is a bird-psycho. He's obsessed with birds. I recommended that, for a Scout project, we build a bluebird trail around our rural community. So, can you please send me some info on your organization? And please send my scoutmaster some info too, okay? Thank you.

Terry Murphy
119 Alcott Dr.
Sewickley, PA 15143



Dear Editor:

The first annual Stewart County Tennessee Earth Camp was a great success. The sponsors (Fish and Wildlife Service, National Park Service, Agricultural Extension Service) and volunteer staff wish to thank you for your contribution of educational and informational materials. You helped make the camp experience a meaningful one for all the participants and their families.

We were also proud of the strong support from the local community, which enabled us to have an adult available for every two campers.

The cooperators saw the opportunity and need to develop a program for children in a rural area, where environmental education is lacking in the public school system and through the private sector.

Due to the success of this year's camp we are anticipating an even larger enrollment for next summer and planning has already begun.

Jim Wigginton, Refuge Manager
Cross Creeks National Wildlife Refuge
643 Wildlife Road
Dover, TN 37058

Dear Editor:

Have you ever wondered if golf courses were good places to put up bluebird boxes? I decided to study the question and looked over my records for the 23 boxes I have around a golf course. I'd heard that the fertilizers and pesticides used by the greens keepers could be very detrimental to birds that

eat the bugs on golf courses.

I studied the mortality rates of the adult birds and the baby birds in the boxes around this golf course. I found that the three boxes at the lower end of the course where the water drained downhill had 100% mortality rates!

Each year for the past five years these boxes have had nests and eggs —mostly bluebirds, but also a few wrens. Each year the parents have disappeared and the eggs did not hatch. I had 100% mortality rates among parent bluebirds and wrens. This compares to a mortality rate of 14% for the other 20 boxes placed on the periphery of the course.

I talked to the head greens keeper and he was very cooperative and helpful. He said he used a minimum of fertilizer and only used pesticides once a year, in late summer. He was sure his treatment of the greens would not hurt the birds. He was quite knowledgeable about the problem I outlined. I don't buy it!

My conclusion is that the treatment does affect the birds. The chemicals likely accumulate in the soil and wash downhill, killing the insects which the birds eat, and then killing the birds. Many years of use have built up these chemicals.

I have removed the downhill boxes and in the future will not erect any at the lower area of a golf course.

Most golfers like bluebirds and have been helpful, so I will continue to monitor my boxes. But I'll be more careful about where I place them.

Ike Franklin
2513 NW 121
Oklahoma City, OK 73120

Dear Editor:

For more than a dozen years we have been putting up bluebird houses on our farm in Seneca, Maryland, and alternately exulting and sorrowing over the results.

Last year a surprising thing happened. In our Purple Martin house in the middle of the front circle, a pair of bluebirds began building a nest. In the 12 room apartment house on a 15 foot

pole with holes big enough for larger birds to enter, the bluebirds seemed to feel at home.

On the Fourth of July we lowered the house and found four newly hatched nestlings. The two adult birds were aggressively protective and flew low over our heads until we left the area. We decided that they were definitely annoyed at being monitored, so thereafter we watched from our windows. We saw them forcefully drive away all intruding feathered competitors including sparrows, mockingbirds, starlings, and even a pair of visiting Purple Martins.

After about two weeks we were aware that the adult birds were no longer on the house. We looked up into the branches of the nearby ailanthus tree and saw the fledgling bluebirds flying among the leaves. When we reflected that the ailanthus tree is also known as the "tree of heaven," it occurred to us that this pair of bluebirds had selected the right place to raise their family.

Mary L. Kiplinger
16801 River Road
Poolesville, MD 20837

Historian's Request

Please send newspaper and magazine articles about bluebirds to Historian Jane Williams, Box 123, Ware Neck, VA 23178. Be sure name and address of publication, volume and date are included. Photographs of members engaged in publicizing bluebirds or those documenting some unusual occurrence are also welcome. They will be added to scrapbooks which are a permanent record of activity on behalf of bluebirds and other cavity nesters.

Bluebird Tales

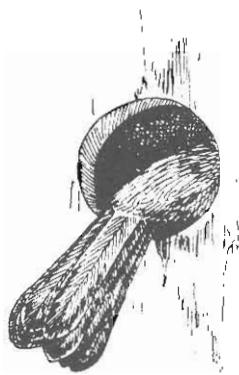
Mary D. Janetatos

"I don't need bluebird information—I need HELP!" The young woman had a hint of desperation in her voice. It turned out that she was landlady to a "rogue" bluebird who constantly attacked his reflection in windows all around her house. (I have recorded this phenomenon previously in columns.) Did he grow out of it? No! She said he was even training one of his fledglings to carry on the same practice. The caller had tried putting a hawk image out, but to no avail. I suggested exterior placement of newspapers on as many windows as possible.

I'm not sure I'll get any follow-up on her problem as she was one of many who stopped at the bluebird table which I was monitoring at Fairfax County, Virginia's Ecoloday on 2 October 1993. The number of people who stopped by the exhibit was edifying. Also satisfying was the reception given this "Grandma Mary's Story Times." Five times during the day I gathered a group of children and read aloud to them *Bluebird Seven* by R. Bruce Horsfall. Several of these presentations included three of my six grandchildren, **Leila**, **Sara**, and **Alex**. (The other three, **Caitlin**, **Danny**, and **Matt**, live in Northridge, CA.) The level of interest in and knowledge of bluebird conservation was truly good to experience. I felt that the educational efforts spearheaded by the Society had been really bearing fruit.

Other publications give NABS a boost periodically, and one such was *Birder's World* in its August 1993 issue. **Paul Zimmerman's** article entitled "Comeback Trail—the Eastern Bluebird Responds Favorably to a Helping Hand," chronicled the life cycle of the bird using beautiful color photographs for illustration. He described many poignant and charming bluebirding experiences. He concluded with a nice compliment for NABS, and included the Society's address.

One of the final paragraphs on page 22 provides encouragement to bluebirders who have recently begun to



provide supplementary mealworms during the nesting period. "Under adverse conditions, feeding bluebirds can be more than just a backyard pleasure. During a cold spell when an incubating female is reluctant to leave the nest for extended foraging periods, or when insects are in short supply and there's four or five hungry nestlings to be fed, it can be an aid to survival. Our backyard pair, for example, had nestlings about eight-days old when the female was apparently killed. My mealworms were a welcome assist to the male, especially when this poor single parent was trying to feed four young that had fledged in rapid succession to widespread locations."

He goes on to note that halting the decline of this species has been a long, slow process requiring the cooperation of many groups and individuals in putting out nest boxes. "Sadie Dorber, past president of the North American Bluebird Society, writes that only a decade ago, many people under forty had never seen a bluebird. Today, the decline seems to finally be bottoming out, with populations stabilized and even on the upswing in many parts of the country. Thanks to the North American Bluebird Society and kindred organizations promulgating bluebird conservation, as well as the many individuals with a nest box or two, more people now, and it is hoped many more in the future, will have the opportunity to enjoy the bird that wears the sky on its back."

I know that much interest was stirred by the article, as evidenced by

Missy Krock of Valley City, OH, who wrote asking about nesting boxes available through NABS, noting that she read about the organization in *Birder's World*.

Ray Briggs, of Cobleskill, NY, is the president of the New York State Bluebird Association (NYSBA) and was featured in a recent article in the *New York Times*. Ray is also the recipient of an award from NABS in 1990 for his outstanding work for bluebird conservation. "We [in Schoharie County] fledge one-third of all the bluebirds in the state here." He also has a further dream: to construct a bluebird trail across the entire state on Route 20, from the Massachusetts border to the Pennsylvania state line, a distance of 375 miles. "Under the plan, which has been approved by the society's board of directors, twin boxes would be erected, perhaps 150 yards apart, close enough to Route 20 so that motorists could pull off the road to see the boxes and the birds." Although it may take two to five years to complete, he feels this would be another way of making people aware of the bluebird.

Wayne Johnson, of Newport News, VA, is a veteran bluebirder who, when renewing his NABS membership, wrote recently: "I still enjoy all the news about my favorite bird. I have been working hard with bluebirds. This is my twelfth year. I have built 315 boxes and that is a lot of work. I have also put them all up and cleaned them out in early spring. I have bluebird boxes all over Virginia and seven other states. I see bluebirds everywhere I go and I love them. Keep up the good work and keep the bluebirds flying." Amen to that, Wayne, and the way it's done is through just such efforts as yours!

Michael Swanson, of Spring Valley, OH, decided not to renew his membership but said, "I plan to continue maintaining nest boxes in my yard and on a few farms in my area. At least 11 chicks have been fledged from my boxes this year with three more being raised now. I will also be installing nest boxes at a horticultural center in Dayton, Ohio for the 1994 season and will be teaching others about bluebirds

during a seminar next winter." Now HOW will he read of his exploits and those of other bluebirders if he isn't getting *Sialia*?

Ligeia Minetta, of New York City, sent a plaintive letter last summer which came in a creatively decorated envelope bearing the message: Blue-Bird, BlueBird FLYING THRU MY WINDOW." (The medium is the message?) She spoke of the dreams of a young girl in a big city when she wrote, "I just today learned that bluebirds are endangered. But as I remembered my friend Slinky's shirt, 'Endangered means there's still time,' I knew I should do something to help. This called to me, one, because I am an animal lover; two, because of this cute little blue bird made out of glass that sits on my mother's windowsill at her job; and three, I love mother nature and want to help any of her creations/children.

"Anyway, I'm writing you this letter because I want to learn how to help. Please send me information on anything I could give or do to help. Your fellow Bluebird lover." Technically, Ligeia, bluebirds are *not* endangered, but the help that thousands of people are giving them should prevent them from dropping into that category. The little glass bluebird you refer to comes from **Leo Ward's** Terra Studeo in Fayetteville, AR.

Another method of publicizing bluebirds may soon materialize in the state of Virginia. License plates for Mallards and large-mouth bass may be followed by, among other wildlife, bluebirds! I can just see it now: a Virginia bluebirder with auto tags reading SIALIA—as **Larry Zeleny's** Maryland tags do now—but decorated with a bluebird! I'll bet NABS Speakers' Bureau Chairman **Ron Kingston** of Charlottesville will be first to do this!

If the good Lord permits, you will read this while "polishing up" your bluebird nest boxes for the next season of bluebirding.

One of my favorite thoughts in winter is contained in this saying, "If winter comes, can spring be far behind?" Happy bluebirding in '94! ■

North American Bluebird Society, Inc.
Statement of Cash Receipts and Disbursements
November 1, 1992 through October 31, 1993

Cash Balance November 1, 1992		\$9,194.47
Add:		
Cash Received		
Sale of Sialia Magazine	\$22,074.00	
Sale of boxes, books, stationery, etc.	30,883.11	
Contributions	16,246.58	
Membership Dues	24,801.18	
Sales Tax Collected	247.34	
Transferred from savings account	5,000.00	
		99,252.21
		108,446.68
Less:		
Cash Disbursements		
Sialia Magazine	23,647.61	
Boxes, books, stationery, etc.	26,993.03	
Educational material	2,797.71	
Membership fulfillment	10,718.16	
Research	7,796.13	
Salaries	15,600.56	
Expense accounts	1,608.03	
Office supplies	36.05	
Sales tax remitted	273.02	
Rent	8,400.00	
Federal Withholding tax	1,420.00	
State Withholding tax	1,272.57	
FICA	3,821.30	
Unemployment tax	363.07	
Bank charges	55.75	
Transferred to savings account	1,438.99	
		106,241.98
Cash Balance October 31, 1993		2,208.70
Assets:		
Checking account (Citizens Bank & Trust)	2,208.70	
Savings Account (Maryland National Bank)	2,159.93	
Value of Inventory	20,797.98	
Investments-Dean Witter Reynolds	24,500.41	
Market value 9-30-93		
Net Worth		49,667.02

Respectfully submitted,

Delos C. Dupree

Delos C. Dupree, Treasurer NABS

(BOOSTERS—Continued from inside back cover)

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Suzanne Pennell: 38
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R. & I. Klenke Family
Robert & Grace Kocher Family
(Continued on page 40)

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

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

Membership: Student (under 21) \$10.00; Senior (over 60) \$10.00; Regular \$15; Family \$25; Sustaining \$30; Supporting \$50; Contributing \$100; Corporate \$100; Donor \$250; Life \$500. Add \$2.00 per year for Canada and Mexico and \$3.00 per year for other countries (surface mail). U.S. funds only, please. Amounts over \$6.00 are tax deductible.

**Address:
North American Bluebird Society
Box 6295
Silver Spring, MD 20916-6295**

