Sialia means bluebirds. Hence the title of this journal. Technically, sialia is the Latinized, neuter plural version of the Greek word sialis, a noun meaning a "kind of bird." Since the Eastern Bluebird was the first bluebird classified by Carolus Linnaeus (1707-1778), he gave it the species name sialis, though he placed it in the genus Motacilla which is now reserved for the wagtails. It was William Swainson (1789-1855), who, in 1827, decided that the bluebirds needed a genus of their own within the thrush family (Turdidae). He selected the generic name Sialia which he simply adapted from the species name sialis which Linnaeus had used. Therefore, the scientific name for the Eastern Bluebird is Sialia sialis (pronounced see-ah'-lee 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-cowy-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 juvenile 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.
The North American Bluebird Society
EFFECTIVE CONSERVATION

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Sialia welcomes original articles, art and photographs for publication. Although this journal is named for the bluebird, material relating to all native cavity nesting species will be considered. Manuscripts should be typed neatly and double-spaced. All material submitted is subject to editing or rewriting. Submit the original manuscript plus a duplicate copy if you wish to proof the material before publication. If the article has been submitted elsewhere (or previously published) that fact must be stated at the time of submission. All manuscripts will be acknowledged. Black and white glossy photographs are preferred. Print the subject, names of individuals pictured, photographer and return address on the back of each photograph. Art is welcome and should be in black pen-and-ink. We do not assume responsibility for manuscripts, photographs or art submitted. The editor's address is 10617 Graeloch Road, Laurel, Maryland 20707.
While working in the garden one day, I could hear the nestling bluebirds in a nearby box crying. The parents were always present in the backyard and I'd observed them earlier, so I knew they were still around. I continued my garden work while keeping an eye on the box. Occasionally the parents would enter with food, but thirty minutes or more would pass between feedings. This just wasn't often enough to provide sufficient food for all the nestlings. When I finished gardening, I got my binoculars and sat down under a tree to observe the adults. With the unrelenting heat and drought, I thought the parents could be having a difficult time finding food. This thought was soon proven wrong as the parent bluebirds were picking up insects quite often.

We had experienced frequent raccoon problems so that I had made a point of not going to the box any more than absolutely necessary. I still chose to leave the nestlings alone, but late that afternoon when I was near the box I could again hear their hunger cries. Upon inspection of the nest, I found only three nestlings. There had been four, so I assumed one had already died and the parents had removed the body. They were eight days old but had no sign of feathers and one nestling was half the size of the other two. They certainly weren't getting enough to eat. I realized that if I didn't intervene in some way I'd find the little ones dying one by one. None of the other boxes had bluebirds of the same size, so I couldn't place the smaller one with other parents. I called Dr. Zeleny to relate my story and he agreed that they would no doubt die and there was nothing to lose by trying to help in some way. Wildlife rehabilitator Barb Cole lives near me, so I called her to discuss the situation. We decided she would take the smallest nestling and I would supplement feedings for the two remaining in the nest. This also would make the feeding task for the parents easier. Upon arrival at Barb's house, the bluebird was placed in a margarine container located on a heating pad and fed a small portion of her special formula for baby birds. She sent me home with a large supply of mealworms, vitamins and instructions. First, the head was to be removed from the worm, as it's too hard for baby birds to digest, then the worm needed to be softened a little by gently pressing a thumbnail into the body, and finally the worm was to be dipped into the vitamin solution. From the first feeding, the bluebirds no longer cried and by the next day I could see the feathers starting to grow.

Five or six trips to a box each day causes too much interference with the parents and could possibly cause them to abandon the nest. Each time I fed the nestlings I left a few mealworms in a dish placed on top of the stepladder. I wouldn't be ten steps away from the ladder before the adults were at the dish for their treat. They were observed taking the worms to the box on a few occasions, but usually they ate all of them. The diet was supplemented until I felt that, if continued, it would cause the birds to fledge before they were ready.

With raccoons in the vicinity I was well aware that my many trips to the box for feeding would leave a strong scent for them to follow so I tried to throw them off the track. I walked a straight path that passed a few feet to the side of the box. When I was even (Continued on page 18)
Woodpecker and European Starling Competition for Nest Sites

Danny J. Ingold

Abstract

From mid-March through August 1987 I located and monitored 49 freshly excavated Red-bellied Woodpecker (Melanerpes carolinus) nest cavities and 51 freshly excavated Red-headed Woodpecker (M. erythrocephalus) nest cavities in Oktibbeha Co., in east-central Mississippi. In addition, I monitored the nesting efforts of 13 European Starling (Sturnus vulgaris) pairs at nest boxes. Starlings and Red-bellieds initiated nesting in late March and early April, while Red-headeds initiated nesting in late April and early May. Red-bellieds were aggressors in only 24% of the interactions in which they were involved with either starlings or Red-headeds. Conversely, Red-headeds were aggressors in 86% of the interactions in which they were involved with the other species. Of 49 Red-bellied cavities, 55% were usurped by starlings while only one of 51 Redheaded cavities (2%) was usurped. Red-bellied pairs encountering starling competition were often forced to delay nesting until later in the season reducing their chance to raise two broods. Red-bellieds and Red-headeds able to avoid starling competition early in the season should be at an advantage. Woodpeckers forced to compete with starlings for nest sites may gradually shift their nesting efforts to rural areas where starlings are encountered less frequently.

The reproductive success of cavity nesting birds is limited by the presence of nest sites (von Haartman 1957). In North America, European Starlings (Sturnus vulgaris) compete with many of our native cavity nesting birds for a place to live and raise young. Starlings are a secondary cavity nesting species and are thus partially dependent on woodpeckers to create their nest holes. Reports dating back to the early part of this century document competition for cavities between starlings and a variety of native cavity nesters including woodpeckers, flycatchers, swallows, martins, and bluebirds (see Kilham 1958, Zeleny 1969, Short 1979). The starling’s aggressive nature and ability to adapt to a wide range of habitats has made it a prominent competitor among hole nesters. However, native species which live in remote rural areas are often able to avoid starling competition. This may be attributed to the fact that starlings are usually found in close association with human environments such as cities, parks, and agricultural areas, and only infrequently in dense secluded habitats.

Red-bellied (Melanerpes carolinus) and Red-headed (M. erythrocephalus) woodpeckers are two common cavity nesting species whose ranges broadly overlap in eastern North America. They nest in cities and residential areas, and, therefore, both frequently encounter starling competition for nest sites. In the southeastern United States, starlings and Red-bellieds generally initiate nesting in late March and early April, while Red-headeds begin nesting in early May. All three species frequently raise two broods in a single nesting season. Later nesting by Red-headeds, combined with their tenacity, should make them less vulnerable to starling competition.

My objectives in this study were the following: (1) determine the extent of overlap in nesting efforts of starlings, Red-bellieds, and Red-headeds in east-central Mississippi, and (2) determine the potential effects of starling harassment on the reproductive success of these two woodpecker species.
Methods

In an attempt to learn more about the potentially negative effects of starlings on breeding Red-bellieds and Red-headeds, I conducted a five month study from mid-March to August 1987 in Okatie County, Mississippi. Throughout this period I located as many freshly excavated Red-bellied and Red-headed cavities as possible. These cavities were located in the city of Starkville and on the campus of Mississippi State University. After cavities were located, I monitored them on a weekly basis. All interactions between starlings and woodpeckers were recorded, and special care was taken to determine if and when a Red-bellied or Red-headed cavity was usurped by starlings.

Using an extension ladder, I climbed to those cavities in reach. By doing so, I was able to determine the number of woodpecker eggs or nestlings present with the use of a light and mirror. Adult and juvenile woodpeckers were captured on the nest using a noose as described by Jackson (1977). Birds were also captured with the use of a mist net, taped woodpecker distress calls, and plastic or live decoys. I fitted all captured woodpeckers with unique color band combinations and colored their wings with a water-proof market to permit individual recognition.

Results

As is characteristic for this region, nest starts by starlings and Red-bellieds occurred in late March and early April. A prolonged period of nest excavation by Red-bellieds, extending throughout April, was likely the result of starling harassment. Of 25 active Red-bellied nests exposed to starling competition in April, virtually all were still undergoing excavation by the first of May. Interestingly, of 12 Red-bellied nests located in areas where starlings were absent, eight possessed eggs by the end of April. Of 10 active starling nests in April, all had eggs, and one had nestlings before the first of May. A resurgence of nesting Red-bellied pairs with eggs and nestlings was evident in late June, by which time starlings were no longer initiating nests. Red-bellieds nested throughout June and July, with 10% of the pairs successfully raising second broods. Starlings finished nesting by early July.

Red-headed did not start excavating cavities until late April or early May. By this time most starling pairs were busy rearing first broods. Since most starlings were not actively seeking nest cavities, Red-headed were able to avoid much of the harassment that Red-bellieds encountered during the previous month. Red-headed nested throughout August with 28% of the pairs successful in producing second broods.

Interactions among starlings, Red-bellieds, and Red-headeds at nest locations were common. The majority of interactions between starlings and Red-bellieds occurred from late March through May when both species were nesting. As the nesting season progressed, the number of starling/Red-bellied interactions decreased. Most interactions involving starlings and Red-headed were starting nests. Red-headed were aggressors in the majority of confrontations in which they were involved (86%), while Red-bellied were aggressors only 24% of the time. In most instances, Red-headed were more belligerent than starlings, often chasing them from the immediate area of their cavity tree. Conversely, Red-bellied were often submissive and easily intimidated by both starlings and Red-headed.

Of 49 freshly excavated Red-bellied nest cavities, 27 (53%) were taken by starlings. The majority of these usurpations occurred before the first of May when both species were initiating nesting. Once starlings located a Red-bellied pair excavating a cavity, they waited patiently until the cavity was complete. Then one or two starlings often chased the Red-bellied pair from the area or entered the cavity while the Red-bellieds were away. The typical Red-bellied pair responded by chirping or occasionally chasing the starlings, but often to no avail. The
starlings' persistence and tenacity usually resulted in Red-bellied abandonment of their nest cavities. This process seldom took more than a day or two.

Occasionally Red-bellieds lost more than freshly excavated cavities to starlings. On 2 April I arrived at a Red-bellied nest location and witnessed a series of intense interactions between a single starling and both members of the Red-bellied pair. As the male Red-bellied was perched near the cavity entrance, the starling flew within inches of it, forcing it to fly to another limb. The starling then immediately entered the cavity. The male Red-bellied flew to the base of the cavity entrance and began peering in. The starling lunged halfway out of the cavity forcing the woodpecker to fly. The female Red-bellied then landed at the base of the cavity and attempted to enter. The starling prevented it from doing so as the two birds scuffled at the cavity entrance. The starling then flew from the area while both woodpeckers remained near the cavity chirping. Neither bird reentered the cavity for several minutes. I returned to this location on 5 April and observed two starlings in the immediate area of the nest cavity. There was no sign of either the male or female Red-bellied. I returned again on 7 April. Upon my arrival, I found the male Red-bellied wedged in the cavity entrance dead with a large hole in its cranium. Although I did not observe any starlings in the area at this time, it is highly probable that a starling(s) killed the woodpecker. Three days later, the cavity was abandoned by the starlings.

In addition to losing cavities to starlings, Red-bellieds also lost four nest cavities to Red-headed from late April through early May. Thus competition between these two species also occurred, although not as frequently as starling/woodpecker competition. This was likely a result of differences in habitat preferences between the two woodpecker species as well as differences in their nest initiation dates.

Of 51 freshly excavated Red-headed cavities, only one was taken by starlings. Red-headeds were much more aggressive in defending their nests from starlings than were Red-bellieds. Quite often if a starling even landed in a neighboring tree, one or both adult Red-headeds immediately swooped down on it, forcing it from the area. This behavior was seldom displayed by Red-bellieds which made no attempts to usurp nest cavities from Red-headeds.

I monitored clutch sizes of 12 Red-bellied pairs. I found that Red-bellied clutches laid in April tended to be larger than clutches laid in May, June, or July. Females of 10 Red-bellied pairs that encountered starling competition did not lay their initial clutches until late May. Such pairs not only had slightly smaller clutches than competition-free pairs, but had less time to raise a potential second brood after a successful first one. None of the 28 pairs that encountered starling competition was known to have attempted second broods after successful first ones.

I also monitored 34 Red-headed clutches from 20 nesting pairs. Unlike Red-bellieds, I was not able to detect a difference in average clutch size for Red-headeds early in the nesting season compared to later in the season. Furthermore, numbers of Red-headed nestlings and fledglings per clutch remained relatively constant from May through August, which means that late season nesting did not appear to reduce their reproductive output. Thirty-four percent of the Red-headed pairs I observed completed successful second nesting attempts after successful first ones. The fact that Red-headeds were seldom forced by starlings to delay nesting likely contributed to their success.

Discussion

The results of this study suggest that competition between starlings and Red-bellied Woodpeckers for freshly excavated nest cavities in east-central Mississippi is common. Starlings may prefer fresh cavities because they are devoid of nest parasites and
other microfauna that could hinder nesting success. Red-bellieds lost cavities to starlings at a much greater rate than Red-headeds which may be due to Red-bellieds and starlings initiating nesting at the same time in late March. This loss may also be attributed to the tendency for Red-bellieds to defend their cavities less vigorously than Red-headeds. Because many Red-bellied pairs lost their cavities to starlings in March and April, they expended a lot of time in May and June excavating new ones. This “lost time” made it difficult, if not impossible, for such competing pairs to raise two broods. It also forced Red-bellieds to more frequently compete with Red-headeds which were nesting at this time. Consequently, it appears that Red-bellieds engaged in competition with starlings were reproductively less successful than competition-free birds. Conversely, Red-headeds were good competitors with starlings, seldom losing nest cavities to them. The outcome of starling/woodpecker competition is still somewhat uncertain. Red-bellieds and Red-headeds able to completely avoid starlings will likely be more fecund. If starlings continue to persist and compete with these woodpecker species in urban areas, attempts at double-broodedness (especially by Red-bellieds) may become increasingly less common. Additionally, competing Red-bellieds may begin to shift their nesting efforts to more remote rural areas where breeding starlings are absent. ■

Acknowledgments

This research was funded by the North American Bluebird Society and the Mississippi Department of Wildlife Conservation. I thank Jerry Jackson and Don Ingold for their support during this project, and for reviewing related drafts of this manuscript. Cynthia A. Monorel, Mary A. Kershner, Fred L. Burnside, and Malcolm F. Hodges Jr. assisted me in the field.

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P.O. Drawer GY
Department of Biological Sciences
Mississippi State University
Mississippi State, MS 39762

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1989 ANNUAL MEETING

The Twelfth Annual Meeting will be held on July 6-9, 1989, at the newly opened Holiday Inn in Missoula, Montana. The weekend will be hosted by the Mountain Bluebird Trails group. This will give all of us the opportunity to see both Western and Mountain Bluebirds nesting.

An all day field trip is being planned for Friday, July 7th to see Art Aylesworth’s trail. The trip will cover some of the most scenic areas in that part of Montana and give you the chance to see other forms of wildlife in their natural habitat.

—Sadie Dorber
Bluebirds in the Bluegrass Prefer Wooden Boxes

Wayne H. Davis

In my continuing efforts to develop a bluebird (*Sialia sialis*) box that is of no interest to House Sparrows (*Passer domesticus*) I have erected and monitored several hundred paper milk cartons and a variety of plastic jugs and bottles. Although Tree Swallows (*Iridoprocne bicolor*), House Wrens (*Troglodytes aedon*) and Carolina Chickadees (*Parus carolinensis*) have nested in these containers, I have never had a House Sparrow use one.

In northwestern Minnesota I have had about a 70% occupancy rate by bluebirds in these structures, with about 140 nestlings over 25 years. (If you want to try plastic containers, throw away the lids and cut at least 4 horizontal slits about 1/4 inch to 3 inches [64 to 7.62 cm] for ventilation.) Woodward (1973) also had success with milk cartons in Maryland, although he speculated that his bluebirds would prefer wooden boxes if given a choice.

On the reclaimed surface mines of eastern Kentucky, bluebirds also nest in milk cartons and the various plastic containers I have erected. However, in the so-called Bluegrass Region of central Kentucky, I have had almost no success with anything other than wooden boxes.

To test for housing preference, I set up an experiment at the Bluegrass Army Depot at Richmond, KY. On 31 March, 1988, I erected 24 each of standard wooden boxes, paper milk cartons and two-liter soda bottles in good bluebird habitat at the depot. The wooden boxes were unpainted rough hemlock; the cartons and bottles were painted gray. The bottles had the entrance in the bottom and were mounted horizontally. The 72 sites each received a single structure mounted on a utility pole, fencepost or tree. The sites were 350 yards [319.9 m] apart.

The sites were checked 2 June and 1 July with the following results:

- Paper milk cartons—one bluebird nest
- Soda bottles—nothing
- Wooden boxes—13 bluebird nests; 3 House Wrens, and one Tree Swallow

Because of these results, I am giving up on the use of these containers and have shifted my efforts for a sparrow-proof bluebird house in another direction. However, since there seems to be geographic variation in nest site selection, I hope that others will continue to experiment and will report their results to NABS.

Literature Cited


School of Biological Sciences
University of Kentucky
Lexington, KY 40506

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All contributions are tax deductible. Mail your check to NABS Boosters, P.O. Box 6295, Silver Spring, MD 20906-0295.
House Sparrows Prefer a Circular Entrance

Wayne H. Davis

McComb et al. (1987) showed that, when given a choice, bluebirds (Sialia sialis) preferred a box with a 1 1/2 inch (38 mm) wide horizontal slot entrance to the standard 1 1/2 inch (38 mm) circular hole. When nesting at sites where the two styles were mounted side by side, bluebirds chose the slot entrance type 70% to 30% for the circular hole.

In my continuing experiments with slot entrance boxes at the University of Kentucky Agricultural Experiment Farms, I have noticed that few of the boxes (16 or 13% of 122) were used by House Sparrows, (Passer domesticus) even though sparrows were abundant and many of the boxes were close to buildings and livestock feeding areas. To test the possibility that House Sparrows may not like the slot entrance, I designed an experiment.

In December 1987, I placed 25 pairs of boxes on buildings at the UK farms. The boxes were made from rough hemlock lumber. They had inside measurements of 4 x 4 inches (100 mm) and the entrances were 6 inches (150 mm) above the floor. One box of each pair had a circular entrance 1 1/2 inches (38 mm) in diameter and the other had a slot entrance 1 1/8 inches (30 mm) high and 4 inches wide. Boxes were mounted 5 feet (1.6 m) above the ground and 18 inches (50 cm) apart. They were monitored at weekly intervals from 26 March through 7 July.

House Sparrows began some nesting activity at 23 of the 25 stations. At 20 of the stations nesting was started in both boxes. The birds completed nests and laid eggs at 18 stations. In 17 of these the completed nest was in the box with the circular entrance. At the other station complete nests were built in both boxes. A brood of 5 was fledged from the slot entrance box in the middle of May and 4 eggs were found on 13 June. This second nesting was in the box with the circular entrance. At the 4 other stations where second broods were raised, the second broods were also in the boxes with the circular entrances (Table 1). The selection for circular entrance boxes was (Text continued on page 10).

Figure 1. Experimental nest boxes on a barn.
THE KENTUCKY BLUEBIRD BOX

using standard 1 x 6 (3/4 x 5 1/2)
inch lumber:
back: 14 x 5 1/2
sides: 8 1/2 x 5 1/2
roof: 6 1/2 x 5 1/2
front: 7 1/2 x 4
bottom: 4 3/4 x 5 1/2
thin strip: 5 1/2 x 3/4

using 1/2 inch plywood or waferboard:
back: 12 x 5
sides: 7 1/2 x 4 1/2
roof: 5 x 6
front: 6 1/2 x 4
bottom: 5 x 4
thin strip: 5 x 3/4

1/2 inch ventilation holes
entrance space 28-30 mm (1 1/8 inch) between wood strip and roof. Measure carefully.

6d finishing nail driven into side and bent across front for closing.

Nails through each side and into front form hinge for opening front.

For the back, roof, and bottom use dry wall screws or corrugated underlayment nails. Common nails do not hold well, especially in plywood or waferboard.

Metric Equivalents

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</tr>
<tr>
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</table>
highly significant ($x^2 = 14.2; \ p < 0.01$).

Thus House Sparrows showed a strong preference for boxes with a circular entrance. Although they will use a slot entrance, their relative disinterest in such a box seems enough to warrant the use of slot entrance boxes wherever House Sparrows are a problem.

<table>
<thead>
<tr>
<th>Entrance</th>
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<th>Eggs Laid</th>
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<td>17</td>
<td>4</td>
</tr>
<tr>
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<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>43</td>
<td>18</td>
<td>4</td>
</tr>
</tbody>
</table>

The Downing Ruritan Club of Richmond, Virginia, sells bluebird boxes at a local supermarket several times a year. On two Saturdays in spring, they sold about 180 boxes. Three members are shown with the boxes displayed for sale.
Attracting Birds Year-Round with Fruiting Trees and Shrubs

Andre Cyr and Andre Dion

This material was presented 24 October 1986, at the Ninth Annual Meeting of the North American Bluebird Society held in Wagoner, Oklahoma by Andre Dion using Andre Cyr’s slides.

Much has been said about attracting birds, so that it may seem hard to believe that there is still so much to be said. If we want to learn more, we must look at the birds close to our homes. One of the authors, Andre Dion, has been landscaping his backyard during the last eight years with over 700 fruit-producing shrubs and trees. The experience he has gained prompted him to share his findings.

In landscaping a backyard, we need first to consider plants that will be used by the birds we want to attract. Then, second, plant the species in such a way that they will ripen in a sequence which will maintain available fruit for as long a period as possible. Though the birds will not necessarily be the same all year-round, there will be birds throughout the year that will be attracted. For example, a vireo eating Waxberry (Common Snowberry) fruits will not be found in the wintertime in the north, nor will a Pine Grosbeak visiting Cranberry Trees (Highbush Cranberry)* or crabapple trees arrive until November, and then only if the area is a part of their winter territory.

We noticed that when the first fruits are ripening in the spring, there might still be some fruits of the Cranberry Tree left over from the previous fall. Such a phenomenon seems to ensure food availability all year round.

When planning our dream garden, we will use, first and foremost, native fruit-bearing plants, which will attract mainly native bird species over the non-native starlings and sparrows. Tables 1 and 2 give an example of a sequence of selected plants and their approximate flowering and ripening periods in southern Quebec. The dates are only indicative. Moving two hundred miles north or south can produce a one- or more week difference in the flowering and ripening dates depending on altitude and latitude or the structure of the local environment. Even the amount of shade and the exposure to the sun can affect these dates dramatically. Farther east, west, north or south, there will be ecological shifts in which different species of plants occur, but the niches will be roughly maintained. The main genus of fruit-bearing plants will remain about the same throughout most of eastern North America, but, as we move farther south and west, we will encounter more distinctive local specialties, as for example the Beautyberry which is found in northern Florida.

Our dream garden with its fruit-bearing plants also features an array of nice-looking flowers during the blooming period. Ruby-throated Hummingbirds will thus be attracted and will feed heavily on honeysuckles and other plants. The blooming sequence of the flowers can also be successfully used in predicting when some of your visiting birds will be breeding or feeding their young. The Tree Swallow was building its nest at the time of the colorful bloom of the crabapple trees. While the flowers of the adjacent Mountain Ash (American Mt. Ash) were exploding, we rejoiced in observing the White-breasted Nuthatch feeding moths and larvae to its young in a nest built in a huge roosting box. Moreover, in the nearby fields, the Eastern Blue-

*Common names in parentheses are those which have been used previously in *Sialia* and are furnished by Plantings author Karen Blackburn.
bird was successfully feeding its young at the time of the blooming of the Red-osier Dogwood. The Purple Martin will not feed its young before the flowers of the Cranberry Tree appear, at least in the northern regions.

Then, you will observe a most interesting aspect of nature as the fruits ripen, in some cases while other species are still in flower. Last summer we were surprised to find the Red-berried Elder (Scarlet Elder) full of fruit while its cousin, the Canadian Elder (American Elder) was barely beginning to flower. Shadbush were already ripening before the flowering of more than half of our shrubs and trees. This means that the Cedar Waxwings, which are specialized fruit eaters, have plenty of food to get through the year without depleting their food reserves.

The fruit-ripening sequence is different than the flowering ones (compare Tables 1 and 2). Some fruits seem to last forever; others ripen and are soon eaten, often one tree at a time is stripped as was the case with the Mountain Ash and the Chokecherry (Common Chokecherry). The latter tree was unexpectedly visited by Evening Grosbeaks last summer. Yet, the story was quite different in another area

250 miles [155.37 km] north of Montreal more than three weeks later. The cherries were ripe much later there. Although the grosbeaks ate a lot, they left even more. This was coupled with a most unexpected event that we recorded on film for the first time: male Evening Grosbeaks feeding cherry pits to their young in late August by getting rid of the pulp first and feeding only the seeds.

<table>
<thead>
<tr>
<th>English and Scientific Name</th>
<th>May</th>
<th>June</th>
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<tbody>
<tr>
<td>Mooseberry (Hobblebush), Viburnum alnifolium</td>
<td>X X X X X X X</td>
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<tr>
<td>Stoloniferous Shadbush (Smooth Serviceberry), Amelanchier laevis</td>
<td>X X X X X X X</td>
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<tr>
<td>Spreading Dogbane (Running Juneberry), A. stolonifera</td>
<td>X X X X X</td>
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<tr>
<td>Round-leaved Hawthorn, Crataegus rotundifolia</td>
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<tr>
<td>Wild Red Cherry (Pin Cherry), Prunus pensylvanica</td>
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<tr>
<td>Chokecherry (Common Chokecherry), P. virginiana</td>
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<tr>
<td>Glaucous Honeysuckle, Lonicera dioica</td>
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<tr>
<td>Mountain Ash (American Mountain Ash), Sorbus americana</td>
<td>X X X X X X X</td>
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<tr>
<td>Red-Osier Dogwood, Cornus stolonifera</td>
<td>X X X X X X</td>
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<tr>
<td>Appalachian Tree (Witherod), V. cassinooides</td>
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<tr>
<td>Bunchberry, C. canadensis</td>
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<tr>
<td>Cranberry Tree (Highbush Cranberry), V. trilobum</td>
<td>X X X X X X X</td>
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<tr>
<td>Canadian Elder (American Elder), Sambucus canadensis</td>
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<tr>
<td>Red-berried Elder (Scarlet Elder), S. pubens</td>
<td>X X X X X X</td>
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</table>
Table 2. Example of a sequence of ripening periods for selected species of fruit trees and shrubs in Quebec and northeastern United States. Though the table stops at the end of June, many of these and other species ripen later or retain their fruit late into the fall or winter. Species without information ripen in late July or later.

<table>
<thead>
<tr>
<th>English and Scientific Name</th>
<th>May</th>
<th>June</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Stoloniferous Shadbush (Smooth Serviceberry) <em>Amelanchier laevis</em></td>
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<tr>
<td>American Fly-Honeysuckle, <em>Lonicera canadensis</em></td>
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<tr>
<td>Wild Red Cherry (Pin Cherry), <em>Prunus pensylvanica</em></td>
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<tr>
<td>Chokecherry (Common Chokecherry), <em>P. virginiana</em></td>
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<tr>
<td>Allegheny Blackberry (American Blackberry), <em>Rubus allegheniensis</em></td>
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</tr>
<tr>
<td>Raspberry, <em>R. idaeus</em></td>
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<td>0</td>
</tr>
<tr>
<td>American Black Currant, <em>Ribes americanum</em></td>
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<td>0</td>
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<tr>
<td>Mountain Ash (American Mountain Ash), <em>Sorbus americana</em></td>
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</tr>
<tr>
<td>European Mountain Ash, <em>S. Aucuparia</em></td>
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<tr>
<td>Red-osier Dogwood, <em>Cornus stolonifera</em></td>
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<tr>
<td>Appalachian Tree (Witherod), <em>Viburnum cassinoides</em></td>
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<tr>
<td>Sweet Viburnum (Nannyberry), <em>V. Lentago</em></td>
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<tr>
<td>Canadian Elder (American Elder), <em>Sambucus canadensis</em></td>
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<tr>
<td>Sunflower, <em>Helianthus sp.</em></td>
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<tr>
<td>Wax-berry (Common Snowberry), <em>Symphoricarpos albus</em></td>
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<td>0</td>
</tr>
<tr>
<td>Black Cherry, <em>P. serotina</em></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Round-leaved Hawthorn, <em>Crataegus rotundifolia</em></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Winterberry, <em>Ilex verticillata</em></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flowering Crabapples, <em>Malus sp.</em></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cranberry Tree (Highbush Cranberry) <em>V. trilobum</em></td>
<td>0</td>
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</table>

Fall color changes belong to this adventure in backyard landscaping. We should not forget that whether or not birds visit our garden, the fruit trees will nevertheless offer us multicolor sequences. Among the noteworthy species we encountered, a few were especially beautiful. In sequence of their color appearance were the Mooseberry (Hobblebush), Red-osier Dogwood, Sweet Viburnum (Nannyberry), Virginia Creeper, Wild Red Cherry (Pin Cherry), Staghorn Sumac and the European Barberry. Although each is often surrounded by the Red Maple and thus disappears in the shade of this well-colored fall tree, look in the bush as well as along the roadsides and the fences where birds have spread the seeds of the fruits they have eaten.

Most of the material photographed
by André Cyr belongs to very unpredictable bird photography situations. Our aim was to illustrate the changing seasons of flowers, fruits, with the birds that use them. Our experience is presented in a book A Garden of Birds: Planting a Garden for Birds the Year Round (Brimar, Montreal, 1988). That dream can only come true if one knows that it is possible. We, on spaceship Earth, depend on such undertakings to improve the environment which we are all responsible for having brought to its present state. The earth is an ecological whole and all parts are interrelated. The Cedar Waxwings we so lovingly feed in the summer on their breeding ground in the North, are going to be the winter visitors in the South. The same applies to the Purple Martin for whom we provide lodging. It will be the unknown visitor surveying the skies of Brazil to play out another role there. What a thrill it has been to see, follow, photograph, and describe all these birds eating fruits in that dream garden. We hope our experience will spread to create a better world.

Dept. of Biology, Sherbrooke University, Sherbrooke, Quebec, Canada J1K 2R1 (Cyr); 2 rue Savoie, St-Placide, Quebec, Canada J0V 2B0 (Dion)

A Bird in the Bush

Karen Blackburn

Our last Bird in the Bush column noted that a “wildlife oasis” can be created in the midst of a bustling city. Further confirmation of this fact came in the form of a newspaper clipping from NABS member Dorothy Corbin of Sandown, NH. The article describes one couple’s success in establishing an urban wildlife sanctuary on their property in Charlotte, NC, a city with a population of over 300,000. So successful is this lushly-landscaped yard that it has attracted nearly 150 species of birds over the years, and 3500 pounds of seed are used annually as supplemental feeding for the many avian visitors. Many years ago this property was devoid of vegetation, so the owners made extensive plantings, thereby creating the wildlife haven as it now exists. Once again, “the proof is in the plantings.”

Canadian readers, particularly those in Alberta and neighboring provinces, may be interested in a booklet entitled “Backyards for Wildlife”, produced as a joint project by the Kerry Wood Nature Centre and the Red Deer River Naturalists. Written by Myrna d. Pearman, this 25-page publication discusses the general needs of wildlife and ways in which to satisfy these needs with nest boxes and shelves, water supplies and supplemental feeding. Much of the booklet is devoted to plantings for wildlife, with brief descriptions of approximately one hundred hardy plant species that are attractive to the birds and butterflies of Alberta. The booklet also invites readers to join the “Backyard Wildlife Habitat Program”, registering their yards as “official Backyard Wildlife Habitat” and receiving the program’s newsletter. “Backyards for Wildlife” may be obtained by sending $5.00 (Canadian) per copy to Red Deer River Naturalists, P.O. Box 785, Red Deer, Alberta, T4N 5H2.

We thank Dorothy Corbin and Myrna d. Pearman for their contributions to this column. Any information pertaining to plant use by wildlife is always welcome. If you have “planted for wildlife” or have seen wildlife feeding, nesting or otherwise displaying a preference for particular plants in your area, we invite you to share your observations with us. Please send your reports to Karen Blackburn, Rt. 3, Box 650, Marianna, FL 32446.

Stalla, Winter 1989
Nine Bluebirds in One Box!

Dean A. Boyer

On Saturday afternoon, 14 May, 1988, I was checking my bluebird boxes when I found one with nine young bluebirds about 12 days old. It was a 4 1/2 in. [11.4 cm] square box so I went home and made a 6 in. [15.2 cm] square house. After supper my wife, my sister-in-law and I drove the eight miles to replace the crowded box with a new one and to take some pictures. After removing the box from the metal post, I took out the whole nest and we took two pictures of the young. I placed the nest in the new box on some pine needles I added as additional nesting material and put it back on the pole. While we were doing all this, I noticed three adult bluebirds flying around us but did not pay much attention to their sex. We parked nearby and watched as the adults checked the new house and finally went in.

I assumed the female had laid one clutch of eggs and, with all the cold weather we had had, then laid another clutch feeling the first ones were infertile. I had a few pairs that built a second nest over their first clutch of eggs and laid a second clutch. Later, I began to think about the fact that there were three adult birds.

On Sunday morning, I drove to the box and observed it for about 40
minutes. I saw one male and two females in the area but could not keep track of both females. On Tuesday evening, my wife and I parked about 200 feet [60.9 m] from the house. We each had binoculars. The young were being fed. We watched until we saw a female go into the house. When she came out I would follow her and keep her in sight. My wife watched the box and when a female went in she would tell me, then we would both watch until she came out to make sure it was a female. Three times in the 20 minutes we watched I had my binoculars on one female while the other was in the box. They were both adult females. The male was always in the area and also made a trip to the box.

All nine young fledged. I then replaced the box with the original one. I checked it in late July; it contained a second brood (of five) ready to fledge.

Do you think the male mated with two females for the first brood? Have other members had this experience or a similar one on their trails?

I had another odd experience this year. I have a bluebird box mounted on a wooden fencepost in a horse pasture, on the pasture side. It is mounted with two nails in the top and one in the bottom of the back. I checked it one weekend and five young had just hatched. Two weeks later as I approached the nestbox, I saw it hanging upside down by the lower nail. I opened the side and there were five bluebirds sitting on the underside of the roof (which was now the floor) with the nest above their heads. I do not know how long they had been like that, but they were lucky the nest stayed where it was. I righted the box and put a rubber tie-down strap around it to hold it in place. Later, I placed the box on the road side of the pasture.

It is unfortunate that this nest was not observed before the eggs hatched since it would be interesting to know if the two females shared the task of brooding the eggs and, if so, if they took turns or if they brooded together, each covering her share of eggs. It would be difficult, but perhaps not impossible, for one female to keep nine eggs properly warm at all times. Her brood patch is hardly large enough.

In regard to the second "odd experience" we always recommend that when nesting boxes are mounted on pasture fences they be mounted on the side away from the animals. Cattle and horses enjoy using the boxes as back scratchers.

**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.

This song will enhance slide shows. Used at the end of a program or with accompanying slides, it will leave your audience speechless.

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

—Sadie Dorber

**Historian Named**

Jane Williams has recently been named historian upon the resignation of Bob Bodine of Media, PA. Please send newspaper articles and published publicity about bluebirds and cavity nesters to Jane Williams, Box 123, Ware Neck, VA 23176. All material is compiled into scrapbooks. Include the complete name of the publication, city, state and date on all submissions.

Sialia, Winter 1989
Experiences Along a Texas Bluebird Trail

Mary F. Reed

In deep East-Texas, amid tall whispering pines, there is a small resort community built around a creek-fed lake and an 18-hole golf course. About ten years ago bird boxes were placed along the fairways to encourage bluebirds to come to this sanctuary. And come they did. Squirrels also came to gnaw making the entrance holes bigger, and then came raccoons and snakes. The unmonitored boxes deteriorated after a couple of years of use.

During 1988 a trail was established with 72 well-constructed, side-opening boxes, many of which were mounted on poles with predator guards; a committee of monitors was selected to maintain them. Interest is at such a high level that the number of boxes may well be doubled in the next year or two.

Interest is high because more bluebirds are being seen and enjoyed and because, increasingly, numbers of people have become conscious of birds and their activities. Community meetings include reports of trail activities and more and more people are becoming involved. Interesting things are happening every day, and 149 young bluebirds have been added to our area.

Box #51 was erected in the backyard of one of the trail monitors, Johnny and Doris Fail. In early March. The next day a pair of bluebirds came to claim their new home. They did all the usual things—perching on the box, looking in and taking turns with inspection. It soon became apparent that they liked what they saw and were often seen nearby.

Then along came a pair of chickadees who immediately started to build a nest of green moss. The next day the bluebirds went inside, disturbed the nest, and carried some of the moss away. But the persistent little chickadees built again only to have the nest torn away by the bluebird couple. On the almost bare floor one egg was laid by the chickadee. Did the bluebirds give up? By no means. While Doris watched in disbelief, the male bluebird flew down, went inside the box, came out with an egg carefully held in his beak, and took it to a large tree limb. For a moment the egg balanced precariously there, then fell soundlessly to the ground below. Once more the chickadees managed to lay another egg in a partially constructed nest. On 29 March Johnny was standing within 10 feet [3.0 m] of the box and 24 feet [21.9 m] of the tree limb when he saw the second egg removed by the male bluebird who flew to the same limb again where the egg was placed and from which it dropped. On 1 April the Fails discovered two other broken eggs on the ground. That did discourage the chickadees. In a few days the nest was cleaned out by the landlords and made ready for tenants. But March passed, April and May—still this beautiful home remained vacant. Finally, in June the bluebirds built a nest and set about making their family plans. In due time, from five eggs three young birds fledged from this box.

One of life’s thrills is to see a brood of five healthy bluebirds fly out of their nesting box. I would hope that everyone could experience this at least once in his life. On a beautiful Saturday morning in April, the five birds from box #24 performed perfectly, fledging at about six minute intervals while Helen Krause and I watched. At almost the same time, fledging from box #38 progressed smoothly too—up to a point as Ray and Bonnie Mediz observed. By 10:00 a.m. the fourth young bird of the brood had tried its wings with the same success as three of its siblings. Minutes later the last nestling looked out at the world and pulled back into the safety of the box. Around noon, anxious foster parents checked the condition of this last little bird. It was just standing as if to say, “Don’t make me!” By mid-afternoon, despite anxiety from all interested parties,
there was no change in the bird's position. By this time, it was undoubtedly very hungry as no feeding had taken place.

About 5:00 p.m. the parent birds, their patience obviously exhausted, took charge. Ray and Bonnie were both watching the unfolding drama from as little as 8-10 feet [2.4-3.0 m]. The female went into the box. From the way that heads came out through the opening from time to time, it appeared that she was shoving or physically encouraging the nestling to leave the box. When the male flew to the entrance and clung there, the observers moved closer not really believing what they were seeing. The male encouraged from the opening and, at just the right moment, he secured a firm hold on the beak of the young bird and pulled with all his might. In this manner the young bird was literally dumped out into the world. He stayed on the ground for several minutes while the male, female, and the other four fledglings gathered around with much noise and touching.

The new fledgling flew safely to a low bush, then to a tree limb. All five young birds were seen together during the following week.

In our own backyard in June, my husband and I were entertained for several hours. Mother bluebird was very busy building a second nest in box #2. She worked continuously through the morning while her mate and their two young from May's fledging sat on a wire several feet above the box and sang encouragement to her. It is always a thrill to see such family effort.

There is a note of sadness on the trail when a raccoon steals the eggs, a snake robs a nest in late evening, or a cat eats the female bluebird leaving a beautiful nest and four eggs. We are studying, learning, hoping and working to keep these problems to a minimum.

When you come to deep East Texas, look for the Wildwood Trail. There's always something going on!

P.O. Box 818
Wildwood, TX 77663

(POINTS—Continued from page 2) with the box, I jumped to it. When I finished I jumped back out and continued my straight path.

On 30 July, the weather forecast for the following day was for temperatures in our area to reach 100° F [38° C]. The nestlings had survived thus far, but the inside of the box would go several degrees higher and I was concerned. I took a quick look inside the box that evening and they looked to be at the fledgling stage. They were now 22 days old.

Early the next morning, I noticed a head looking out the entrance; shortly it would drop back down out of sight. This was repeated several times and I knew that soon I'd see them leave. I took my coffee to the back window to await their maiden flight. I didn't wait long before the nestling flew to the nearby crabapple tree. The parents seemed rather unconcerned as they were casually going from one tree to another. I waited nearly an hour for the second nestling to fledge and then decided to go outside and look for them in the trees. Apparently, I had watched the second one leave the nest and was unable to find either one. By this time they, no doubt, had worked their way to the top of the trees. The next day I saw the male pick up food and fly to the tall locusts along the stream, but I never saw any of the family again.

I've related the experience to several other bluebirders and we're all pretty much in agreement that this pair was poor parents—perhaps first year birds.

On 21 August, the third little bluebird was returned to me. The time had come for her to be released. In the next issue of Sialia, I'll share my experiences in preparing her to fly free again.
Please add my name to your list of bluebird trail monitors who would like to see some bluebirds banded.

I have wondered why the NABS could not start their own banding program. I am sure that a band that was dissimilar from the USDI band could be produced and, with adequate publicity, any recovery could be monitored by NABS, obviously at some cost.

I am enclosing a copy of a letter I received from the U.S. Department of the Interior's Office of Migratory Bird Management. They accepted my qualifications in an application for a banding permit, but rejected my request.

If you could furnish me with some valid reasons for banding our bluebirds, I would be pleased to resubmit my application to the USDI.

Wayne Tice
Hot Springs Village, Arkansas

You asked for valid reasons for banding bluebirds. Important information concerning the lives and habits of many species is often obtained through banding operations. Much has been learned, but much more remains to be learned. Generally, this is a very slow process largely because only a very small percentage of banded birds is ever recovered and reported.

Following are some of the questions concerning bluebirds to which we have only partial answers but hope eventually to obtain more complete answers through banding operations:

1. How long do birds live in the wild?
2. To what extent do the birds return to the same nesting areas year after year, both in the migratory and the nonmigratory parts of their range?
3. How rapidly do birds travel during migration?

4. Do the birds from a particular area migrate to a particular area for the winter or do they disperse widely?
5. To what extent do the birds retain the same mates during the entire breeding season and from year to year?

Your suggestion that our Society operate its own banding program and issue its own bands would be impractical. Serious legal as well as funding difficulties would likely be encountered.

The USDI Bird Banding Laboratory is overloaded with work and lacks the funds to expand its operations further. A recent letter to NABS (quoted in part below) from George M. Jonkel, Chief of the Bird Banding Laboratory, underscores their primary mission:

We do have a number of bluebird cooperators that band birds. The banding is generally in relation to a quite extensive trail system and is directed toward some type of research. I'm not sure that it would be of much advantage to research or management to encourage additional nesting bands. Banding directed at more specific research could logically be encouraged. Migratory bird banding must be permitted under our program and we have not authorized private banding systems. To be fair, we would need to continue allowing it once it was authorized, and such would interfere with our system, which is used extensively for research and management.

Rather than resubmit your application, I would think it possible that there may be one or more licensed banders in your vicinity who would be willing to band bluebirds on your trail.
PLANTINGS FOR BLUEBIRDS AND OTHER WILDLIFE

Inkberry: Winter Food for Wildlife
Karen Blackburn

Inkberry, also known as Gallberry, is an evergreen holly native to eastern North America. Like many of our other native plants, Inkberry is underutilized in American landscaping. Yet in England it is prized as an ornamental plant because of its lustrous evergreen foliage and glossy black fruits. Inkberry, in its natural state, has a tendency to form thickets, but this habit can be controlled, if desired, under cultivation. In the coastal flatwoods of the southeastern United States, Inkberry thickets cover thousands of acres, and its fruits, remaining on the bushes well into spring, are of significant value to wildlife throughout the winter and spring months. This species adapts well to ordinary garden conditions as long as its requirement for acidic soil is met, and whether used in a formal setting or in naturalized areas, its persistent fruits will serve well as a winter food for wildlife.

**Inkberry**
*Ilex glabra*

**Native Range**—Nova Scotia south to southern Florida and Louisiana.

**Hardiness**—Zone 4

**Habitat**—Grows in acidic sandy or peaty soils of woodlands, swamps and bogs. Often abundant in the acidic soils of pine and oak barrens.

**Habit**—A thicket-forming evergreen shrub capable of reaching a height of 10 feet [3.05 m] at maturity. The shiny deep green leaves are spaced alternately along the stems. May be semi-evergreen in northern parts of its range.

**Fruit and Flowers**—Flowers are inconspicuous, with male and female flowers on separate plants. Male flowers occur in clusters on stalks, while female flowers are solitary on new growth. The glossy black fruits are 1/4 inch (.64 cm) in diameter. Ripening in late summer to early fall, they persist well into the spring season.

**Landscape Value**—In England, Inkberry has long been recognized for its year-round beauty. Though not as familiar to American gardeners, this shrub adapts well to garden conditions. Transplants well and may be pruned to desired shape. May be used as a specimen plant or in hedges. Fine for naturalizing. Salt tolerance and ability to grow on dry, sandy soils makes Inkberry useful for coastal plantings.

**Culture**—Prefers full sun, but will tolerate shading. Also tolerates dry, windy sites. Requires acidic soil conditions for healthy growth. Male and female plants are necessary for fruit production. Growth rate is slow.

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Wildlife Value—Persisting well into the spring months, the fruits of Inkberry provide a dependable source of winter food for wildlife. The fruits are a choice food for the Wild Turkey, American Robin and Cedar Waxwing, and are also taken by the Northern Bobwhite, Northern Flicker, Northern Mockingbird, Hermit Thrush, Eastern Bluebird, Rufous-sided Towhee and Mourning Dove. Deer are known to consume both fruit and foliage during the fall and winter months.

Special Uses—In the southeastern United States, Inkberry is an important honey plant.

Undesirable Traits—Thicket-forming habit may be considered undesirable on some sites.

Rt. 3, Box 650
Marianna, FL 32446

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

Fifth Annual Bluebird Festival and Wildlife Art Show, March 11-12, 1989, Jackson, Michigan

The Dahlem Environmental Education Center is sponsoring its fifth annual Bluebird Festival and Wildlife Art Show on March 11-12, 1989, in the fieldhouse and adjacent lecture halls on the campus of Jackson Community College in Jackson, Michigan. Admission fee.

The festival will host the Michigan Waterfowl and Trout Stamp competition. The public may view the judging. Special bluebird related events and displays are planned.

For a schedule of events or additional information, write to the Dahlem Center, 7117 S. Jackson Rd., Jackson, MI 49201 or call 1-517-782-3453.
Since an exchange of ideas and findings is part of being a member of NABS, I have three items I would like to comment on.

The first one concerns Harry Krueger’s sad experience (Sialia 10(3):93) with the death of some of his bluebirds believed to be caused by the pesticide Sevin.6 My wife and I had a similar experience. Most of the residents in the small town where we live know we have a bluebird trail covering a large area; we contribute nesting boxes to anyone with a suitable location and interest in erecting one. A few years ago a handicapped shut-in called and said he had seen some bluebirds in his yard and asked if we would erect a nesting box so he could watch them through his window. After doing so, a pair of bluebirds immediately took up residence and the man would call us every two or three days to give us a report on them. He was deeply thrilled when the eggs hatched and he could watch the parents constantly going back and forth feeding the young. After a week or so, he called and asked if we would check the nesting box since the parents had not been seen feeding the young for a couple of days. We found the female dead on the nest and the entire brood of four dead. The parents had been seen making a number of trips from a neighbor’s garden. A check with the neighbor revealed that Sevin had been used on a large portion of the garden a couple of days earlier. I have no idea what happened to the male, but strongly suspect the entire family died from the Sevin poisoning. A sad old man asked that we remove the nesting box to avoid a recurrence of the same thing. A year later the old man died, never getting the enjoyment he had hoped for from his beloved bluebirds.

The second item I would like to address is the problems we have with predators, especially rat snakes. My wife and I constantly experiment with different things on our bluebird trail. A large number of our houses were erected on iron posts heavily greased with marine grease. As mentioned by Wayne H. Davis and William C. McComb (Sialia 10(3):87-88) this deters mammalian predators but seems to have very little effect on rat snakes. We would find obvious signs that snakes had robbed the nest and even found some snakes still in the boxes. We started using a piece of hardware cloth (wire mesh) 24 inches square with the edges trimmed so that sharp wires protrude. This is tacked to the bottom of the nesting box. We haven’t had an incident with snakes since. One of your readers submitted this idea to Sialia. We now use hardware cloth on all our boxes mounted on metal posts, wooden posts, and fenceposts. On our metal posts, we still use marine grease in addition to hardware cloth. As long as the grease is soft, it seems to help control the travel of fire ants.

I am presently experimenting with carpet tack strips on some of my wooden posts to control snakes (Sialia 10(2):73). I will report my findings in a couple of years.

The third and last item I would like to discuss is Jack Keegan’s comments on bluebird nesting site preference (Sialia 10(3):115). In my 15 years of bluebirding, I couldn’t agree more on anything than proper location of nesting site. My wife and I are highly disappointed if we don’t have at least 80% occupancy of our 150 nesting boxes. We are constantly moving some of our boxes each year. If we go through an entire season without a box being occupied, we feel something is wrong; in many cases we move it to another location. As pointed out by Mr. Keegan, just moving a nesting box 10-15 feet [30-4.6 m] will often mean the difference between having it occupied or empty. I have had many people complain to me that bluebirds wouldn’t

Sialia, Winter 1989
nest in their boxes but then found they had erected them in heavy shade or in other undesirable locations. One neighbor had placed a box in a small area between an oak tree and the rear of a utility building. She felt the bluebirds would have more privacy there.

Because I am a retired U.S. Marine Captain, I sometimes use the nearby military facilities of Fort Gordon, Georgia. I was pleased to note on a recent visit that someone had erected a number of new bluebird nesting boxes around a large open field bordering the main highway through the base. My wife was quick to point out that, although well-meaning, the project was poorly laid out and would do many bluebirds more harm than good. Three or four of the boxes were 25-50 feet [7.6-15.2 m] from the highway with the opening facing directly toward the road. Needless to say, when the fledglings left the nest they would fly directly into the traffic of a busy road or land on the pavement and be injured, then killed. It’s surprising how so many people mean well, but just don’t stop to think or don’t know differently.

P.O. Box 462
Jackson, SC 29831

Bluebird Courtship

Lawrence Zeleny

Those of you who are fortunate enough to have bluebirds nesting near your homes may have the rare opportunity to observe one of the most interesting and beautiful events in nature, the bluebird courtship. Many species of birds exhibit strange and often amazing behavior during courtship. They may strut, dance, scream, grunt, spread their feathers in grotesque displays, inflate bright-colored pouches, and perform almost unbelievable aerial acrobatics. Bluebird courtship has none of these spectacular features but is a thing of sheer beauty.

The male bluebird, often after a long search, hopefully finds an unoccupied cavity or nesting box that in his opinion will be a suitable place for his mate to build her nest. His prospective bride is likely to be in the same general area but has usually taken little, if any, active interest in the search for a home. His task, therefore, is to convince her that he has made a wise choice in selecting a nesting site and to entice her into accepting it, which, of course, would include accepting him as her mate.

To the casual observer the bluebird is no accomplished songster. In fact many would say that he has no real song at all. This is, no doubt, because the bluebird’s vocal efforts are usually so soft that they may go unnoticed, and also because his best efforts are reserved for the brief courtship period. The frequent gentle warbling of both sexes, however, is most pleasing to the human ear. This warbling can be varied ever so slightly to express every conceivable mood or emotion including love, contentment, fear, rage, and sadness. In the words of Ruth Thomas: “Several other birds sing plaintive or wistful songs, but the bluebird’s warble is sometimes a yearning, other times an all but unbearable ecstasy!”

The bluebird’s song is one of love and persuasion as he tries to convince his prospective mate that she should accept him and his chosen home. He may interrupt his singing occasionally to bring her a choice insect which she passively accepts. Her apparent indifference is perplexing as she sits quietly on a nearby branch or fencepost listening to his passionate appeal and watching him go in and out of his doorway, obviously imploring her to try it herself. One wonders if she is really as indifferent as she pretends to be, or whether she is simply enjoying the
show and trying to prolong it as long as possible!

This phase of the courtship may last an hour, a day, or even a week depending largely on how well the female is able to resist the entreaties of the male. During this time his hope and enthusiasm never wane. At last she will usually relent, fly to the cavity or nesting box, and examine it inside and out, speculating as to its suitability. This simple act of hers is evidently interpreted by the male as an outright acceptance of his proposal. His emotion then knows no bounds, his wings quiver with excitement, and his soft but beautiful love song swells in a great crescendo and is embellished with wild new notes of pure joy and unrestrained passion. His exquisite rhapsody is often sung on the wing as he flutters fitfully in circles around his lovely mate who has just accepted him. This is the song that Ruth Thomas so aptly described as "an all but unbearable ecstasy."

At times this beautiful courtship is interrupted briefly by a second male bluebird appearing on the scene with the evident intent of taking over the cavity or nesting box and, if possible, the first male's prospective mate. The intruder is usually banished promptly, but sometimes not before a furious battle is fought.

Less frequently a second female bluebird will show up, evidently entranced by the appealing love song of the male. Such an intrusion is not tolerated by the first female and the fury of the ensuing battle may even exceed that of two battling males. The two females will often fall to the ground and roll over and over, each tearing savagely at the other in an uncontrolled frenzy. The male will refuse to take sides but will watch the struggle in apparent bewilderment and perhaps even with a degree of smug satisfaction that two beautiful females would compete so violently for his attention. If the fight gets too savage, however, he will interfere and with skillful physical force separate the two participants who will fly off in different directions. The battle is usually quickly resumed and continued until one of the participants is banished.

There seems to be some evidence that on rare occasions a struggle of this kind between two female bluebirds is settled amicably with the male accepting both birds. In this event he must quickly locate a second cavity or nesting box nearby so that each female can build her own nest and pretend that her rival does not exist. Such an arrangement must require considerable finesse and diplomacy on the part of the male! However, this may explain some of the rather rare occurrences reported where two broods of bluebirds are raised at the same time within 50 or 100 feet [15.2-30.5 m] of each other.

Polygamy is common among some birds but is rare in the bluebird, if in fact it ever occurs. Readers who observe two broods of bluebirds being raised simultaneously in close proximity are urged to note carefully whether or not two male birds are involved. If the same male bird is seen to feed the young of both broods, bigamy can reasonably be assumed. Sialia will be pleased to learn the results of any such observations.

If you have never witnessed a bluebird courtship you have missed one of the most appealing events in nature. It contains all of the elements of tenderness, love, and devotion of the finest human relationship. It is worth watching and waiting for just before nesting begins.

This article was first published in Purple Martin Capital News (now Nature Society News), Feb. 24, 1971. It is reprinted with permission.

Trail Directory Additions

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

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

Sialia, Winter 1989
Successful Surrogates

Karen Lippy

The 1988 season started out well for bluebirds at Codorus State Park in south central Pennsylvania about five miles [8.0 km] east of Hanover. Bluebirds began nesting early. Then weeks of cold rainy weather and an outbreak of blowflies caused the loss of a number of nestlings in a matter of weeks. Other nests which had been started remained empty as the birds waited for a break in the weather.

Tree Swallows were also affected. All day they could be seen skimming over the lake in a near-fruitless search for insects. Two bluebird monitors, Raymond and Anna Warner, found adult swallows in weakened condition in empty boxes. I found two dead adults in mine.

Finally, the weather broke and nesting began with renewed vigor. Early Memorial Day morning I was pleased to run into Mae Reehling, a fellow monitor at the park. She invited me to check her trail with her.

On one post there are boxes back-to-back. We were surprised to find bluebirds nests in each. However, Mae’s mixed-up birds had laid all their eggs in the same box. Ten of them! Since a bluebird was incubating, we decided to leave everything as it was for the moment. Farther along the trail we found, to our dismay, that a raccoon had raided a nest. Three eggs had escaped the bandit and I determined to save them, if possible.

I conferred with Raymond and Anna to see if they had a nest in which to place my eggs. When they were unable to locate an available bluebird nest, Anna suggested a Tree Swallow nest instead. I removed three of the swallow’s five eggs* to prevent overcrowding. The female accepted them and incubated them with her own. Six days later the bluebird eggs hatched. Unfortunately, the Tree Swallow eggs did not hatch. I suppose the bluebird eggs were more developed.

I watched this box closely and enjoyed seeing those acrobatic experts catch prey and feed the young. The babies fledged 15 days after hatching. I searched for them to see how they were faring, but could not find them.

Meanwhile, back at the box with ten eggs, only four had hatched. We gave the eggs a few more days to see if they would hatch, but they didn’t. When we removed them, we found two cracked. Because we had no incubating Tree Swallows at this time and did not want to crowd our bluebirds, I placed the eggs in a House Wren’s nest. The next day when I looked the wren had removed one egg and was incubating the rest. Five days later two of the eggs had hatched and the wren was feeding the nestling bluebirds. I did not check the box for the next five days. When I did I was upset by what I found. Only one bluebird was left and he appeared to be a sickly specimen—not much bigger than when he was born and still nearly bald. I removed him from that box and placed him with incubating swallows.

Because there were only three eggs in the clutch, I left all swallow eggs in the nest. Again the Tree Swallows began feeding immediately. Two days later when I checked the box I hardly recognized my little orphan. He was fully feathered and had almost tripled in size! Four days later when I checked, all three Tree Swallows had hatched and all young seemed to be doing well.

With improved weather nesting has increased in all areas of the park and it once again looks like it will be a banner bluebird year. For me, my Memorial Day memories of orphans and happy endings are an added bonus.

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*Illegal; only House Sparrow or European Starling eggs can be removed.

432 Penn St.
Hanover, PA 17331
Incubation by a Male Eastern Bluebird?

John Findlay, III

Close to Father's Day I had my first encounter with a male Eastern Bluebird incubating, or appearing to incubate, eggs. During a period of 11 years while monitoring as many as 160 nest boxes each breeding season, I have been presented with many opportunities to witness such an activity if it was a common, or even an occasional, practice. Confirmation of the male's status came on 15 June 1988 when I captured a bird on a second set of four eggs and examined its band record.

The literature underscores my experience that the female does most of the incubating. Unfortunately, because I was leaving on vacation I was unable to follow up my original observation. It would have been interesting to have learned if the female was still around and part of the team effort. Was the male giving her temporary relief from her duties or was she absent entirely?

There was a successful hatch and four young fledged.

Another interesting aspect to this story is that the very next nest box I checked, which was only several hundred yards distant (on hole #15 of the Oak Mountain State Park golf course in Shelby County, east of Birmingham, Alabama), had an incubating female on five eggs. Like the male I had captured only minutes before, I found that this bird too was already banded. The U.S. Fish and Wildlife Service band read 1341-45641; the male's had been 1341-45642. They were siblings which had been banded 20 May 1984 in a nest box less than one-half mile [0.8 km] away. My bluebirds are really permanent residents here in the South and banding proves it.

Several years ago during monitoring I encountered a brood of bluebird nestlings believed to be less than a day old that appeared to have hatched in the absence of either parent. All of the egg shells were still in the nest. Since no bird entered the box for the next several hours, I could only conclude that the parent had died or abandoned the eggs before they hatched. The weather at the time was exceptionally warm which evidently made it possible for the eggs to hatch spontaneously. In desperation, I placed the newly hatched nestlings in a House Wren's nest with somewhat older wren nestlings. The wrens tried valiantly to raise the bluebird babies, but they did not develop quite normally and lived only about a week.

The depth of the blue color on the female bluebird's back varies considerably among different individual birds. An observer might mistake an exceptionally blue female for a male when observing it on the nest especially if the sun should be shining on it. This could not have been the case with (Continued on page 29)

2749 Millbrook Rd.
Birmingham, AL 35243

Dr. Zeleny comments: Male bluebirds are not well-equipped physically to incubate eggs since they do not have the necessary brood patch. However, the male bird will sometimes take his mate's place in the nesting box while she is out and, since there is usually not much room in the box, he may find the most comfortable position to be right on the nest. I have observed this a number of times. Under these circumstances his presence on the eggs on a cold day would surely help to keep them warm for a short period until the female returned, even though he could not supply enough heat for continued incubation.

In very warm weather, it is quite possible that the male bird could supply enough heat for the short period that might be required to hatch a clutch of eggs that was already nearly ready to hatch. He might then be able to raise the brood unassisted if the weather remained warm.

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Fire Ant Solution

Harry Krueger

This is one of the better ways to prevent fire ants from reaching nesting boxes. Remember, fire ants can and will attack nestlings and kill them.

Ordinary chassis grease is too heavy, is difficult to apply, and dries out rapidly in the sun. When the grease hardens, the ants can easily walk across it.

Several years ago I experimented with several ways to grease the support pole. S.T.P.® is not too successful because it runs off the pole when heated in the sun. I finally found a way to handle the grease problem.

I take five pounds of chassis grease (available from any auto supply store) and to this add one quart of turpentine. Mix well and you have a combination that stays soft all summer and is just the right consistency to apply to poles. Those who have nest boxes mounted on wooden posts cannot apply grease as it will be absorbed into the wood and will not be effective. A small band of aluminum wrapped just below the nest box with a coat of grease on it will prove to be adequate. You can buy used offset aluminum plates from a print shop for very little cost. These sheets can be cut with an ordinary pair of scissors into the desired width and length.

If your boxes are located along a fence row where there are cattle, the cows will lick the grease completely off the pole. I have added camphor as well as cayenne pepper to the grease, but neither seems to faze the cattle in their determination to lick the pole clean.

This is also a good method of protecting your hummingbird feeders from ants trying to reach the sugar water.

Rt. 1, Box OR 28
Ore City, TX 75683

Mr. Krueger proposed this solution to fire ant problems in Bluebird News 1(3):2.

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Fire Ants Can Be Dangerous

Doctors say the fire ants, which are increasing in numbers, should be taken seriously.

"They're truly little venomous creatures," Rose Lusk, a nurse, said. "I think the ants are more dangerous than snakes we have."

Fire ants came to the United States between 1935 and 1945 when they hitched a ride on a Brazilian cargo ship destined for Mobile. They soon scattered around the southern United States and now cover the region from Texas to the Carolinas.

Most fire ants prefer to live in bare dirt fields or in the cities where the sun's glare warms the pavement. With their half-red, half-brown bodies, fire ants look different from other ants, which usually appear to be brown.

Entomologists say fire ants are not aggressive by nature. They only attack when someone steps into their mound or onto food they are gathering. When they do bite, this is what happens:

The ant, with the stinger on his backside, hooks into the person's skin with its mouth. Then the ant swings its stinger around and plunges it into the flesh depositing its venom.

The reactions vary from the predictable to the serious.

Dr. Richard Lackey, allergist with the University of South Florida College of Medicine in Tampa, says there are
three possible reactions to the bite:
- A small, pus-filled blister appears on the spot of the sting. Doctors say people should not scratch these blisters open because the venomous pus can spread throughout the body and cause infection. In rare cases, that infection has spread to arms or legs and doctors have had to amputate.
- An allergic reaction to the venom. This often leads to serious problems with lungs and bronchial tubes, which can suffocate an individual.
- Neurological disorders, such as a seizure.
   "It's the rare situation in which someone dies," Lockey says.

The foregoing material, here in abbreviated form, was published by the Daily Clarion Ledger, Jackson, MS, on 12 March 1988. It is reprinted with permission.

My Blue Heaven

Paul Hotchkiss

It had to have started with a picture sticker our first grade teacher, Miss Best, gave us. There were robins, a tanager, an oriole, a mockingbird and a bluebird. I remember the bluebird was sitting next to an apple blossom. All of the other birds I knew and had seen and identified with the help of a neighbor who always fed the birds. Would I ever see this bluebird I wondered and I started my bluebird vigil.

Years later I was to move to Connecticut from New York City where I had grown up. The very day I moved to my new house I saw a bluebird! Almost as if it were a good omen, my friend was waiting for me sitting on a telephone wire. While my attention should have been on moving all of the furniture into the new house, there I was looking at the bluebird.

One day, while on the way to work in the morning, as I stepped out of the front door there was a flash of blue close by. Could a bluebird actually be living on my property I wondered? Still in my jacket and tie, I kept watch and spotted him. I followed him for four hours until I located his home—a cavity in an old birch tree. Woodpeckers must have made the hole. It had cost me the day, but I had seen my first bluebird abode.

This bluebird stayed for a couple of years, but the old tree fell over and although I was able to somehow attract him to a terrible homemade house one time where he raised a family, that was the last time I saw him.

Because I was a novice I had not read anything about how to attract bluebirds and was probably extremely lucky to have had this encounter at all. A number of years later I moved to my present location in rural upstate Connecticut with nice open land and farms. After seeing a few more bluebirds here and reading about them, I decided to put up bluebird boxes on my property. After consulting the local authority, Fred Comstock, and with his help and direction, I have now successfully raised 11 bluebirds this year. I have erected five boxes; three had bluebirds this year. Although I lost several babies to House Sparrows I am now at war with them and I seem to be winning lately. So my little friend sitting next to that apple blossom so many years ago has finally become a reality and had added much wondrous beauty to "my blue heaven."

308 Munger Lane
Bethlehem, CT 06751

Sialia, Winter 1989
The speakers in the spotlight this quarter are DON KOPFF and JIM KRONENBERG from Beaver Dam, Wisconsin. Don and Jim volunteered to become the Wisconsin coordinators for Dodge County when the Bluebird Restoration Association of Wisconsin (BRAW) began. Don is retired and he says he can devote more time to bird programs than Jim who still has many years before he can retire.

You can tell that Don loves birds and animals because besides NABS and BRAW he belongs to Ducks Unlimited, Wings Over Wisconsin, and the Wisconsin Ornithological Society. In 1985 Don got the local Senior Citizen workshop started making bluebird houses. They made 300 the first year, 400 in 1986, and they were shooting for 700 in 1987. Along with other members of the Senior Center, they solicit materials from the townspeople and gather used lumber from building sites. From these they build several varieties of nest boxes. They sell them for the nominal fee of $2.00 and the money goes into the Senior Citizens fund.

Besides the nest boxes he helps make at the Senior Center, Don builds bird houses at home and gives them away to friends, relatives and neighbors. Don and Jim purchased two large wood bits and drill to make post nesting holes. This type of nesting hole has gone over very well in Minnesota for example. The Georgia Department of Natural Resources has a “Hole Hog” post boring apparatus for hollowing fenceposts to form bluebird cavities.

In his never-ending battle with House Sparrows and European Starlings, Don keeps a wire trap set year-round and destroys those he catches. Besides several different types of bird houses, Don and Jim take along a sparrow trap to exhibit when they put on a bluebird program. In 1987 Don and another Senior Citizen member, Fran Kowalchyk, were featured in a local newspaper article. On the survey form Don summed up their efforts quite well by saying, “We are spreading the bluebird word as much as we possibly can and build hundreds of bluebird houses at our Senior Citizens workshop each winter.” What more can we ask of our “Speakers”? If you don’t have the time to do everything yourself or for plain old companionship why not consider getting a partner to help out like Don and Jim have. Of course, I realize a lot of you already have a partner—your spouse. We don’t want to overlook the husband/wife teams and we do appreciate your efforts on behalf of all native cavity nesting birds.

(INCUBATION?—Continued from page 26)

your observation since you had the bird in your hand, and, undoubtedly, noted the absence of a brood patch.

One of the fascinating things about monitoring a bluebird trail is that no matter how long you have done this you never know when you will encounter something that you and perhaps nobody else has ever seen before.
Kiss the Joy As It Flies

Elizabeth A. Jones

I had about given up the possibility of seeing bluebirds in my yard this year when on 25 April, in the early morning, I glimpsed the form of a bird at my new bluebird house. Could it be? Yes, as my eyes became accustomed to the dim light, I realized it was the bluebird I had been longing to see. With much excitement I reported the fact to my husband who remarked, "Mama, it doesn't take much to make you happy!" To me, bluebirds are truly "birds of happiness," and I thrill to their arrival when I'm lucky enough to have them visit my yard.

Three years ago (1986) I saw my first pair in our suburban backyard. There were two houses approximately 20 feet [6.1 m] apart. In late February, a pair of bluebirds started checking out the houses, going from one to another. This continued for several weeks. They would usually come around 9:00 a.m. and leave within 30 or 40 minutes. In the meantime, a Carolina Chickadee quietly went about the business of building a nest in the house on the right. (By this time it was well along in March). The bluebird pair kept going to that house even after the chickadee was sitting on the eggs. The female would perch on the outside and stare into the hole for minutes at a time. Occasionally, they would visit the house on the left, but it was plain they preferred the one already occupied. Finally, I took down the empty house and replaced it with one identical to the house occupied by the chickadee. The very next day the pair started nest building and, in due time, she laid five eggs and began to sit on them. From my observation, she spent much less time "nest-sitting" than other birds I have known.

I was out of town for a week. Upon my return, the bluebirds were gone—and they never returned. After about ten days I removed the nest and kept the eggs for a while. I have puzzled over this strange "desertion" many times. There was no evidence of a cat having gotten the bird, no feathers around the yard or any other clue.

In 1987, bluebirds appeared again and seemed to be interested in one of the houses, but they left without ever building a nest.

This brings us up to the appearance of 25 April 1988. A nest was built (which was carefully monitored for a week after the nest was completed) but no eggs were laid; however, the pair stayed around in my yard almost constantly. They were a thrill to observe, but I did so long for them to raise a family. To my surprise, I noticed the male checking out another bluebird house in my yard, some 35 yards [31.9 m] from the new one. In a matter of days a new nest had been built there. The same procedure took place or I should say failed to take place: no eggs were laid. You can guess what happened next. The second nest was abandoned and Mr. Blue began checking out the third house. In due time another nest was built there. I waited and waited, hoping to find an egg in the new nest. The female would go into the house, remain there for five minutes or longer and then exit, with no results. I had the feeling she was really trying.

On 4 July the male was nowhere to be seen. The female seemed agitated that day, spending a great deal of time at the entrance hole, looking around, and chirping almost constantly. By the next day she, too was gone—not to return.

I've heard the expression, "Kiss the joy as it flies." It seemed appropriate. I continue to be grateful for the "spring of the bluebirds" and my daily observation of them. Perhaps someday, I'll have the thrill of seeing some "little ones" fly away.

1499 Elm St.
Conway, SC 29526
Creating a Love for Wildlife

Helen Wallace Snyder

Upon our return home after an absence, my husband, Glenn, and I walked out on the lawn, anxious to see the martins. Much to our dismay, we saw young birds everywhere on the ground. There was no time to lose. What should we do with 18 baby martins? Quickly we mixed ground egg shells and fresh hamburger and force-fed them.

From the neighbor man we learned that some boys from the village brought lawn chairs, sat on our patio, and shot the adult martins as they carried insects to their young.

Fortunately, the boys (we'll call them Roddy, Noddy and Toddy) were children of concerned parents. We asked that the boys come to our home to help the injured birds.

In helping to care for the 18 fledglings, we wanted the boys to know that people should have a love for wildlife. They should protect it before everything becomes extinct. The boys were not aware of wildlife, other than that it was something to kill or shoot.

When the martins were getting "flying-happy," we'd have Roddy, Noddy, and Toddy take them outside. The birds clung to their fingers, flapping their wings.

I'd say, "Be sure to watch their toes. All songbirds or perching birds have a special way of clinging. Look at the martin's feet; notice how its toes point."

Noddy was quick to see it. He remarked, "Three of them point forward, and one points backward."

The martins preened on the boys' fingers. The boys wondered why.

I said to the boys, "The martins are preparing themselves for flight. Every feather must be in place to balance their ability to fly." Slowly but steadily, Roddy, Toddy and Noddy began to love and respect wildlife.

Every once in a while, when the boys were helping care for the birds, I'd ask a "Did you know?" question.

Did you know that birds have senses the same as ours? Only, their taste and smell are not so keen.

By August the birds sat on our aerial. We'd call them down to feed. They'd chirp, but they wouldn't come down. Good! They were now feeding on their own. A few days later, when the other martins flew south, ours joined with a flock. Come next spring, they'll be back in our village to raise their young.

In our "Tell me" and "Did you know?" conversations with the boys, we asked, "Why did you shoot the Purple Martins?"

Their answer, "We thought they were blackbirds."

Because so much explaining and educating was done with those boys, I wondered if other children needed to learn about the native birds in our area. How might these children be reached? How, where, and in what manner should I begin?

First, we asked the Pennsylvania Game Commission for their charts on birds and animals. I was pleased with the publications the Pennsylvania Game Commission sent me, which included: "50 Birds and Mammals of Pennsylvania," "What Different Birds Eat," "The Habits of Different Birds," "Bird Houses and How to Build Them," "How to Make Feeding Stations," and "Bird Sanctuaries."

Then, from our bird books I read and refreshed my memory regarding the characteristics, habitats, and foods of different birds. Next, with charts, books, photographs, records, and human interest stories I planned to travel to different schools and talk about birds on the theory that if children knew and learned more about our feathered friends, they would love them, rather than kill them.

The BB guns disappeared from our village. The boys never used them after the "bird event." Whether they or their parents made the decision, we don't know. The boys felt proud about help-
Never Too Old

Lillian Lund Fees

In the past eight years I've given over 200 bluebird lectures, entitled "Bring Back the Bluebirds," in the six New England states to garden clubs, bird societies, historical societies, church groups, scouts and many other organizations. In the past few years I've gotten calls frequently from retirement, nursing, and rest homes.

When I arrive I'm often told that many of the folks usually take naps after lunch and that I'll be lucky to get a handful to show up. The attendants are always surprised to see the turnout. The residents are a very attentive audience and I haven't had any fall asleep on me yet! After I'm through with my lecture-slide program, they don't want me to leave as they have many questions and wonderful stories to relate of all the bluebirds they saw in their childhood. I think seeing pictures of these beautiful birds brings back fond memories of their youth.

I realize giving lectures to these institutions doesn't promote bluebird trails, but just seeing their faces light up is gratifying. Sometimes they'll ask for a brochure on how to build a bluebird nesting box because they want to pass it on to their children or grandchildren who have good habitat for bluebirds.

I was really delighted when I gave a lecture recently to a group at a Masonic Home in Charlton, Massachusetts. (The home is surrounded by acres of open fields.) Thirty-two folks attended besides two attendants, but I also noticed a young man sitting in the back of the room. After the lecture he came up and told me he was the groundskeeper and wanted plans for making a bluebird box. He was going to give them to their shop maintenance man and together they would start a bluebird trail on the home's property. To me this was a most unexpected and rewarding afternoon. When the group heard this, they became excited at the prospect of seeing bluebirds again.

Most of the homes do have bird feeders and they are so proud to call my attention to them and to the kinds of birds that come to them. Our local Tyngsboro Bird Society one year donated bird feeders and seed at Christmas time to many local homes which was very much appreciated.

By encouraging the placement of bluebird boxes as well as bird feeders at homes that have the correct habitat and someone willing to monitor the boxes, bluebirds could be aided and the lives of the residents enriched immeasurably.

Scribner Hill
Tyngsboro, MA 01879

R.D. #1, Box 202, Karl Town
East Berlin, PA 17316
Andre and France Dion of St.-Placide, Quebec, received a NABS award at the Eleventh Annual Meeting in Laval, Quebec, on 9 July 1988, for outstanding contributions to bluebird conservation. They have not only maintained nesting boxes for bluebirds, Purple Martins and other cavity nesters for many years, but also have established an attractive and highly successful wildlife sanctuary around their home. Andre has written a book about bluebirds and one about wildlife gardening, while France provided leadership in founding the Societe des Merces Bleus in Quebec.

John and Mary Grivitch were inadvertently omitted from the list of individuals who received award plaques at the Eleventh Annual Meeting in Montreal, 9 July 1988. For decades the Grivitches have been involved in spreading the word about bluebirds throughout Huntsville, Texas, and the surrounding countryside. Bluebirds brought them together. During their married life, John has built thousands of nesting boxes, they have monitored an extensive trail, and continue to be heavily involved in all aspects of bluebirding. Now retired, they still look for ways to aid their favorite bird. Various publicity has included an appearance on local television. Congratulations are extended to John and Mary for their lifelong support of bluebird conservation.

—Mary D. Janetatos
Dear Editor:

When I was shopping in a hardware store last year, I saw a piece of metal that was serving to hang a multitude of objects to different surfaces. I immediately imagined the utility of the fixtures for all the people who “hang” bird houses on a wall or post for the hangers allow one to remove and replace the box easily when it is time for cleaning, storage, etc.

The items are called Flushmount Hangers and are produced by Roll-It Inc., 1200 50th Ave., Lachine, Quebec, Canada H8T 2V4.

Daniel Asselin
42, ave lac Reteneu,
Ange-Gardien, Quebec, Canada
GOA 2K0

Dear Editor:

May I use the Bluebird Express to congratulate the organizers and hosts of the two conferences I attended last year. The first was the Mountain Bluebird Trails Fifth Annual Conference held in Pincher Creek, Alberta, Canada, on June 11-12, 1988. I especially wish to thank Isabel and Duncan Mackintosh and congratulate them for giving us a full and beautiful program of lectures, field trips, banding, banquet and barbecue! Among the 106 attending were people from British Columbia, Alberta, Montana, Idaho, Nevada, and Ontario.

Then on July 8-10th it was on to the NABS Eleventh Annual Meeting held in Laval, Quebec. France and Andre Dion of the Societe des amis du Merle-bleu de l’Est de l’Amerique were the hosts and organizers.

There were many special items on the program: lectures, displays, banquet and field trips of which the highligths were the incredible Dion garden, a paradise for bird and man, and the Sunday trip to the Monastere a la Trappe d’Oka.

Oh, what a beautiful land we live in! And it was the bluebirds that brought us all together: West and East; Canada and United States of America; French and English.

Thank you France and Andre for all the delights of that conference and congratulations!

Norah Lane
44 Cranbrooke Ave.
Toronto, Ontario, Canada M5M 1M4

Dear Editor:

A bluebird trail can be good for your health. Early last spring I was fortunate to survive a stroke. I have received competent therapy and my therapist strongly recommended that I walk a mile or more each day.

The time of the year coincided with the bluebird nesting season and my natural urge to visit my trail. It is a mile to the site of my two mile trail of 38 houses. They are along fence rows in the Flint Hills pasture land of southeast Kansas.
At first I walked with a friend to monitor the houses each week. Soon we found nests, then eggs. My bluebirds and my trail have provided a compelling motive to continue walking. I have found my health is improving. Today I put away my cane. It is in wellness that I now walk my bluebird trail. My desire is to walk this trail for many more seasons.

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

20 May 1988, at Haines Junction, Yukon, where they had spent the night. It was in the parking lot at Klune National Park sitting on a trash can. The temperature was 45°F (6°C), the wind 10 to 15 mph, and the weather cold and rainy. They are excellent birders from Eugene, Oregon.

Elsie Eltzroth
3595 NW Roosevelt Dr.
Corvallis, Oregon 97330

Dear Editor:
As a bluebirder and a feeder of birds, I would like to pass along the following information for those who have problems with squirrels. The best way I have found to cope with the problem is to catch them live in a "Hav-a-hart" squirrel trap. I then take them to a rural area, at least five miles away, and release them. I use peanut butter for bait. Other squirrels will eventually move in to take their territory so it is somewhat of a constant process, but it does work well.

Vincent E. Schneible
R.D. #1, Pangburn Rd.
Duanesburg, New York 12056

Dear Vincent Schneible:
With patience, trapping squirrels can reduce the numbers near your feeders. There is a difference of opinion about the distance it is necessary to take them in order to prevent their eventual return. Five miles may be a sufficient distance if you cross a major river or multilane highway; however, 10 miles is more likely to prevent returns.

Dear Editor:
I thought this might be of interest to readers in Canada who keep provincial bird sight records. When Tom and Allison Mickel returned from a six week 8000 mile birthing trip to Alaska, they reported that they had seen a male Mountain Bluebird (Sialia currucoides)
Bluebird Tales

Mary D. Janetatos

As the cold weather drives us nearer to the cozy haunts of our homes, we look with longing toward the frozen out-of-doors hoping for a glimpse of blue which might signal the presence of our banner bird—Sialia. In some areas they will be our guests at feeders which contain their favorite snacks. Don Love, of Danville, PA, sent several fetching photos of the local bluebirds showing down on the currants he had placed in a dry bird bath on his patio near the snow drifts that are typical of northeastern Pennsylvania winters. Myra Swan of Ava, MO, described her suet "hood" which she made from a one gallon plastic container (not a milk carton). "Got tired of chasing the starlings away from the suet last winter. Start with a one gallon plastic container. Hinckley & Schmitt is best, milk cartons are not too good because of the indentations. Cut off the top and portion recessed with handle. Cut below the handle down to bottom. Cut 3" circle from bottom of container and snip out the edges so that sides can be spread. Nail to a large tree leaving a 2" opening for the woodpeckers to enter. Nail suet in upper half of the opening. Using 2 nails with a wire connecting will make suet more secure. This hood prevents starlings from sitting on top of or flying into the suet yet is large enough to admit chickadees, titmice and all woodpeckers."

Winter is also a time for planning ahead, and surely John and Ellen Cox of western Montana are planning for the '89 bluebirding season since their late summer letter told of taking over a bluebird trail from Art Aylesworth, veteran bluebirder and member of NABS' Nominating Committee. John has recently retired; we wish them "Aylesworth-style" success with the Western, or is it Mountain, could even be EASTERN Bluebirds? Montana's sky is big enough for all three, and those Montanan bluebirds will be preparing the way for the '89 NABS Annual Meeting there!

Bluebird plans are being made in western Pennsylvania as reported by Emil Kliener, to whom a John and Norah Lane Award was presented (along with Al Goga, his cohort in bluebirding). Emil sent newspaper clippings featuring the photography of Barbara Winger, of Greensburg, PA, who chronicles nature's secrets by means of her newly acquired photographic skill. Another clipping was about Robert Goodman, of Latrobe, PA, who made hundreds of bluebird nest boxes with front openings, and then gave them away to people in the area who have suitable habitat and who agreed to monitor them carefully. In doing this, Robert simulates the work of John Davidson, of Dickerson, MD, another seasoned veteran in the bluebird nest box building effort, who recently announced to NABS that the proceeds of his sales of his handcrafted bluebird boxes would go entirely to NABS—previously he had taken out his expenses. His numbers also reach into the many hundreds! Other newspaper clippings have arrived in the mail, including one telling of the work being done by Carroll Belsker who wrote her Clemson University Master's thesis on bluebirds. Carroll is now education and exhibits coordinator of Bellafield Nature Center in Georgetown, SC. In her studies of the behavior of Sialia sialis, Carroll's research found that, although biologists had long thought that male and female bluebirds shared equally in raising their young, females do 75% of the work to the males' 25%. (Watch out for the libbers, Sialia sialis!) A truly unique newspaper clipping was received from longtime pal Wayne Johnson, of Newport News, VA, who at last revealed his glorous past; he was a big league baseball player for the Brooklyn Dodgers in the 1940s. Wayne is retired now, and is doing what he's always wanted to do. "I had a love for bluebirds back on our farm in Piedmont, SC. I now have 260 boxes out for bluebirds. I have them all over; most all these boxes are taken every year by the bluebirds. I have them from Suffolk to Richmond which is around 100 miles."

Mail comes to NABS from new friends as well as from the tried and true friends. Carol Fleming of West Greenwich, RI, asked for NABS information, saying, "We are very interested. My father passed on his enthusiasm to me."

From Watkinsville, GA, Douglas Eza wrote: "Several years ago, I built my first
bluebird nesting box from plans I found in the newspaper. To my excitement (and surprise) bluebirds quickly found the box, nested, and raised the first of many broods in that same box. As with many bluebird enthusiasts, I was hooked. I have since built many nesting boxes for friends, and this last spring, some friends and I got a grant from Lutheran Brotherhood with which we built and erected 10 boxes at the State Botanic Garden in Athens, and built and gave away some 80 more boxes to people throughout northeast Georgia and northwest South Carolina. After a feral cat raider a box with babies, I catproofed and — so I thought — snakeproofed my boxes with a tin shield on the 4x4 post and a collar, also of tin. To my dismay, I peeked in on the third clutch this year, 9-day old babies, and discovered a black rat snake coiled inside, having eaten all the young. To avoid this disappointment again, I would like some advice on snake-proofing boxes. Since I suspect that snakes are a common predator, I would hope you would have a good solution.” His problem was answered by Kathy Colston, of Columbia, MO, when she wrote, “Just wanted to let whoever I talked to on the phone about keeping a black snake from getting a second brood know that I used a hardware cloth 2 ft. in diameter in combination with steel wool [wrapped around the post or pole] and never had another snake problem. We had four fledglings and are hoping for another nesting.”

Even budding authors seek NABS out as shown by Nancy Walsmuller of North Stonington, CT, who said: “I have been interested in bluebirds for years. I had a nest trail at my old house and had bluebirds nesting every year. (The stories I could tell you!) My Grange has built and given out to the public (with directions) over 200 bluebird houses. I teach second grade, and my science unit for spring is birding. I have written a book about a bluebird and his difficulties in finding a nest site and raising a family. (Someday it will be published, I hope.) Just this summer I met a man at the Osborne Homestead Museum here in Connecticut who asked me if I belonged to NABS. I told him I did not know there was such a thing. Oh, yes, I have an article published in Bird Watchers Digest (Jan/Feb 1988).” Could the “mystery bluebird” be a friend of Art Glerget, the long-time Connecticut bluebird? From East Benard, TX, Ruby Halbert told of the bird watching she and her husband enjoy on their 10-acre place. “Eastern Bluebirds are seen in the East Texas area....”

It always delights the NARS letter readers to see that articles which have appeared years ago continue to make friends for bluebirds even now. Two letters came recently from readers of Southern Living magazine’s May 1987 article. After reading the article, Margaret Jones of Avon Park, FL, said she “had felt a love for bluebirds when I first saw them in a meadow near a home I had in Akron, Ohio. I have been trying to find the book, I Hear Bluebirds by Shirl Brunei. I since have moved to Florida and have been told that ‘yes’ we do have bluebirds. I am in the process of putting in a garden and want to do what I can to entice this bird into my yard. I have also just recently joined a newly-formed garden club and would like to make the bluebird our mascot. Please send me whatever I would need to help this bird.” Helen Hedge of Sallisaw, OK, a member of “Porcelain Artists of Oklahoma, Inc.” told of trying to find Larry Zeleny’s book The Bluebird: How You Can Help Its Fight for Survival in her local public library to no avail. Through Jerry Newman’s (NABS Speaker’s Bureau Chairman) new project, NABS members can help alleviate this lack by encouraging the donation of copies of The Bluebird to libraries throughout the continent and sending their names and the libraries’ names to NABS LIBRARY BOOSTERS, P.O. Box 8205, Silver Spring, MD 20906-0295. Bonnie Wood of Croton, OH, wrote: “I want to share with you an experience which happened to me last week which contains our much beloved bluebirds. I was to go into the hospital for unexpected throat surgery last Wednesday morning and was quite concerned about the surgery. I was sitting at my sewing machine late Tuesday afternoon, looked out the window and there on the telephone wire sat four beautiful bluebirds! Now that is the first time I’ve seen them in several weeks and it seemed to calm my fears and helped me to face what had to be done with renewed strength. It probably wouldn’t seem like much to anyone else, but I happen to be a great believer in the Almighty and somehow felt that this was a sign sent to me to help me through a troubled time.”

Efforts to promote bluebird conservation often take on a territorial aspect as when one or another area will proclaim itself to be “The Bluebird Capital of the (whatever).” NABS’ attitude to all of these has been: Go ahead and make your claim. Those who would dispute your claim have the burden of proof placed upon them. No one can ever be sure they counted all the bluebirds in an area! But keep on publicizing, as did the Green Team of Lancaster, NY, headed by Arnie Rein who said
that the Green Team consists of 10 to 15 Cub Scouts, Boy Scouts, and Explorer Scouts in his area who try to be "Conservation Minded" and "1) Recognize the need for conservation; 2) Understand the problem; and 3) Do something about it. If you would like more information about the Green Team program, write to: Green Team, Box 191, Alexander, NY 14005." Arie also reported that The Bluebird Monitor, the issue for Summer/Fall of 1988 contained an article by Reid Caldwell of Lucas, OH, on an innovation regarding bluebird nest boxes called "slots." These are elongated holes in place of the circular holes. The Bluebird Monitor is published by the Ohio Bluebird Society, 2232 Moffett Road, Lucas, OH 44840.

Clarence Olson of Madison, WI, wrote in his "Bluebird Nesting Report-1988" that he first saw bluebirds at his country cabin two years ago nesting in a hollow in a willow tree. That tale seemed appropriate to report in this column in case Chuck Dupree doesn't include it in his article on the Bluebird Nesting Report-1988 which will appear later in Sialia. Mrs. Donald M. Smith of Cambridge, MA, recently renewed her NABS membership and said, "I'm getting a bit closer to my hope of seeing a bluebird again before I hop the twig; friends in New Hampshire had a pair this spring—unfortunately I could not get there when the birds were seen frequently." And Kay Aho of Knoxville, TN, waxed poetic in such a touching way that I close with her verses and hope that you will keep the letters coming in and have many BLUEBIRDS IN '89!

The Legend of the Birds

Long ago, in a garden blessed
Our great Creator knelt to rest
And as He rested, gazed on high
With gentle look unto the sky.

"I'll fill the air with melody,
Create a bird to fly so free"
And so the Master, plan in mind
Filled the sky with every kind.

Large and small, such beauty rare
Feathered music everywhere.
Singing, soaring through the air
Under His great love and care.

And ever since, we've had the birds
Listen—and his song is heard.
He's praising the Creator friend
And will until the end.

After Jerry Ed Martin and his mother, Pat, presented a bluebird program on 18 April 1988 at the Argie Cooper Public Library, Shelbyville, Tennessee, they lent materials for a month-long exhibit. They also lent materials for a program at a local museum. For three years they have worked with the 4-H Wildlife Project in selling and installing more than 400 bluebird boxes in all parts of Bedford County. The family has a personal trail of 12 boxes which is visited by many groups and individuals. Jerry Ed's father erected two boxes outside his dental office which are appreciated by both bluebirds and patients.
Song of a Bluebird

I listen enthralled
Softly it floats,
The sweetest sound
Of a bluebird's notes.

Cares of the day
For a moment depart,
Peace fills my soul
And enters my heart.

Rachel Vickio

Housing Emergency

May's almost over and bluebirds are due,
We usually manage to see just a few.
Each year I wonder, will these be the last?
Will these lovely birds soon be things of the past?

Insufficient housing appears to be the reason;
Too much competition during nesting season.
More bird houses needed. There's an alarming lack!
Start building, everybody. Let's bring the bluebirds back!

Marion Hodges
NORTH AMERICAN BLUEBIRD SOCIETY, INC.
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
NOVEMBER 1, 1987 THROUGH OCTOBER 31, 1988

Cash Balance - November 1, 1987  $  1,500.28

Add:

Cash Received

Sale of Stalia Magazine $23,736.00
Sale of boxes, books, stationery, etc. 73,494.19
Contributions 18,162.01
Membership Dues 26,765.50
Sales Tax Collected 416.36
Annual Meeting 105.80
Savings account (Maryland National Bank) 2,003.00 156,679.96

Less:

Cash Disbursements

Stalia Magazine $30,073.16
Boxes, books, stationery, etc. 70,421.25
Educational Material 11,051.05
Membership fulfillment 13,686.23
Research 6,895.12
Salaries 7,139.50
Expense accounts 14,100.00
Office supplies 1,059.39
Investments - Dean Witter Reynolds 2,997.44
Annual Meeting 260.75
Maryland sales tax remitted 404.73 158,098.62

Cash Balance - October 31, 1988  81.62

Assets:

Checking account (Citizens Bank & Trust) (10-31-88)  81.62
Savings account (Maryland National Bank) (9-9-88)  3,155.25
Value of inventory (10-31-88)  29,520.49
Investments - Dean Witter Reynolds (9-30-88)  1,639,987 shares @ 9.00  12,059.88

Net Worth  $  44,817.34

Respectfully submitted,

Delos C. Dupree, Treasurer NABS

ART CREDITS

Jon E. Boone: 2, 34
Suzanne Pennell: 29, 36
M. Suzanne Probst: 14, 20

Nestling Bluebird Boosters

Delos C. Dupree
Mrs. Jalmar N. Nelson
Mildred Pierce
Russell C. Slutz
Mike W. Smith

Stalia, Winter 1989
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Harold N. Ahlgren
Mrs. Elizabeth Anderson
Leonard Angermeimer
Thomas A.arkin
Dr. Marion G. Baker
Mrs. Nancy Baron
Karli Baumgardner
Mrs. August Belmont
Anne Bent
Berwyn Women's Club
Harry Bibb
Mrs. A.L. Blades
Bluebird Society of Bella Vista
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Western Bluebird Boosters

Jim D. Barfield
Carl R. Carlsson
John Coleman
Tom Griggs
Ralph S. Martin
Richard Matson
Dorothy D. Rand
William B. Watling

Mountain Bluebird Boosters

Linda A. Matthews
Union Carbide Canada, Ltd.

(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 other natural disasters, the primary objective of the SOCIETY is to educate all who will listen about the importance of preserving these singular creatures in their native environment.

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

Membership: Student (under 21) $7.50; Senior (over 60), $10.00; Regular, $15; Sustaining, $30; Supporting, $50; Contributing, $100; Corporate, $100; Donor, $250. Add $2 per year for Canada and Mexico and $3 per year for other countries (surface mail). U.S. funds only, please. Amounts over $6 are tax deductible.

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