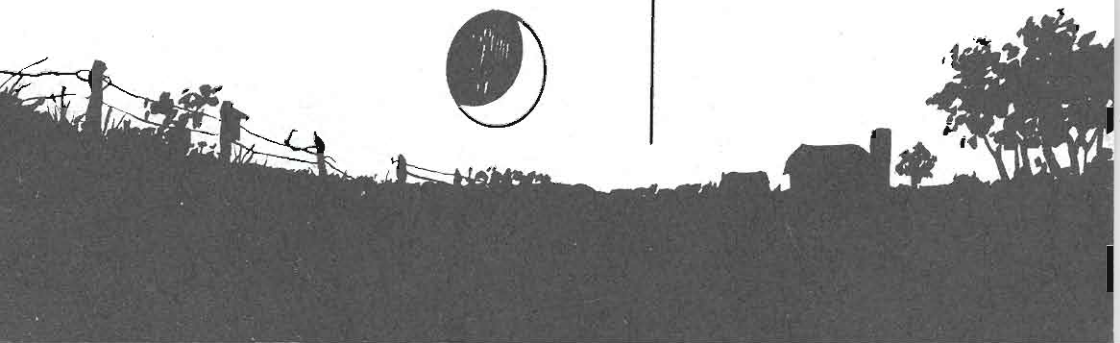
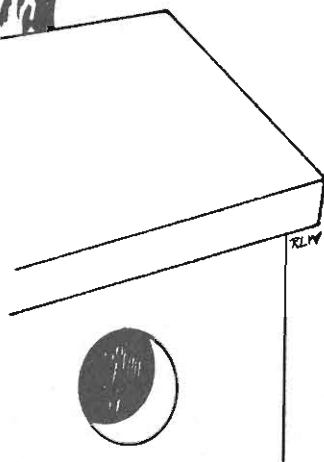
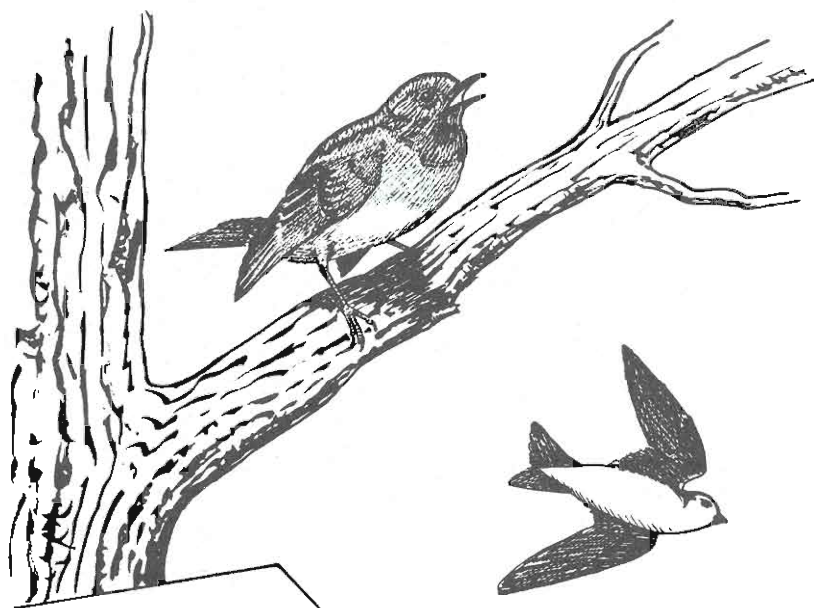


Sialia

Volume 7, Number 4
Autumn 1985
Pages 121-160

The Quarterly Journal
Of
The North American
Bluebird Society



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

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

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Sialia

The Quarterly Journal
About Bluebirds

Volume 7, Number 4
Autumn 1985
Pages 121-160

EDITOR
Joanne K. Solem
**CONTRIBUTING
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ART EDITOR
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COVER

In many areas bluebirds and swallows compete for nesting sites. The article on page 123 describes research in Oregon conducted on this subject. Art Editor Richard L. Woodward's cover depicts a Western Bluebird and a Violet-green Swallow.

Sialia welcomes original articles, art and photographs for publication. Although this journal is named for the bluebird, material relating to all native cavity nesting species will be considered. Manuscripts should be typed neatly and double-spaced. All material submitted is subject to editing or rewriting. Submit the original manuscript plus a duplicate copy if you wish to proof the material before publication. If the article has been submitted elsewhere (or previously published) that fact must be stated at the time of submission. All manuscripts will be acknowledged. Black and white glossy photographs are preferred. Print the subject, names of individuals pictured, photographer and return address on the back of each photograph. Art is welcome and should be in black pen-and-ink. We do not assume responsibility for manuscripts, photographs or art submitted. The editor's address is 10617 Graeoch Road, Laurel, Maryland 20707.

Presidential Points

Sadie Dorber

On July 12, 1985, nearly three hundred bluebirders from across the continent, gathered in Red Deer, Alberta, for the NABS Eighth Annual Meeting.

Lil Files of Massachusetts met us in Toronto. From there we flew to Calgary and continued by automobile to Red Deer.

Soon after leaving the Calgary Airport we viewed the lovely Canadian prairies that we had so often read about. The rape fields were at their peak of yellow bloom and seemed to extend to the horizon. A carpet of gold to welcome us to Alberta.

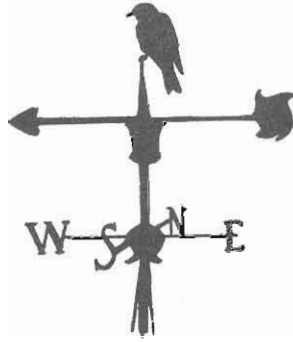
Raptors were abundant and many were spotted sitting on the fence posts beside the highway. I soon realized that the fence posts were the only available perch, (the highest dead tree on the prairie). During the next ten days we saw many and I was thrilled to view them so closely.

A short distance south of Red Deer we passed a large wet area containing many ducks, geese, gulls and shorebirds. I was soon to learn that this was Slack's Slough, an important staging area for waterfowl. We made several birding trips to the spot over the next weekend and I was able to add a few new species of birds to my life list.

The meetings on Friday were preceeded by an early morning bird walk. On that walk many of us tasted for the first time a delicious little berry named the Saskatoon.

Friday afternoon was left open for a field trip. Although selection was difficult, nearly everyone agreed that they wanted to visit the Ellis Bird Farm. Rain showers didn't seem to dampen the spirits of the group as we walked the fields to view nesting Mountain Bluebirds. Our last stop was at the home of Winnie and Charlie Ellis, where fledgling bluebirds greeted us from the fence posts. We all carefully checked out the construction of Charlie Ellis's sparrow trap, which he uses all year long in his ongoing battle against the House Sparrow.

Friday evening we boarded school buses to Canyon Ski Lodge for the steak barbeque. The meal was excellent; afterwards, a few of us took the opportunity to walk along the banks of the lovely Red Deer



River to view the beautiful valley and, of course, to pursue the birds.

Saturday morning gave all of us the opportunity to select another field trip, but it was during the afternoon that the really difficult decisions had to be made: which workshops to attend. The workshops covered cavity nesting ducks, kestrels, bluebirds, and many more. I'm sure many of us felt after the excellent presentations, that we'd like to build and erect not only bluebird houses but also homes for other native cavity nesters.

My husband and I spent the week following the meeting touring the mountains, prairies and the badlands, each of which were breathtakingly beautiful in their own way. Our close-up views of elk, moose and sheep are captured on film for winter evening viewings.

Hazel and Bryan Shantz had invited us to visit their home before we left Alberta; little did we realize the treat in store for us. We knew we had the correct house when bluebird boxes appeared along the roadside and in the lawn. Their home faced a large lake with a small patch of woods containing snags behind it. The area was a gathering place for hundreds of swallows as they started to flock. Bryan pointed out the duck house fastened to his fireplace chimney. He related that a Common Goldeneye had come down the chimney so he decided to provide the duck with the proper nesting cavity. When he installed a nest box on the chimney the goldeneye nested in it and fledged a brood.

The groups from Ellis Bird Farm and the Red Deer Naturalista worked for many months to organize such a well-structured, diverse and informative meeting. The meeting workshops along with the varied field trips made it an annual meeting I'll always remember. ■

AN ANALYSIS OF WESTERN BLUEBIRD DOUBLE AND TRIPLE NEST BOX RESEARCH ON CHEHALEM AND PARRETT MOUNTAINS IN 1982

Hubert W. Prescott and Earl Gillis

Chehalem Mountain and Parrett Mountain combine to create a low range of very old basalt rising to a height of about 1,600 feet and extending for more than fourteen miles. This ridge blocks the northward flow of the Willamette River at Newberg forcing it eastward until the river can skirt the east end of Parrett Mountain. The area is one of the few Western Bluebird (*Sialia mexicana*) refuges in western Oregon. Most of the bluebirds are concentrated above the 600 foot level which oldtimers refer to as the "bluebird line."

The intent of this experiment was to study the success of double and triple Western Bluebird nest box spacings in relation to nest box usurpation by both Tree Swallows (*Tachycineta bicolor*) and Violet-green Swallows (*T. thalassina*). There were 193 nest boxes on 73 sites on both Chehalem and Parrett Mountains. One must keep in mind that although there were 193 nest boxes, only 73 sites were available to bluebirds due to their territorial requirement of a minimum distance of 300 feet between nest boxes.

DOUBLE AND TRIPLE NEST BOXES ON OPEN FENCE ROWS

Double nest box success on open fence rows (Table 1) was only slightly better, 29.4% to 26.0%, than triple nest box sites, but slightly less successful, 1.23% to 1.35%, in average number of live eggs and young per site. Double nest box survival, however, shows a wider success margin of 72.4% to 56.6% when one takes into consideration the percentage of surviving eggs and young from the overall total.

There is evidence that as the number of nest boxes increases within the 300 foot bluebird territorial requirement, the pressure from competing Tree and Violet-green Swallows will proportionately increase. The preceding statement seems to be borne out by Hubert Prescott's comment on May 22, 1982, when viewing the swallow takeover of a Western Bluebird habitat at sites 26-32 above Sherwood, Oregon. "I am afraid we have increased the number of nest boxes at the ex-

pense of the bluebirds," he said. This area had 8 nest boxes in 1980 which fledged 54 Western Bluebirds and 15 Tree Swallows. By 1982, with an increase of 17 nest boxes for a total of 25 (all doubles and triples), only 5 bluebirds fledged compared to 53 Tree Swallows and 25 Violet-green Swallows. No bluebirds fledged in this area in 1983, a complete wipeout.

The ability of swallows to nest close together even with no nearby ponds or bodies of water was demonstrated by two pairs of Tree Swallows nesting in boxes 18 feet apart. Two pairs of Violet-green Swallows nested on fence posts 10 feet from each other, while one pair of Tree Swallows and one pair of Violet-green Swallows nested successfully in back-to-back boxes on a single fence post. In spite of some early bluebird success, it appears that extra nest boxes within the 300 foot bluebird territorial requirement eventually mean bluebirds lose out to swallows.

Table 1.
Comparison of Western Bluebirds on Triple and Double Nest Box Sites on Chehalem and Parrett Mountains in 1982.

	No. of nest sites	No. of nest boxes	Attempts per nest box site	Apparent success per nest box site	Percent of nest box site success	No. of live eggs, young & fledged	Mortality loss of eggs & young	Nest boxes usurped by others	Average no. of live eggs, young, & fledged per site	Survival percentage of all eggs, young, & fledged per site
1. Triple nest boxes on open fence rows	23	69	11	6	26.0%	30	23	5	1.30	56.5%
2. Double nest boxes on open fence rows	17	34	9	5	29.4%	21	8	4	1.23	72.4%

Results of triple and double nest box site success and number of live eggs, young, and fledged were rather mixed. The survival rate, however, was much better on double nest boxes (72.4%) compared to triple nest boxes (56.6%).

The above position appears to be supported by Marcia Sims' research in 1979, published in 1983, that Western Bluebirds used disproportionately more nest boxes that had no near neighbors. D. Daniel Boone (1982) stated that bluebirds fare much better if they are competing with only one pair of Tree Swallows as opposed to three or more pairs. Sims did not observe any evidence of swallow usurpation of bluebird nest boxes in 1979. This situation did not last long for, by 1982, with an increase of many more nest boxes, both Tree and Violet-green Swallow pressure became quite severe and bluebirds were systematically being driven off previously successful bluebird nest sites. Undoubtedly, some of the swallow influx came from the Horton Kimble filbert orchard located near the town of Lafayette about 6 miles southeast of Newberg. Kimble had 80 swallow nest boxes around the perimeter of his orchard as a defense against swarms of flies from a nearby turkey ranch. Mr. Kimble estimated that his 80 swallow nest boxes produced an average 4-6 swallows (mostly Tree Swallows) per nest box for a total of ± 400 swallows per year.

WESTERN BLUEBIRDS ON ENGLISH WALNUT TREES

One real surprise was the success of bluebirds using nest boxes located on large, semi-isolated English Walnut (*Juglans regia*) trees, remnants of the once numerous walnut orchards in this area. The bluebirds were able to hold their own on these large, spreading trees which afforded numerous perches for defense against the attacks of both Tree and Violet-green Swallows. It was found, however, that double nest boxes were better than triple nest boxes. If the bluebird pair lost one of the three nest boxes on a tree, they were able to move successfully to another nest box on the same tree. With only two nest boxes on opposite sides of a tree, there appeared to be little conflict with swallows, and the young bluebirds fledged

as much as two weeks earlier than those fledging on open fence rows.

With only 41% of the nest box sites (30 of 73, Table 2) and 43% of all nest boxes (83 of 193), the Western Bluebirds on all trees (walnut, apple, prune, and fir) produced 33% more eggs, young, and fledglings (68 to 51) than nest boxes on open fence rows.

Apparent nest box success was 70% on English Walnut trees, 30% on other trees, and 23% on open fence rows. The average number of live eggs, young, and fledglings per site on English Walnut trees was 2.75 compared with 1.30 on other trees, and 1.18 on open fence rows.

Sims (1983) found that of the available nest boxes, bluebirds preferred nest boxes on trees 51% of the time (24 of 47) to those on open fence posts 30% (10 of 33). She did note, however, there was evidence of more predation in boxes on trees than those on open fence posts.

Sims also found that researchers of Western Bluebirds describe them as an "edge species" that prefers the meeting of forest and field (Pederson and Bryant, 1975; Gary and Morris, 1980) or clearings in the woods (Ray, 1905; Burleigh, 1921, 1930). Johnson (1965) reported that snags near open ground were favored nest sites, while Pinkowski (1981) wrote that Western Bluebirds nested in scattered pine and ponderosa forests and were seen in mountain areas up to 9,000 feet. Grinnell and Miller (1944) noted that the prime habitat requirement for Western Bluebirds is well-spaced broken timber which provides nest sites with an abundance of perches.

THE OPEN FENCE ROW BATTLEFIELD

The Tree and Violet-green Swallows are virtual masters of the air on open fence rows with their circling, diving, gang attacks of as many as five to nine individuals against a lone male bluebird which, although larger and stronger, is not as agile as the swallows. The bluebirds did better on the open fence rows if a variety of perches were close by from which they

Table 2. Comparison of Western Bluebirds on English Walnut Trees, Other Trees, and on Open Fence Rows

	No. of nest sites	No. of nest boxes	Attempts per nest box site	Apparent success per nest box site	Percent of nest box success	No. of live eggs, young & fledged	Loss of eggs & young	Nest boxes usurped by others	Ave. no. of live eggs, young & fledged per site
1. Nest boxes on English Walnut trees	20	58	19	14	70.0%	55	13	3*	2.75
2. Nest boxes on other trees	10	25	4	3	30.0%	13	0	0	1.30
3. Nest boxes on open fence rows	43	110	20	10	23.0%	51	31	9	1.18

*The three nest boxes usurped by swallows at site nos. 10, 15, and 17 with the loss of nine young bluebirds were regained by the parent bluebirds in other nest boxes on the same tree (triple nest box set-up). The three sets of parents that re-nested produced five eggs and five young by the last of June, an actual gain of one.

could launch their counterattacks, especially if there were some high perches on trees or utility wires.

The open fence rows, in contrast to life on the English Walnut trees, were a real battlefield, with the bluebird male first battling another bluebird male for a nest site, then enduring a "two wave" attack, most often by Tree Swallows followed by the 20% smaller, but just as competitive Violet-green Swallows. The Tree Swallow is more direct in his attack and wins or loses early in the battle. The Violet-green Swallow, on the other hand, will often wait until the bluebird nest comes under stress with eggs or young before making its attack. The bluebird pair finds it very difficult to incubate eggs or brood young, hunt for food, and defend the nest box at the same time.

Forty-four bluebird eggs and young in 12 nest boxes were lost when swallows usurped the boxes. Of those numbers, Violet-green Swallows took 8 of the 12 nest boxes and accounted for most of the casualties (Table 2). It was almost certain that 2 more bluebird nest boxes on open fence rows would be lost at sites #2 (1 egg and 5 young) and #9 (6 eggs) as Violet-green Swallows were observed circling in an "attack mode," which, under the circumstances, usually means loss of the nest, eggs, and young. This could total a probable projected loss of 14 nest boxes and 56 eggs and young to swallow interference. This represents 20% of all available bluebird nest sites (territorial requirement), but does not count the sites lost in which there was no physical evidence observable.

Western Bluebirds, in turn, seized 4 swallow nest boxes with a loss of 9 swallow eggs, and it appeared that bluebirds may have killed 2 adult swallows (1 Tree Swallow and 1 Violet-green Swallow).

House Sparrows (*Passer domesticus*) killed 4 adult swallows (3 were Violet-green) and captured 5 swallow nest boxes. As far as it is known, bluebirds suffered no losses to House Sparrows. At a triple nest box on an English Walnut tree at site #16, House Sparrows killed an adult Violet-green

Swallow and took the nest box. They then killed an adult Tree Swallow in the middle nest box, but did not, up to that time, attempt to oust a pair of bluebirds with 5 eggs in the nest box on the opposite side of the same tree.

WINTER ROOSTING

It is suspected, but not recently documented, that Western Bluebirds may be again wintering in the Chehalem-Parrett Mountain area as an occasional adult bluebird is found dead in a nest box during the March nest box check. The Newberg area is about 25 miles north of the 45th parallel, roughly equivalent to Ottawa, St. Johns, New Brunswick, and the middle of Nova Scotia; this area, however, is warmed by the Japanese current and protected from the cold winter blasts of eastern Oregon by the Cascade Mountains. Elsie Elzroth (1983) has reported that Western Bluebirds are permanent residents in the Corvallis area, which lies some 85 miles south of Portland, Oregon.

Until 1948, the Portland Audubon Society chapter listed Western Bluebirds on their annual Christmas bird count, but none have been noted since.

One conservation measure that might save Western Bluebirds which may be wintering over would be to seal the seams of nest boxes with plastic wood, cover the ventilation holes, and face the nest boxes in a westerly direction. Many nest boxes checked in the winter months were soaked with water and were unsuitable for winter roosting. It is possible to determine if the nest box is being used at night by checking for droppings, then cleaning out the nest box each day to see if there are fresh droppings. This would allow one to concentrate on a few nest boxes in order to observe what birds enter the nest box before dusk and what birds leave the nest box in the morning. It perhaps would not be necessary to build a winter roosting box as Zeleny (1984) has noted that bluebirds are generally more likely to accept nesting boxes for roosting in winter than the specially made roosting boxes.

OTHER INFORMATION

The spring weather of 1982 was quite moderate and no young appeared to be lost due to prolonged, cool, wet periods that often occur during the first nesting. There also seemed to be no loss due to parasites or predation. Sims found that on Parrett Mountain more predation occurred on trees than on open fence rows, and most of that happened during the period of second nesting when predators need more food for their rapidly growing young.

Bluebirds have been pictured by some individuals as too gentle to really battle for the nest box and family, but this is not the case. The male bluebird is tough and tenacious and will tackle starlings, jays, squirrels, and others that threaten his nest box. Mike Houck, Portland Audubon Urban Naturalist, observed a male bluebird knock a European Starling (*Sturnis vulgaris*) to the ground from a bluebird nest box. The male bluebird struck from his perch on an overhead utility wire. The starling flew away while the bluebird shook himself then flew back to his high perch. This should help to demonstrate a high priority for overhead perches when bluebird nest box sites are chosen.

One might place artificial perches on open fence rows where there is little protection. Upright saplings with cross branches or furring strips could be attached to fence posts to produce overhead perches at least 8-10 feet above the fence posts. It might also be possible to stretch an overhead wire in the same manner.

To illustrate the toughness of bluebirds in the face of overwhelming odds, the following bluebird-swallow confrontations are cited. One must keep in mind that the three nest box sites fought over were on open fence rows without benefit of any protection from perches on trees or overhead utility wires. The following three sites were monitored on a daily basis with often two visits per day.

Site #19 (Triple nest boxes 15 feet apart on an open fence row—no

trees or overhead utility wires in the vicinity) The contest was over the middle nest box which the bluebirds lost after a 35-day battle against as many as 7 Tree Swallows.

Site #20 (Triple nest boxes 10 feet apart on an open fence row—no overhead perches nearby) The pair of bluebirds fought on and off over the middle nest box with 5 to 6 Violet-green Swallows until the female bluebird managed to lay 7 eggs. When the bluebird nestlings were 3 days old, the Violet-green Swallows built their nest on top of the bluebird nestlings and smothered them. This ordeal lasted 58 days. The bluebird pair finally left the area.

Site #63 (Double nest boxes 22 feet apart on an open fence row—no overhead perches nearby) Tree Swallows took the nest box from a pair of bluebirds after 29 days of harassment.

The direction that each nest box faced was recorded by compass, but the four points of north, east, south, and west were too general to be of much use. Sims also used a compass for nest box orientation and found the results not significant when using the four points of the compass. She, however, was more precise in her research and recorded the results in degrees that each nest box faced. If one would divide the 360° of the compass into two parts of "A" (220° southwest, west, and north to 89° east) and "B" (90° east, southeast, and south to 215° southwest) there is a difference. The nest boxes that faced in the direction of "A" showed a bluebird preference in nest box attempts (53-27-51%), about twice that of the "B" orientation (27-7-26%). Zeleny (1984) seems to support this position by stating that there may be some advantage in facing the nest box away from the direction of prevailing storms. Aylesworth (1983) also favors facing the box away from prevailing winds.

TOTALS OF ALL CAVITY NESTERS IN THIS STUDY

A total of six species of birds (Table 3) used nest boxes in this study:

Table 3. Totals for All Cavity Nesters on the Bluebird Trail.

	No. of nest sites	No. of nest boxes	Attempts per nest box site	Apparent success per nest box site	Percent of nest box success	No. of live eggs, young & fledged	Abandoned, dead or destroyed eggs & young	Nest boxes usurped by others	Ave. no. of live eggs, young & fledged per site
Western Bluebirds	73	193	42	27	37.0%	119	49	12	1.63
Violet-Green Swallows	73	193	46	28	38.4%	120	9	3	1.64
Tree Swallows	73	193	30	27	37.0%	151	0	1	2.07
Unidentified Swallows	73	193	19	6	8.2%	9	9	5	.12
*Total Swallows	73	193	95	61	84.0%	289	18	9	3.95
Other Cavity Nesters									
House Sparrows	73	193	14	11	15.0%	45	2	0	62
Wrens	73	193	4	1	1.3%	7	0	0	10
White-breasted Nuthatches	73	193	2	2	2.7%	10	0	0	.14
**European Starlings	73	193	1	1	1.3%	4	0	0	.05

*Percentages asked for swallows as there was a possibility for 2 or 3 nests per site, but only one nest box per site available to Western Bluebirds due to their 300 feet minimum territorial requirement.

**A Flicker enlarged the nest box and a starling took it. In this area we hold to the 1 1/2-inch opening as starlings will enter the nest box if it is as much as 1 1/8-inch larger.

Western Bluebirds, Tree Swallows, Violet-green Swallows, House Sparrows, House Wrens (*Troglodytes aedon*), and White-breasted Nuthatches (*Sitta carolinensis*). House Sparrows do not survive quite as well in the hilly, broken-timbered areas, possibly due to predation by hawks or because of a smaller human population that might attract them. Snakes of any kind are rarely seen in the Chehalem-Parrett Mountain area. Raccoons and weasels have been recorded as occasionally raiding nest boxes, but the common house cat turned loose in the countryside seems to be one of the worst predators. These semi-feral cats do not last long without human protection providing occasional meals for coyotes and Great Horned Owls (*Bubo virginianus*).

CONCLUSION

The spring weather in 1982 was unusually good without any prolonged cold and wet periods, hence no young bluebirds were lost to starvation or hypothermia. No losses were noted through June due to predation, which mostly occurs during the second nesting period. No parasitism was observed, but five young bluebirds and both parents were found dead at one site, probably due to agricultural spraying. A pair of Violet-green Swallows had a thriving nest with five young on an adjacent fence post.

Double nest box sites on open fence rows were slightly more successful than triple nest boxes and had fewer casualties, but not significantly so. It appeared that when nest boxes were doubled or tripled within the 300 foot territorial requirement of the bluebird, pressure developed from both Tree and Violet-green Swallows until the Western Bluebird was often driven off the site or had its nest box usurped with loss of eggs or young.

Important factors that seemed to determine the success or failure of Western Bluebirds in retaining their nest boxes on the open fence rows were the following:

1. The ability of Tree and Violet-green Swallows to nest close to each other even without ponds or bodies of water nearby.
2. The nature of swallows to be able to attract other swallows to help in their "gang attacks" when attempting to oust bluebirds.
3. The lack of suitable perches for bluebirds to adequately defend a nest box against swallows, especially if trees or overhead utility wires are unavailable.

The big surprise was the success of the Western Bluebirds in using nest boxes on the large, semi-isolated English Walnut trees. Two nest boxes on opposite sides of these trees produced more than twice as many eggs and young as nest boxes on open fence rows, and the bluebird young fledged as much as two weeks earlier. These trees provide the semi-shade for nest boxes that bluebirds seem to prefer. This may seem relatively unimportant, but with thin-walled nest boxes and very hot weather this factor often becomes crucial.

Perhaps the Western Bluebird could be returned to the Willamette River Valley if every possible advantage, no matter how small, could be weighted in favor of the bluebird. ■

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LITERATURE CITED

- Aylesworth, A. and D. Herschberger. 1983. Some do's and don'ts for success with Mountain and Western Bluebird trails. *Sialia* 5(4):145
- American Ornithologists' Union. 1983. *Check-List of North American Birds*, Sixth Edition.
- Boone, D.D. 1982. Managing trails for bluebird-swallow balance. *Sialia* 4(1):11.
- Burleigh, T.D. 1921. Breeding birds of Warland, Lincoln County, Montana. *Auk* 47:40-63.
- Eltzroth, E.K. 1983. Breeding biology and mortality of Western Bluebirds near Corvallis, Oregon. *Sialia* 5(3):83.
- Gary, H.L. and M.J. Morris. 1980. Constructing wooden boxes for cavity-nesting birds. *U.S.D.A. Forest Service Research Note RM-387*.
- Grinnell, J. and A.H. Miller. 1944. The distribution of the birds of California. *Pacific Coast Avifauna* 27. 608 p.

(Continued on page 146)

Bluebird Migration

Lawrence Zeleny

By early September most bluebirds have finished with their family responsibilities for the season. If they have been lucky a pair will have produced two and, in some cases, three broods of young. Thus, a single pair of bluebirds may produce as many as 15 and in rare instances up to 18 young birds in a season. However, the hazards encountered during the nesting period and the scarcity of suitable nesting sites usually restrict this number to a much smaller figure.

Unlike many birds, bluebirds maintain rather strong family ties during the entire season. The fully grown young of one brood have, on occasion, been seen to help in the feeding of the young of a later brood. Often in October, long after their nests have been abandoned, family groups of bluebirds will return briefly to the cavities or bird houses they earlier occupied, inspecting them carefully inside and out with much soft conversation. They behave as though they had a true sentimental attachment to their old home and wanted to revisit it before going south for the winter!

During most of the fall season, however, bluebird family groups tend to roam leisurely over the countryside, searching for those places where insects or wild berries to their liking are to be found in greatest abundance. During the course of these wanderings family groups join with other family groups to form loose flocks in preparation for the fall migration. In earlier years these flocks often contained several hundred birds, but with the great reduction in the bluebird population in recent years these flocks are now more likely to consist of 20 or so individuals, often fewer.

The migration of many of our native birds is a spectacular affair. They may travel hundreds of miles a day, sometimes in carefully organized flocks. Many species travel by night and may fly nonstop over large bodies of water such as the Gulf of Mexico. Bluebird migration, however, has none of these spectacular aspects. In autumn the southward movement of bluebirds seems to be governed more by the weather and food supply than by the calendar. As the weather becomes colder and the insect supply diminishes, the bluebirds withdraw from the northern part of their breeding ranges in loose flocks and leisurely move southward to where food is easier to obtain. Thus, in winter, they tend to concentrate in the southern part of their ranges. To what extent migration occurs among bluebirds that breed within the bounds of the normal winter range of the species is not known. Some of these bluebirds evidently remain throughout the year near where they breed, but others appear to migrate to some extent within the winter range. Food supply is probably the governing factor, since when insects become unavailable bluebirds tend to congregate where wild berries of various kinds are plentiful.

Some bluebirds may remain in winter far north of their normal winter range in locations where there are sufficient wild berries to last them through the winter. These birds often perish if heavy snow or ice covers their food supply.

The breeding range of the Eastern Bluebird extends from southern Canada to the Gulf of Mexico everywhere east of the Rockies, but in winter the bluebirds are found mainly in the

southern half or two-thirds of this area. Both the Western and Mountain Bluebirds have migratory movements in the fall to more southerly regions or sometimes simply to lower elevations. The Mountain Bluebird is probably the most migratory of all the bluebirds. In summer it may be found as far north as Alaska, but in winter it is usually found only south of the Canadian border, and its range is extended southward from its summer limit well into Mexico.

Although the fall migration of bluebirds may well be explained by diminishing food supplies and the coming of cold weather in the North, one must search for a different and less simple explanation for the spring migration. Why should these gentle birds choose to leave the comfort and

security of their winter homes in the South where food is abundant and return to the rigors of the North in early March before winter has yet ended and where many of them may perish from unseasonable weather? One can only conclude that they are obeying an irresistible primeval urge to produce a new generation of their species in the same general area in which they and their ancestors first saw the light of day. The timing of this urge is probably governed in part at least by the lengthening daylight hours as winter recedes. Bird migration is one of nature's great mysteries about which we still have much to learn. ■

This article was first published in Purple Martin Capital News (now Nature Society News) Sept. 24, 1969. It is reprinted with permission.

NORTH AMERICAN BLUEBIRD SOCIETY RESEARCH GRANTS

The North American Bluebird Society announces the third annual grants-in-aid for ornithological research directed toward cavity nesting species of North America with emphasis on the genus *Sialia*. Presently three annual grants of single or multiple awards totaling \$3,000.00 are awarded and include

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

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

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

Further guidelines and application materials are available upon request from Theodore W. Gutzke, Research Committee Chairman, P.O. Box 121, Kenmare, North Dakota 58746. Completed applications must be received by January 31, 1986; decisions will be announced by March 15, 1986.

Barred Owl Nest Box

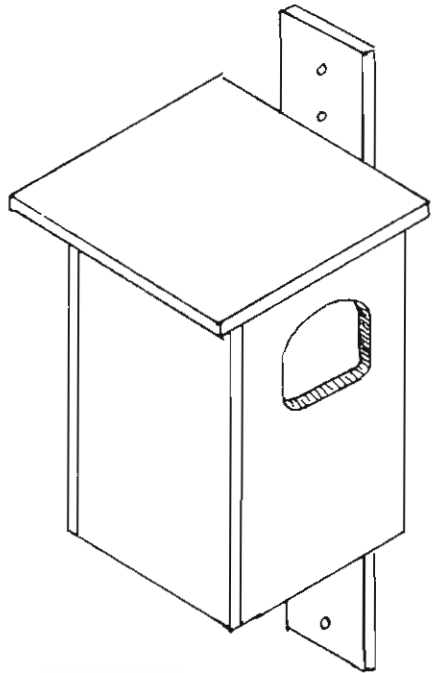
Carrol L. Henderson

The Barred Owl is one of our more common owls in hardwood forests. Its call is a distinctive "Who-cooks-for-you." Its blue eyes are unique among Minnesota's owls. The Barred Owl nest box is made of 3/4 inch thick exterior grade plywood. Do not paint, stain, or treat the box with creosote. Put a 2 to 3 inch layer of small wood chips in the bottom of the box. No cleaning is needed except to remove leaves and other litter that squirrels put into the box. The entrance hole is 7 inches wide and 7 inches high with a rounded top and rounded corners at the bottom. The hole can be either on the front or on a side, but if it is on the side the box is easier to clean. This box can be cleaned out through the hole so the roof does not need to be hinged.

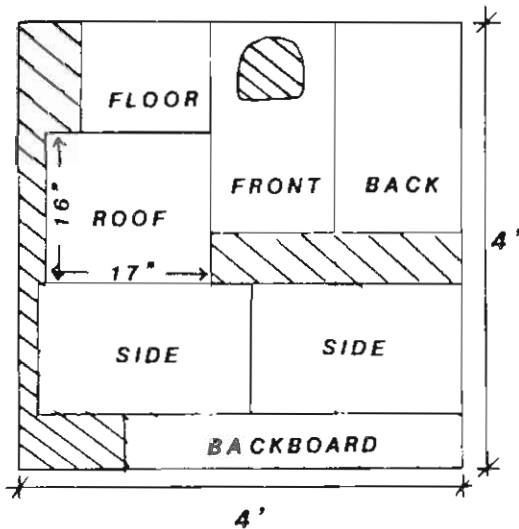
The box should be cleaned out or placed in January. The box should be located 20 to 30 feet high in a mature lowland hardwood area, and preferably within 200 feet of water. Do not place the box on the edge of a clearing or within 150 feet of a residence. The entrance hole should not be obscured by branches or leaves, but a perch near the nest box is desirable. This perch should be near enough to the box so that the young can "branch" out onto it as they leave the nest. Otherwise they may fall to the ground and be eaten by predators. The box should be placed on a living tree which is at least 12 inches in diameter. There may be a slight preference for west-facing entrance holes.

This design has been developed by David H. Johnson, RR 6, Box 410, Mankato, MN 56001. If you try a Barred Owl nest box, let him know your results.

We thank the Minnesota Department of Natural Resources Nongame Wildlife Program and Carrol L. Henderson for permission to reprint this material from *Woodworking for Wildlife: Homes for Birds and Mammals*.

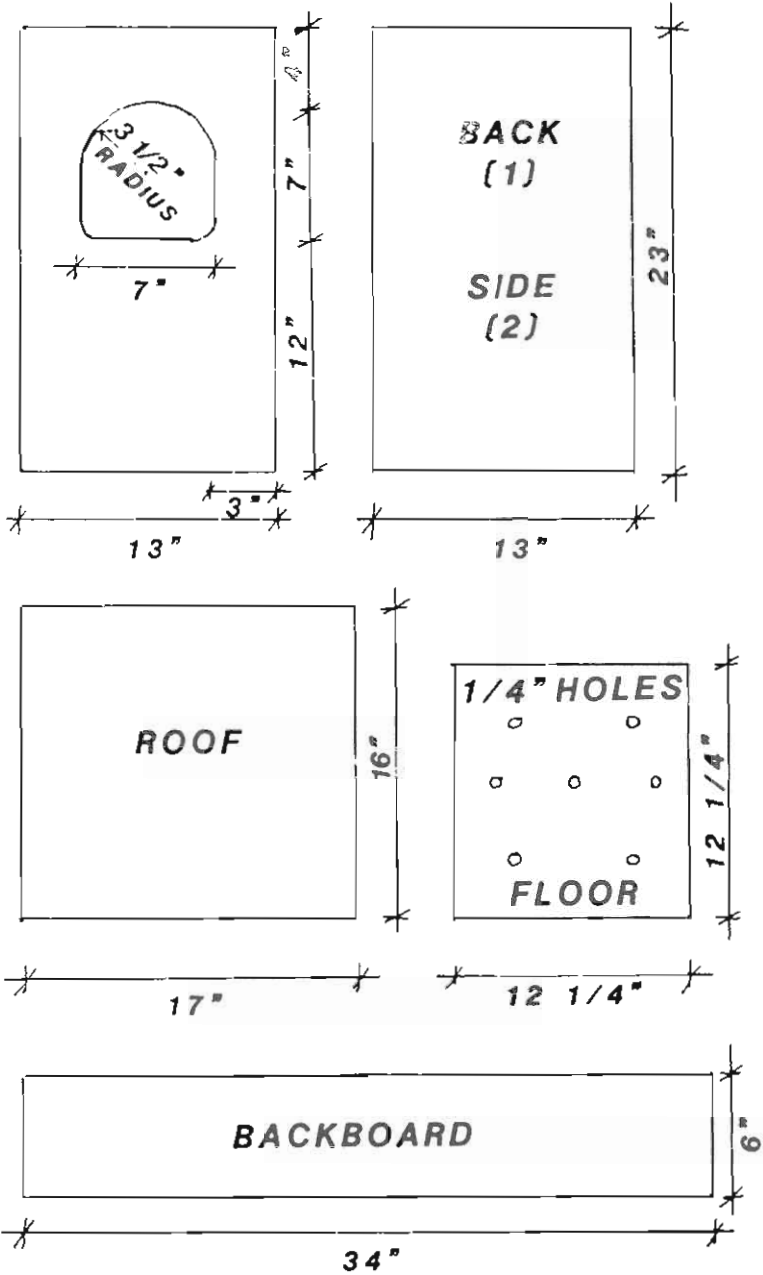


**NOTE: No hinged door needed.
Clean through entrance hole.**



Lumber: One 4' x 4' x 3/4" sheet of exterior grade plywood.

BARRED OWL NEST BOX



PLANTINGS FOR BLUEBIRDS AND OTHER WILDLIFE

Black Tupelo: For Fall Fruit and Foliage

Karen Blackburn

The Black Tupelo, or Blackgum as it is known in some localities, is a native deciduous tree which is commonly found throughout the eastern United States. Though it is often associated with wetland areas, the Black Tupelo, with its striking red fall foliage, may be grown as an ornamental on drier sites. Its dark blue fruits ripen in early autumn and appeal to more than thirty species of birds, including the Eastern Bluebird.

Black Tupelo (*Nyssa sylvatica*)

Native Range—Maine to Florida, west to Michigan and eastern Texas.

Hardiness—Zone 5

Habitat—Generally on moist, rich soils, preferring lowlands, but may also be found on upland sites.

Habit—A picturesque deciduous tree reaching 60 to 100 feet in height. Glossy leaves, 2 to 5 inches long, are spaced alternately along the branches. Fall foliage is red.

Fruit and Flowers—Greenish flowers are inconspicuous. The ½ inch fruits are oval, blue-black drupes which are borne 3 to 5 to a stalk. Fruit ripens in fall and soon drops from trees if not consumed by wildlife.

Landscape Value—Growth form adds interest to the landscape as does the brilliant fall foliage. Useful as a shade tree. Especially valuable for landscaping shores of ponds and other moist spots.



Culture—Prefers moist, fertile soils but will grow on drier sites if kept well-watered until established. Transplants should be small (under six feet) and have an adequate root ball. Best in full sun, but will tolerate some shading.

Sources—Nursery-grown plants. Difficult to transplant from the wild.

Wildlife Value—Fruits are a preferred food of the Wood Duck, Wild Turkey, Northern Flicker, Pileated, Red-headed and Hairy Woodpeckers, Eastern Kingbird, Northern Mockingbird, Gray Catbird, Brown Thrasher, American Robin, Wood Thrush, Gray-cheeked Thrush, Eastern Bluebird, Cedar Waxwing, European Starling and Summer Tanager. Fruits are eaten to a lesser degree by many other birds as well as a number of mammals including Gray and Fox Squirrels, Raccoons and Black Bears. White-tailed Deer feed on young trees and sprouts. ■

Rt. 3, Box 213
Marianna, FL 32446

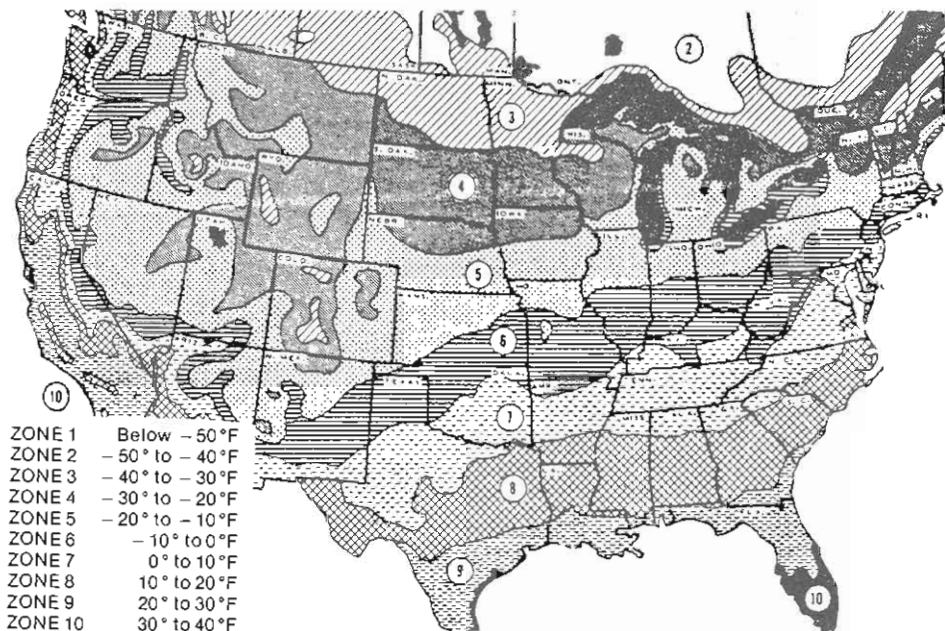


Figure 1. Hardiness Zones for the United States and southern Canada. Temperatures for each zone are the average annual minimum temperatures. When no zones are mentioned with the plant description, plants are hardy anywhere. If a zone is given, it indicates that plants are hardy within the zone and in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

Television Commercial Available for Loan

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

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

WANTED: Back Issues of *Sialia*

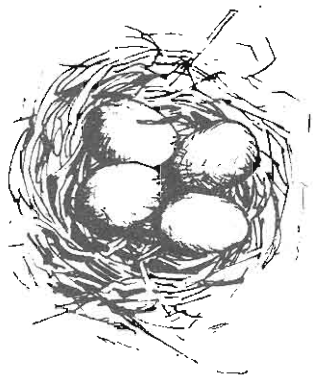
Don't discard back issues of *Sialia*! If, for any reason, you cannot keep past copies of the bluebird journal return them and claim a tax deduction of \$2.50 for each.

Many new members desire complete sets of back issues which we are unable to supply. Copies of Volume 1:1,2 and Volume 3:2 are particularly needed. Mail back issues to headquarters:

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

QUESTION CORNER

Lawrence Zeleny



When I cleaned my nesting boxes last fall, I found one that contained a sizable amount of seed droppings and four dead mature bluebirds. Is it possible to determine whether they were victims of freezing or of suffocation and whether they died during the winter or during spring migration?

George P. O'Neil
Sewickley, Pennsylvania

Most of the bluebirds in your area are believed to move farther south in the winter, since you are close to the northern limit of their wintering range. Those that remain at that latitude are in considerable danger of perishing during severe winter weather, particularly when food supplies run low or are covered with ice. On cold winter nights as many as a dozen or more bluebirds will crowd into a single nesting box or cavity for protection against the cold and wind. Their combined body heat will raise the temperature appreciably inside the box or cavity.

Judging from the large accumulation of droppings in your box, a considerable number of birds must have used it regularly for sleeping quarters. Some of the weaker ones evidently died from the combined effects of cold and hunger. They may have died in the night or they

may have been too weak to leave the box in the morning. It is unlikely that they suffocated. There are, of course, many other possible causes of death among birds.

What is the life span of a bluebird?

Virginia Durish
Phoenix, Maryland

With good luck bluebirds will probably live as long as 8 or 10 years. However, the hazards of wild bird life are so great that the average life span of bluebirds after safe fledging is probably only about two years.

We have counted over 16 bluebirds in a single flock. Is this kind of concentration unusual?

Phil Brown
Tallahassee, Florida

During the fall months family groups of bluebirds will join other groups to form loose flocks which usually remain intact until late winter or early spring. In earlier times these flocks often numbered 100 or more birds, but now they are usually much smaller. ■

My Success with a Small Nesting Box

William D. Morgan

Since childhood and early youth when I lived in the country, I have been interested in birds in general and bluebirds in particular. During the years we always provided boxes for the bluebirds. After living in the city for several years, I moved to this small town about 15 years ago. In time, I became aware of bluebirds in the neighborhood and about 1971 constructed and erected two bluebird boxes, one on my front lawn and one on the back. I have about an acre of land with scattered oak trees. A wooded area lies behind my lot about 175 feet from the house.

I had no success in attracting bluebirds for two or three years. Robins built in the shrubbery, wrens occupied the storage shed, nuthatches nested in a box one year, while flying squirrels used one another year. To provide for wrens near the house, one spring I put up a smaller box attaching it to one of the supporting posts for the aluminum patio cover, just under the overhang of the cover. Surprise! I got my first bluebird tenants.

That was about 10 years ago. Bluebirds have nested there at least once every year since, most years twice, and one year three times. I have not kept count of the fledglings, but nestings have all appeared to be successful except on the two occasions when I found one of the parents dead on the nest—once with eggs and once with dead nestlings. I have never had too much trouble with House Sparrows until last year when they drove the bluebirds away early in the spring and began building in the patio box. I tried discouraging them by intermittently closing the box entrance with a wooden clothespin. This went on for two or three weeks until the sparrows finally

gave up. In June, the bluebirds came back and raised a brood. I usually keep an eye on all nestings and clean the box after each brood has fledged.

The box the bluebirds have used so frequently is somewhat smaller than the normal bluebird box. It is made of 3/8 inch plywood. Although it is getting somewhat dilapidated and weathered, it is still sturdy so I hesitate to replace it since the bluebirds seem to find it so satisfactory. The box is 4 inches in diameter and 6 inches deep on the lowest side which is the front. The 1-1/2 inch entrance hole is about 4 inches from the bottom of the box. The entrance is approximately 7 feet above the patio floor and just 10 feet from my back door. Many times bluebirds will come and go, feeding their young, while I am sitting on the back steps. A seldom-used clothesline stretched between two oak trees about 15 feet away provides a good intermediate perch. The bluebirds apparently find the "wren box" very suitable. ■

Editor's Note: *As we have pointed out to our readers on a number of occasions, bluebirds will accept a wide variety of cavity and box sizes as well as entrance holes, for birds are adaptable creatures. Although occasional readers report success with boxes that are relatively smaller than the standard box, we continue to recommend that the floor area should be larger and the box deeper than the box here described both to give the growing nestlings more space and to deter predation from those predators who reach inside the entrance hole.*

349 Powers Blvd.
Waverly, TN

The Verdigris Coulee Story

Myrna D. Pearman

For most bluebird enthusiasts in Alberta, success in attracting this delightful harbinger of spring takes persistence and patience. Several years are often required to build up a stable population along a trail, and when a 35-40% occupancy rate is attained, the trail is considered successful. But for Armin and Gerry Dyck of Coal-dale, and Kerv and Mildred Theissen of Coutts, Alberta, this has not been the case for their trail along the Verdigris Coulee.

Verdigris Coulee is one of several ancient drainage systems that bisect the flat and treeless plains of the extreme south edge of Alberta. It cuts through the layers of till laid down by the last Wisconsin glacier, and erosion has taken place in response to the differential hardness of the layers of underlying rock. Years of relentless abrasion by wind and water have left behind valleys that are unique both in appearance and in the ecosystems that have evolved in and around them. Fascinating formations have been carved leaving behind a mystical and almost moonscape appearance. It is among these rocks that the native Indian gods were believed to have dwelled.

All of the drainage systems in this section of the province empty into the Milk River, which is Alberta's only river flowing into the Missouri system to the south. It is near the Milk River, on the Theissen Ranch in the Verdigris Coulee, that Armin Dyck set out his trail in 1983. Not one breeding adult nor fledgling bluebird had been seen

in the area for at least 30 years. One of the 14 original boxes was immediately claimed by a pair of bluebirds, much to the delight of both the Dycks and the Theissens. Content with this small success, the trail was not checked again until early July, when, to everyone's surprise, eight other boxes were also found occupied. All of these occupants were just starting their first nests! Were these late nesters late migrants, or had they been unsuccessful in using the only other available nesting sites then available—the holes in the coulee walls?

While the now-enthusiastic bluebirders were delighted beyond words with their surprising success, they were not prepared for the boom in 1984 when they expanded the trail to 23 boxes. Twenty-two of them were used by Mountain Bluebirds! Production rose from 46 young in 1983 to 126 in 1984.

There is no clear explanation as to why this trail has had such explosive success. The extremely high population of grasshoppers in 1984 no doubt contributed to the success rate, but was probably not a major factor. A more plausible explanation is that the coulee is along a main migratory route, and that the discovery of hitherto-unavailable nesting sites convinced them to stay. Oddly enough, however, the utilization rate of boxes and trails placed on the uplands adjacent to the coulee was extremely low. Mr. Dyck was

diligent about cleaning out the boxes immediately after fledging, and is convinced that this encouraged quicker re-nesting.

Today, after a 30 year absence and a two year nesting effort, Mountain Bluebirds are once again a common sight along Verdigris Coulee. The Dycks and the Theisens are confident that the future of the bluebird in this area is

bright, and now would like to expand their trail through the adjacent coulees to Writing-On-Stone Provincial Park, 20 miles to the east. Their dream is to increase the population so that some day soon visitors to this famous park will be able to enjoy bluebirds.

Box 852
Rimbeey, Alberta
Canada TOC 2J0

To the Rescue!

Rena Bishop

July 8, 1985—Monday

While at work this evening I received a distressing telephone call from David Beaver. He told me that the four baby bluebirds in his nesting box had been screaming their heads off. When he had opened the box to check them, he found their mouths open wide as if they were starving. The adult bluebirds had not been seen since early morning. David asked what he could do to help the babies which had hatched on July 1. They were without feathers and their eyes were closed.

I called my mother, who had baby bluebirds in her nesting box, to find out when they had hatched. She said that her babies had hatched on either July 1 or July 2. On July 1 the female adult refused to leave the nest and on July 2 there were three babies and one unhatched egg in the nesting box.

During these conversations, I recalled an idea that Dr. Lawrence Zeleny had mentioned during the early 1970's when I started my first bluebird trail.

I talked with David again that evening, suggesting that he leave the babies in the nesting box. We had a better chance of my idea succeeding if we worked early in the morning. I told him to watch for the adults and to contact me if they were not seen in the morning.

July 9, 1985—Tuesday

By 8:00 a.m. Marilyn Beaver, David's mother, telephoned to tell me they had not seen the adult bluebirds. They had checked the babies again. Two looked dead and the other two were so weak they had trouble opening their mouths. None of the four made any noise.

It was time to try Dr. Zeleny's idea.

Marilyn and David heated a soft towel and put it in a shoe box. The babies were gently lifted from the nest and placed on the towel, then transported to my mother's box.

I met David and Marilyn at my mother's home to assist with the plan we had in mind. We opened Mother's nesting box and saw three well-fed young bluebirds lying quietly along with one unhatched egg. We gently placed the four abandoned/orphaned babies in the nest.

David, Marilyn, Mother and I each found a chair on the patio. We watched for the adults that we hoped would adopt the four foundlings. In a few minutes the adult female flew to the opening of the box with food in her bill.

We watched for about an hour as the two adults made many trips to feed their suddenly expanded family. At times the adults would sit on the nearby wires or limbs of overhanging trees preening or chirping to each other. (We wondered if they were discussing their predicament).

Marilyn, David and I returned to our homes, but my mother kept watch to see if the adults continued to feed the nestlings.

2:00 p.m. On my way to work I stopped to check on the babies. Mother said that she had never seen adults work so hard. Upon opening the box I knew this was true. The babies were well-fed and resting in the normal position, bills over the outer edge of the nest, tails to the inside.

We wondered what had happened to the seventh baby since only six nestlings could be seen with the one unhatched egg. Perhaps the seventh lay under the others.

Dr. Zeleny's plan had worked!

July 10, 1985—Wednesday

The adult bluebirds continued to make numerous feeding trips to the nesting box. I did not disturb them.

July 11, 1985—Thursday

Marilyn, Paul, and David Beaver, my mother, and I gathered at mother's to check the progress of the baby bluebirds. They all appeared healthy and well-fed. Feathers were beginning to grow out of the stiff areas. The adults fed the babies many times while we watched.

We called Joel McConnell to come over and take pictures of the babies in the nest and the adults at the nesting box opening. We shared the story of the four abandoned/orphaned babies with him as well as some other bird stories.

July 12, 1985—Friday

The adult bluebirds continue feeding the ever-growing young in their nest. We did not open the box or disturb them.

July 13, 1985—Saturday

The adults are very busy this morning. They continue to feed the young and swoop down to chase off robins; Blue Jays, a pet squirrel, three cats, and a kitten from their territory.

July 14, 1985—Sunday

The adults continue feeding the young with many trips to find food. We did not disturb them.

July 15, 1985—Monday

Mother and I observed the adults feeding frequently. The young are approximately fourteen days old so we took one last look at these dear babies. There are six well-feathered, bright-eyed young lying quietly in the nest. There does not appear to be room for another baby in the box.

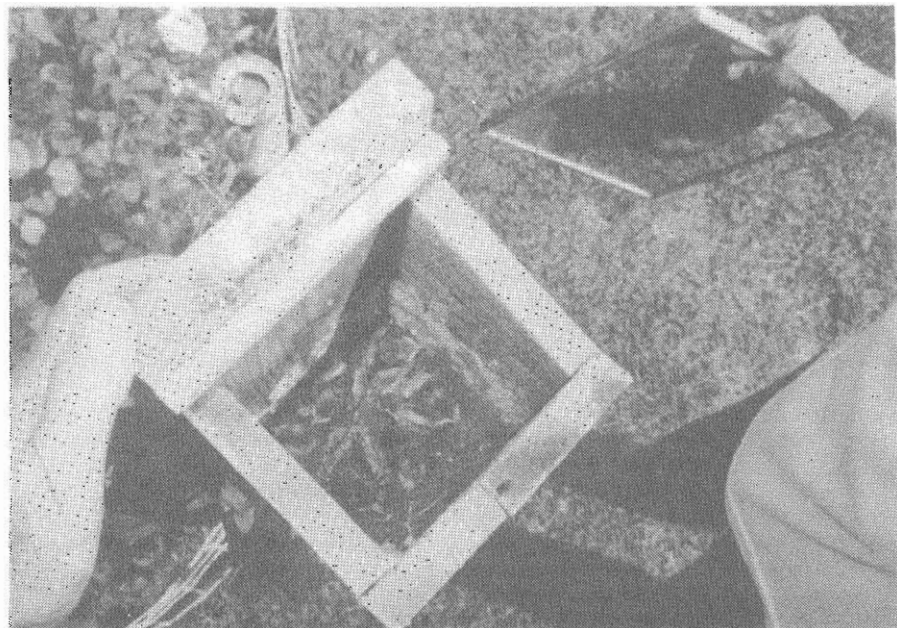
July 16-18, 1985—Tuesday—Thursday

The adults were seen many times with food for the young. We did not open the box as we feared it would cause the young to leave the nest too soon.

July 19, 1985—Friday

9:00 a.m. I talked with my mother and was told that she had not seen the adult bluebirds this morning. We felt sure they had fledged (made their first flight).

Paul Beaver, David's father, and I joined Mother on her patio to watch for the young in the oak trees around her home.



Photograph by Joel McConnell

Six healthy Eastern Bluebird nestlings from the combined broods. They will eventually fledge successfully.

We could hear them chirping and finally found three young when the adults flew to feed them. Two were huddled together on a large branch of one oak tree and a third sat in the fork about a yard away. The adults made trips to the top of another oak tree nearby and we could see two young bluebirds fly in the leaves.

Paul told me to look on the ground behind his car. There was a baby bluebird. As we approached it, it flew a short distance, then back to the ground. The adults flew down at us popping their wings and scolding.

I picked the little one up and attempted to place it on a mulberry branch. It flew immediately with the adults right after it. They seemed to be coaxing it up into a tree. They would swoop down to it and then up to a branch of a tree. Mother was able to pick it up and place it on an oak branch. It sat there for about five minutes.

The adult male flew to a nearby wire, then to a higher branch.

We went indoors to watch from a window. Soon the male made several trips to feed the baby who had by this time moved farther up the branch.

The adults continued to feed the other young. We could hear them chirping. All seemed to be going well for them. We checked the box, the nesting material was all packed down, no egg or dead young could be seen. Perhaps the adults removed what was left.

We cleaned out the nesting box and will do necessary repairs to be ready for next year.

The adult bluebirds in Mother's nesting box laid five eggs during the first nesting period. Four young were fledged. One egg did not hatch.

The Beaver's bluebird pair raised five young in the first nesting period.

With the "combined six" from the second nesting, fifteen young were fledged from these two boxes this year to add to the increasing number of bluebirds in our area.

We have all learned much from this experience and have been thrilled with the beauty of the "bluebird of happiness". We look forward to watching them grow up and hope to see many more young ones raised in our area. ■

120 Manor Circle
Moorestville, NC 28115

Dr. Zeleny comments on the above experience as follows:

When bluebird nestlings more than about four days old clamor noisily and continuously for food in the presence of a human observer, it is a good indication that they are abnormally hungry and have probably been deserted or orphaned within the preceding eight hours or so. This supposition can be confirmed by failure of any adult bird to feed the nestlings for a period of at least two daylight hours. These criteria evidently applied in the case here described. To avoid the need for watching the nesting box for two hours, a single strand of spider webbing can be stretched across the entrance hole. If this is intact after two hours, it is then obvious that no bird has entered the box during that period and that the nestlings require prompt help to survive.

One point in the description of the events that took place may need some clarification. One gets the impression that the nestlings that were transferred were too weak from starvation to lift their heads and clamor to be fed, and that two of them appeared to be nearly dead. If this were the case, it is very doubtful that any of them would have survived. Birds do not pamper any weaklings in their broods. They feed the nestlings that raise their heads the highest and open their mouths widest.

My guess is that chilling rather than starvation was the main factor affecting the nestlings on the morning of July 9. The orphaned nestlings probably became chilled during the night since they, of course, were not brooded that night. All altricial birds are cold-blooded during their first few days of life and need frequent brooding to survive. The mother bird broods them all night to keep them warm until they are old enough to produce their own body heat. If the young birds are chilled they become torporous. They cannot respond to the offer of food and soon die unless they are warmed sufficiently. They will usually recover remarkably well when they are warmed in time. The critical condition of the orphaned nestlings on the morning of July 9 was probably due primarily to chilling but could have been made worse by lack of food. After they were transferred to the other nest, they were warmed by the other nestlings and probably also by a rise in the air temperature, thus making them able to beg for and accept food.

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

Completing the Cycle

Vibeke Thiele Weber

A year has passed. The cycle is complete. In February 1984 we entered a new and different time warp for we have moved into a newly-built house on the edge of a deep and quiet woodland. Did I say "quiet"? At night, strange, loud, chirping, warbling sounds lure us to the window. What are those sounds? Surely frogs are deep in their winter sleep. Crickets? In February? Birds? Surely not! But, just as dawn comes when expected, so do our mysterious sounds come as night stands watch over the forest.

We drape the windows at the front of the house, while we hang around the back of the house for the beautiful view. At first our eyes see only trees, a creek, and an occasional crow. As we arrange a woodpile and set up a quaint, thatched-roofed bird feeder, we notice little woodpeckers and the wonderful Virginia standby, the cardinal. We offer some seed, no suet, throw no bread, no corn.

Spring comes and the creek disappears behind a thick, green curtain.

In May a flash of electric blue. A jay? No, it has a rusty breast. It sits quietly on a branch. It sits quietly on the thatched feeder. I try to out-wait it, but I must move on before it flies away. What gentle bird sits so quietly, not needing to hurry off, as I?

On a trip to Antietam Battlefield a display about bluebirds indicates that the flashes of

blue which sometimes perch quietly are indeed the Eastern Bluebird.

The literature urges us to encourage the bluebirds, to monitor their nesting habits and, above all, to erect those special houses that they prefer for nesting.

July comes after a wet June. A male and female bluebird are seen around the deck and thatched feeder (which is open and airy on four sides). According to my new-found knowledge from *Sialia*, bluebirds prefer a box-like atmosphere in which to nest. They are rather particular, it seems. I watch, impatiently, as the activity increases. The female is bringing bits of straw to the feeder! The male stands by watching from the deck railing. There is no doubt about it: a nest is being built seven feet from our house. Do you think after searching the neighborhood this little bluebird couple said "Thank goodness, we've finally found a house that lets in some light?"

By August, male and female are bringing big, juicy grubs and worms to some very loud, squawking baby birds. We can see two mouths.

Gazing out the window one afternoon we actually see a nestling fly/fall from the nest and rest quietly on the ground—too long it seems. Time enough to call the local nature center for advice and long enough to get a close-up picture of this small speckled, wide-mouthed fledgling. We're advised

to scoop him up and put him back into his nest. If he is truly ready to fledge, he'll fly off again, perhaps next time making it to a branch at the edge of the woods. When we carefully replace him, he immediately scoots out and flies off. What a special feeling to see all this first hand. Later in the evening, while pattering in the yard, we catch a glimpse of bluebird parents and baby flying from a limb—flying lessons!

Now that they have fledged, we all miss the constant vigilance

but, as a grand finale, the mother bluebird and the two young return to sit quietly, for a long moment, on top of their house.

Early in the spring of 1985, we put up two "proper" bluebird houses. In June the last of five fledglings flew off just as we were approaching to monitor the box. The yard is bright with flashes of blue.

The cycle is complete. ■

1758 Nevar Court
Vienna, VA 22180

North American Bluebird Society Ninth Annual Meeting

October 24-26, 1986

Western Hills Guest Ranch, Sequoyah State Park
Wagoner, Oklahoma

Informative Sessions, Annual Meeting, Field Trips

For information write:

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

NEST BOX RESEARCH— (Continued from page 130)

- Johnson, N.K. 1965. The breeding avifaunas of the Sheep and Spring Ranges in southern Utah. *Condor* 67:93-124.
- Pederson, R.J. and L.D. Bryant. 1975. Observations on birds in the Blue Mountains. *The Murrelet* 56:7-10.
- Pinkowski, B. 1981. Ponderosa, the ecology of a tree "made" for bluebirds. *Sialia* 3(3):83.
- Ray, M.S. 1905. A third trip to the high Sierras. *Auk* 22:363-371.
- Sims, M.D. 1983. Breeding success and nest site characteristics of the Western Bluebird on Parrett Mountain. Master's Thesis, Portland State University, Portland, Oregon.
- Zeleny, L. 1984. Question corner. *Sialia* 6(1):17.
- 1984. Question corner. *Sialia* 6(4):144

Bluebird Slide Show

The NABS slide show is available for rental at \$10.00 or purchase at \$55.00. The show consists of 141 collated, cardboard-framed 35 mm slides and a printed script (no slide tray). If a cassette narration is desired add \$5.00 to the purchase price.

To rent or purchase the bluebird slide show, write to the following address: NABS Slides, Box 6295, Silver Spring, MD 20906-0295. Please allow a month for delivery and, if possible, specify several dates.

Those Unpredictable Bluebirds

Sydney J. Ponturo

Our experience with a bluebird family last year (1984) was unusual primarily because of the nesting site they chose. The site was well within the edge of some fairly dense woods, knee-high underbrush (as the season progressed), and tall trees, rather than the open area we had always believed bluebirds commonly prefer. Fortunately, the site was only about 20-25 feet from a picture window in our home from which we could readily observe and even photograph the birds during their nesting activity.

We first saw the bluebird, a male, perched on a telephone wire running to our house, the first week of May. Our house is situated in a deep glen, surrounded on three sides by woods, with only a small open lawn area in front which is where the bluebird sat on the telephone wire. It was one of the few times we had seen a bluebird on our property. We are bird-watchers and for 20 years had kept at least one bluebird box, sometimes two, in the best locations we could find—with no luck at all.

The bluebird returned the next day, about mid-morning, accompanied by a female. They bypassed our existing bluebird nest box, a standard design properly positioned in plain view overlooking a clear grassy area, and began investigating a small, wooden wren house hanging from a tree branch in the small wooded ravine adjoining our house. Fortunately,

we happened to have two extra bluebird boxes on hand. We immediately erected both of them. One we placed in the woods near the wren house; the other we attached to a tree not far away in a much more open location. To our delight, the bluebirds moved right in, but, to our surprise, they chose the box in the woods.

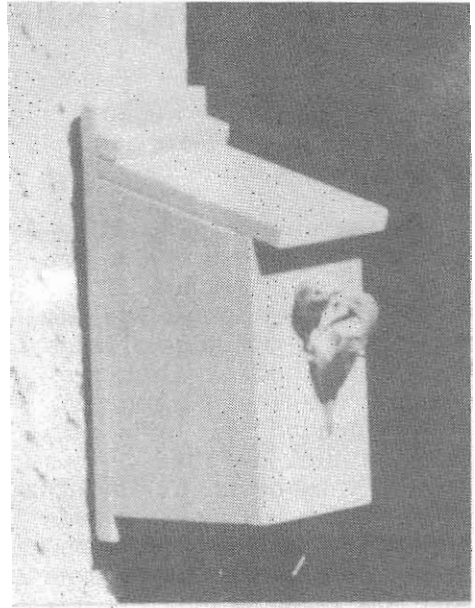
Nest building began right away, after first the male and then the female tried out the box. In about three weeks we observed a pattern of regular feeding with both male and female taking turns foraging for food and returning to the box, sometimes entering the box, sometimes merely dropping food through the hole. More than once they nearly collided in the entrance hole. They frequently used the small lawn in front of our house as a hunting spot, diving down from the dogwood tree for "bugs," worms, or even butterflies in the grass, but they often went far afield as well where we couldn't see them. Sometimes, they brought berries from a nearby mulberry tree. Once we saw the male capture and devour a huge tiger swallowtail butterfly; another time we saw him bring food to the female who, in turn, took it to the nestlings. We often heard chirping inside the box, though we did not open it to look inside (it was our first bluebird experience and we were afraid we might disturb them). We also saw one or both adults successfully drive off occasional sparrows, Carolina Wrens,

House Wrens, and once we watched the female divebomb a chipmunk on a nearby wall. To our relief no snake, raccoon, or other predator disturbed the nest (though we have often removed sparrows' nests and eggs and even snakes from our boxes).

We do not know how many young bluebirds there were—we saw at least two heads at the opening. In early June, about five weeks from the time the bluebirds moved into the box, the male disappeared and we wondered if he had been killed. The female remained but made fewer feeding trips, sometimes not even going into the box, only looking inside. We speculated that the young either were about to fledge or perhaps already had. Then, early one evening, a few days later, six weeks from the time nesting began, we observed great agitation on the part of the female. She alternated between fluttering about the entrance to the box and perching on a favorite nearby tree making plaintive chirping sounds. This was much more vocal than either she or the male had ever been. After some time she began to bring food again and continued feeding and calling until dark.

The following morning and for the next two days everything appeared to have returned to normal except that the female seemed to reduce the number of feeding trips a bit and allowed more time to elapse between trips. She continued vocalizing. Toward dark the feeding trips accelerated.

On the morning of the third day, the male bluebird suddenly reappeared. Both adults began flying from one shrub or tree to another in the vicinity of the box.



Adult Eastern Bluebird feeding nestling at Ponturo's box.

The male would perch on the box, look in, but not enter. The pair continued to swoop to the top of the underbrush, then up again. A short time later we watched a small fledgling emerge from the underbrush and approach our house—on foot. Throughout the day the little bird continued to walk around the perimeter of our house keeping close to ground cover and shrubs. The fledgling chirped constantly obviously maintaining communication with its mother who continued to feed it periodically. The male disappeared again.

The following afternoon our neighbor's dog drew attention to the loudly chirping small bird which was in the ivy at the back of their house. The female bluebird was observed nearby. A call to Dr. Zeleny prompted me to get the baby off the ground. When I picked it up, it began to yell "bloody

murder" and the female, greatly distressed, began to swoop around me. As soon as I put the little bird on a tree branch, it immediately fluttered down to the ground again. I made one more effort to retrieve him (by this time he was getting into sprawling honeysuckle vines and I feared he would become entangled) and put him into a nearby shrub. Again he was so

anxious to escape from me that he fluttered to the ground. The last I saw of him he was skimming the ground as fast as his little wings could pump in the direction of his mother and the deep woods. We never saw any of them again. ■

11610 River Road
Potomac, MD 20854

The Bluebird That Stayed For Christmas

Donna S. Belay

I had been a warm winter, but that night a few days before Christmas it was cooler than usual. Perhaps that was the explanation—warm drafts of air from our leaky windows—or maybe it was the twinkle of the Christmas tree lights. Bluebirds were usually gone by this time in the Virginia mountains, but a young, deep blue male was pounding himself against a window and the French doors of our farmhouse.

Our huge Christmas tree stood in the corner formed by the window and the French doors. White candle lights from the tree reflected on the window, while icicles decorating the branches shimmered with the drafts. Again and again the bluebird threw himself against the glass. Perching on the window frame or the edge of the door, he caught his breath, peered in for a moment, and began pounding again. A half hour passed and still he persisted. I wondered why he wanted to get in so desperately. Was it the warmth from the windows that attracted him or did he want to reach the tree?

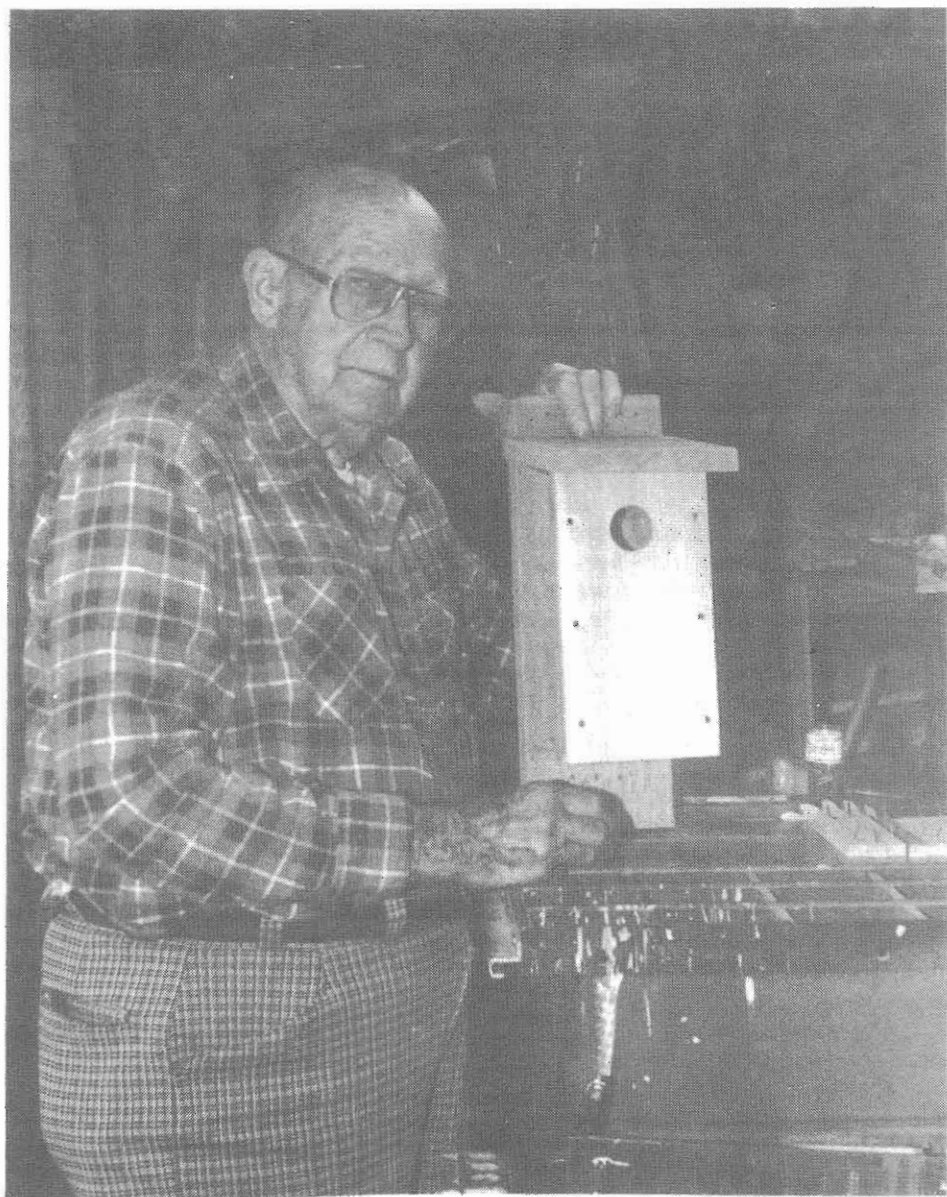
I was afraid the bluebird would hurt himself. He was using up a lot of energy and the night would be cold. Even more unusual, it had been dark for an hour and birds have usually gone to roost before sundown.

While the bluebird perched on the window, I walked out the French doors deciding I would attempt to scare him away. As I turned the corner, two bright eyes stared at me with no sign of fear. The bluebird turned back to look in the window, and I reached out and gently closed my hand around his body. He gave one loud chirp of surprise, but did not struggle. I walked through the French doors and set him on a branch of the Christmas tree. He looked natural in the tree among the pine cone decorations and the artificial birds.

He did not fly, but sat staring at the tree cocking his head first one way and then the other. Such fearless curiosity! The family watched quietly from across the room. Our youngest son approached to get a better look. Still the bluebird did not fly. It was fascinating to watch him. What could he be thinking?

Thirty minutes passed and dinner time approached. We left the bluebird to enjoy the warmth and the tree alone.

(Continued on page 155)



Orville M. Rowe of Elkhart, Indiana, is the North American Bluebird Society's supplier of cedar and pine nesting boxes. Mr. Rowe, a World War I veteran, has produced and shipped tens of thousands of boxes from his home workshop. NABS is pleased and proud to have his quality products to offer to the thousands of members involved in bluebird conservation.

Report of Eighth Annual Meeting

Mary D. Janetatos

The Eighth Annual Meeting of the North American Bluebird Society convened in Red Deer, Alberta, Canada, on Thursday, July 11, 1985. In addition to an informal coffee hour and registration during the evening hours films depicting four of Alberta's habitats were shown. The Executive Board Meeting was also held that evening.

On Friday, July 12, there was an opportunity to participate in an early morning field trip to Waskasoo Park. After breakfast the general session was opened by Master of Ceremonies Morris Flewelling. Following the invocation the featured speaker Dr. C. Stuart Houston was introduced. His presentation related to the book he had edited entitled *Arctic Ordeal: Dr. John Richardson, First Naturalist in the Canadian West*. Dr. Houston, who is head of the Department of Medical

Imaging at the University of Saskatchewan, Saskatoon, is a prolific author in his own profession, an active bird bander, and an ardent bluebirder. His illustrated presentation was based on a portion of the journal of the famed surgeon-naturalist, Dr. John Richardson, who accompanied the first Franklin expedition.

Bryan Shantz narrated the excellent program "Nestboxes for Alberta Birds" which he co-authored with Myrna Pearman. The 20-minute slide-tape program illustrated Mountain Bluebirds as well as a wide variety of other native cavity nesting species. This excellent presentation highlighted the fact that bluebirders can be in the vanguard of the conservation movement to benefit all of the more than 80 native cavity nesting species in North America.

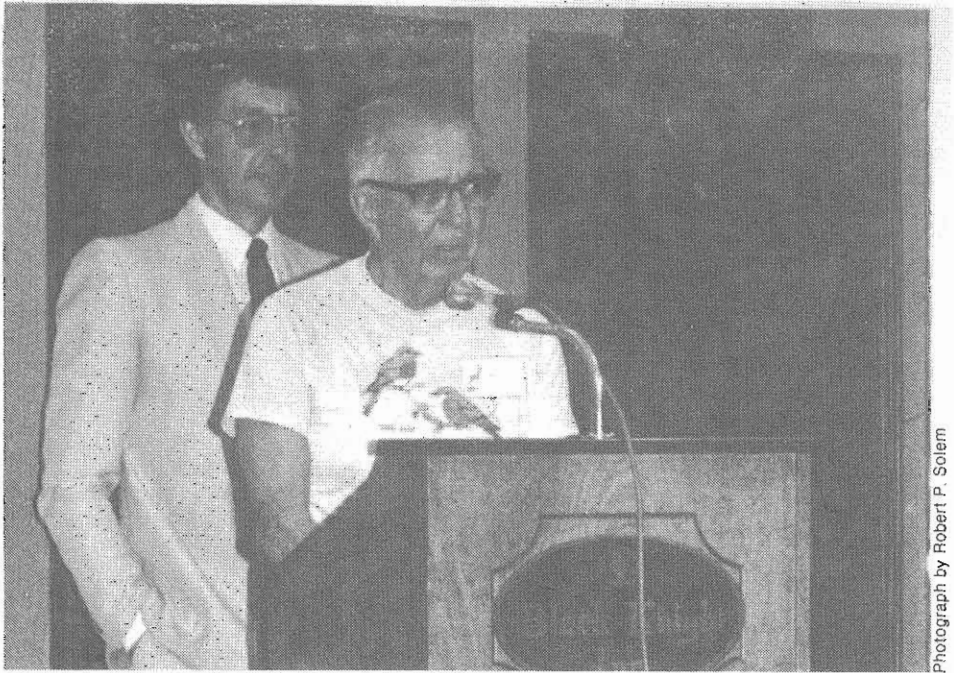
The last item on the agenda before noon was the annual business meeting at which the election of officers took place. President Sadie Dorber conducted the meeting. The first order of business was voting on the proposed amendments to the constitution and by-laws. The motion passed unanimously. The Nominating Committee report was made by chairwoman Lillian Lund Files. The election was conducted by Recording Secretary Mark Raabe. The slate of officers and board members was elected unanimously. After introducing board members who were present, President Dorber adjourned the meeting.



NABS President Sadie Dorber (left) receives gift of a red hat from the mayor of Red Deer to welcome the bluebirders to the city.

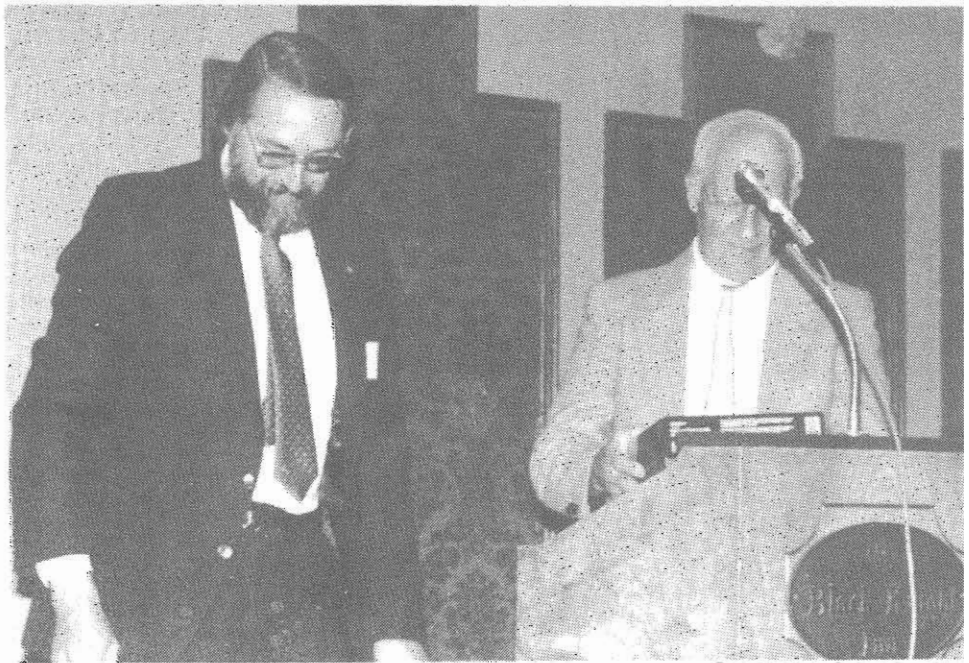
Friday afternoon was devoted to field trips. One could choose to visit Medicine Lodge Hills, Grassy Lake/Slack's Slough, or the Ellis Bird Farm. Each offered an opportunity to see local birds and habitat.

Dinner and the evening were spent at Canyon Ski Lodge where participants were treated to a steak barbecue in scenic surroundings.



Photograph by Robert P. Solem

NABS Founder, Lawrence Zeleny, addresses the annual meeting. Master of Ceremonies Morris Flewelling is on the left.



Photograph by Robert P. Solem

Bryan Shantz (left) biologist at the Ellis Bird Farm and convention organizer presents a copy of the Alberta cavity nester slide program to NABS Treasurer Delos C. Dupree.

Saturday morning again offered the opportunity to observe local wildlife and plants. Field trips were scheduled to Chapman Lake, Medicine Lodge Hills, the Ellis Bird Farm, and the Collett Natural Area.

Faced with numerous talented speakers and limited time the Program Committee solved the problem imaginatively. The afternoon session was divided into five periods. Attendees could choose one of three speakers during each of the five periods. Topics were varied and choices were often difficult to make. The following presentations were made during the afternoon: "Artificial Nesting Structures for Waterfowl" by Brett Calverly, "The Return of the Bluebird" by Andre Dion, "Project Nestbox Alberta" by Myrna Pearman, "A History of the Ellis Bird Farm and the Bluebird Banding Program" by Bryan Shantz, "Use of Nest Boxes and Natural Cavities by Buffleheads and Other Cavity Nesting Birds" by Giles Gauthier, "Establishing and Maintaining a Trail" by Duncan Mackintosh, "Western Bluebird Conservation in Montana" by Art Aylesworth, "Characteristics of an Ohio Tree Swallow Population" by Dick Tuttle, "NABS Research Program" by Tedd Gutzke, "The Nature of Alberta-Prairies" by Hazel Shantz, "Conservation of Barrow's Goldeneyes" by Jean-Pierre

Savard, "Bring Back the Bluebird" by Lorne Scott, "Kestrels and Kestrel Karetakers" by Mark Raabe, "The Role of the Volunteer in Wildlife Management and Politics" by Goeff Holroyd and "Feeding Bluebirds in Winter" by Jack Finch.

The annual banquet was held Saturday evening. Master of Ceremonies Morris Flewelling expressed the gratitude of the host group to all of the numerous helpers who had contributed to the success of the convention. Executive Director Mary D. Janetatos recognized all of the participants by groups. She then presented seven plaques recognizing the outstanding contributions of individuals and groups to the cause of bluebird preservation. The recipients and their awards are detailed elsewhere in this issue.

Banquet speaker David Spalding was the former Curator of Natural History at the Alberta Provincial Museum.

As a final festive cap on the evening, David Spalding teamed with his wife under the group name "Brandywine." They sang several folk songs, both comic and poignant.

Attendees parted renewed in their resolve to continue advancing the cause which unites them: aiding the bluebird and other native cavity nesting birds. ■

Awards Presented

Awards were made by the North American Bluebird Society at the banquet of the Eighth Annual Meeting, July 13, 1985. Plaques were presented to various individuals and groups to recognize their outstanding contributions to bluebird conservation. Executive Director, Mary Janetatos, presented the awards because the Awards Committee Chairman Anne Sturm, was unable to attend.

The **JOHN AND NORAH LANE AWARD** for an outstanding contribution to bluebird conservation by an in-

dividual was made to the following people:

Ralph M.J. Shook, a veteran bluebirder from Godfrey, Illinois who has built and given away many hundreds of nest boxes; he has also distributed over 2,000 of his own circulars which outline the decline in bluebird populations and include box plans and instructions for their use. He was a member of the founding board of directors of NABS and continues to be active in bluebirding.

Laurance Sawyer, who has been a bluebird lover since his childhood 70

years ago. He and his wife, Adelaide, spend much time travelling around the country in their big blue van dubbed "Bluebird Housing, Ringgold Georgia" distributing the handsomely hand-crafted nest boxes Laurance has made. They are also prolific speakers, using their own slides which utilize Laurance's creative photography, as well as some from NABS. The humorous narrative and Laurance's impish delivery have warmed the hearts of many NABS Annual Meeting attendees, as well as inspiring to action the hundreds of audiences they reach across the country.



Photograph by Robert P. Solem

Laurance Sawyer, of Ringgold, Georgia, received a John and Norah Lane Award.



Photograph by Robert P. Solem

Winnie Ellis was a joint recipient of a John and Norah Lane Award made to her and her brother, Charlie, founders of the Ellis Bird Farm.

Charlie and Winnie Ellis, the brother and sister whose bird farm became the focal point of the Union Carbide conservation efforts in Red Deer, Alberta, Canada. Charlie began to befriend the bluebirds many years ago by monitoring the many nest boxes on his farm to be sure no sparrows ousted the native Mountain Bluebirds and Tree Swallows. When their farm was acquired by Union Carbide, they were successful in seeing that it would be maintained to continue to benefit wildlife.

Art Aylesworth, who has been an active bluebirder for 10 years, is, with Duncan Mackintosh, a co-founder of Mountain Bluebird Trails. He builds and gives away nest boxes in his home area of Ronan in northwestern Montana, and is in the forefront of attracting recruits to bluebird conservation.

The **LAWRENCE ZELENY AWARD** for an outstanding contribution to bluebird conservation by an organization was awarded to the following group:

The **Midwest Bluebird Recovery Committee**, under the auspices of the (National) Audubon Chapter of Minneapolis, Minnesota. Through the efforts of Dick and Vi Peterson, the chapter spearheaded bluebird conservation efforts throughout Minnesota and even in many neighboring states. Dorene Scriven, an energetic bluebirder in the organization, accepted the award for the group.

The **RESEARCH AWARD** for an outstanding contribution to bluebird conservation was presented to the following individuals:

C. Stuart and Mary Houston of Saskatoon, Saskatchewan, a husband and wife team who have been involved with bluebird research for many years.

Richard Rounds who, as the recipient of the original John Lane bluebird data, continues to foster scientific research in his position as a professor of biology at Brandon University in Manitoba.

The Awards Committee seeks nominees for future awards. Resumes of proposed nominees should be sent by April 30, 1986, to the Committee Chairman Mrs. Anne Sturm, at Box 341, Barnesville, MD 20838. ■



Photograph by Robert P. Solem

Dr. C. Stuart Houston, a research award winner, presented a feature program about John Richardson, a surgeon-naturalist with the Franklin expedition of 1820-1822.

CHRISTMAS—(Continued from page 149)

Later while washing dishes in the kitchen, I heard a flutter and a shadow passed. The bluebird had flown to the dining room and alighted on the wide board woodwork around the window. As I entered the dining room, he flew past me clinging this time to the natural chestnut beam that supports the kitchen ceiling. Again he flew back to the living room window that he had tried so diligently to enter. He did not know how to get out.

My husband suggested we turn on the porch light, open the French doors, and turn off the lights in the house. We did so, then sat on the couch with only the Christmas tree lights twinkling. The bluebird flew back and forth between the window and the French door. He still could not find his way out. My husband walked over to him, closed his hand around his body, and carried him to the open door. A moment's hesitation—a thank you perhaps—and the bluebird was gone.

"That's the most unusual thing I've seen on this farm," my husband remarked.

"Such a gift," I said, "the bluebird that stayed for Christmas." ■

Rt. 1, Box 291
Pearisburg, VA 24134

BLUEBIRD EXPRESS

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



Dear Editor:

It took three years to get the bluebirds to use one of the houses I put up for them, but now they are back for the third season. In fact, they didn't really leave the area this winter. I did not take the house off the pipe it is mounted on last fall and about the first week of December I noticed bluebirds around the house. After a few days I realized they were sleeping in the house. Just before dark they would come around and go into the house for the night, usually four and sometimes five of them. I didn't know that a family of birds would use a nest box for a hotel. It has been so enjoyable to watch them pop in there at night, I have not minded cleaning out the droppings.

The flycatchers came back last year after the bluebirds started nesting and I had to put up a house for them. They are a pleasure to have around; it is a shame they don't protect their nests the way the bluebirds do. It is a chore to try and keep the sparrows away.

People that do not have bluebirds around their home do not know the joy and beauty they are missing.

Delmer Spillance
Los Molinos, California

Dear Editor:

I think your publication is tops! I want to renew my membership for 1985. My trail has been increased this year to 50 boxes. I should have over 100 baby bluebirds this summer.

Mike Smith
Harrisonburg, Virginia

Dear Editor:

I have had a pair of nesting bluebirds every year but this year none has stayed to nest. The Tree Swallows and House Wrens have taken over most of the houses. Bluebirds are not common in Maine anymore. I recently showed the bluebird slide show to the local garden club where it was well received.

In response to the request for numbered aluminum tags in the spring issue of *Sialia*, there are two sources of which I am aware:

The Ben Meadows Co.
P.O. Box 80549
Atlanta, GA 30366

Forestry Suppliers, Inc.
205 West Rankin St.
P.O. Box 8397
Jackson, MS 39204

Fred Huntress, Jr.
Poland Spring, Maine

Dear Editor:

My bird feeder which hangs in a small tree was constantly being raided by pesky squirrels.

I solved this problem by placing one length of stovepipe (24 inches long) about the base of the tree. This stovepipe is the kind that snaps together and can be found at most hardware stores. It's nearly the color of the tree so doesn't look bad. This same idea can be used for pole feeders. Just snap the stovepipe around the base of the pole.

I plan to try this in the spring with

my bluebird nesting boxes and martin houses to keep out raccoons and other predators.

Billie L. Holt
Ada, Oklahoma

Dear Editor:

I know of an excellent source for 1½-2 inch aluminum numbers.

Lamb Seal & Stencil Co., Inc.

1515-15th St., N.W.

Washington, D.C. 20005

I have dealt with them since the '40's. They will make any sign, number, stencil in any quantity and do excellent work.

I am a new member of NABS and thoroughly enjoy *Sialia* and have also been very impressed with the enthusiasm of the only person I've had contact with in the organization: Ron Kingston of Annandale, VA. He has been so helpful to me; I wish to commend him.

George N. Lumsden
Fairfax, Virginia

Dear Editor:

I belong to Defenders of Wildlife and was interested in a letter that appeared in the March/April 1985 issue of their magazine, *Defenders*. A reader had written in the autumn of 1984 to ask how to keep wasps out of bird houses. Jean Johnson of Evanston, Illinois, suggested taking a bar of Ivory soap and rubbing it on whatever surfaces the wasps might want to use to attach their nests. She said she keeps wasps out of her greenhouse in this fashion. That adds one more item to my "goodies bag" for the trail.

Charlotte Jernigan
Wagoner, Oklahoma

Dear Editor:

Thought you might like to know our reaction to the fine NABS meeting in Red Deer. It was great! Never saw such a variety of bird-oriented crafts, pictures, and books. The tours were inspiring and the people we met, too.

The John and Norah Lane award plaque arrived today. It's a beauty! It

has an honored place among Dad's paintings and an L.S. photo over our davenport. Thank you and whoever else is responsible for this accolade.

Re: Spring 1985 *Sialia*, p. 77, the letter from John Barger and the "junk" articles so disappointing to him.

Perhaps his two year activity in bluebird conservation is only a small part of his acquaintance with the little critter. If not, he has much to learn. "Cuddly" bluebirds and those who appreciate them as such we shall always have with us, and would be sorry to lose either type.

A well-known naturalist and author has admonished us not to be so taken up with the exactness of scientific inquiry that we fail to *enjoy* the forms and activities of nature.

We have often experienced the thrill of our youthful audience as we led them about our premises on exploration. We've never lost it. We will entertain and instruct enthusiastic audiences from kindergarten to university students with our slides and our bird houses. We will probably never mention the scientific nomenclature of any of our subjects. To our mind it would detract from the mood of our hearers. We intend to address the 99% of humanity who neither know nor care that a certain American bird has a Latin name.

It is our hope that *Sialia* never loses touch with such as we who are in touch with the birds. If it ever "goes scientific" we'll just stay with the birds and have the best of times staying there. Our personal observation would be that the "scientific" side of *Sialia* just a bit out-weighs the "common touch," but we love the journal and all it represents.

In closing, we must say that to us the bluebird is not "*Sialia sialis*," but a chunk of purest Nature that lodged under our skin some 70 years ago in an old apple orchard beyond the Adirondacks and has never been excised. In fact, it is a benign tumor of perpetual comforting presence. Expect it to be with us a couple of decades longer.

Laurance and Adelaide Sawyer
Ringgold, Georgia

Bluebird Tales

Mary D. Janetatos

Seeing is believing! For years the exploits of such legendary bluebirders as **Charlie and Winnie Ellis, Duncan Mackintosh, and Art Aylesworth** were awesome to hear about. In July, over 250 people who attended the Eighth Annual Meeting of the North American Bluebird Society in Red Deer, Alberta, saw and heard firsthand the problems and delights of Northwest bluebirding. Charlie Ellis was quietly informative about his various "inventions" to foil the House Sparrows' attempts to make inroads into his nest boxes. His devotion to bluebirds and Tree Swallows was touchingly evident from the filmed account in which he described seeing a Mountain Bluebird killed by a sparrow. From that point on he vigorously championed the beautiful avian natives. The farm where he and his sister Winnie Ellis live was recognized as a jewel by the Red Deer River Naturalists before the time Union Carbide acquired the property. As described by public-media liaison man **Michael O'Brien**, a successful consciousness-raising campaign was conducted which led to the preservation of the farm as Ellis Bird Farm, Ltd., with Charlie and Winnie as permanent members of the board of directors. Other representation on the board is from the Red Deer River Naturalists and Union Carbide.

NABS Education Chairman **Bryan Shantz** is a biologist and nature photographer who is employed by Union Carbide to monitor the nest box trail on the Ellis Bird Farm and on the Union Carbide plant site. He oversees about 500 boxes. Through his acquaintance with **Dr. Roger Smith**, biology professor at Brandon University in Manitoba, Bryan set up cooperative funding between Union Carbide and Brandon University for a research project on Mountain Bluebirds at the plant site. **Joan Cummings**, who is conducting the research, showed us her set-up and described her studies. By means of an elaborate in-box camera set-up, she is photographing Mountain Bluebird parents as they enter the nest box to feed their young. She intends to document the prey fed to the nestlings.

Glenn Pearman operates another Alberta trail we visited. Approximately 260 nest boxes annually yield many Mountain Bluebirds and Tree Swallows. It was evident that the level of enthusiasm in helping native cavity nesting species was just as high in Alberta as in other places on the



continent.

Following the annual meeting, a group of NABS members toured Alberta for several days: **Larry Zeleny, Chuck DuPree, Junius and Bea Birchard, Andre and France Dion, Marty Chastem, Charlotte and Bill Jernigan, and I.** We traveled in three cars and at a leisurely pace savored the majestic splendor of the Canadian Rockies in Jasper National Park, where we had a good look at White-winged Crossbills. On the trip to Banff we saw the roaring Athabasca Falls and climbed on a glacier in the Columbia Icefields. Next day we found Lake Louise to be a true delight. Framed by towering mountains on each side and a glowing glacier opposite, this gem of a lake is a surprisingly intimate sight. We walked along the shore and made friends with the tame Clark's Nutcrackers. At the urging of Andre and France Dion we went inside the Chateau Lake Louise. In a charming salon a young woman plucked romantic melodies on a harp while we sampled refreshments and gazed at the surrounding splendor.

Our group next headed south in Alberta toward Lethbridge. As we passed through Claresholm, a new landmark came into sight: the Bluebird Motel. We had noticed this motel on our way to the annual meeting but had not stopped. Charlotte Jernigan told us that she and Bill had stopped in, made friends with the owner, **Mr. Seymour**, and enrolled him as a NABS member! Now, as we chatted with him, he pointed out the new bluebird nest box, erected near the swimming pool, which he had purchased from "a man and woman in a blue van with a sign *Bluebird Housing, Ringgold Georgia on its side.*" Of course, **Laurance and Adelaide Sawyer** had been there! After a short visit with the owner and **Mrs. Seymour**, his mother, who had founded the motel, we wished him many

bluebirds flying and nesting at his motel.

We arrived at **Duncan** and **Isobel Mackintosh's** home in Lethbridge and visited with them and with **Hazel Ross**. We enjoyed their hospitality and then Duncan conducted a tour of his extensive, craggy, mountainous bluebird trail. There were many Mountain Bluebirds everywhere, and Duncan described his network of bluebirders. He discovered Art Aylesworth several years back through *Sialia*; he had "Just picked up the phone and called him!" Thus, a bluebird friendship and "Mountain Bluebird Trails" (MBT) came into existence. Under the dynamic leadership of Duncan and Art, many other bluebirders were enlisted. MBT now spans Alberta, Montana, Idaho and Colorado.

Our later trip took us through Montana to Red Rock Lake National Wildlife Refuge. Here, an anonymous bluebirder ran such a successful trail that there were Mountain Bluebirds perched on every fence post and lined up on the wires overhead as well. Our hope at this refuge had been to see Trumpeter Swans. We did see a beautiful family group, an adult pair with five young. The big bonus was the thrill of seeing Mountain Bluebirds everywhere.

Our trip also included a visit to historic St. Ignatius which was founded by Jesuit missionaries to serve the Cree Indians. The town was just on the edge of the Indian reservation and very near to another stop we made: the National Bison Range. Due to the extreme fire danger, extensive visits to the Range were out; so we set out for Art Aylesworth's territory: St. Regis and Ronan.

It's a long way from Ronan where Art lives and works to St. Regis where their cabin is located. But we could tell it was Aylesworth territory all the way because there were nest boxes everywhere, and scores of bluebirds could be seen feeding young. For several days, **Art**, **Vivian** and **Ellen Aylesworth** treated us to their wonderful hospitality. Their neighbors, the **Armstrongs**, also joined us and we could savor completely the flavor of life in this wonderful corner of our fourth largest state.

A Violet-green Swallow had nested in one of the Aylesworth's yard nest boxes and bluebirds abounded near by. Art had the astounding experience of having Western and Mountain Bluebirds occupying consecutive nest boxes on his nearby trail. He reports one case of hybridizing, when a Mountain Bluebird teamed up with a Western and together they produced peculiarly marked progeny.

Saturday evening **Deni** (board member) and **John Hershberger** of Plains, Montana,

were our hosts for a delicious barbecue. Deni has designed the Hershberger property as a wildlife sanctuary. She also helps maintain a heron rookery on an island in the Clark Fork River, just opposite their home. Deni's bluebird trail has both Western and Mountain Bluebirds and has been extremely productive. She is a collaborator in the MBT network, and a large number of bluebirders in her area monitor trails and report to her. Her pickup truck has "Bluebird Lady" emblazoned across the front.

The next day Art drove us to the Nine Pipes National Wildlife Refuge where we observed the Double-crested Cormorants nesting in huge cottonwood trees. Here and everywhere in Montana one sees the aptness of the state's nickname, "Big Sky Country." I did observe to Art, however, that I think Montanans set their sights too low when they claim that "If you say your prayers and lead a good life, when you die you'll go to . . . MONTANA!"

To finish up the great visit to the Clark Fort area, Art sought to fulfill our craving for fresh trout. He turned out to be just as great an angler as he is a bluebirder, because on the evening before our departure he caught five rainbow trout. Next morning, thanks to Vivian's expert preparation, we enjoyed one of the most delicious meals ever. We then lined up for a farewell photo in front of Art's blue pickup which sports a large sign across the front: "Bluebird Man."

We were travelling east toward Great Falls when we stumbled onto a beautiful bluebird trail along Wolf Creek. The initials "TM" visible from the road could only have been those of **Tom Matsko**. Both Western and Mountain Bluebirds were seen in profusion.

As we entered Great Falls we saw White Pelicans flying majestically across the Missouri River. Dinner that evening was in the company of my sister **Marty Nelson** and my nieces **Diana** and **Christi**.

On the final day we visited the Fort Benton National Wildlife Refuge where the baby Eared Grebes stole the day. They rode on their parents' backs or waited while their parents ducked underwater for morsels.

National wildlife refuges were set up primarily for migrating waterfowl and shorebirds. They do have a great deal of proper habitat for bluebirds, and the personnel might be encouraged to set out and maintain bluebird trails. A good example was the trail at Red Rock Lake, where we were awed by the size of a triple rainbow. Then we were struck by the thought that we could truly find bluebirds—not a pot of gold—at the end of the rainbow! ■

God's Little Creature

Dear little bluebird
You gladden my heart,
I thrill to the song
You sweetly impart.

God's little creature
So gentle and dear,
You fill me with love
Whenever you're near.

Away to the South
In winter you fly,
I feel a sadness
When you say good-bye.

I wait your return
When springtime is here,
Bringing back with you
Much gladness and cheer.

Rachel F. Vickio

ART CREDITS

Jon E. Boone: 122, 156
Dan Metz: 134
Suzanne Pennell Turner: 138, 158
Richard L. Woodward: 136

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

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

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

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