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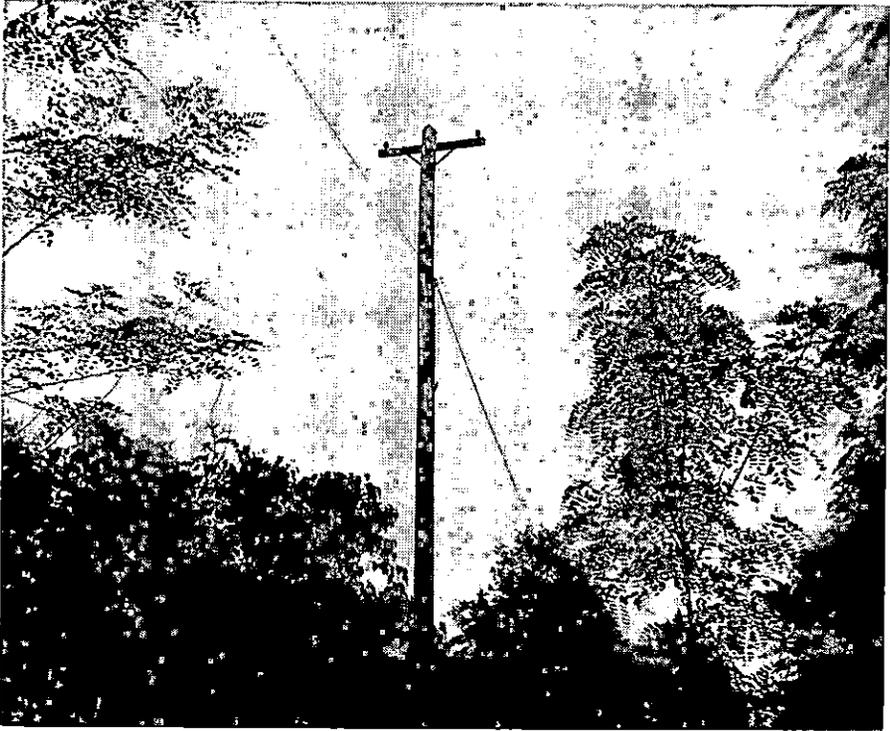
The Kentucky Warbler

(Published by the Kentucky Ornithological Society)

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No. 3



Utility pole used as nesting site by Red-headed Woodpecker,
photograph by Robert N. Pace

IN THIS ISSUE

NEWS AND VIEWS	34
THE EAGLES OF HEMATITE LAKE, Clell T. Peterson	35
FIELD NOTES:	
A Bird-Watcher's Dilemma, Robert N. Pace	45
Two Rather Unusual Spring Records, Mrs. Charles Horner	46
Some June Observations At Mammoth Cave, Anne L. Stamm	46

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NEWS AND VIEWS

A REVIEW BY OUR PRESIDENT

The November, 1962, issue of **THE AMERICAN BOOK COLLECTOR** contains an extended review by Clell T. Peterson of three recent ornithological publications: **MARK CATESBY: THE COLONIAL AUDUBON**, by George Frederick Frick and Raymond Phineas Stearns; **ALEXANDER WILSON: NATURALIST AND PIONEER**, by Robert Cantwell; and **REX BRASHER: PAINTER OF BIRDS**, by Milton E. Brasher. Two full-page illustrations of the art of Wilson and Brasher are included in the article.

THE EAGLES OF HEMATITE LAKE

Clell T. Peterson

In the spring of 1962, after a number of trips to Kentucky Woodlands National Wildlife Refuge looking for eagles, I realized that the Bald Eagles (*Haliaeetus leucocephalus*) that are found in considerable numbers in many parts of the refuge in winter roost regularly at Hematite Lake. Apparently all of the Bald Eagles in the Woodlands do not roost there, but it is probable that most of the eagles, at least most of the immature Bald Eagles, in the Woodlands do.

This report will be concerned solely with Bald Eagles. The only Golden Eagle (*Aquila chrysaetos*) we definitely identified in the field this year was an immature bird reported by Evelyn Cole and me on the Christmas Census, December 23, 1962. In the past there has been some skepticism about Golden Eagles in the Woodlands, but on Saturday, March 23, 1963, an event occurred that clearly establishes this species as a winter visitor. On that day, Frank Zontek, one of the refuge personnel, brought in an immature Golden Eagle that he had found in a bush, apparently unable to fly, near the northern boundary of the refuge. I saw the eagle that evening in a pen at refuge headquarters. It seemed in excellent condition. Mr. Don Brooks, assistant refuge manager, and I agreed that identification was positive: the eagle had a white, black-banded tail and feathered tarsi. There was no discernible reason for its inability to fly, and it had not lost its fierce spirit. Mr. Zontek had a souvenir of the occasion in the form of a fairly severe gash in his hand from the eagle's talons.

This confirmation of the presence of Golden Eagles in the Woodlands in winter makes me suspect that we may have been too cautious in the past. On several occasions I have noticed eagles with a suspiciously different look, a certain tan luster about the head and neck, but have never had the courage to call them anything but immature Bald Eagles. Now I seriously believe that we have, occasionally at least, failed to properly identify mature Golden Eagles. Such errors, if any, must, however, be infrequent and of little significance in respect to our general observations.

The report that follows is based upon nineteen trips to the Woodlands in the winter of 1962-63 (tabulated at the end of this report), although I have drawn upon my observations in other years and also upon the observations that other people have reported to me. On most of these trips I have been alone, but on various occasions I have gone with Willard Gray, Evelyn Cole, Hunter Hancock, and Paul Sturm, refuge manager, whose kind permission to enter closed areas of the refuge made this report possible. Although on these trips I visited many parts of the refuge, in this paper I wish to discuss primarily the eagles that roost at Hematite Lake.

Hematite Lake is the most natural-appearing of three artificial lakes of approximately equal size in the refuge. The other two, Empire Lake and Honker Lake, are scarcely more than huge ponds created to attract the waterfowl that gather in the Woodlands in winter. Both lakes will, regrettably, be drowned when the area they are in is permanently flooded soon as a part of Barkley Lake.

Unlike Empire and Honker Lakes, which are directly beside main refuge roads and are surrounded by open meadows or goose "ranges," Hematite Lake is, at least in winter, secluded and quiet, save for the incessant quacking and honking of ducks and geese. The lake is almost a mile long and about a third of a mile wide at its widest point. It lies approximately on an east-west line and nestles snugly among densely wooded hills that rise to a maximum height of about eighty feet above the lake.

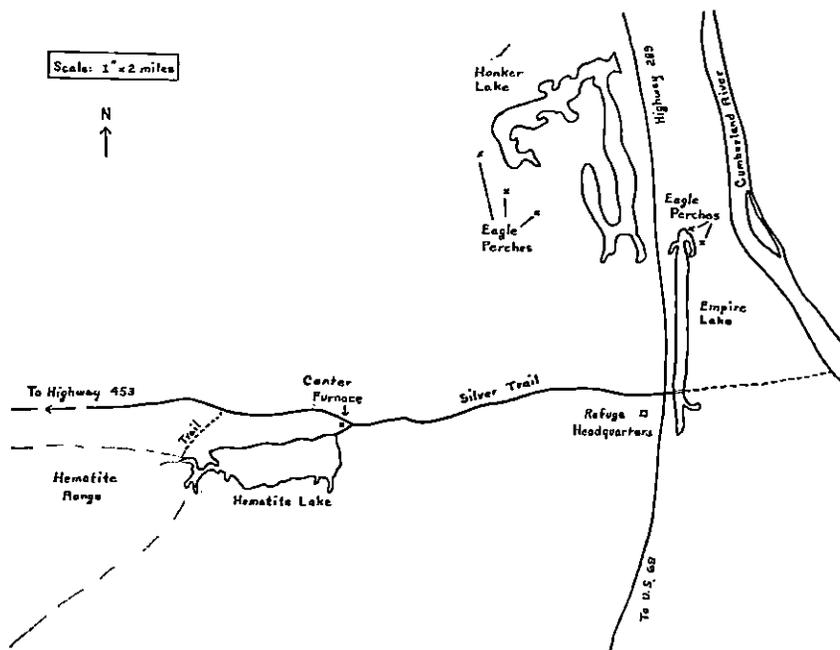
A gravel road, the Silver Trail, parallels the lake, beginning near refuge headquarters and ending in a junction with Highway 453 to the west. The name of this road goes back to the time when the present refuge was the heart of a vast iron industry and a scene of bustling activity almost impossible to believe or to imagine. Beside the Silver Trail, near the east end of Hematite Lake, stand the ruins of Center Furnace, once one of the most productive furnaces in the Hillman iron industry and perhaps one of the places where William Kelly experimented with his method of the direct manufacture of steel from iron. Hematite Lake owes its name to the iron ore that made the industry possible, and numerous pits in the area, now overgrown, show where the ore was mined. A gravel road leads from the Silver Trail, beside Center Furnace, to the east end of the lake, a quarter of a mile distant. Beside this gravel road is the remains of a huge slag pile from the iron manufacture, and here especially, but all through the Woodlands, the ground and the roads are speckled with the cobalt-blue "stones" that fascinate visitors. The stones are actually chunks of slag, chiefly calcium silicate, colored by impurities in the iron ore; they vary in color from white to green-black, but most of them are glassy bright blue in a variety of hues. The road to the lake is closed from October 15 to April 1 because of the waterfowl that winter in the refuge, but from April 1 to midsummer, when the surface of the water is covered by water shield and duckweed, picnickers and fishermen throng the lake.

At the eastern end of the lake an earth-fill embankment, built in the 1930's by the W. P. A., contains the water of the lake, which is fed by small creeks flowing into it from the west. The overflow spills over a concrete lip, courses down a miniature cascade, and flows eastward, eventually to enter Honker Lake.

A mile west from Center Furnace on the Silver Trail is a trail or truck road with a locked barrier across it; this trail leads a third of a mile down a gradual slope to Hematite Range, an open meadow a quarter of a mile wide and almost a mile long. The range is simply the upper end of the shallow valley that was flooded to form Hematite Lake. Several small creeks flowing east through the range have cut deep trenches in it. Between the range and the lake is a low, thickly wooded area through which the main stream meanders for a quarter of a mile before entering the lake. In this area the creek has been widened and deepened by a series of beaver dams. The beavers, reintroduced in the area about a decade ago, have dams in the creek at both ends of the lake and a number of lodges along the lake shore. Their activity is further evidenced by the many trees they have felled and the many more they are constantly girdling.

Hematite Range is left fallow some years and in other years is planted in corn or other grain for the waterfowl. These fields also attract Crows, Mourning Doves, many species of smaller birds, and also deer. The Woodlands contain good-sized herds of both White-tailed or Virginia Deer and European Fallow Deer. The range draws birds and animals from the forest. Ground Hogs or Woodchucks have their burrows on the range—on cold days the entrances are ringed with moisture—but Opossums, Raccoons, Red Foxes, and Bobcats, the largest predators in the refuge, come from the trees onto the range to hunt or to sun themselves. Both species of deer graze on the range, and Turkeys occasionally expose themselves along the edges. Turkey Vultures soar over the range, Buteos ride high on the wind currents, and Marsh Hawks systematically beat the meadow grass for mice. Beyond the range and the lake in all directions stretches the hardwood forest of the Woodlands. The trees rise on ridges, move down slopes into valleys, and reach over creeks. Here and there they are broken by other ranges and occasionally by roads and powerline clearings.

A rather rough foot trail along the north shore links the two ends of Hematite Lake. Used occasionally by various groups on nature hikes, the trail is marked by numbered trees for tree identification. Beaver lodges and cuttings are common along the shore, and it is at various points on this side of the lake that I have spent most of my time observing the Bald Eagles that gather at Hematite Lake.



The eagles begin to arrive in the Woodlands with the waterfowl. Willard Gray and I saw an immature Bald Eagle flying over Hematite Range on October 28, 1962, and on each of the following three weekends we found a single immature Bald Eagle, conceivably the same bird. A month after the first observation, on November 23, I found four Bald Eagles (2m, 2i) roosting at Hematite Lake at sunrise; and for the first time this season I heard the high-pitched, melodious cackling that I refer to in my notes as "eagle talk."

Subsequent visits to the Woodlands showed no increase in numbers of eagles until the Christmas Census (December 23), when we found seven Bald Eagles (3m, 4i). The next significant increase I observed on January 13, 1963, when thirteen Bald Eagles (4m, 9i) gathered at Hematite Lake just as the sun sank. The number of eagles at the lake fluctuated slightly in the following month. On February 17, the date of the Mississippi River Winter Study count, I found eight (2m, 6i); and the following week, February 24, I found fifteen Bald Eagles (3m, 12i), the largest number for the season. Thereafter the number decreased steadily until on March 30 I observed a single immature Bald Eagle.

Although I did not spend many full days observing, I attempted to cover the eagles' daily pattern of behavior by making trips at different times on different days. And although my observations are much more fragmentary than I would like, I feel that I can now give a reasonably full and accurate account of the eagles at Hematite Lake.

It is not hard to find an anthropomorphic explanation for the eagles' fondness for Hematite Lake. The lake is small enough to be cozy, large enough to satisfy even an eagle. Its steep, densely wooded hills suggest—perhaps even to an eagle—a more remote lake in a wilder country. The truth is that the beauty and quiet of the lake was a very important part of the pleasure of this study, and I found myself returning to it weekly with satisfaction and expectation. For the eagles, however, there is another advantage. Although they range far over the Woodlands during the morning, they find ducks and geese on the lake to make dinner at home, as it were, a plausible if not always a practical idea.

The eagles' day begins as the utter blackness of night softens into gray. The trees surrounding the basin of Hematite Lake gradually take on form, and still later an observer on the north shore can make out the shapes of the eagles in the trees across the lake, four or five in one tree and approximately an equal number in a tree some fifty yards distant. The eagles prefer the big trees that grow near the shore and lean out over the water; and although they may roost in almost any trees in the favored area on the south shore—and to some extent on the north shore as well—they prefer four or five trees for their habitual perches.

As the light grows stronger, there is a little morning conversation. The discordant and yet, to my ear, oddly musical "eagle talk" echoes across the lake; and shortly after, an eagle launches silently from its perch, flies low along the shore, turns into the trees, and is gone. One after another but with frequent and lengthy intervals between departures, the others leave. A few circle the lake once or twice before leaving. Some leave singly, some in pairs. And frequently one remains disconsolately perching all alone after the others have flown. A little later they may be found scattered to other parts of the refuge.

The eagles that are found perching on the ranges, along Kentucky Lake, or soaring over Honker and Empire Lakes are not necessarily those that roost at Hematite, but it is safe to assume that most of them are, and there is some evidence. Early in March, 1963, I first observed and thereafter looked for an immature Bald Eagle with a missing primary feather. On March 16 I saw this eagle among those perching at daybreak at Hematite Lake. As soon as I had counted those at the lake—some, including the eagle with the missing primary, had already taken flight—I hurried to Empire Lake, hoping to resolve a suspicion that some eagles might roost at either Empire or Honker Lakes. There were no eagles at either lake, but shortly after I arrived in the headquarters area, three immature Bald Eagles appeared, flying low, no doubt because it was a gray, drizzly morning with poor visibility. Two of these eagles perched in trees at the north end of Empire. When the third came in to perch, I recognized it as the eagle with the missing primary feather. It prepared to land beside the other two, but they drove it off, and it landed in a tree some distance away. It remained only a few minutes, however, and flew off; it began to soar in higher and higher circles and eventually drifted out of sight in the direction of Honker Lake.

The immature Bald Eagles in the Woodlands show a greater variety of behavior than the mature Bald Eagles. Some of them take up stations near Empire and Honker, in the manner of mature eagles, while others visit the more remote ranges, such as Duncan and Smith. When they perch, they tend to perch in pairs, or even three together (although, of course, as many as a dozen will perch in the same tree in the afternoon at Hematite), whereas the mature Bald Eagles are more apt to perch alone. The inference seems obvious. The mature eagle perches alone and concentrates on the problem of hunting; the young birds do not yet understand fully the absolute necessity of hunting, and their youthful social habits are hard to give up.

The younger eagles spend a good deal of time merely flying; they soar high over the lakes and fly at tree-top level over the ranges. Their behavior in the latter case is a good deal like that of Marsh Hawks. I have frequently seen them—always one pair—perching and hunting at Duncan Range. On a typical occasion I was in the middle of the range when a single immature Bald Eagle came flying down the center of the long, narrow meadow. Almost at once a second immature Bald Eagle came from the trees south of the range in a huge circle and fell in beside the first, and they continued side by side, eastward up the range. Again, on a cold, snowy day when visibility was only a matter of yards, Willard Gray and I saw a pair of immature Bald Eagles emerge from the curtain of gray, swirling snow and pass out of sight again in seconds, flying up the range, wing tips almost touching, not more than thirty feet above the ground.

The fully mature Bald Eagles adopt a generally aloof and standoffish attitude, seldom roosting with the others at Hematite Lake or spending their energies recklessly. Early in the morning they are to be found perching motionlessly at favorite spots. In the past, choice perches for mature Bald Eagles were certain trees at the north end of Empire Lake and on the west edge of Honker, but increased human activity in the refuge this season drove them from the usual perches—which will, in fact, no longer exist by the end of the summer of 1963.

A thesis emerging from Mr. Elton Fawks' studies, that mature Bald Eagles are to be found where fish is the primary food and immature Bald Eagles where waterfowl is the primary food, is supported by our observation of a decrease in the numbers of mature Bald Eagles in the Woodlands this past season. The mature Bald Eagles in the Woodlands probably do prey upon waterfowl, although I have yet to see one capture any kind of duck or goose. I have seen a mature Bald Eagle swoop down upon a flock of ducks with what certainly seemed a predatory intention; the ducks, at any rate, took it for one, and scattered wildly. It seems obvious that the mature Bald Eagles that perched at Empire and Honker Lakes were more interested in waterfowl than in the bass and crappies fishermen catch in those lakes. The circumstantial evidence is even stronger when mature Bald Eagles are found, as I have found them in the Woodlands and also at Reelfoot Lake, perching over ranges where the immediate food is waterfowl in corn or other grain.

Whether the eagles in the Woodlands have specific winter territories is not clear, yet it is significant that certain areas are found to be held at different times by approximately the same number of eagles of the same plumage. That is, there is usually just one mature Bald Eagle (seldom two) at the north end of Empire Lake; there are usually two mature Bald Eagles, widely separated in the trees west of Honker; and there are usually two immature Bald Eagles hunting the range at Duncan Bay. For reasons already mentioned, the observations at Empire Lake and Honker Lake cannot be confirmed another year.

In the early afternoon—indeed, frequently before noon—the immature Bald Eagles begin to gather again at Hematite Lake. Some come spiraling in from a great height; others come slipping in at tree-top level. When they gather, they come from all directions. Most come from the west, clearly because the remoter ranges lie west of Hematite Lake. Hematite Range is itself a favorite of the young eagles, and they scour it thoroughly in addition to whatever other territories they hunt.

As they gather, they take up perches on both north and south shores of the lake, with a tendency to favor the south shore, although it may be that they are driven to it because observers and occasional trespassers come in to the north shore of the lake. There is, however, ample evidence of perching on the north shore when the eagles are undisturbed, for after a week without rain the dry leaves and bushes under the trees are white with droppings, and there are pellets that a heavy rain would dissolve and break up. About half the pellets I have found are composed wholly of feathers and about half of fur. I have been able to identify only Mallard feathers with any degree of assurance, and the fur of the pellets is always a dark grey, so tightly compressed it resembles felt. I have also found masses of duck feathers—some Mallard—along the shore and scattered in the tops of bushes, but no other evidence of eagle predation.

Anthropomorphism may be a sin in science, but it is hard to interpret the behavior of the eagles at Hematite Lake in the afternoons as anything but social. There is a certain amount of "eagle talk" back and forth across the lake, although it is more apt to be heard in early morning or late evening. Typically a mature Bald Eagle, arriving at the lake late

in the afternoon, will alight on a high perch in the sun, lift its head, and utter its shrill call. Frequently an answer comes back from another point on the lake. Although I have heard this sound only from mature or nearly mature eagles, I am not sure that immature birds do not make it.

Some of the eagles take up perches and stay put with a patience that irritates the observer. Other eagles are more restless. They change perches frequently, as if making small social visits. In a typical movement an immature Bald Eagle will drop from its perch, soar in a low-semicircle, and rise to alight beside another immature eagle a hundred yards away. The eagle already on the perch may open its wings in what appears to be an unfriendly gesture, and almost invariably the bird coming in then changes its plans and alights on a different branch a short distance away. When it has been thus received, it does not stay long at the new perch. In a few minutes it moves again and this time, typically, lands beside another eagle, and the two perch, side by side, for some time. A gesture of partially opened wings is not always construed as a notice to keep off, and occasionally the incoming eagle will alight beside a bird that has fluttered and then closed its wings as if in a gesture of welcome.

The first arrivals at the lake in the early afternoon often soar for a time before they come down to perch, as if continuing the morning's hunting activity until the last minute. Others arrive a few at a time. By midafternoon the greatest number is reached, although some may have come and gone already, and others may arrive after the late afternoon dispersal. As the light wanes, some of the eagles move to high perches in patches of sunlight, sometimes changing perches three or four times for this reason. Probably most of the eagles that gather at the lake either remain there through the afternoon or return at dark to take up perches for the night; but some that gather there go to other night-time roosts or, in the case of adult Bald Eagles, simply take up isolated perches for the night. My information on this is sadly incomplete.

In February, 1962, when the concentration of Bald Eagles at the lake reached astonishing size—with a total of twenty Bald Eagles compared with fifteen for the February, 1963, high—I supposed that this large number was composed in part at least of Bald Eagles that were migrating north from even more southerly winter grounds, such as the Big Sandy-Duck River area in Tennessee, where eagles also concentrate in winter. This view may be valid, but I now incline to the opinion that the eagles at Hematite Lake are, in general, a majority of those that constitute a fairly stable winter concentration in the Woodlands and adjacent areas along Kentucky Lake. There may be other roosts. One of the state wildlife men told me of several times seeing three to five eagles perching in the trees at a particular spot on Duncan Bay; and although I was never able to make the same observation, I see no reason for doubting it or the fact that other roosts may exist. At the present time I think that the day-to-day variation in total numbers of Bald Eagles and in the ratio of adults to immature birds reflects a tendency of all the eagles in the refuge to make Hematite Lake a rendezvous; but they do not all always visit the lake and they do not always visit it at the same time.

In 1961-62, before I became aware of the importance of Hematite Lake, I spent relatively little time observing the eagles there; nevertheless my recollections, aided by scanty notes, are fairly sharp, and I am certain there was less activity among the eagles. They spent more time simply perching and betrayed little nervousness even when, on several occasions, six or eight observers came down to the north shore of the lake. This past winter the eagles at Hematite seemed on edge. My presence at the lake, which I seldom troubled to conceal, usually sent most of the eagles away; some permanently, some for a long period, and some for only a matter of minutes. One or two, of course, simply stayed put. Reconciling myself to this initial disturbance, I usually sat down in a favorite spot beside a beaver lodge with my back against a fallen tree. I sometimes heard the beavers in the lodge crunching at something—cracking walnuts, it sounded like—and occasionally an adult beaver swam by me, back and forth, staring suspiciously all the while but unable to decide what to make of me. Meanwhile the eagles—or some of them—returned. But if I grew restless and changed my position, I stirred them up again, and off they went.

Some of this nervousness may be attributed to the increased human activity in the Woodlands in the past winter, partly in connection with timber and brush clearing for the new lake and partly in road improvements, range clearing (to replace flooded ranges), and other work for the refuge itself. Indicative of this work is the plan to build a visitors' center, in more or less Project 66 style, not far from Center Furnace. Perhaps because of this activity and also because of the intense cold that froze lakes and bays and dispersed waterfowl, the concentration of eagles at Hematite was much smaller the past winter than the previous one. But whatever the reason for the smaller number, one thing seems striking and significant: the decrease was primarily in mature Bald Eagles. This fact may support Elton Fawks' discovery that there are more mature Bald Eagles in the northern part of the Mississippi River Winter Study area, more immature Bald Eagles in the southern part. On the other hand, it may be that the mature Bald Eagles were more affected by the increased activity and by the intense cold and hence moved to more remote areas. Observations another year will no doubt settle the matter.

Although the eagles at Hematite Lake in the winter afternoons seem more interested in a quiet social life than in hunting, they are not averse to making casual passes at small flocks of ducks. In any case, the ducks do not trust them; and the eagle that leaves its perch for a characteristic low circling flight over the water is certain to scatter frantically any ducks in his path. Geese, although driven to hysterical honking by the presence of a man on the lakeshore, customarily ignore a passing eagle.

On one occasion I witnessed an astonishing performance that I think must have been an immature Bald Eagle's bungling attempt at fishing. All I really saw, for I had just arrived at the lakeshore in midafternoon, was the sudden descent of a brown body in the sunlight. There was a tremendous splash and agitation of the water, and a moment later an immature Bald Eagle rose from the lake. It pulled itself onto a nearby dead branch, thrust out of the water, and glared about savagely. While

it stood dripping, a second immature Bald Eagle that had been circling the lake came down in a long, low glide and passed not more than a few feet from the first one, as if inquiring what had happened. It continued down the lake, rising to follow the tree tops around at the eastern shore. After a moment or two the soaked and soggy-looking eagle took off, flying close to the water with slow, strong, and audible wing beats. It made directly for a huge dead tree far down the lake, leaning over the water, and perched near the top, spreading its wings slightly, for all the world as if it were drying a wet jacket. The second eagle lighted in the same dead tree a moment later, taking a perch just above the other. Ten minutes later this eagle left the lake, and a minute afterward the wet one flew off in the same direction. I should add that there was no sign of waterfowl or anything else near the point where the eagle so astonishingly went in the lake.

There was an interesting exception to the generally nervous behavior of the eagles at Hematite Lake this past season. On several occasions one or two of the eagles that were stirred from their perches by my presence flew more or less directly toward me and soared in small circles just over my head. Once a pair soared just above the tree tops for a good ten minutes before returning to their perches on the far shore. At other times even mature Bald Eagles flew close to me and so deliberately as to suggest curiosity.

For a long time I was confident that I understood the pattern of behavior of the Bald Eagles at Hematite Lake. They gathered to roost there at night, spent the morning hours hunting, returned to the lake in the afternoon, flew about a bit in desultory fashion, and then, as the sun went down, settled themselves once more for the night.

On January 13, 1963, however, an event temporarily shook my confidence. Just at sunset, when the woods were rapidly fading through gray to black, I returned from the lake to my car, parked by the barrier of the range road at the Silver Trail. As I came from the woods, I was thunderstruck to see six immature Bald Eagles flying to the west, one after the other in a line, separated by intervals of perhaps a hundred yards. I had just left, as I thought, thirteen Bald Eagles (4m, 9i) tucked in for the night down at the lake. Either there were six more eagles on their way to another roost or some of those at the lake had left. Although it was now quite dark, I rushed back to the lake, hoping to be able to make something out. Night had fallen, however, and I could scarcely make out the trees across the lake, much less the dark blobs that were perching eagles.

In the weeks that followed I did find that some of the eagles left the lake just before dark and that on two occasions all of them left the lake. I discovered that in the latter case some of them merely moved to Hematite Range. Moreover I was reassured, if a little confused, to discover that although they left the lake just at sundown, there were eagles roosting in the usual trees in the first light of morning. There are questions about this behavior that will have to await another year for answers. Had it been going on all the while without my being aware of it? Was it related to the nervousness of the eagles generally and, perhaps, the intense cold? Or, as I suspect, was it a late winter, pre-migration behavior, related perhaps to pairing or mating behavior?

For at about the same time, or a little later, I became aware of a new element in the activities of the eagles at Hematite Lake. The immature Bald Eagles in winter are gregarious, but from the outset I had noticed details that suggested the establishment of mating pairs. There was, for example, the fact that Duncan Range was invariably hunted by a pair of immature Bald Eagles. I had already speculated upon the possibility that the warning or reception an incoming eagle might receive from a perching bird had a basis in pairing. On February 9 I noticed a pair of immature Bald Eagles in what looked like a mating flight; one pursued the other among the tree tops along the lake for several minutes, and then quite suddenly the chase was over, and the two fell into a flight together, almost wing to wing. On March 2 I watched three immature Bald Eagles flying and soaring high above the lake, just about noon. One of the eagles attempted to join the other two, and one of the latter pair persistently drove it off. Dr. Hunter Hancock's Field Biology class from Murray State College was at the lake at this moment and observed this behavior. One other possibly relevant observation: On March 9, just before dark, I found five immature Bald Eagles on perches at Hematite Range. They were in three groups widely spaced, several hundred yards apart. Directly across from me—I was standing at the edge of the woods near the trail that comes down to the range—was a pair that quite soon left their perch and flew toward the lake, alarmed, no doubt, by my presence. Perhaps two hundreds yards west was another pair, side by side, in another huge tree on the edge of the range; and an equal distance still farther west, remote and looking rather like a wallflower, was an immature Bald Eagle all alone on a massive branch of a sycamore jutting into the range.

On March 30, 1963, I made my last early-morning trip of the season to the Woodlands. In the first faint gray light I parked my car beside the ruins of Center Furnace. Phoebes were calling loudly in the dark as I walked toward the lake. As the light grew stronger, I saw the familiar trees on the far shore of the lake in a new lacery of yellow-green buds but none of the dark shapes that I had learned to identify as eagles. However, I had been deceived before by poor light, and I waited. Another half hour passed, and I had made up my mind to leave, when, sweeping the lake once more with my glasses, I saw an immature Bald Eagle flying low over the water at the western end of the lake. As I watched, it disappeared among the trees and was out of sight. It was my last observation of an eagle at Hematite Lake for the season.

OBSERVATIONS OF BALD EAGLES IN WESTERN KENTUCKY

Winter, 1962-63

Date	Mature	Immature	Total	Location
10/28		1	1	Hematite Range
11/4		1	1	Empire Lake and Hematite Lake (assumed to be same bird)
11/11		1	1	Hematite Range and Lake
11/17		1	1	Honker Lake (reported by Willard Gray with M. S. C. Field Biology class)

11/23	2	2	4	Hematite Lake
12/2	2		2	Honker Lake (reported on Murray Bird Club field trip)
12/9	1			Honker Lake
	1			Empire Lake
12/23	2	1	3	Smith Bay
		2		Hematite Lake
		1		Empire Lake
		2	7	Duncan Range
1/12		2	2	Duncan Range (Snow, poor visibil- ity)
1/13	4	9	13	Hematite Lake
1/18	2	11	13	Hematite Lake
2/3	2	8	10	Hematite Lake
2/9		5	5	Hematite Lake (frozen over)
2/17	2	6	8	Hematite Lake
2/24	3	12	15	Hematite Lake
3/2		5	5	Hematite Lake (noon)
3/9	1	3		Empire Lake
		6	10	Hematite Lake
3/16	2	8	10	Hematite Lake
3/23		4	4	Hematite Lake
3/30		1	1	Hematite Lake

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FIELD NOTES

A BIRD-WATCHER'S DILEMMA

Where does one's duty call? This might be the title of my pleasant dilemma this summer of 1963. On May 5 I first noticed a pair of Red-headed Woodpeckers (*Melanerpes erythrocephalus*) enlarging a hole in a utility pole about twenty feet from the patio at the north side of our house. I have had a chance to observe them intermittently for ten weeks. They are now using the hole without interference, and I believe are incubating. This quiet harmony was not the case in May. Almost as soon as they had deepened the hole enough to disappear into it, Starlings (*Sturnus vulgaris*) began gathering on the wires overhead and nearby trees in numbers of three to ten. There seemed to be no open battles. When one of the Red-heads would leave the hole to make one of their characteristic sallies for insects, a Starling would dart into the hole before the mate could take over. Once inside, the Starling was fearless and in complete control. There was always one ready to relieve should the occupant leave for feeding. Whether the Starlings nested in this particular hole I am not sure, but they did continue in control of it until the second week of June. The Red-heads opened a number of other holes in four other utility poles that serve from the street to our house. One pole had a total of five holes; all but one are twenty to thirty feet above ground, and most face south. One became stained with white

droppings during the second week of June. The Red-heads were infrequent about this period, and the Starlings more frequent. I had assumed that the Red-heads had finally given up the fight and had moved into one of the wooded areas.

Then about the last week in June a triangular conflict of three Red-heads started over the original opening nearest the patio. Starlings now seemed to be off all nests and starting summer flocking. Only Mockingbirds and Robins remained in the area to do any hazing of the resulting mating pair. Nesting, I believe, started the first week of July and incubating by July 10. I was able to photograph stills and movies within twenty feet of the base of the pole on three occasions. I erected a blind for closer work, but rain and lack of correct free time have not allowed me to use it so far. For this reason and the fact that I do not have a telescopic lens for my still camera, the picture I had hoped for may not be ready for this issue. I shall try to get shots of the feeding procedure, should this turn out to be a successful brood.

My dilemma, which I mentioned earlier, is whether to be a "true-blue" bird-watcher and enjoy my rare occasion or protect my own little family from a night of darkness without electricity by reporting this obvious damage to one very key utility pole which bears five holes, two and five-eighths inches wide and two feet deep. Look for a progress report and probably a short movie at our fall meeting.—ROBERT N. PACE, Bowling Green (July 15, 1963).

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TWO RATHER UNUSUAL SPRING RECORDS

On Saturday, May 18, 1963, about 4:30 p.m. I saw a Common Gallinule (*Gallinula chloropus*) swimming across an open stretch of water in the Caperton Swamp.

On Sunday afternoon, May 19, 1963, my husband, Charles, and I saw quite clearly, a Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) sitting on a telephone wire. We saw this bird from the lane just after leaving the University of Louisville Nature Sanctuary in Oldham County. The bird was so well marked, and we were so near to it, that in my opinion there is no question of a mistaken identity.—FANNIE (MRS. CHARLES) HORNER, Louisville.

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SOME JUNE OBSERVATIONS AT MAMMOTH CAVE

A very interesting experience of bird study was afforded us on June 11-12, 1963, at Mammoth Cave National Park; Dr. Gordon Wilson, Bowling Green, had invited my husband and me to join him there to observe the late nesting birds. (He has asked me to write an account of this experience.) The first day of our stay was perfect in every way: the weather

was warm, but comfortable; it had rained the previous night, cooling the atmosphere and settling the dust. The second day was clear but much warmer. Fifteen species of birds were found building nests, or incubating eggs, or feeding young in or out of the nest. Some of the more interesting observations were: a Great Crested Flycatcher feeding young in a cavity 20 feet up in a sassafras tree; a Rough-winged Swallow nest with four fairly well feathered young, four feet up in a crevice of a rocky hillside along the road; a Wood Thrush nest with three host eggs, and one of a Cowbird; a Worm-eating Warbler feeding two fledglings as they hopped among the weeds along the moist, heavily wooded bank of the Green River; and the finding of a male Scarlet Tanager feeding a fledgling Cowbird. Sixteen species of warblers were observed; the most common being the Cerulean and the American Redstart. A total of 71 species was recorded for the two days, inside the park. According to Dr. Wilson, who has studied the area since 1938, that is among the best finds for this time of year—since the ecological changes have progressed. The Black Vulture, Barn Swallow, Mockingbird, and Baltimore Oriole were also spotted, and Wilson terms these birds as “rare lately.” It was rather surprising to me not to find the House Sparrow and Starling, but these too, according to Wilson, are among the rarer species now in the park.

Actually only a small portion of the park area was covered, although some interesting spots not open to the general public were visited and afforded some unusual opportunities. On Tuesday morning, we followed some woodland trails along the river, and on the ridge in the eastern sections of the park. Acadian Flycatchers were common in the woodland areas, and two nests were observed, one with an incubating bird. The nests were about 24 feet high in beech trees. I had found an incubating bird of the latter species at approximately the same place on July 9, 1959. In the afternoon, we checked the area around Great Onyx Cave and along the ridge near Good Spring Church. In the evening, we drove along the road left of Flint Ridge Tower to listen for Whip-poor-wills; we drove several miles before we heard them. The following morning, as I walked from the hotel to the amphitheater, I was surprised to hear two Whip-poor-wills calling at 5:35 to 5:40 a.m. C.S.T.; it was bright daylight. The birds were not heard around the hotel the previous evening, but were heard in the pre-dawn hours. One of the rangers reported a nest with two eggs, but we did not have an opportunity to see it.

On Wednesday, besides the early walk around the hotel and camp grounds, we spent most of the day along the ridges, the new entrance road, in addition to walking some woodland trails and the path to Sunset Point. Kentucky Warblers were heard numerous times and were observed between bluffs. In the afternoon we had a “face to face” view with an adult Broad-winged Hawk as it sat on a low branch of a tree at the road’s edge.

The time was all too short, and had the daylight hours been longer, we may have found additional species; it was a memorable event of two great days in the field. The following is a list of the species we observed; species with an asterisk denote breeding observations: Green Heron, Turkey Vulture, Black Vulture, Red-tailed Hawk, Red-shouldered Hawk, Broad-winged Hawk, Bob-white, Mourning Dove, Yellow-billed Cuckoo, *Whip-poor-will, Common Nighthawk, Chimney Swift, Ruby-throated

Hummingbird, Yellow-shafted Flicker, *Pileated Woodpecker, Red-bellied Woodpecker, Hairy Woodpecker, Downy Woodpecker, Eastern Kingbird, *Great Crested Flycatcher, *Eastern Phoebe, *Acadian Flycatcher, Eastern Wood Pewee, *Rough-winged Swallow, Barn Swallow, Blue Jay, *Crow, *Carolina Chickadee, *Tufted Titmouse, White-breasted Nuthatch, Carolina Wren, Mockingbird, Catbird, Brown Thrasher, *Robin, *Wood Thrush, Eastern Bluebird, Blue-gray Gnatcatcher, White-eyed Vireo, Yellow-throated Vireo, Red-eyed Vireo, Black-and-white Warbler, Prothonotary Warbler, *Worm-eating Warbler, Blue-winged Warbler, Parula Warbler, Yellow Warbler, Cerulean Warbler, Yellow-throated Warbler, Prairie Warbler, Ovenbird, Louisiana Waterthrush, Kentucky Warbler, Yellowthroat, Yellow-breasted Chat, Hooded Warbler, American Redstart, Eastern Meadowlark, Redwinged Blackbird, Orchard Oriole, Baltimore Oriole, *Common Grackle, *Brown-headed Cowbird, *Scarlet Tanager, Summer Tanager, Cardinal, Indigo Bunting, American Goldfinch, Rufous-sided Towhee, Chipping Sparrow, Field Sparrow.—ANNE L. STAMM, Louisville.

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NEWS AND VIEWS (Continued)

MUTE SWANS IN MICHIGAN

A relative of Mr. Rufus Grider, at whose Limestone Lake, just outside Bowling Green, a Mute Swan stayed from December 18, 1962, to January 24, 1963, sent Mr. Grider early in the spring a picture of dozens of the more than 200 Mute Swans that wintered in the open water below the spillway of the Consumers Power Dam at Elk Rapids, Michigan. Traverse City has reported large numbers wintering in its area for several seasons. Both cities took great pride in their swans and supplemented their food supply from time to time.

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OUR FORTIETH ANNIVERSARY MEETING

Don't forget that on October 11-13, at Mammoth Cave National Park, the K. O. S. is to celebrate its fortieth birthday. Plan now to be with us! Full details of our meeting will be sent some weeks before these dates.