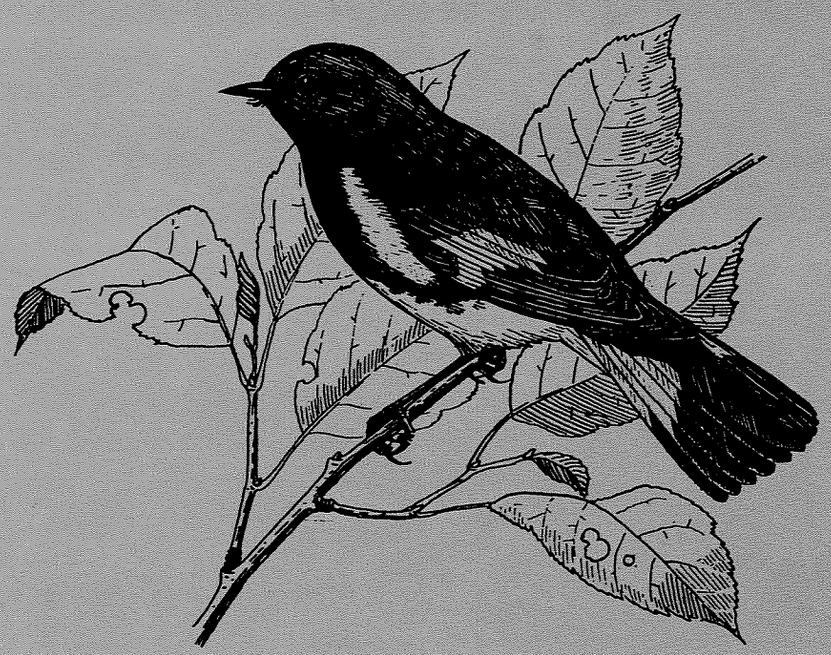
ISSN: 0034-2165

The REDSTART

VOLUME 46, NUMBER 4 OCTOBER, 1979



PUBLISHED BY THE BROOKS BIRD CLUB

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Founded September 1932
Named in honor of A. B. Brooks, Naturalist

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VOLUME 46, NUMBER 4 — OCTOBER, 1979

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Contents — **Page**

The Feeder Survey as a Method for Evaluating Bird Populations
—Harold E. Burtt and Benjamin P. Burtt 128

Present and Past Status of Bewick's Wren
—Merit B. Skaggs 132

An Ornithological Study of Southern West Virginia
—James D. Phillips 137

Avocet in West Virginia
—Charles O. Handley, Jr. 148

A Golden Eagle Stays Three Months in Southwestern Pennsylvania
—Ralph K. Bell 148

Report from Ottawa
—Frank Bell 151

Horse and Mule Feed Attracts Birds
—Betty Miller 151

Five Year Sojourn of Chuck-will's-widow
—Dorothy Conrad 152

Fall Migration Direction at a TV Tower
—Merrill Wood 152

Field Notes
—Glen F. Phillips 153

Banding News
—Ralph K. Bell 158

In the Literature 159

Book Reviews 161

New Journal 164

THE REDSTART is published quarterly in January, April, July and October at 707 Warwood Ave., Wheeling, W. Va. 26003. The journal of the Brooks Bird Club, it is mailed to all members in good standing. Non-member subscription price is $10.00. Individual copies $2.00 except the Foray issue which is $4.00. Changes of address and requests for back issues should be mailed to 707 Warwood Ave., Wheeling, W. Va. 26003. Articles for publication and books for review should be mailed to the Editor.
Printed by The Valley Press - Brooke News, Wellsburg, W. Va. 26070

The Feeder Survey As A Method For Evaluating Bird Populations

Harold E. Burtt and Benjamin P. Burtt

METHOD

The Feeder Survey for determining trends in bird population has not, as far as we know, been applied elsewhere. It enlists the cooperation of readers of a "Bird Notes" column in the Syracuse Sunday Herald American. During a designated week the participants report the maximum number of birds of each species observed at or near their feeder at any one time.

This procedure yields a definitely *known* number of birds and avoids the danger of counting the same individuals more than once. It involves of course, only a sample of the population in the region but, as with all survey methods, it is hoped that any trends in the sample will reflect trends in the population. The region covered by the survey is determined primarily by the circulation of the newspaper, viz. an area of Central New York about 50 miles in radius around Syracuse, but extending some 120 miles north easterly into the sparsely settled Adirondack region.

After the reports for a designated week have been received, those few from obviously incompetent observers are discarded and then a random sample of 100 is drawn for analysis. Interest has been primarily in "winter" populations so data have been gathered during the first week of November, December, January, February, March and April, beginning with November 1959. As of April 1977 a sample of 10,800 reports is available for analysis.

CHANGES FROM MONTH TO MONTH

We are interested in population changes from month to month and from year to year. Table 1 presents data regarding the former topic. With the 100 reports the "known" frequencies are averaged to contribute a November mean, a December mean etc. for that particular November or December. Then the 18 November means are averaged to give the figures which appear in the table, - 2.29 for Evening Grosbeaks. The figures are also averaged across each row to give the winter means in the last column.

The "winter" species appear in the upper block of the table. Of these the Evening Grosbeak, Tree Sparrow, Redpoll and Pine Siskin are exclusively winter species in our region. The Dark-eyed Junco, Purple Finch and White-throated Sparrow are primarily winter species, but are present in limited numbers during the rest of the year. The lower block lists year-round species.

Apparently some of the winter species do not arrive until rather late, but some of the apparent differences in the table, between November and December for example, are not statistically significant. (t-test). The Grosbeak and Tree Sparrow, however, show the late arrival aspect clearly. Average populations for January are greater than those for November or December (p. v .02 for Grosbeak and p.> .001 for Tree Sparrow). The Redpoll has populations for both January and February greater than that for November (p. > .05). For the Purple Finch the only significant differences is February over December (p. > .05).

These cases of late arrival reflect the fact that some winter birds leave their summer region in increasing numbers as food becomes increasingly scarce. Also when they first arrive they may rely on wild food for a time, perhaps until it is snow covered and then gradually discover and utilize feeders. Unlike the year-round species many of them have not been here before and have to find the feeders *de novo*. Also some of them come from thinly populated regions where there are few feeders and thus are unfamiliar with such facilities.

The Redpoll's late arrival may be partly due to the distance it comes from its breeding grounds in the Arctic (Robbins et. al 1966, p. 298). It may linger en route when it finds satisfactory forage. Actually its winter range does not extend so far south as that of the other species in the present study.

At the other end of the season the Junco shows an increase in population in April (p. > .001). Perhaps the winter residents have not started to move and are augmented by Juncos that wintered farther south and are migrating through our region.

For the year-round species, increases in population in the early winter would not be expected. By November those that are going south have done so and the remainder have become "settled." Table 1 bears out this expectation except for the Goldfinch, Cardinal and Mourning Dove that show January populations greater than that for November (p. > .01). Possibly they rely on wild food in the early winter until it becomes scarce. But why this tendency should characterize these 3 species rather than some others is not clear.

April population is greater than March population for Red-winged Blackbird, Cowbird, Grackle, Robin and Song Sparrow. (p. v .005 in all cases). Obviously many migrants have arrived.

ANNUAL FLUCTUATIONS IN POPULATION

Some species show considerable fluctuations in population from year to year. Such species appear in Table 2. The entries are the average number of birds at the feeders for the 6 winter months. These figures are comparable to the overall species averages in the last column of Table 1. The general fluctuations are obvious.

The column for Grosbeaks is characterized however by biennial peaks, in the earlier years, - up in '59, down in '60, up in '61 etc. Redpolls, Juncos and Purple Finches each have a few instances of biennial peaks although less conspicuous than those of the Grosbeaks.

This pattern has been found elsewhere. Bock and Lepthien (1976) using Audubon Xmas counts for 8 species, including Grosbeak, Redpoll and Purple Finch, report biennial rhythms, especially in the eastern part of the country correlated with seed crop fluctuations in the north. Similarly Kennard (1977) using banding data found some biennial rhythms for Redpolls and Purple Finches. It is probable that our results likewise are related to seed crop fluctations farther north.

The foregoing studies also found a greater southern migration in winters where November was in an odd numbered year such as '59 or '61. Our Grosbeak data show peaks in '59, '61. '63, '65 and '71. Our Redpolls have distinct peaks in '59, '69 and '71 and lesser peaks in '73 and '75. Juncos peak in '61, '63, '71 and '73. This represents considerable agreement with the other studies, but our Purple Finches and Tree Sparrows have some peaks in even numbered years.

The studies cited note an exception to the odd numbered tendency in '67-'68. Gross and Harden (1968) document a very heavy seed crop in the Laurentian forests that year such that many birds remained in the north. None of our species in Table 2 show any appreciable peak in '67-'68. On the whole our winter species populations conform to a considerable extent to the trends shown in these other studies and presumably the causation is the same. For the year-round species the only suggestion of biennial peaks is for the Goldfinch in '71 and '73. We have no explanation.

INCREASES IN POPULATION

In Table 2, the columns for Goldfinch, Mourning Dove and White-Throated Sparrow

suggest an increase in population through the years. In order to quantify the increase, if any, curves were plotted from these data with years on the abscissa and population on the ordinate. Then a straight line was fitted to each curve by the method of least squares and the slope of each line determined. The slopes all differ significantly from zero. ($p > .001$). Finally each slope was taken as a percent of the average for the given species (last column in Table 1). For Goldfinch the percent is 13, i. e. the population increment is 13 percent each year. For Mourning Dove and White-Throated Sparrow the percents are 14 and 15 respectively.

The increase for the Mourning Dove may be due to the fact that our region is near the northern limit of its range and the species may be in the process of extending that range. The recent introduction of niger seed which is supposedly attractive to Goldfinches may have had some impact on the population of that species at feeders although we have no data as to the extent of its use. The trend for White-Throated Sparrows must remain unexplained.

OVERALL SPECIES DIFFERENCES

Up to this point we have been discussing population trends rather than species differences in absolute population. The Feeder Survey is a none too satisfactory approach to the latter aspect because of some contaminating variables. For example sunflower seeds at numerous feeders would attract a large proportion of the Grosbeaks in the region, but only a small proportion of the Tree Sparrows and thus invalidate a comparison of absolute population figures. However, when noting changes in these populations from year to year (supra) food preference would be constant. Some other contaminating variables are: type of feeder (small feeder monopolized by larger birds); method of dispensing food (Starlings unable to cling to log with suet in the holes); habitat near the feeder (trees for Woodpeckers, fleshy fruits for Waxwings); species personality (Burtt and Giltz 1973, Chickadees incautious -- the first species to reappear when the hawk leaves, Cardinals cautious -- usually on the ground below the feeder).

In spite of variables such as the foregoing, an occasional species population is large enough to warrant comment. Just one such instance will be mentioned. The Starling average of 12.67 is much larger than the other averages in the last column of Table 1, and corresponds to casual observation in the region. In fact in '63-'64 in the Syracuse area Starlings reached pest proportions so that large decoy traps were operated at local dumps to destroy thousands of them. The Starling personality is geared to survival. Empirical measurements in an observation cage show Starlings to be less complacent and more agitated than the Icterids. (Burtt and Giltz 1969). The present results reflect this personality factor.

SUMMARY

The Feeder Survey method has readers of a "bird notes" column in a newspaper report the maximum number of each species observed at or near their feeders in designated periods. Data obtained in the winter months for 20 years yield the following conclusions. Winter species vary in their time of arrival. Some year-round species have an influx of migrants in the late winter. Populations of winter species fluctuate from year to year sometimes in a biennial pattern which correlates with changes in the ecology farther north.

Table 1
Average Number Of Birds Per Feeder

WINTER SPECIES	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	SPECIES AVG.
Evening Grosbeak	2.29	4.60	9.03	10.98	10.59	7.81	7.55
Tree Sparrow	1.06	3.37	6.71	7.12	6.72	5.06	5.01
Junco	2.26	1.59	1.87	1.84	1.48	4.79	2.31
Redpoll	.06	.13	.31	1.30	2.60	2.38	1.13
Purple Finch	.13	.08	.34	.92	1.31	1.29	.68
White-Throat	.63	.44	.37	.44	.25	.31	.41
Siskin	.11	.14	.41	.60	.34	.37	.33
YEAR-ROUND SPECIES							
Starling	9.82	13.48	9.89	9.25	17.49	16.11	12.67
Red Wing	3.15	0.34	0.19	0.14	5.66	18.48	4.66
Cowbird	2.19	2.48	1.54	0.92	3.69	14.38	4.20
Chickadee	3.09	4.25	4.66	4.90	4.60	3.28	4.13
Grackle	0.86	0.45	0.29	0.16	4.16	15.80	3.62
Blue Jay	3.08	3.66	4.16	4.29	3.66	2.78	3.61
Goldfinch	0.98	1.13	2.07	3.21	3.23	2.87	2.25
Cardinal	1.42	1.84	2.60	2.87	2.28	1.78	2.13
Downy W.	1.31	1.67	1.86	1.89	2.05	1.80	1.76
Nuthatch	1.52	1.50	1.42	1.39	1.44	1.18	1.41
Mourning D.	0.62	1.22	1.70	2.02	1.43	1.22	1.37
Robin	0.82	0.12	0.07	0.13	0.52	4.82	1.08
Pheasant	0.53	0.84	1.26	1.27	1.38	0.96	1.04
Hairy W.	0.70	0.97	1.08	1.12	1.13	1.05	1.01
Song Sp.	0.36	0.23	0.28	0.28	0.56	3.53	0.87
Titmouse	0.10	0.13	0.14	0.13	0.09	0.08	0.11
Red Bellied W.	0.06	0.09	0.11	0.13	0.12	0.09	0.10

Table 2
Population Per Average Feeder For 6 Winter Months

Year	Gros-beak	Redpoll	Junco	Purple Finch	Tree Sparrow	Gold-finch	Mourn-ing Dove	White Throat
59-60	12.48	2.49	1.77	.11	4.30	.11	.42	.13
60-61	3.95	.01	1.48	.23	5.88	.46	.31	.09
61-62	7.02	.46	2.22	.03	4.16	.67	.62	.21
62-63	3.34	.03	1.76	2.34	4.17	.49	.47	.18
63-64	10.00	.09	2.71	.25	4.34	1.23	.42	.15
64-65	.87	0	2.08	1.06	3.60	1.17	.53	.05
65-66	9.80	.76	.97	.16	3.25	.83	.66	.07
66-67	.45	.01	1.44	.15	4.54	.76	.81	.08
67-68	5.18	0	1.52	.60	5.21	.79	.91	.16
68-69	9.37	1.01	2.28	.11	6.68	2.21	1.07	.15
69-70	8.18	4.54	1.84	.09	4.64	1.78	.86	.38
70-71	2.54	.01	2.12	.25	4.84	3.09	1.17	.66
71-72	13.02	6.91	3.24	.60	5.03	5.54	1.61	.85

72-73	10.88	.08	2.28	.62	4.10	2.93	2.19	.65
73-74	7.82	1.24	3.92	.33	6.57	4.60	2.57	.73
74-75	13.07	.11	3.64	2.00	7.20	3.70	3.28	.95
75-76	9.53	2.57	3.08	.19	5.78	4.67	3.04	.90
76-77	8.40	.05	3.13	3.12	5.36	4.94	3.69	1.01

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Present and Past Status of Bewick's Wren

Merit B. Skaggs

The Bewick's Wren, (*Thryomanes bewickii*) can not be considered a common bird in the West Virginia, Pennsylvania and Ohio region. "American Birds," published bimonthly by the National Audubon Society, compiles a "Blue List" each year showing birds that are rapidly declining in numbers. The 1979 "Blue List" has 63 birds on it, and the Bewick's Wren is there for the third consecutive year. While never abundant, various observers during the years 1890 to about 1960 have stated that Bewick's Wren was not uncommon in a good many local areas of the tri-state territory here considered.

In 1944, John Aldrich described a race of the Bewick's Wren, calling it the Appalachian Bewick's Wren (*T. bewickii altus*). The breeding range extends roughly from central Ohio and central Pennsylvania and southward through West Virginia, parts of Kentucky and Tennessee into Georgia and Alabama. So, observers living in the tri-state area are considered to have a good chance to see and study Bewick's Wren.

Ohio

In regard to Ohio, Trautman (1977) states that "Bewick's Wren was first reported about 1879, after which its increase and northward invasion in this state were rapid. And, it was common as far north as Columbus." He also reported "a sharp decline in numbers -- became evident by 1960."

In 1931, our country was in the midst of the "Great Depression" and employment was at a low level. Most people had more time to spend out of doors. This permitted my wife and me to increase our time afield in bird study, especially water birds, shore

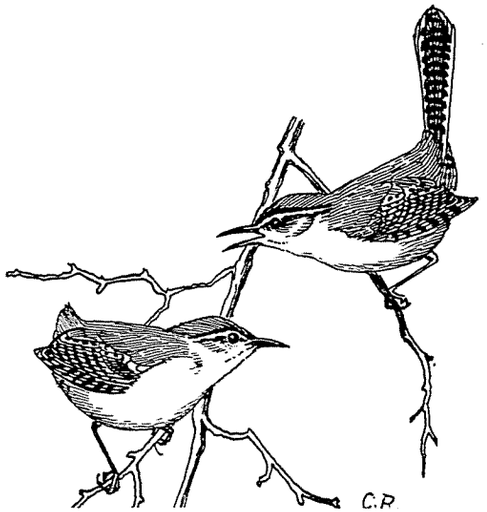
birds and uncommon birds in Ohio. We became acquainted with Mr. A. B. Brooks, the naturalist at Oglebay Park, in Wheeling, West Virginia. He informed us that Bewick's Wrens were occasionally found in the area surrounding Wheeling. I started my search in Belmont County, Ohio. After about a week, I found a nest containing young. The nest was built on a horizontal shelf in an old shed used to store farm equipment. It was quite a thrill to list a new species and this was the last of the six wrens to be found in Ohio that I had seen.

On May 1, 1932, my wife excitedly called for me to come and see a pair of Wrens fluttering about the front porch steps. Watching them for a while, we were amazed to see several unusual things. One spread its tail, which was bordered with whitish and seemed long for a wren. Also, both wrens had a light gray superciliary line. Most unusual was the fact that the female had only a stub of a tail, thus presenting a more comic appearance than that of the tiny, twitching Winter Wren. A moment later, the male burst into song that was much different from that of any other wren; they were Bewick's!

I am indebted to Carol Rudy for the fine drawing of this pair of Bewick's Wrens as they appeared then.

Hoping that these unusual visitors would nest, I searched likely places and was rewarded by finding the nest in an old one car garage about a block from our Niles, Ohio home. The nest was loosely built of twigs, strings and straws. It was placed on a horizontal beam, just under the roof. I believe that this was the first nest of this species to be reported for Trumbull County, Ohio.

By May 18, the female had completed her set of seven speckled eggs, while the male sang frequently from a nearby tree. The nest was placed so near to the roof that I could see the eggs only by holding a mirror above the nest. On May 29, six of the eggs had hatched, but the male had disappeared. Whether he did not like family chores, or a cat caught him, I do not know.



Bewick's Wrens as they appeared in May 1932. Drawing by Carol Rudy.

The female was very busy now, for six yawning mouths were always ready for more food. Gradually the young acquired their feathers, each with a gray line over the eye and a stubby white-edged tail. The female had grown a new tail, which seemed nearly as long as her body.

On June 13, all six of the young left the nest and were scattered along the braces of a huge bill-board about thirty feet away. The female made frequent trips as she kept the brood together and fed them. I saw the group the next day, and saw them for the last time on June 16. Examining the nest, I found the infertile egg remained and the nest was flattened because of the six young ones taxing its capacity. The egg was put on

display at the Mill Creek Park museum in Youngstown.

On July 11, 1934, I again found Bewick's Wren nesting near St. Clairsville, Ohio. The nest was on a flat board in the privy of a one room country school! Due to the late date, I suspect that the school pupils presence would have prevented nesting in May. The four young birds were good sized and almost ready to leave the nest. Deciding to find the intervals at which the young were fed, I timed the adults trips to the nest for four periods of one hour each on three consecutive days. The results were published in Bird-Lore by the writer (Skaggs 1934 and copied or referred to in 1948).

a.m. 1st day - Fed during a steady rain; 13 times for an average interval of 4.61 min.
a.m. 2nd day - Fed 24 times for an interval avg. of 2.50 minutes
p.m. 2nd day - Fed 19 times for an interval avg. of 3.15 minutes
a.m. 3rd day - Fed 23 times for an interval avg. of 2.61 minutes

The average interval for the four hour timing periods was 3.04 minutes. The longest interval was 15 minutes and was on the rainy first day, while the shortest interval was ½ minute.

Assuming that feeding was done only 13 hours per day, about 256 feedings were made daily. If the young were in the nest only 12 days, this would mean that at least 3072 insects or worms were devoured in addition to those eaten by the adults. The food brought to the young consisted of green worms, some moths and caterpillars. Obviously, the nearby apple orchard benefited by the removal of these insects.

In June of 1936 a group of birders from Cleveland which included the writer, found a nest of young Bewick's Wrens in a chicken coop at West Point, near East Liverpool in Columbiana County, Ohio.

All of the above mentioned three nests had three things in common; namely they were in old buildings, were built on horizontal boards or shelves and located on or near hill tops.

On a trip to the Marblehead Peninsula, in the late 1930's and near Lakeside, Ohio, we were surprised to see and hear a singing Bewick's Wren. This was in mid-May.

In May, 1978, Betty Weitlauf, who lives near Georgetown in Brown County, Ohio, reported a pair of Bewick's Wrens used one of her Bluebird nest boxes to raise a brood of five young ones. A second nesting was in a gallon bucket hanging in a barn on the same farm. There have been reports of this wren nesting in Adams County, adjacent to Brown County.

Almost every Christmas Bird Count from Lexington, Kentucky lists several Bewick's Wrens. This species evidently does not winter in Ohio, and at the present time, must be considered only a casual nesting species in the southern half of the state.

Pennsylvania

Ralph Bell, who lives near Clarksville, in Green County, Pennsylvania, provided the following information on Bewick's Wren.

J. Warren Jacobs (1893) of Waynesburg, published an account of the "Summer Birds of Green County, Pa." He wrote, "The Bewick's Wren was met with commonly about farm houses on the hills, placing their nests in a chink or crevice about old buildings. The eggs range from five to eight, the most common clutch being seven eggs. The nesting period covered about six weeks starting about April 20th."

Another Waynesburg man, Samuel Dickey, (1915) wrote a thesis on "The Avifauna of Southwestern Pennsylvania" and the following is what he said about Bewick's Wren, "The Bewick's Wren is not nearly so abundant in this region as is the Carolina Wren. It sometimes spends the winter with us but usually goes south. It returns in late March and then may be seen flitting about fences and log piles in search of food. This wren nests early in May and chooses as a nesting site any convenient nook in an

outhouse or deserted building and at times selects a natural cavity in a tree or fence rail. The writer has examined some 15 nests and finds seven eggs to be the usual number in a set. The birds feed on lepidoptera, diptera, coleoptera, etc., and are friends to the farmers."

It should be noted that both Jacobs and Dickey were egg collectors and contributed many notes regarding birds and eggs to the "Oologist." Jacobs said the House Wren was sparingly distributed (in 1893) and found in the same localities as the Bewick's Wren and **also** on lower ground. Evidently there was a decrease in House Wrens after 1893 because Dickey, who became quite interested in birds about the year 1900, did not find any House Wrens at all until 1914, when he discovered three pairs nesting around Waynesburg, Pennsylvania.

Ralph Bell has, for a number of years, operated "Bluebird Routes" in Green County with good results in increasing the Bluebird population. He notes that House Wrens are a detriment to the Bluebirds. Bewick's Wren does not disturb Bluebirds; however, Bewick's Wren will sometimes use boxes that have been erected for Bluebirds.

Since 1970 he has the following records of this wren nesting in bird boxes. All of the nest were in the Loves Hill area.

1971 - 6 eggs, 1 infertile, 5 young banded on July 15.
1972 - 5 eggs, 5 young banded on May 25.
1972 - 4 eggs on July 6, young probably fledged.
1973 - 6 eggs on May 21, 1 infertile, 5 young fledged.

For additional information on the records and status in western Pennsylvania, see Todd, (1940).

West Virginia

For more than 45 years, members of the Brooks Bird Club have compiled data on a vast number of nests of the native birds of West Virginia. Each year in June at the annual "Forays" they have looked for nests and kept records for future use. Following are some recent findings of Bewick's Wrens.

Year	location	status	nests
1968	Camp Pocahontas	several locations	1 nest record
1969	Franklin	fairly common	2 nest records
1970	Summersville	one location	-
1971	Anthony	several locations	1 nest record
1972	Buckhannon	several locations	1 nest record
1973	Camp Pocahontas	several locations	3 nest records
1974	Ritchie County	not recorded	-
1975	Raleigh County	not recorded	-
1976	Braxton County	found at 7 locations	1 nest record
1977	Hardy County	found at 7 locations	2 nest records

The late Wm. (Bill) Legg, who lived at Mt. Lookout, in Nicholas County, showed us several Bewick's Wrens when we visited him in May 1950. Several males were singing their distinctive songs and evidently guarding nesting territories.

From the Foray records listed above, we note that 8 out of 10 Forays found Bewick's Wren nesting or on breeding ground. From Upshur County we have some interesting comments by Maurice Brooks (1973). "During my boyhood days, I did not know a House Wren, and I remember the excitement of A. B. Brooks when he came into our home one day and said he had heard a House Wren near French Creek. We had Bewick's Wrens, abundant around every suitable farm shed or outbuilding. ...They came every year about April 6 to the French Creek area, but there, as in much of the species' range, they have been in recent years pretty well replaced by House Wrens."

Bent (1948) states, "The local distribution of Bewick's Wren seems to be dependant on, or limited by, the local distribution of the House Wren, for the two do not seem to get along well together, as several observers have noted."

On the same subject, Sutton (1930) writing about the nesting Wrens in Brooke County, West Virginia states, "The House Wren and Carolina Wren may inhabit precisely the same region without friction; but the House Wren and Bewick's Wren or Bewick's Wren and Carolina Wren, or all three species, evidently do not."

Some observers feel that Bewick's Wren is rather timid and seldom battles the other wrens for nesting places and territories.

The past three winters have been very severe with heavy snows and lower than average temperatures. This has decimated the Carolina Wren population in many areas. House Wrens appeared to be down in numbers in 1978. This situation may permit the largely migrant Bewick's Wren to have better nesting success in the tri-state area.

George Hall (1978) summed up the Wren situation in a single sentence. "The plight of the Carolia Wren and the Winter Wren have been mentioned earlier, but the House Wrens were in low numbers at most places, and no contributor even mentioned the *vanishing* Bewick's Wren."

Summary and Comments

1. Bewick's Wren is now on the Blue List for Eastern U.S.
2. This Wren prefers high ground such as hilltops or hill sides.
3. Bewick's Wrens nest in strange places: fence posts, baskets, oil well structures, junk autos, old clothing hung in buildings, buckets, tin cans and small sheds.
4. If the nest is built in a farm building such as a corn crib, wood shed, chicken coop or outhouse, a horizontal shelf is likely to be used.
5. Boxes put up for Bluebirds are sometimes used by this Wren.
6. The usual clutch is from 5 to 8 eggs for the first nesting and fewer eggs if a second nesting is attempted.
7. House Wrens are the principal enemies that prevent Bewick's Wrens from nesting and fledging young.
8. Bewick's Wren is a very desirable bird and should be encouraged to nest and be given protection from its potential enemies.

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An Ornithological Study of Southern West Virginia

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Abstract

A study of the birds of southern West Virginia was conducted from January through September, 1978. Emphasis was put on the areas of Athens, Bluefield, and Princeton (all in Mercer County). Observations were also made in McDowell, Raleigh, and Wyoming Counties. This study produced a total of 148 species, classified as 13 winter residents, 62 summer residents, 44 migrants, and 29 permanent residents. The species also were categorized according to abundance - eight abundant, 77 common, 59 uncommon, and four rare.

Introduction

The purpose of this study was to record approximate abundances, arrival dates and departure dates for the bird species of southern West Virginia over a nine-month period and to compare these findings with those of Clark (1977) for the Athens, Mercer County area and Hall (1971) for the state. The study period, January through September, 1978, included spring and fall migration as well as winter and summer residents.

Study Area

The location of this study was southern West Virginia (Figure 1). The towns of Athens, Bluefield, and Princeton were points of concentrated study (Figure 2), while some scattered observations were made in McDowell, Raleigh, and Wyoming Counties. Within this area, various habitats were investigated to sample the birds of the area adequately. Habitats visited included towns and lawns, deciduous forest, open fields, reservoirs, roadside thickets, mountain ridges, small stands of pines, a beaver pond, and streams. The breeding bird surveys were made along primary and secondary roads near communities, rural areas, surface mines, and streams.

Methods and Materials

The study was based on observations made on field trips either by car or on foot. During the winter one to two trips were made per week, as birds began to appear during the spring the trips were increased to every other day, with brief observations made on the days in between. There was a period of about three weeks when no observations were made (May 16 - June 6). By mid-late summer two trips per week were sufficient. Most trips were conducted as early in the day as possible - 0530 to 0700. After 0900 bird song is greatly reduced (Oliver, Johnson, pers. Comm.). A few afternoon and evening trips were taken to find species active at those times. Cassette and reel to reel tape recorders were used to find owls present in the area - being careful to play the Screech Owl recording first, since they are often eaten by the larger Barred and Great Horned Owls (Bent, 1961).

Field checklists were used for each trip of an hour's length or more. These lists provide space for information concerning route followed, temperature and general weather conditions, time, and date.

Basic tools used included two field guides (Peterson, 1947; Robbins, et. al., 1966), 7x50 binoculars, 20-45x zoom telescope, tape recorder with songs taped from a record (Kellogg, et. al., 1975), and appropriate clothes and walking shoes.

The procedure for the breeding bird surveys was as follows: starting time was one half hour before sunrise. Stops were made for three minutes each half-mile. All birds heard or seen were counted. Sky conditions, wind, temperature, and the time were recorded on the first and last stops. These results were turned in to the Fish and Wildlife Service for compilation and analysis.

One person cannot be everywhere at once, so observations were accepted from other persons experienced in bird identification. They were Dr. L. E. Bayless, Dr. Carl J. Chapman, and Mr. Ben Markell.

Results and Discussion

Table 1 shows the hawk species and numbers observed during three days in September, 1978, on East River Mountain, where U.S. Highway 52 crosses the mountain's crestline.

Table 2 shows the results of the two breeding bird surveys conducted in June, 1978. Listed are the number of stops, the species seen or heard, and the number of individuals for each. These surveys were done in Mercer, McDowell, Raleigh, and Wyoming Counties, and the results sent to the U.S. Fish and Wildlife Service.

Table 3 summarizes the findings of my study and compares them with those of Clark (1977) for the Athens, West Virginia, area and Hall (1971) for West Virginia. A total of 148 species were identified during this study, classified as 13 winter residents, 62 summer residents, 44 migrants, and 29 permanent residents. According to abundance they were categorized as eight abundant, 77 common, 59 uncommon, and four rare. Data for when the birds are here generally agrees with that of Clark (1977) and Hall (1971) (Table 3). The main discrepancy is that Hall (1971) may list a bird as a summer resident and as a winter visitant. Clark (1977) and I list the same bird as a permanent resident. Since the numbers of individuals were not recorded, any differences in abundance are differences in personal opinion.

During this study two interesting finds were made. The first record of the House Finch for Mercer County was obtained on January 23, 1978, in Athens. The House Finch is a western species that was introduced in the east and has been continuously expanding its range (Handley, 1976). Another interesting find was the two Willets seen at Glenwood Park on May 5, 1978. These birds are common along the Atlantic coast (Robbins, et. al., 1966). There are only two official sightings of this bird for West Virginia (Hall, 1971). The Mercer County Willets do not constitute an official sighting, however, because at least three people with previous experience with the bird have to make the sighting (Hall, 1971).

The abundance data of Clark (1977) and myself (Table 3) is entirely our opinion from day to day observations. Hall's (1971) material comes from the data of many observers like Clark and myself. When the birds are here is merely a record of when we see them. Accumulation of information of this type produces an increasingly complete picture of the avifauna of a particular area.

Clark (1977) assigned each bird species to one or more typical habitats; however, this is not always possible due to their powers of flight and the existence of ecotones. Pastures surrounded by different habitat types are prime examples of ecotones. These areas can be bordered by small stands of pines, deciduous woodlots, houses and yards, and even municipal water supplies-making it possible to be in the woods and hear a meadowlark or to be in a pasture and see a green heron. To someone not familiar with the bird, this would give a false idea as to what birds could be found in a particular habitat.

Several places within the study area provided especially good birding. Ornamental trees and shrubs as well as bird feeders attracted many species to the Whitherspoon Park area of Athens. Adjacent to Whitherspoon is a deciduous woodlot that descends a hillside to Laurel Creek. Near the bottom is a stand of pine trees that grow on both sides of the creek. The Concord College campus also was attractive to birds. The many pines provided winter protection; while the gravel topped buildings provided nest sites for birds such as the Killdeer. East River Mountain near Bluefield, West Virginia, was suitable for making observations of migrating birds of prey and song birds. The various reservoirs in the area were investigated for water birds and shore birds. Those visited included Athens reservoir, Glenwood Park (near Princeton), and Kee Dam (near Bluefield). A beaver dam on Laurel Creek near the Athens reservoir made for some interesting finds. The mowed areas at Glenwood produced shorebird finds, while the lake was suitable for several species of waterfowl. The open water at Kee Dam was probably responsible for the Common Loon found there. A marshy area in the field behind the Mercer County Vocational School in Princeton also contained a variety of bird species.

Some information was gathered on nesting behavior. Since nests are easily disturbed, an extensive nest study was not carried out. Two Phoebe nests were discovered at Glenwood Park. One was found on May 10 with five young in it. It was located about 8 feet from the ground on a rafter of the men's room porch. The other was found May 14 on a rafter of picnic shelter #3. There were five eggs and the parent was sitting on them. this seems to be the normal clutch size and nest location (Harrison, 1975). A Parula Warbler nest was also found in the park on May 10. It was about 25 feet up in a hemlock. There were strips of white paper streaming from the nest. The warbler was still building the nest. The data on this nest is compatible with known information (Harrison, 1975).

Three Red-winged Blackbird nests were found at the Athens reservoir. Two were about three feet above the water and were not checked for contents. The third was located about 30 yards from the water and about six feet above the ground. It contained two eggs on May 14. This too is in agreement with the literature (Harrison, 1975). A Song Sparrow nest was also found here. It was situated on the ground beside the road. On May 11 the adult was sitting on five eggs. On May 14 there were five babies. The nest was not revisited. Also on May 14, a pair of Wood Ducks were seen with 13 babies. The male flew off in one direction while the female led the babies into some thick brush in the water. On June 14 they were seen again, only they were minus four of the young ones.

The only other young bird seen was a young Scarlet Tanager being fed by both parents on July 8 and 12. This was in the woods below Whitherspoon.

Hall lists 295 species on the accepted list for West Virginia. In addition to these are nine species on the hypothetical list. This study demonstrates that in a nine-month period a fair number of these birds can be found in southern West Virginia.

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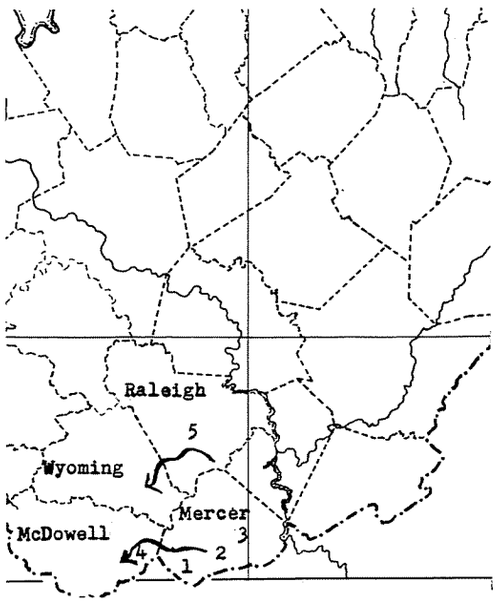

Figure 1: Map of Southern West Virginia

Areas of Concentration of Study

1. Bluefield, West Virginia
2. Princeton, West Virginia
3. Athens, West Virginia
4. Bramwell, West Virginia
5. Ghent, West Virginia

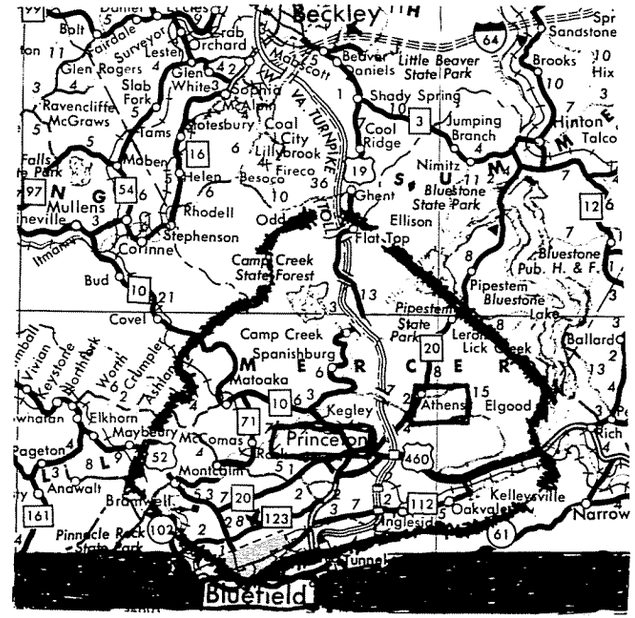

Figure 2: Map of Mercer County, West Virginia

Boxes indicate areas of concentration of study effort.

Bluefield, West Virginia - East River Mountain and Kee Dam.
Princeton, West Virginia - Vocational School Swamp and Glenwood Park.
Athens, West Virginia - Concord College, Athens Reservoir and Beaver Pond, and Whiterspoon Park.

Table 1: Hawk Migration Along East River Mountain, Bluefield, West Virginia, 1978.

Species/Days Observed	9/14/78	9/19/78	9/21/78
Sharp-shinned Hawk		14	14
Cooper's Hawk		1	
Red-tailed Hawk		1	
Red-shouldered Hawk		1	
Broad-winged Hawk	15	139	90
Osprey		2	2
American Kestrel		3	
Daily Totals	15	161	106

Table 2: Breeding Bird Surveys for Ghent and Bramwell, West Virginia (June, 1978).

Ghent, West Virginia-06-11-78 Time-0534-0932

Species	Total Individuals	Stops/Species
bobwhite	2	1
mourning dove	3	1
yellow-billed cuckoo	1	1
chimney swift	5	2
belted kingfisher	2	1
common flicker	6	5
great crested flycatcher	4	4
eastern phoebe	2	2
acadian flycatcher	1	1
least flycatcher	2	2
eastern wood pewee	9	9
rough-winged swallow	2	1
barn swallow	6	3
blue jay	6	6
common crow	43	20
Carolina chickadee	8	7
tufted titmouse	13	12
white-breasted nuthatch	1	1
house wren	9	6
Carolina wren	9	7
catbird	9	8
brown thrasher	4	3
robin	23	15
wood thrush	16	16
blue-gray gnatcatcher	2	2
cedar waxwing	6	3
starling	5	3
white-eyed vireo	2	2
yellow-throated vireo	9	9
red-eyed vireo	35	29
black-&-white warbler	11	11
worm-eating warbler	2	2
golden-winged warbler	5	3
parula warbler	2	2
yellow warbler	18	16
black-throated green warbler	1	1
prairie warbler	2	2
ovenbird	5	4
Louisiana waterthrush	2	2
Kentucky warbler	7	7
yellowthroat	6	5
yellow-breasted chat	3	3
hooded warbler	2	2
American redstart	5	5
house sparrow	14	8
eastern meadowlark	3	3
red-winged blackbird	5	5
northern oriole	3	3
common grackle	9	5
brown-headed cowbird	1	1
scarlet tanager	9	9
cardinal	14	13
indigo bunting	40	26
American goldfinch	5	5
rufous-sided towhee	10	9
chipping sparrow	12	10
field sparrow	3	3
song sparrow	22	19

Bramwell, West Virginia-06-23-78 Time-0533-0940

Species	Total Individuals	Stops/Species
American kestrel	1	1
killdeer	3	2
rock dove	3	1
mourning dove	2	2
yellow-billed cuckoo	1	1
black-billed cuckoo	1	1
chimney swift	4	3
common flicker	2	2
downy woodpecker	4	4
great crested flycatcher	1	1
eastern phoebe	4	4
acadian flycatcher	2	2
least flycatcher	1	1
eastern wood pewee	10	10
rough-winged swallow	4	2
purple martin	2	2
blue jay	14	10
common crow	30	22
Carolina chickadee	2	2
tufted titmouse	10	10
white-breasted nuthatch	2	2
house wren	8	7
Carolina wren	4	4
mockingbird	1	1
catbird	13	12
robin	34	19
wood thrush	25	18
blue-gray gnatcatcher	2	2
cedar waxwing	2	1
starling	39	13
white-eyed vireo	2	2
yellow-throated vireo	5	4
red-eyed vireo	29	20
black-&-white warbler	6	6
worm-eating warbler	1	1
golden-winged warbler	2	2

parula warbler	3	3
yellow warbler	8	7
ovenbird	12	8
Kentucky warbler	2	2
yellow-throat	9	8
yellow-breasted chat	6	6
hooded warbler	4	4
American redstart	6	5
house sparrow	23	8
eastern meadowlark	2	1
red-winged blackbird	6	3
common grackle	30	14
brown-headed cowbird	11	4
scarlet tanager	12	11
cardinal	15	13
indigo bunting	32	23
American goldfinch	3	2
rufous-sided towhee	14	13
chipping sparrow	7	5
field sparrow	5	3
song sparrow	45	27

Table 3: Bird list and classification, southern West Virginia, January-September, 1978. Results of Clark (1977) and Hall (1971) are presented for comparison.

Key

U-uncommon
C-common
R-rare
A-abundant
Uncl.-unclassified

S, SR-summer resident (June-Aug.)
W, WR-winter resident (Dec.-Feb.)
P, PR-permanent resident(
M-migrant (Mar.-May & Sept.-Nov.)
V-visitant

Species	Phillips (1978)	Clark (1977)	Hall (1971)
common loon	U-M	-	M-WV
pied-billed grebe	C-M	-	M-SR
great blue heron	U-M	-	M-SV
green heron	C-SR	R-Uncl.	S-V
Canada goose	U-M	-	M
mallard	C-PR	-	M-WV
blue-winged teal	C-SR, M	-	M-SV
American widgeon	C-M	-	M
wood duck	C-SR	-	S
ring-necked duck	U-M	-	M
lesser scaup duck	U-M	-	M
bufflehead	U-M	-	M
ruddy duck	U-M	-	M
hooded merganser	C-M	-	M-SR
red-breasted merganser	U-M	-	M
turkey vulture	C-SR	A-Pr	S-WV
black vulture	U-SR	U-Uncl.	S
sharp-shinned hawk	C-SR	-	M-SV

Species	Phillips (1978)	Clark (1977)	Hall (1971)
Copper's hawk	U-PR	U-Uncl.	P
red-tailed hawk	C-PR	U-SR	S-WV
red-shouldered hawk	U-WR	-	S
broad-winged hawk	C-SR, M	C-SR	S
osprey	U-M	R-Uncl.	M-WV
American Kestrel	U-PR	U-SR	S
ruffed grouse	C-PR	C-PR	P
bobwhite	C-pr	U-SR	P
sora	U-M	-	M-S
killdeer	C-SR	A-SR	S
American woodcock	U-SR	-	S-R
common snipe	C-M	-	M-S&W
spotted sandpiper	C-SR	-	S
solitary sandpiper	U-M	-	M
willet	R-M	-	Accidental
lesser yellowlegs	U-M	-	M
pectoral sandpiper	R-M	-	M
white-rumped sandpiper	U-M	-	M
herring gull	U-M	-	MWV
ring-billed gull	C-M	-	M
common term	R-M	-	M
black tern	R-M	-	M
rock dove	C-PR	C-PR	P
mourning dove	C-PR	C-PR	S-WV
yellow-billed cuckoo	C-SR	U-SR	S
black-billed cuckoo	C-SR	-	S
screech owl	C-PR	C-Uncl.	P
great horned owl	U-PR	-	P
barred owl	U-PR	C-Uncl.	P
whip-poor-will	C-SR	C-SR	S
common nighthawk	C-SR	U-M	S
chimney swift	C-SR	C-SR	S
ruby-throated hummingbird	U-SR	C-SR	S
belted kingfisher	C-PR	-	S-WV
common flicker	C-SR	A-SR	S-WV
pileated woodpecker	C-PR	R-Uncl.	P
common sapsucker	U-M	U-W	M-WV
hairy woodpecker	U-WR	-	P
downy woodpecker	C-PR	U-PR	P
eastern kingbird	U-SR	U-SR	S
great crested flycatcher	U-SR	C-SR	S
eastern phoebe	C-SR	C-sr	S-WV
acadian flycatcher	U-SR	-	S
least flycatcher	U-SR	U-SR	S
eastern wood pewee	C-SR	C-SR	S
horned lark	U-WR	-	P
tree swallow	U-SR	-	M-S
rough-winged swallow	C-SR	-	S
barn swallow	C-SR	A-SR	S

Species	Phillips (1978)	Clark (1977)	Hall (1971)
purple martin	C-SR	U-SR	S
blue jay	C-PR	C-PR	P-M
raven	U-PR	-	P
common crow	C-PR	C-PR	P
black-capped chickadee	A-WR	-	P-WV
Carolina chickadee	A-PR	C-PR	P
tufted titmouse	C-PR	C-PR	P
white-breasted nuthatch	C-PR	C-PR	P
brown creeper	U-WR	-	M-WV
house wren	C-SR	U-SR	S
winter wren	U-WR	-	M-WV
Carolina wren	C-PR	U-SR	P
mockingbird	U-PR	U-PR	P-WV
catbird	C-SR	C-SR	S-WV
brown thrasher	C-SR	C-SR	S-WV
robin	A-SR	A-PR	S-WV
wood thrush	A-SR	C-SR	S
hermit thrush	U-M	-	M-WV
eastern bluebird	C-SR	U-SR	S-WV
blue-gray gnatcatcher	U-SR	U-SR	S
golden-crowned kinglet	C-M	U-WR	M-WV
ruby-crowned kinglet	U-M	-	M-WV
water pipit	U-M	-	M
cedar waxwing	U-PR	C-M	Erratic
starling	A-PR	A-PR	P
white-eyed vireo	C-SR	-	S
yellow-throated vireo	U-SR	-	S
red-eyed vireo	C-SR	A-SR	S
black-&-white warbler	C-SR	C-SR	S
worm-eating warbler	U-SR	C-SR	S
golden-winged warbler	C-SR	U-SR	S
parula warbler	U-SR	U-SR	S
yellow warbler	C-SR	C-SR	S
magnolia warbler	U-M	U-M	M-s
Cape May warbler	U-M	R-M	M
black-throated blue warbler	C-M	U-M	M-S
yellow-rumped warbler	C-M	-	M-WV
black-throated green warbler	C-M	-	M-S
cerulean warbler	U-M	U-M	S
blackburnian warbler	U-M	U-M	M-S
chestnut-sided warbler	U-M	-	M-S
bay-breasted warbler	U-M	-	M
blackpoll warbler	U-M	-	M
pine warbler	U-M	U-M	S-WV
prairie warbler	C-SR	C-SR	S
palm warbler	C-M	-	M
ovenbird	C-SR	C-SR	S
Louisiana waterthrush	C-SR	U-SR	S
Kentucky warbler	C-SR	C-M	S

Species	Phillips (1978)	Clark (1977)	Hall (1971)
yellowthroat	C-SR	U-SR	S
yellow-breasted chat	C-SR	C-SR	S
hooded warbler	U-SR	C-SR	S
American redstart	C-SR	C-SR	S
house sparrow	A-PR	A-PR	P
eastern meadowlark	C-SR	C-SR	S-W
red-winged blackbird	C-SR	U-SR	S-WV
orchard oriole	U-SR	-	S
northern oriole	C-SR	U-SR	S
common grackle	A-SR	A-SR	S-WV
brown-headed cowbird	C-SR	A-SR	S-WV
scarlet tanager	C-SR	C-SR	S
cardinal	C-PR	C-PR	P
rose-breasted grosbeak	U-M	U-SR	M-S
indigo bunting	C-SR	A-SR	S
evening grosbeak	A-WR	R-WR	WV
purple finch	C-WR	C-WR	M-S, WV
house finch	U-WR	-	WV
American goldfinch	C-PR	A-PR	S-WV
rufous-sided towhee	C-PR	A-PR	S-WV
savannah sparrow	U-M	-	M-WV, S
grasshopper sparrow	U-SR	-	S
vesper sparrow	U-M	-	S-WV
dark-eyed junco	C-WR	A-WR	WV-M, S
tree sparrow	C-WR	C-SR	WV-M
chipping sparrow	C-SR	A-SR	S-WV
field sparrow	C-SR	C-SR	S-WV
white-crowned sparrow	U-WR	-	M-WV
white-throated sparrow	C-WR	C-M	M-WV, S
fox sparrow	U-WR	-	M-WV
swamp sparrow	C-M	-	M-S
song sparrow	C-PR	A-PR	P

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Avocet In West Virginia

Charles O. Handley, Jr.

At midday on 14 July 1979 I observed an adult American avocet (*Recurvirostra americana* Gmelin) on a small pond beside U.S. Route 60, 2.9 miles NW Lewisburg, Greenbrier County, West Virginia. The only previous record for West Virginia was of a bird found injured in Marshall County in 1977 (Buckelew, A. R. Jr., **Redstart,** 45:86 (1978). The bird was moving about slowly in an inch or two of water, feeding with the bill sweeping motions characteristic of the species. It was observed with 8x40 binoculars and a 20-40x spotting scope, but it could be identified as well with the naked eye. On the pond at the same time, but not associating with the avocet, were solitary, least, and semipalmated sandpipers and killdeer. The 14th of July was cool and overcast, with almost continuous drizzle and occasional showers until early afternoon. The avocet could have reached Lewisburg on the winds of Bob, a small hurricane out of the Gulf of Mexico which came inland on 11 July, moved up the Mississippi and Ohio valleys, and dissipated in the Appalachians in Kentucky and West Virginia on 13 July.

The site of this observation is a shallow but permanent body of water, about 150m x 50m, locally known as Tuckwiller's Pond. It is in a pasture and serves as a stock watering pond. In recent years it has been the site of other significant observations of shorebirds, including golden, black-bellied, and semipalmated plovers, ruddy turnstone, and white-rumped and western sandpipers, as well as many observations of more abundant species.

Smithsonian Institution,
Washington, D.C. 20560

A Golden Eagle Stays Three Months In Southwestern, Pa.

Ralph K. Bell

On Nov. 13, 1978 Philip Donaldson (game-farm manager for Greene Co., Pa.) called on the phone to tell me that he believed a Golden Eagle had been feeding on road-killed deer on his farm since the first of November. The dead deer had been dumped on his farm after being picked up along the road in the area by Pennsylvania Game Commission personnel. I questioned him about the possibility of it being a Turkey Vulture, but he assured me that he knew quite well that a TV looked like. Phil then told me that he and Dick Oliver (head game protector for Greene County) had decided it could be nothing else but a Golden Eagle.

Our son-in-law, Don Pattison, was here over Thanksgiving vacation and on the morning of November 25, we went to look for the eagle. Don had observed Golden Eagles in migration each fall at Waggoner's Gap near Carlisle, Pa. Upon arriving at the farm (about 2 miles southwest of Carmichaels, Pa.) Phil told us we were in luck as the eagle was there that morning, and that it didn't feed there every day. Phil took us out to the barn. About 200 yards farther on the eagle was standing on one of about eight deer that had been piled there. It was a hugh brownish black bird. Upon seeing us, it became nervous and soon flew across a small ravine and landed in a tree where several crows kept harassing it. Don said there was no question about it being a Golden Eagle. Due to the amount of white underneath it had to be an immature.

We watched the eagle for serveral minutes before it flew over to the hillside, above the dead deer, walked up the hill for several yards, turned around and ran down hill to take off. Since we were between the eagle and the open valley, it turned and tried to fly over the ridge. But it couldn't gain enough altitude to make it so it had to land again. It walked farther up the hill, turned, and ran down the hill again to take off. This time it had enough momentum to clear the ridge with several feet to spare. Phil told us that the eagle had done this before, especially when it had been feeding for a long time and was fully loaded with deer meat. An interesting parallel to this is mentioned in Todd, (1940) page 150. A Mr. Samuel Scoville related an incident where on Seven Mts. in Center Co., Pa. (1927) a trapper found a Golden Eagle feeding on the carcass of a deer. The eagle was too gorged to fly, so the trapper (thinking it was a buzzard) threw his coat over him and then wrung his neck.

During the next few weeks, I often talked to Phil on the phone about the eagle. He was especially worried about the eagle getting shot during deer season and stayed around home most of this period. Deer are quite common in the area, and Phil said the eagle was quite "jumpy" with all the shooting and stayed up in the air a lot.

Word of the eagle got around, and Allen Gillen of Uniontown came to see it on December 26. It wasn't on Phil's farm so we drove around trying to find it (Phil made the comment that he hadn't seen much of it lately). As we drove over a ridge near Knedive, Pa. (perhaps 1½ miles north of the Donaldson farm), I spotted the eagle sitting on a limb about half way up in a locust tree only 50 yards from the road. A large yellow foot shone brightly in the sunlight. The eagle became nervous when we stopped and took off going in the direction of the Donaldson farm. That same day in the afternoon, BBC members Bill and Eileen Higbee came to see the eagle and again it couldn't be located on the Donaldson farm, so we drove back to the ridge above Khedive. It was in another tree and took off when we stopped the car. This time it flew above us at perhaps 50 yards and the white under the wings and tail was quite noticeable. We later found a dead deer at this new location.

Jim and Bonnie Baird of the Pittsburgh Audubon Society were here the next day but the eagle could not be found.

Our Christmas count was held three days later, December 30, and Phil had been alerted to try and find the eagle for us. BBC member Bill Slosky took a group of us in his van to check on the eagle and try and get it on the list. BBC members in the group included Betty Bell, Frank Bell, Virginia Johnson, Kathy Reeves and Ruth Wilkinson. When we arrived at the farm around 10 o'clock, Phil told us the eagle had just left. We then walked up to the high ridge above the house where Phil had also left some dead deer for the eagle. It was evident the eagle had been feeding that morning, but could not be seen anywhere. As we were about to leave, Kathy spotted it far away in a tree on the next ridge. It was a big glob in the distance and not much detail could be seen, so we went back to the van and drove to another road in hopes of getting closer. There it was in a big oak, perhaps not much more than 300 yards away. It "stayed put," so everyone had a good look with binoculars and a 25-power scope. The hugh size, along with that massive beak were an impressive sight. It was a life bird for many.

The eagle was not seen after the last of January. The dead deer may have become frozen so solid that obtaining enough food became a problem and the eagle decided to move on.

While the three-month stay of the Golden Eagle was quite an ornithological event, the species may not be that rare in the southwest corner of Pennsylvania. Two years earlier, in November, there was evidently a Golden Eagle seen eating Groundhogs on a ridge about two miles south of the 1978 location. It was seen at different times during the month by several people, but I was not informed about it until later. The description fit and I'm convinced that it was a Golden Eagle.

Also, there were two Golden Eagles in the J.W. Jacobs collection that were taken in Greene County, Pa. One was killed near Dunkard on Nov. 15, 1893 and the other at Pine Bank on Nov. 11, 1917. Another interesting record is of a Golden Eagle shot by James J. Phillips (with a high-powered rifle) in May (?), 1931 about a mile southeast of Jefferson, Pa. within sight of our house. The mounted specimen is in the museum of the Greene County Historical Society. Mr. Phillips told me he was taking a taxidermy course at the time and wanted the bird for mounting. The eagle was flying in a northeasterly direction. Mr. Phillips made a lucky shot and hit it in the wing. It came to the ground perhaps a fourth mile away. Wanting a fine specimen for mounting, Mr. Phillips did not want to shoot it again and there was quite a struggle before the eagle was subdued. Mr. Phillips remembers it was a hot day and he was exhausted, but he is not sure of the month of the year, only that it had to be after school was out because he was a teacher (at that time the grade school term usually finished the last week in April).

I would like to speculate a bit as to when the eagle may have been shot. I remember Sam Dickey, a long-time ornithologist in near-by Waynesburg, telling me that the best time to see Golden Eagles in Greene County was in early May. Over the years I have thought a lot about that statement and if it is true, why? Apparently the last breeding ground (of any real importance) of the Golden Eagle in eastern North America is the northern part of the Labrador Peninsula. Southwestern Pennsylvania is on a direct line between that area and the southern Appalachian Mts. Todd (1963) states that the Golden Eagle has been noted at Fort Chimo (just south of Ungava Bay) in early April, where heavy snow may occur as late as the first week in June. Since Golden Eagles may nest several hundred miles north of Fort Chimo, it is conceivable that some Golden Eagles may delay their migration until the first of May.

Golden Eagles are seen migrating each fall along the mountain ridges of Pennsylvania. During the fall of 1977, 36 were counted at Hawk Mt. and 41 at Waggoner's Gap and they are seen on other ridges also. They must all stop someplace so why not expect to find an occasional one in the hilly sections of southwestern Pennsylvania? With people becoming more educated to try and conserve - not shoot every large bird, who knows, maybe the Golden Eagles' future is a bit brighter than thought possible only a few years ago.

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Report From Ottawa

Frank Bell

In my last Report I said that a few species of winter owls had been seen around Ottawa, and that an invasion of Great Gray Owls was apparently on. By the middle of February nearly 20 Great Grays had been reported in the region. Even though something seemed to be pushing them southeast, they didn't fare well here, as three have been found dead with empty stomachs. The low meadow vole population this year was probably the culprit.

The low vole population here was in sharp contrast to an abundance of them on Amherst Island, an island in Lake Ontario a dozen miles west of Kingston. This resulted in an owl concentration unequalled in decades. By the second weekend in March an unprecedented ten owl species were seen on the ten mile-long island. The count at that time was about 34 Great Grays, 22 Long-eared, 20 Short-eared, 13 Snowies, 4 Boreal, 2 Great Horned, 2 Screech, 3 Saw-whet, 1 Barn and 1 Hawk Owl. Another 14 more Great Grays were on the mainland around Kingston, and many more were reported in eastern Ontario, northern New York, and southwestern Quebec.

Needless to say the word spread quickly throughout eastern North America's birding community, and people came from at least as far as Kentucky and Virginia. The weekend of the third of March saw some 1000 birders causing traffic jams on some roads of the normally quiet farming community. I was there on the 17th of March with some friends, and we saw seven species of owl just that one day. By then none were abundant except for the Snowies, which seemed to increase in numbers towards dark. In all we saw around 25 Snowy Owls. In an area of scattered arborvitae trees not larger than 100 feet in diameter we saw 2 Boreals, 2 Long-eared, and 2 Saw-whets. Some 300 yards away there was a Great Gray. What a day to remember!

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Horse and Mule Feed Attracts Birds

Betty Miller

On June 29, 1978 a neighbor brought a week old fawn to our house. We were at a loss as to what to feed it. Someone recommended horse and mule feed, but the fawn didn't like it. I was stuck with a 50 lb. bag of horse and mule feed. My husband, Luther, suggested we feed it to the birds. How they love it! I think they feed on it all day long, because from early morning to late evening, they are at the feeder. We have seen Dark-eyed Juncos, Blue Jays, Cardinals and others.

The horse and mule feed has corn, oats, wheat, some molasses and maybe some other grains. The feed costs $5.00 for a 50 lb. bag.

Rt. 3 Box 204-18
Elizabeth, WV 26143

Five Year Sojourn of Chuck-will's-widow

Dorthy Conrad

If you are in an area and hear the Whip-poor-will call, listen carefully as there could be a Chuck-will's-widow (*Caprimulgus carolinesis*) among them, as the two goatsuckers travel together. In the Spring of the year, they could arrive from March through April, spend the summer and depart in September or October.

At Foray time five years ago, June 1974, Stewart Robbins heard a Chuck-will's-widow in the area of Rackawanna 4-H Camp, Harrisville, WV, and he learned later that it was the first published record for the state.

It is a pleasure for me to let you know that the bird is still there, however, according to Mrs. Elizabeth Stonestreet and her son Larry, his pine tree, of recording fame, was cut by the ax for a power line right-away on Rock Camp Road. Dr. William Armstrong of Vienna, WV, who has not failed to make one Spring excursion each year for the past five years, to see if the bird has returned to the vicinity, says that the Chuck-will's-widow has re-located to Bunnell Run Road, a lower road that parallels Rock Camp Road, and is one half mile up from the bridge. The bird is heard calling from there.

Maybe if we go back to Rackawanna 4-H Camp for another Foray, we can endeavor to find out if there is definitly one, or more, Chuck-will's-widows that spend the summer months in the region.

423 Warwood Ave.
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Fall Migration Direction At A TV Tower

Merrill Wood

Stoddard (1962. Bird Casualties at a Leon County, Florida TV Tower, 1955-1961. **Bull. Tall Timbers Res. Sta.** 1:1-94) reported that migrating birds striking a Florida TV tower in the *fall* fell on the south side, and in the *spring* fell on the north side. The location of dead birds at other TV towers should indicate the direction of migration.

The WPSX-TV transmitter tower in Clearfield County, Pennsylvania, has a height of 539 feet above the site which has an elevation of 2175 feet above sea level. Searches were made for dead birds on ten mornings in 1969 from October 8 to November 8. The location of 30 dead birds on the southwest side indicated the expected migratory flight direction from northeast to southwest, but 45 other dead birds on the east side seem to show migration from the northwest to the southeast (moving to the Atlantic coast?).

Most numerous birds were Brown Creepers, Kinglets, and Wood Warblers. Interestingly, two Red Bats were found dead at the site. Records were unfortunately not kept in a method to find which species were using the apparent northwest to southeast route. Nearly all specimens showed mechanical injury or massive internal hemorrhage, and only half were suitable for study skins; none were banded. Further investigation was discontinued because each inspection trip envolved 128 miles of travel; also it was thought foxes were eating birds before they could be picked up.

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FIELD NOTES

THE SPRING SEASON
March 1 through May 31, 1979

Glen Phillips, Editor
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The spring was mild with less than average rainfall and some of the earlier migrants arrived before their usual time. Peak Warbler migration occurred from the first to the middle of May, then some species came through in small numbers. Some correspondents felt this to be a dull spring while others' letters fairly vibrated with excitement. If one were to pick highlights, I would like to have seen the Ruffs in northern Ohio, the nearly white Towhees at Buckhannon and 50 Bobolinks in a field at Franklin. There was a noticeable difference in arrival time for some species between southern W. Va. and Hancock Co. W.Va. or East Liverpool, O. For other species, however, arrivals were almost simultaneous.

Loons, Grebes and Herons - The **Com. Loon** was recorded in migration between April 5 and May 20, **Horned Grebes** March 25 to mid-April, **Pied-billed Grebes** first appeared March 17 and the elusive **Red-necked Grebe** was recorded at Harrisonburg, Va. March 5 (KF). **Great Blue Herons** were first sighted March 31 in Washington Co., Pa. (RMH). The Higbees also reported the first sighting of a **Green Heron,** April 16. A **Black-crowned Night Heron** was reported April 7 near Columbus, O. and the **Yellow-crowned Night Heron,** which has nested for 12 years east of the Scioto River, was back in the same ravine April 24 (ER). Both **Bitterns** were present at Pickerington Marsh at Columbus, the **American** is presumed to nest here and the **Least** is apparently nesting this year (ER).

Waterfowl - The **Canada Goose** migration extended over a considerable period. they were noted in Washington Co., Pa. March 5 (RMH). The wintering flock left Chester, W. Va. City Park the last of March and some were still at Ripley May 17 (HG). With the successful restocking program, it is now difficult to distinguish migrants from nesting geese in our region. Migrating **Mallards** and **Black Ducks** were noted from March 4 to April 19. **Green-winged Teal** were reported from March 17 (JP) to April 11 (SH), while the **Blue-winged Teal** observations were from March 22 (JP) to April 11 (SH). **Wigeon** were seen from March 18 (JP) to April 8 (RMH). **No. Shoveler** dates included April 3, Columbus (ER) and April 20 Washington Co., Pa. (SH). There were the expected number of observations of **Wood Ducks.** Paul Harwood had a pair nesting within 30 feet of his home. Charles Handley Jr. reports finding two broods of Wood Ducklings May 20 on a pond in Greenbrier Co., snapping turtles were abundant in the pond and the ducklings were not seen again. **Ring-necked Ducks** were reported from March 4 (JP) to April 11 (SH). **Canvasbacks** were seen from March 5 to April 20. **Lesser Scaup** were seen from March 5 (ER) to April 14 (CR) with a high count of 420 April 8 at Washington, Pa. (RMH). Hullet Good noted **Com. Goldeneyes** from March 4 at Gauley Bridge until April 7 (a late date) at McClintic. **Buffleheads** were seen from March 17 at Ripley, W. Va. (HG) to April 20 Washington Co., Pa. (SH). Four Male **Oldsquaw** were seen at Canonsburg April 19 (RMH). **White-winged Scoters** were seen on the Scioto River near Columbus, O. March 5 (ER). **Ruddy Ducks** were reported near Columbus from March 16 to May 1 (ER) with unusual numbers over the entire area April 8. **Hooded Mergansers** were recorded from March 18 (JP, CR) to April 11 (SH). **Com. Mergansers** were first noted March 18 at Bluestone Lake, Mercer Co., WV (JP)

while **R. B. Mergansers** were noted from March 22 at Lisbon, O. (EEC) until April 16 at Washington, Pa. (RMH).

Vultures and Hawks - First report for **Turkey Vulture** was from Charleston by Anne Shreve March 1 (NG). Some correspondents feel they are becoming more common. No **Black Vultures** were reported, but bird students should be on the lookout as the species appears to be expanding its range. A **Goshawk** was identified in Shenandoah National park March 12 by L. Teuber (KF). **Red-tailed** continue to be our most abundant Hawks. E. R. Chandler reports a nest of this species four miles west of Lisbon, O. May 4. **Red-shouldered Hawks** may still be declining, Norris Gluck didn't find any nests in Coonskin Park this year. However, Nevada Laitsch found one in Lincoln Co., WV and one near Lisbon, O. First of the returning **Broad-winged Hawks** was reported from Clarksville, Pa. April 10 (RB). A lingering **Rough-legged Hawk** was seen near Guilford Lake, Columbiana Co., O. March 22 (EEC). **Osprey** reports covered the period from April 8 at Uniontown, Pa. (VJ) to May 6 in Pendleton Co., W.V. (CR). A **Merlin** was seen in the Shenandoah Valley by L. Teuber April 25 (KF). This species usually migrates along the coast. Paul Harwood reports a **Krestrel** nest about 40 ft. from his kitchen window at Ashland, O. this is the fourth year the little falcons have accepted this box.

Gallinaceous and Shorebirds - Reports of **Ruffed Grouse** were contradictory. **Bobwhite** populations are still in trouble. **Turkey** numbers may be at modern record levels, at least in some sections. Ralph Bell reports a **Chukar Partridge** on his farm in Greene Co., Pa. March 21. One of this introduced species was killed nearby during last hunting season. **Rails** were reported from April 7 to 27. I like this story: "Wm. C. Baker of Salem, O. relates this interesting experience on April 12. A **Yellow Rail** responded to a tape of **Sora Rail** at Guilford Lake Marsh. It was well observed in full view. It was seen later by several birders. Several days later in another marsh, while playing the Yellow Rail tape in hopes of finding the rail or another one, a **King Rail** responded to the tape. It, too, was well observed. I have Bill's permission to submit these records as I feel they should be published" (NL). A **Com. Gallinule** was recorded near Columbus, O. April 19 to 26 (ER). First report of **Coot** was from Ripley, WV March 17 (HG). Forty nine **Semipalmated Plovers** were reported from Greenbrier Co., WV May 21 (CH). **Killdeer** enjoyed a good migration, first report was March 3 in Washington Co., Pa. (RMH). **Golden Plover, Black-bellied Plover** and **Ruddy Turnstone** were recorded May 15 at Ottawa Refuge just east of Toledo, O. Earliest report of a **Woodcock** was March 7 at Bethany, WV (JB). One surprised Nevada Laitsch by appearing in her yard at E. L. O. May 30. This could have been a nesting bird as there are other records of Woodcock in eastern Ohio this late. **Com. Snipe** were reported from March 17 at Princeton, WV (JP) to March 31 in Pendleton Co., WV (CR). First Sightings of **Upland Plover** came from Rockingham Co., Va. April 10 (KF). **Spotted Sandpipers** were first reported April 27 near Princeton while **Solitary Sandpipers** were about a week earlier at Bethany (JB). An unprecedented number of 12 **Willets** were seen near Columbus April 30 (ER). A **Greater Yellowlegs** was recorded April 22 in Greenbrier Co., WV (CH), and a **Lesser Yellowlegs** was in the Princeton area May 6 (JP). **Least Sandpipers** were recorded May 6 at Franklin (CR) and May 21 in Greenbrier Co. (CH). Virginia Johnson reported two **Short-billed Dowitchers** from Uniontown, Pa. April 8, and Charles Handley reported 15 **Semi-palmated Sandpipers** in Greenbrier Co. May 21. A **Marbled Godwit** was reported from the Ottawa Refuge near Toledo, O. May 15 (ER). Two individuals of **Ruff** were reported by Esther Reichelderfer, one in Wayne Co., O. April 10 and another along the approach to Ottawa Refuge May 15. Esther also reported **Red Phalarope** and **Northern Phalarope** from the refuge May 15.

Gulls, Terns, Cuckoos, and Owls - Sixteen **Herring Gulls** were seen inland in Pendleton Co., WV March 25 (CR) and **Ring-billed Gulls** were on the Kanawha River March 21 and April 8 (NG&HG). **Bonaparte's Gulls** were seen from March 24 to 31 in Washington Co., Pa. (RMH). **Com. Terns** were observed near Columbus, O. April 22 and two **Black Terns** there May 15 (ER). **Mourning Doves** are being found in increasing numbers and were nesting this spring as early as March 4 (NL). **Cuckoos** seemed plentiful this year, the first **Yellow-billed** reported May 5 near Charleston (HG). The now rare Barn Owl was heard only one night at Ralph Bell's farm in Greene Co., Pa. Charles Handley recorded one April 7 in Greenbrier Co. WV. A pair of Barn Owl wings were found near Uniontown, Pa. March 8 (RMH). Make your guess as to the predator? An optimistic note from Jim Phillips near Princeton - he lists Screech Owls as "near abundant." Dr. Armstrong lists activity by **Great Horned Owls** as "accelerated" during February and March near Parkersburg, WV. **Barred Owls** seemed a little less common in southern WV (JP). A **Long-eared Owl** was observed at Columbus, O. March 30 (ER). **Saw-whet Owls** arrived in Columbus March 25 (ER) and Nevada Laitsch witnessed young being fed at Youngstown, O. June 20.

Goatsuckers through Woodpeckers - An excursion from the "sortie" found the **Chuck-will's-widow** holding forth near the Ritchie Co. 4-H camp May 21 just as Dr. Armstrong said we could. First **Whip-poor-will** was reported from Pendleton Co. April 1 (CR). Most **Com. Nighthawk** arrival dates were around May 10, but Polly Ballowe reported one near Charleston April 25 (NG). The return of **Ruby-throated Hummingbirds** was reported in most places as May 2-6 but a very early date of April 3 was noted in Lancaster, O. (ER). **Belted Kingfishers** still appear down in numbers. Most reports showed them returning from March 6 to April 15. Most **Woodpecker** populations are down except, perhaps, the **Pileated.** We searched for three days before recording a **Downy Woodpecker** at the "sortie."

Flycatchers - The first **E. Kingbird** was reported from Charleston April 23 (NG). **Great Crested Flycatchers** appeared the week of May 3-10. The first reported **E. Phoebe** was from Charleston March 5 (NG). **Acadian Flycatchers** appear to be in good numbers, returning May 3-10 with an early one at Oglebay Park April 28 (NL). A **Willow Flycatcher** was noted in Greene Co., Pa. May 18 (RB). First report of **Least Flycatcher** was from French Creek WV (VH). **E. Wood Pewees** returned about May 9-14. **Horned Larks** appear down in numbers.

Swallows and Corvids - First **Tree Swallows** were reported from Bluestone Lake March 21 (JP) and **Bank Swallows** were seen near Columbus, O. April 29 (ER). **Rough-winged Swallows** appeared from April 6 to 15 and were nesting at Bethany April 25 (JB). **Barn Swallows** were plentiful, arriving about April 6-17. **Cliff Swallow** arrivals were noted as early as April 29 (ER) and were nest building in Pendleton Co. May 6 (CR). Some insight into **Purple Martin** behavior is evident by the report of scouts March 23 and first pair March 29 in Pendleton Co. A poignant story was relayed by the Higbees of Canonsburg, Pa. Walter and Iva Sphar of nearby Venetia had two pairs of Martins from 5/1 to 5/5, then one pair left. The remaining pair began nesting 5/14. On May 27 the male was visible dead in the doorway. The box was taken down and the imprisoned female force fed, she then left to return 5/29 with another male and resume incubation. A **Fish Crow** was reported for Greenbrier Co., WV April 22 by Charles Handley. This is believed to be a first for the area.

Chickadees through Wrens - A large movement of **Red-breasted Nuthatches** was noted March 6 near Princeton, WV (JP). Reports indicate a movement of **Brown Creepers** May 10-12 and a nest with adults carrying food at Bethany May 10, along with other sightings during May indicate continued widening of nesting range. **House**

Wrens arrived in good numbers April 23-30. Could they be filling the niche formerly occupied by Carolina Wrens? **Carolina Wrens** are still in difficulty. It may be that some mild winters would contribute to their recovery. **Winter Wrens** arrived in Columbus, O. March 30 (ER). The author feels that numbers of this species are still below normal. A **Long-billed Marsh Wren** nested at Pickerington Ponds near Columbus (ER). A **Bewick's Wren** was reported from Pendleton Co. May 23 (CR).

Mimics through Waxwings - Mockingbirds may be clinging to their extended range despite destruction of habitat, a pair was reported in Uniontown, Pa. (VJ). A good population of **Gray Catbirds** is reported arriving April 26 to May 5, perhaps a little late. Sarah Hugus of Washington, Pa. reports an albino catbird - completely white. The first **Brown Thrasher** was reported from Charleston March 21 (NG). **Wood Thrushes** arrived April 19 to 26 in good numbers. The first **Hermit Thrush** was reported from Columbus, O. March 27 (ER), while **Swainson's Thrushes** were noted plentiful from May 11 to 27. **Gray-cheeked Thrushes** and **Veeries** were seen from April 27 to May 5. **E. Bluebirds** were nesting in Lincoln Co., WV by April 15 (NL). **Blue-gray Gnatcatchers** were plentiful, arriving early from April 7. Some correspondents noted a scarcity of **Golden-crowned Kinglets** in migration March 25 to April 15, however Esther Reichelderfer called them "numerous" in Columbus, O. A good migration of **Ruby-crowned Kinglets** took place April 1 to May 10. **Water Pipits** were noted from March 26 to April 10. **Cedar Waxwings** appeared numerous with spring flocks of 50-70 reported March 1 to May 16. The only report of **Loggerhead Shrike** was from Pendleton Co., WV (CR).

Vireos - The advance of **White-eyed Vireos** could be traced through the area by dates submitted beginning with Princeton, WV April 14 and ending with East Liverpool, O. May 10. **Yellow-throated Vireos** arrived from April 14 to May 7. First report of a **Solitary Vireo** was from Charleston, March 29 (NG), **Red-eyed Vireos** continue strong in numbers, arriving a little early from mid-April to May 7. **Warbling Vireos** appeared from April 21 near Charleston to May 11 at East Liverpool, O.

Warblers - Black-and-White Warblers were reported from April 13 to May 8. Doug Jolley submitted the only report of a **Prothonatary Warbler** May 12 in Braxton Co., WV. **Swainson's** were again found in Kanawha City Hills near Charleston April 24 (NG). The first **Worm-eating Warbler** was reported for Charleston April 13 (NG). A **Golden-winged** was noted in Hancock Co., WV May 8 (EEC), while **Blue-winged Warblers** came in from April 24 to a peak of May 6-10. **Tennesee** and **Nashville Warblers** had good migrations April 25 to May 20. At the "sortie" **Nashvilles** were everywhere. **Northern Parulas** were first noted April 13 near both Charleston and Princeton but most were seen nearer the first of May. **Yellow Warblers** started arriving in southern W.V. April 13. **Cape May Warblers** began arriving about the first of May and lingered late in the month. **Black-throated Blues** were seen from April 23 to May 13. **Yellow-rumped Warblers** were noted from April 16 to May 8, an excellent migration demonstrating increasing numbers and extended range. **Black-throated Green Warblers** had a good migration, mostly between April 13 and May 8 while **Ceruleans** were reported from April 14 to May 8. **Blackburnian** migration was later than some of the other warblers - May 3 to 29. The **Yellow-throated Warbler** continues an enigma to me. Norris Gluck reported one from Kanawha Forest April 1, Ralph Bell had one singing April 25 in Greene Co., Pa. and again nearby May 30. Other reports are between these dates. Some study is needed, not all of these are migrating birds. **Chestnut-sided Warblers** were seen mostly between April 30 and May 20. **Bay-breasted** appeared as early as May 7 and late as May 29. **Blackpolls** were first noticed in Charleston May 7 and **Pine Warblers** were there March 29. **Prairie Warblers** were first seen from April 21 to May 10. A **Palm Warbler** was reported at Oglebay Park May 6 (EEC). **Ovenbirds** started arriving April 24 to May 7. A **Northern Waterthrush** was seen May 14 at Bethany (JB) while the more common **La. Waterthrush** began arriving as early as March 21. First **Kentucky Warblers** were noted from April 29 until May 11. **Com. Yellowthroats** were first noticed between April 24 and May 10. **Chats** were again low in numbers appearing about May 5-13 while **Hooded Warblers** were reported from April 23 to May 11 and **Canadas** the week of May 8-12. The first **A. Redstart** was reported April 18 from Princeton (JP) but the main wave was nearer May 8-10.

Blackbirds and Tanagers - Migration dates for **Bobolink** are all about May 5-15. Carolyn Ruddle reported two flocks totaling about 100 birds near Franklin May 6. Ralph Bell noted one still singing on his farm in Greene Co., Pa. May 30. That one could be nesting. Norris Gluck noted the first **Meadowlark** for the Charleston area March 17. A personal note: I just don't see as many Meadowlarks recently. Although **Red-winged Blackbirds** had arrived in some areas, other sections were seeing their first March 3-20. **Orchard Orioles** were first noted between April 22 and May 7, while **No. Oriole** males arrived between April 25 and May 7. Hullet Good of Kanawha Co., WV reports females arriving within a week of the males. **Rusty Blackbirds** were last noted in Rockingham Co., Va. April 10 with an increase in numbers March 21-25 (KF). This corresponds to a Washington Co., Pa. sighting April 4-8 (RMH). Migration of **Com. Grackles** was in full swing at the beginning of the period, were still in flocks April 8 in Greenbrier Co., WV (CH), paired in early April in Kanawha Co., WV (HG) and more numerous than ever in Ohio Co., WV (DD). **Brown-headed Cowbirds** arrived about March 17-24. **Scarlet Tanagers** seemed in good numbers, arriving April 21 to May 8. **Summer Tanagers** arrived mostly between April 25 and May 5. Ralph Bell thinks that they may be increasing in Green Co., Pa., where he found four males and three females May 20.

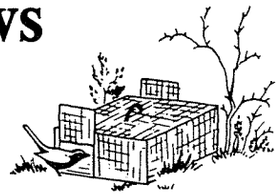
Grosbeaks and Finches - Rose-breasted Grosbeaks began arriving April 24. The season's first **Blue Grosbeak** was recorded for Rockingham Co., Va. May 5 (KF). **Indigo Buntings** had another good migration, appearing May 5-14. This was not a year for northern finches, but the migration of **Evening Grosbeaks** can be simply told by Carolyn Ruddle's counts of them at her feeder: March 15 -76, March 24 -47, March 26 -60, April 29 -13 and May 6 -0. **Purple Finches** were noted in numbers from March 11 to April 28. **House Finches** continue to increase. One note: Sarah Hugus of Washington, Pa. feels that House Finches disappear from the feeders early in May and later return. Since we know so little about these recent arrivals, much might be learned by keeping and exchanging notes. Some readers have seen **Red Crossbills** where Rt. 33 crosses the Va. - W. Va. line. Another spot may have been found. Kathleen Finnegan reports feathered young being fed April 6 where Rt. 250 crosses the Va. - W. Va. line. Migrating **Rufous-sided Towhees** were found about April 1. Most unusual was two almost white **Towhees** photographed in Buckhannon, WV from April 29 to May 1.

Sparrows - Savannah Sparrows were first noted from April 7 to 15. Ominously there was only one report of **Grasshopper Sparrow** - at McClintic April 17 (HG) this seems very early. **Henslow's Sparrows** were reported from Greene Co., Pa. May 13 (RB), and **Vespers** were first noted in Washington Co. April 1 (RMH). Most **Slate-colored Juncos** were gone by the first of May but some were still present in Mercer Co., WV May 5 (JP). Most **Tree Sparrows** had left by March 15, but one was still in Washington Co. Pa. April 5 (RMH). **Chipping Sparrows** began arriving March 21, a little bit early, and **Field Sparrows** about the same time. **White-crowned Sparrows** seemed scarce this

spring, and May 7 seems a last date for winter flocks. Last date for **White-throated Sparrows** was May 7 (NL). A **Fox Sparrow** was reported from Washington Co., Pa. March 31 (RMH). **Swamp Sparrows** were reported from Greenbrier Co., WV May 7 (CH), but were fewer in Rockingham Co., Va. this year (KF). **Song Sparrows** seemed unusually plentiful this year.

Contributors - Dr. William Armstrong (WA), Mary Catherine Becker (MB), Ralph Bell (RB), Dr. A. R. Buckelew (JB), E. R. and Elizabeth Chandler (EEC), Dolores Devaul (DD), Kathleen Finnegan (KF), Norris Gluck (NG), Hullet Good (HG), Charles O. Handley Jr. (CH), Dr. Paul D. Harwood (PH), Roger and Margaret Higbee (RMH), Virginia Bly Hoover (VH), Sarah Hugus (SH), Virginia Johnson (VJ), Doug Jolley (DJ), Nevada Laitsch (NL), Jim Phillips (JP), Esther Reichelderfer (ER), Carolyn Ruddle (CR) and Maxine Thacker (MT).

BANDING NEWS



Ralph K. Bell, Editor
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NOTES FROM A NET TENDER — Once a year--for the month of September--I am intoxicated, euphoric and high. Blame it all on Dolly Sods. Stand on that mountainside above the banding station before dawn and watch the Aurora, while the Great Horned and Barred Owls sound off; then tune in on the thrushes' chirps and guess at the species. Each of us with his own thoughts and the companionship of sharing is silent. The stillness is broken by songs of eight to ten Winter Wrens with a background of Warbler calls and communications. The sunrises are all beautiful and never the same. Even a foggy morning with the spruce disappearing into the mist is worth getting up for.

At the isolated north nets "Big Foot" jumps down from a tree or skulks in the underbrush at a distance of twenty to thirty feet. After several weeks we see our friend, a Fisher (apparently this is one of the animals introduced into the state several years ago).

We begin to recognize the local residents: a red-backed vole; red squirrels; snakes (garter, green, ring-necked and on occasion the DeKay). From the tales of some local citizens I was expecting a rattler under every rock. They are present, however, one being served as the piece de resistance by Mayor Findley. With a side dish of cranberry sauce fresh from the bog and good company, what more could one want?

Then there are the Birds....you learn things not in the book: That Rose-breasted Grosbeaks eat Witch Hazel blossoms like crazy. When netted this species along with the Catbirds and Sapsuckers give distress calls audable several ridges away; That Ruffed Grouse drum all through the month of September; No-one should miss Woodcocks waddling along the road at dawn or the vocalization of the Ravens as they dive, somersault, stall and play games with the hawks and TV's.

Species respond differently to netting, holding cages and bags. The Black-throated Green, Black-throated Blue, Blue-gray Gnatcatcher and Brown Creeper frequently stress first, while there is much disagreement over this factor in the Kinglets. The

Cape May Warbler is usually bright, tilts its head and smokes you over. Many will take drops of water from your hand or catch and eat an insect while being held. The Wilson's Warbler will faintly and rapidly click its beak, while the Brown Creeper sounds like a high-speed dental drill. The Vireos always come out of the bags "bright-eyed and bushy-tailed." The Woodcock, in hand, is beautiful and docile, second only to the Saw-whet Owl. The Junco is apparently a slow learner...for nine mornings in succession the same bird came out of the same hole and hit the same net at exactly 6:55 A.M. I asked Dr. Hall about the Waxwing with an orange tail tip (almost the color of its "wax") rather than the usual yellow. He told me when he was first banding and reported this, the reply was "if you haven't seen an orange tail tip you haven't seen many waxwings."

Then there are the People...all willing to share their knowledge and aware of the special privilege of handling these birds. Sometimes these usually calm folk will lose their cool, then things really get interesting. Have you been there when a Sharp-shinned hits the net? How about being almost run down by Glen Phillips as he peels off for Bear Rocks after seeing those hawks kettling? Genevieve Findley's amazement at a Hog-nosed snake doing its thing? Or the Rose-breasted Grosbeak hand-carried by Jerry McGrew to the banders, after it latched onto his cigar.

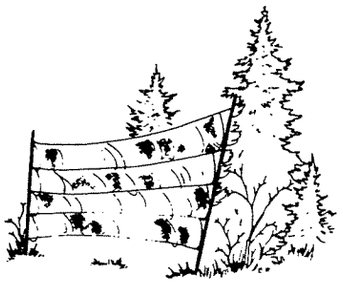
Borrowing from Thoreau and changing the top line:

I go to Dolly Sods
So that I will not discover,
When I come to die,
That I have not yet lived.

Kathleen Finnegan

Huntington, W. Va. - On January 16, 1979, I banded an after hatching year male Nashville Warbler. The plummage, which was characteristic of an adult male, showed a well developed crown patch. Wing chord and tail measurements were within normal range. Although there was no apparent damage to the bill, the maxilla was distinctly downcurved and measured 11.91 mm in length. This measurement exceeds the normal range for this species. This is the second winter record for a Nashville Warbler in West Virginia. George Hall informs me that a Nashville Warbler was found dead in Morgantown on December 28, 1951.

Harry E. Slack III



In The Literature

We are not so familiar with this old world that new species of birds can not be added to the 9000 or so known. Fitzpatrick, Willard and Terborgh report the discovery of a new species of hummingbird ("A new species of hummingbird from Peru" **The Wilson Bulletin** 92:177-186) from the Cordillera del Condor, above San Jose de Lourdes in Peru. The new species, Royal Sunangel, is a deep blue-black hummingbird with a forked tail. The authors believe that the isolated mountain ridges of Peru can be compared to isolated islands providing conditions where relict populations can persist and differentiate. The same area has yielded a new species of wood-wren and a new genus and species of owl in recent years.

Are you plagued by bees at your hummingbird feeder? In an article, "Ant, bee and wasp control at Hummingbird feeders," appearing in **The Jack-Pine Warbler** 57:70-75, Edwin C. Franks addresses the problem. Moving the feeder as little as 20 ft. may discourage honey bees but not wasps. To prevent wasps and yellowjackets, one must use a "bill-down" type of feeder or modify the structure of the drip tube by placing a screen over the plastic flower usually used and applying cream-type insect repellent on the circumference. Grease on the support post will stop ants.

The August 1979 **National Geographic** lead article, "Mysteries of bird migration" by Allan C. Fisher, Jr., mentions a visit to Allegheny Front Migration Observatory at Red Creek on Dolly Sods. The station is operated by members of the Brooks Bird club. There are full page pictures of John Findley's hand holding three Warblers (Can you identify them?) and a Blackpoll Warbler in one of our nets.

Edward S. Thomas writing in **Birding** 11 (1):8-9 discusses the "Separation of Carolina and Black-capped Chickadees in the field." The article is reprinted from Indiana Audubon Quarterly 55:129-130 (1977). Thomas and **Birding** co-editor, Lawrence Balch agree that the best way to separate the two in the field is by considering the "white edging to the wing-coverts, contrasting sharply with the dark web" of the Black-capped Chickadee. This is to be compared with the Carolina, whose wing "coverts are unicolorous. In some lights the covert of the Carolina seem silvery-edged, but never white, and the webs are never darker than the rest of the plumage." The lower margin of the Black-capped bib is usually ragged, "the white of the breast invading the black, and often vice versa. The margin in the Carolina is clean-cut." Other less reliable characteristics are also discussed.

Another aid-to-identification article of interest is found in the May 1979 issue of **American Birds** 33:236-240. "The identification of North American Accipiters" by H. Mueller, D.D. Berger and G. Allez discusses the differentiation of Sharp-shinned Hawk, Cooper's Hawk and Goshawk. Beginners may be somewhat discouraged by the authors' opinion: "Many birdwatchers would be able to identify the three species of *Accipiter* by watching a few hundred correctly identified Sharp-shinned, Cooper's and Goshawks and by paying close attention to size and flight behavior. Unfortunately there are complications..." Many believe the Sharp-shinned can be told from the Cooper's by comparing the square tail of the former with the rounded tail of the Cooper's. The authors present a quiz on the subject, consisting of a diagram of several tails. I only got four out of five. Try it yourself. The authors conclude that tail shape is helpful but not conclusive. Only the gray-barred breast of the adult Goshawk is considered a completely reliable plumage characteristic and even that can be tricky in some light. They urge extreme care be used in identifying accipiters as "the best way to identify accipiters is by size and size-related characteristics; a skill that can be acquired only with considerable experience." It would appear that more unidentified accipiters should appear on our check lists.

A. R. Buckelew, Jr., Editor

Book Reviews

Virginia Birdlife - An Annotated Checklist, Prepared by the Checklist committee of the Virginia Society of Ornithology, Yulee R. Larner, Chairman. May 1979, 118 pp., Price $4.00.

This checklist is essentially a revision of the late J. J. Murray's published by the Virginia Society of Ornithology in 1952. Early work on the revision was begun by Dr. John H. Grey, Jr., in the late 1960's but was cut short by his untimely death in 1971.

The new checklist is in paperback form, a convenient 6x9 inch size and has an attractive red cover with the VSO's Raven on a white background. It lists 400 species, and has a format that will be useful to all birders. The status of each species is described with reference to three main physiographic areas of the state: (1) Coastal Plain, (2) Piedmont, and (3) Mountains and Valleys. The relative abundance, peak counts, and dates between which species can normally be expected to occur are also listed. I like, especially, the ample space between each paragraph and species, allowing room for handwritten dates and notes with which most birders usually fill the pages of their "working" records.

The checklist committee has completed a monumental work, acknowledging some inadequacies, but hoping the results will stimulate more publication and record-keeping by the observers of the State. The plan is to revise the checklist in five years, in order to avoid another extensive, time-consuming process and to more accurately report the current findings.

Copies may be obtained from the Treasurer, VSO, 520 Rainbow Forest Drive, Lynchburg, Virginia, 24502.

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To a Young Bird Artist: Letters from Louis Agassiz Fuertes to George Miksch Sutton, with commentary by George Miksch Sutton. 1979, University of Oklahoma Press, 1005 Asp Ave., Norman OK 73019. 147 pp., illus., Price $9.95.

Between 1915 and 1927, Louis Agassiz Fuertes wrote George Miksch Sutton, then a struggling young artist, a series of striking letters. Dr. Sutton has published these letters, along with a commentary which gives insight into the lives of two of this century's greatest bird artists.

"Fuertes was not obliged to take me under his wing," writes Dr. Sutton, "...this youngster who clamored so earnestly for attention...Yet cheerfully he took me on, almost as if he had been waiting for this opportunity to help someone as he had been helped by others when he was younger ... I am publishing these letters not because I consider myself shining proof that they produce results, but because I know that they helped me. Some of this help was of a very practical sort; some of it was inspirational."

There is much to be learned and appreciated in Sutton's tribute to Fuertes. Any aspiring artist will profit from the sound advise given the young Sutton. Fuertes' advice extended beyond the important lessons in art and into areas such as Sutton's plans for education. "...I'm glad you're busy, and think you are entirely right to get

your liberal education first as a background. The painting will not, I think, suffer greatly, and in the meantime you will be getting an indispensible asset and developing yourself to a point where difficulties are easier to solve and less discouraging." Clearly Sutton's liberal education did him no harm. He has made his reputation as much with his pen as with his brushes.

Any teacher will appreciate Fuertes' method of instructing the young George Sutton. He used praise, example and criticism in the right measure and at the right times. Two of the examples, color drawings by Fuertes, are included as plates in the book. Two other color plates are early Sutton drawings. Other advice to Sutton concerned how much to charge for his work, "I should think it would be better business to be rather modest just now..." The reader is suprised to learn that Fuertes was paid only $3.00 a figure for the **Bird Lore** plates, which are to be reprinted starting in the September 1979 issue of **American Birds.**

Many will enjoy Sutton's lively description of a summer spent with Fuertes at Sheldrake Point, Lake Cayuga, New York. One can easily picture the bustling Fuertes household and almost see his drawings take shape.

Dr. Sutton is an honorary member of The Brooks Bird Club. Many of our members know him. Some remember his collecting birds, drawing them and making skins at Terra Alta. Several like to remember visits to the Sutton home in Bethany to see his extensive study skin collection. Everyone remembers his great story telling ability, his warm personality and his love of music and singing. (I wonder if Dr. Sutton remembers standing on the bridge on the Terra Alta lake road, singing with Chuck Conrad and other campers, at 2 a.m. one summer night many years ago). Of at least local interest here in Bethany, is Sutton's narrative of his life in this little town and as a student at Bethany College.

Birds of Pennsylvania by Merrill Wood. 1979, College of Agriculture of the Pennsylvania State University, Box 6000, University Park, PA 16802. 133 pp. + index, references, Price $2.00.

This rewritten, third edition of Merrill Wood's handbook should prove useful to Pennsylvania bird students. Frequency, seasonal occurence, some breeding habits, status, and range are given for each of Pennsylvania's 381 bird species. Also included is discussion of many escapes. There are 201 pen and ink drawings in the margins of the more common birds. The size is a handy 4½ x 8½ in. Many references to accidental and rare records are given in the text. There is also a useful list of references. The paper covers are decorated with Hal H. Harrison's photographs of immature Screech Owls.

Migration of Birds by Frederick C. Lincoln revised by Steven R. Peterson. 1979, Circular 16 Fish and Wildlife Service, United States Dept. of Interior. U.S. Government Printing Office: 1979 0-274-535. 120 pp., illus., no price given.

This is a revised version of Lincoln's "Migration of Birds," which was first published in 1935. But don't worry, the revised version is completely up-to-date. Subjects covered include techniques for studying migration, advantages and stimulus for migration; speed of flight, altitude of flight and segregation by species, age and sex during migration; orientation, navigation, influence of weather and topography. Also included are perils of migration such as storms, aerial obstructions and exhaustion; routes and patterns of migration, and origin and evolution of migration. The text is illustrated with many maps and color drawings by Bob Hines. There is a good bibliography and a list of birds mentioned in the text, but no index. The text is brief, but comprehensive. The references to the bibliography allow one to pursue individual

topics further. All bird enthusiasts ought to enjoy "Migration of Birds." Bird banders should find it especially interesting.

Hawks and Owls of North America by Donald S. Heintzelman. 1979, Universe Books, 381 Park Ave. S., New York, NY 10016. 216 pp. 8 color, 63 black-and-white photos. Price $18.50.

Heintzelman's objective is to present a broad picture of North American birds of prey to a general audience. There are descriptions of all North American raptors and chapters on raptor ecology, migration, fossils, endangered raptors, population and conservation. The species descriptions are sketchy and inconsistent. For example, data on nest construction, clutch size and incubation period are given for most hawks, but not the Red-tailed Hawk. More emphasis is given to eastern raptors, with which the author is more familiar, than western species. Photographs of some important species are lacking. Some of the photographs are very good, some are poor. Heinzelman quotes extensively from various authors, especially A. C. Bent. (Life Historics of North American Birds of Prey, U.S. National Museum Bulletin 1937 and 1938) There are no references for at least two quotations. It seems general readers will have to wait a little longer for a comprehensive book on North American raptors. There are several available on owls (see The Redstart 46:52 and 42:118-120).

A. R. Buckelew, Jr., Editor

Harrison C. J. O., (ed) Bird Families of the World, NY Abrams, 1978. 264 pp., Price $25.00.

This is not just another of the large "Pretty" bird books that have been flooding the market for the past 20 years or so. The book is beautifully written, with a concise but easy to read text covering all the bird families of the world. If you are interested in the origin of birds, there is the best up-to-date review of the Fossil record of birds that I have seen. The text goes from the fossil birds up through the Orders and Families of living birds, including recently extint groups. The author bares his soul when he admits that certain relationships in various orders and families are not well known and more research is needed for their final determination. I also find that the "American" system of classification, with which I was raised, is not accepted world-wide. The author states that American finches are not in the family Fringillidae, but Emerizicae, and tanagers are in a sub-family under finches. Also, the general cronological arrangement of the families in the Passeriforms does not match too closely with the American system. The illustrations are of excellent quality and in most cases show behavorial habits of the species, an approach I really like. This is an excellent and informative book and any serious BBC'er would benefit from the many hours spent with this volume.

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Perrins, Christopher, Author pp 8 - 157: Harrison C. J. O., ed., pp 158 - 412. Birds, Their Life, Their Ways, Their World. Readers Digest Edition 412 pp., Price $16.95

Please note that this book is broken into two separate parts with different authors or editors. The last part of this volume, edited by Harrison is an exact reproduction of the book reviewed above, **Bird Families of the World.** As stated in the above review, it is excellent. The first part of this volume, authored by Perrins is also excellent, and in my

opinion, makes this book far more valuable and useable than the above volume. Perrins covers in this first part such subjects as Evolution and Classification, Anatomy, Locomotion, and Behaviour, Feeding, Habitats, Social Behaviour, Breeding, Migration, Bird Populations, and Bird Study. These subjects are covered in some depth, with excellent illustrations showing what the author wants to emphasize. The choice is yours.

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New Journal

Continental Birdlife: A Bimonthly Journal of North American Field Ornithology edited by Kenn Kaufman, P.O. Box 43294, Tucson, Arizona 85733. Price $9.00 per year.

The first number, February 1979, of Continental Birdlife includes three articles, two regular features and book reviews. All of the articles are by one of the editors. Titles are "Plain-capped Starthroats in the United States," "Field Indentification of the Flicker Forms and Their Hybrids in North America," and "A Harlequin Duck Reaches Sonora, Mexico." The articles are knowledgeable, well written and nicely illustrated. A feature, intended to be regular, called "In Detail," promises to be interesting. The first, "Starlings" by Matt Sanders, is a short discussion of how to tell male from female Starlings. The other feature, "Latest Rumors," is an account of some of the exciting bird occurrences of North America during January and February 1979. The book reviews are well done by assistant editor, Elaine Cook.

This journal needs more contributors to make it a success. Recognizing this need, the editors provide three pages of "Information for Contributors..." in the first issue, and invite articles on bird distribution, field identification, birding "hot spots," field technique, bird behavior, hybrids and rare and endangered birds of the World. Authors are also asked to contribute to "Focus on..," a regular feature that will discuss a single aspect of a species' life history. If the editors of Continental Birdlife can attract more contributions, this journal should find readers in our region.

A. R. Buckelew, Jr., Editor