THEMIGRANT

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MARCH 1959



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Knoxville, Tenn.

THE MIGRANT

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NO. 1

ANNUAL AUTUMN HAWK COUNT 1958

By THOMAS W. FINUCANE

The ninth consecutive survey by the T. O. S. of the fall migration of birds of prey, across Tennessee produced a record number of reports. The data are presented in the form of a chart, on Page 4. The number of Broad-winged Hawks was 1600, better than average over the nine years but well below last year's 3000. The outstanding feature in the 1958 data for this species is that a high total was compiled without any spectacular single sighting. The best day's count was 268, made at the Mendota Fire Tower by a group led by James Finucane, Sept. 21. The total hours of observation is listed as 114, slightly above last year's 112. Several of our most experienced observers were unable to participate this year, and some who did take part found the flights of Broad-winged Hawks unaccountably meager in the areas covered. Furthermore, this year only 15 hrs. were spent in the field Sept. 19-24, with a count of 560 Broadwings. The corresponding figures for 1957 were 39 hrs. and 2200 hawks.

The count of the other species was relatively high this year — 174, compared to 164 last year. In these figures, the Sparrow Hawk dropped from 23 to 5, but the Red-tailed Hawk rose from 26 to 52. The difference in the Sparrow Hawk data is largely due to the observation of 5 birds of this species by Richard Nevius last year from Chimney Top Mountain, Sept. 8, and of 13 by the Knoxville Chapter on their Fall Census, Sept. 29, 1957. Most of the Red-tailed Hawk data and nearly all the Sharp-shinned Hawk data were recorded this year by the Kingsport Chapter at the Mendota and Gate City Fire Towers, on the Clinch Mountain.

The Clinch Mountain is a narrow, knobby ridge which runs southwest from Virginia into Tennessee. The Mendota Fire Tower, in Virginia, the Kyles Ford Fire Tower, north of Rogersville, and other points on this ridge have furnished data for the T. O. S. Hawk Count since its beginning. Members of the Kingsport Chapter, who were introduced to the Mendota Tower last year by Fred Behrend, made 16 trips there this fall. Getting there from Kingsport involves 40 mi. of driving, over good roads, and 10 to 30 min. of hiking up a steep trail. This is the most convenient place for Kingsport people to watch the flight of hawks. The knob, about 3000 ft. above sea level, provides a good view in all directions. The tower is 90 ft. high and easily climbed for a better view. All the species on the T. O. S. hawk migration list have been seen from the Mendota Tower knob.

The Red-tailed Hawk is the only species which was not seen either at close range or flying over the knob. Nevertheless, at least one Redtail was almost always in view, poised in the air above and a little to one side of one of the other knobs more than a mile to the northeast. Now and then the location was changed, or sometimes two Redtails could be seen, usually almost motionless in the air but occasionally flying in the valley below. To avoid counting the same individuals over and over again, we simply listed no Red-tailed Hawks during September. Later in the season these hawks were seen in greater numbers, up to five at one time, but usually much more than one mile away and never within one mile of the observation point. To study this problem further, a trip was made, Oct. 25, to the Gate City Fire Tower, about 15 mi. southwest of the Mendota knob. All observing was done from the lookout house on the Gate City Tower. The view lower down is rather poor. (The same can be said for the road, which goes right to the top of the knob). The Red-tailed Hawks flew close to this tower and also poised motionless in the air over other features of the landscape. Although these hawks were viewed at close range, they were, nevertheless, difficult to count, because of their habit of remaining stationary for a long time and then suddenly moving to a new location by diving and flying in big circles. The total recorded was 10.

The Gate City Fire Tower knob is comparatively large, which explains why the 360-deg, view is poor. Possibly the Red-tailed Hawks do not fly along the Clinch Mountain but merely visit selected locations. The Mendota Fire Tower knob would be too small to qualify. The Broad-winged and the Sharp-shinned Hawks fly past this knob often at close range. The former have been seen flying directly over at a very great height above the tower. The latter usually fly close to the sides of the knobs, and many of these little hawks pass unobserved. At the Mendota knob the Sharp-shinned Hawks sometimes pop up out of an air chute within a few yards of the tower. The Marsh Hawks usually fly over one of the valleys, on the north and south sides of the ridge, and are sometimes seen making a single crossing between knobs, from north to south. When the weather is right, Cooper's Hawk, Eagle, and Osprey fly directly over the tower. Late in the season a Peregrine made a close approach.

These observations on the behavior of the migrating hawks which can be seen from the Mendota Fire Tower indicate just a few of the interesting phenomena which take on more meaning as more visits are made to the same, good lookout station. Consideration of the changing season and the effects of wind and weather on these phenomena add greatly to the complexity and the fascination of this subject.

The following notes are numbered to correspond with the item numbers in the top row of the chart:

- 4. Sept. 15—The Osprey in this report was observed at 5:30 p.m. as it was flying over the Pigeon River. It flew out over Highway 441, picked up a thermal, and started its ascent. While it was circling, a Black-crowned Night Heron flew directly in its path, extended its neck, and gave a hoarse croak but kept going. The Osprey left in a westerly direction after gaining much altitude.
- Sept. 20—The Broad-winged Hawks were seen at close range gliding sideways along the side of the ridge, in a light rain and into the wind,

with their feet down. The Bald Eagle was flying along the top of Little Mountain, a remarkably level ridge running parallel to the south of Clinch Mountain.

- 8. Sept. 21—For a period of three hours there were always Broadwings visible. The 268 recorded, the largest day's count of the season, were part of a large kettle over one of the distant knobs of the Clinch, where Redtails were counted later in the season. The top of the kettle was lost in a large cumulus cloud which remained stationary over the knob, and the hawks, boiling in and out of this cloud were impossible to count. They were leaving the kettle by various routes, and only those which passed over the Mendota knob were listed in the data.
- 11. Sept. 22—Mrs. Darnell saw these 61 Broad-winged Hawks while she was "just relaxing, and watching, in a folding cot in the warm sunshine in our back yard".
- 14. Sept. 27—A low, total overcast all day and a rather strong NNE wind. At 2:25 p.m. an enormous grey cloud arrived and engulfed the look-out point.
- 16. Sept. 27—Wind conditions apparently hampered flight. The 61 Broad-winged Hawks observed between 11 & 11:30 a.m. were fairly high, circling over the tower (north of Rogersville). Osprey and Redtails were very low. Osprey flew near the tower.

This location is about 45 mi. southwest of the Item-14 location where 21 Broadwings were observed on the same date, on the same ridge (Clinch Mt.). However, these hawks were seen too late in the day to have been counted again at the second location, and all but a few of the hawks recorded at the second location were seen before the arrival time of the observers at the first location.

- 17. Sept. 28—After several hours with no Broad-winged Hawks, 119 were seen between 4:30 and 5:40 p.m. At 5:11 a large flight went directly overhead, very high, and were noticed only after they were well past the zenith. Some were too far past to count. After 5:30, 27 Broadwings were seen, straight up, looking like black specks to the naked eye, as they flew far above the Mendota knob, a few whirling in tiny circles against the pale twilight sky.
 - 20. Sept. 28—Casual observation, on the Knoxville Fall Census.
- 22. Sept. 29—Mrs. Dunbar counted these 129 hawks flying over her house in Oak Ridge. She checked the sky every few minutes all day and spotted a flight of 120 between 10:30 and 11:00 a.m.
- 36. This column includes data from three trips to the Mendota Fire Tower: Sept. 6—3 Ospreys, 1 Bald Eagle, 2 Sharp-shinned Hawks; Nov. 22—2 Coepers, 1 Peregrine, 1 Sparrow Hawk; Dec. 13—1 Sharp-shinned Hawk. Included also are 2 Red-tailed Hawks which flew over Kingsport, Nov. 23, and circled above the same smoke stacks which 3 accipiters were seen circling during the 1957 migration. The Redtails first tried a big steam puff but got no lift out of it.

In 60 hrs. of observation from the Mendota Fire Tower, Ravens were seen only once. Two approached along the ridge from the east at noon, Oct. 18, and returned the way they came, after an hour or more. Both kinds of vultures were seen regularly during September and October.

Three of the 4 Bald Eagles reported this year were adults.

HAWK OBSERVATIONS FALL OF 1968

CHAND TOTAL	Unassigned	Unident. Buteos	Unident. Accipiters	Sparrow Hawk	Foregrine	Caprey	Marsh Hawk	Bald Eagle	Broad-winged Hawk	Red-shouldered Hawk	Red-tailed Hawk	Cooper's Hawk	Sharp-shinned Hawk	Sky (weather)	Temp., op	Wind Speed	Wind Direction	Duration - Hrs.	Locality	Reporter	Date	MALI
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KEY TO REPORTERS

A—Mrs. Charlotte G. Finucane, James, Dan, Tommy, Bill, Joe, and Dick Finucane, Kingsport; B—T. and C. Finucane, Kate Hincke; C—Mrs. Chester B. Darnell, Greeneville; D—Paul S. Pardue, Fountain City; E—J. E. Lawson, Chattanooga; F—Mr. and Mrs. Eugene West, Chattanooga; G—J., C., T., and Dan Finucane, Ann Switzer; H—J., C., B., and Patrick Finucane; I—Adele West, Chattanooga; J—Cub Scout Hike, Pack 88, Den 2, Kingsport;* K—Miss Jennie Riggs, Miss Ruth Castles, Mrs. W. F. Bell, Nashville; L—Mr. and Mrs. Thomas W. Finucane; M—Mr. and Mrs. Chester B. Darnell, Dwayne Darnell; N—Tommy, James, and Thomas Finucane; O—Paul Pardue, David Highbaugh, Harold and Kay Garlinghouse, Fountain City; P—Mrs. Robert J. Dunbar, Oak Ridge; Q—Thomas, Dan and Tommy Finucane; R—J. T. Mengel, Harold and Kay Garlinghouse, Paul Pardue, Knoxville Chapter; S—W. E. Gift, Kingsport.

*The personnel included in the Cub Scout Hikes were:

Charlotte Finucane, Wyn Harrison, Louise Weber, Shirley Gates, Tommy Finucane, Bill Finucane, George Crawford, Richard Crawford, Peggy Harrison, Fred Harrison, Richard DeBondt, Darryl Gates, Pat Tokarz, John Moran, Tim Walkey, Steve Onkotz, and David Jones.

KEY TO OBSERVATION STATIONS

a-Mendota Fire Tower, Clinch Mt., Scott, Russell, Washington		
Co., Va	3000	ft.
b—Camp Creek		
c-Two miles north of Sevierville, end of Chilhowie Mt.	1100	ft.
d-Elder Mt. Fire Tower, near Chattanooga		
e—Residence of observer, Chattanooga		
f-Martel, 20 mi, west of Knoxville	850	ft.
g—Residence of observer, Greeneville		
h—Sunset Rock, Highway 70, Bon Air, 7½ mi. east of Sparta	2000	ft.
i-Fire Tower on Clinch Mt., near Kyle's Ford, north of Rogersville		
j—Black Oak Ridge, Fountain City	1500	ît.
k—Residence of observer, Oak Ridge	. 900	ft.
1—Hatcher Mt., near Cades Cove, Smoky Mt. Park		
m-Near Lynn Hurst Cemetery, Fountain City	950	ft.
n—Near Hooper's Bald, Graham County, North Carolina	4500	ft.
p-Deal's Gap, Tennessee-North Carol na line	2000	ft.
q—Gate City Fire Tower, Clinch Mt., Virginia	3300	ft.
r-Grassy Ridge Summit, above Carver's Gap, Roan Mt.	6200	ft.

AN ALBINO GRACKLE AND A DISCUSSION OF ALBINISM

By HARRY C. YEATMAN

On May 29, 1957, Mr. James P. Clark phoned me that a young white bird was on the ground near the University Library at Sewanee. On arriving at that building, I found a partially-feathered, bob-tailed albino Common Grackle. The nest from which it had fallen was about 20 feet up on the limb of a white pine and contained four normal-colored grackles that were being fed by a normal parent. White pines are not native to Sewanee, but they are commonly planted and seem to be preferred to other kinds of pines as grackle nesting sites. Forbush has pointed out this preference in his Birds of Massachusetts and Other New England States.

This young bird was kept in a potted avocado tree on a screened-in side porch and was fed pieces of angle worms and moistened Gaines dog food. It thrived, quickly growing more feathers and learning to feed itself. Its habits are typical of the species, it bathes daily and moistens dry food, such as bread, in its water pan before eating. For sanitary reasons, it is now housed in a large hardware-cloth cage in our garage and last winter endured subzero temperatures without apparent discomfort. At this writing, it has been in my possession for twenty months and has only rarely given the typical grackle call. Jays and Robins are its nearest bird neighbors and it spends hours imitating the jay call and the "explosive puck, puck, puck; sheek, sheek" call of the Robin described by Forbush.

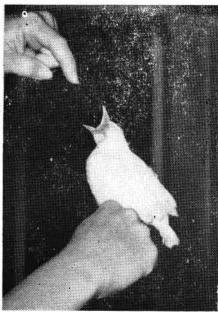
True albinism in vertebrates refers to lack of pigment in feathers, hair, skin, bill, claws, iris of eyes, etc. Only blood pigment, haemoglobin, is present and therefore many structures which contain tiny blood vessels may appear pink as do the eyes of most albinos. The presence of certain reflective bodies (not pigments) in the iris of eyes may make the eyes of an albino appear light blue, but this is rather rare. Technically, there is no such thing as a partial albino. The white plumage of white leghorn and other breeds of chickens is not albinism nor is light gray, light brown, nor white blotched (usually called piebald). They are briefly discussed at the end of this article because they occur in wild bird populations and are confused with albinism.

The cells that make up living organisms contain genes which control the development of the characteristics of an individual. Genes are located in definite positions on tiny elongate structures called chromosomes. Each body cell is believed to contain thousands of genes and these occur in corresponding pairs or groups of pairs (two or more genes for shape of bill, genes for length of feet, etc.) Of each pair, one gene has come from the male parent and one from the female parent.

Color in the skin, iris of the eyes, feathers, claws, and bills is due to the presence of melanin pigments which are produced by the oxidation of one kind of amino acid in the body cells. This oxidation is brought about by an enzyme produced by the gene for normal pigmentation. The albino gene fails to produce this enzyme and hence no pigment is formed.

A cell containing two genes for pigmentation will naturally be pigmented (if there are no other genes such as whiteness to influence the result) and one with both genes for albinism will lack pigment. Each cell of an organism may contain a gene for normal pigmentation and one for albinism, and in this case, the pigmentation gene will produce enough enzyme to cause normal pigmentation. Hence, the normal pigmentation gene is said to be dominant to the albinism gene or albinism is recessive to pigmentation.

The mating of a pure or homozygous pigmented bird (that is, each body cell with both genes for pigmentation) with an albino results in offspring which appear normally pigmented, but will carry a suppressed gene for albinism in each body cell and are therefore called heterozygous. If two of these mate, one-fourth of the offspring will be homozygous for pigmented, two-fourths will be heterozygous and therefore pigmented, and one-fourth will be albinos. Thus, the albino gene, as it is suppressed by the pigmentation gene, may be hidden during several generations and two normal-appearing heterozygous parents may therefore have some albino offspring. Albinism originates in a population of animals by gene mutation





YOUNG ALBINO GRACKLE

ADULT ALBINO GRACKLE





ADULT ALBINO GRACKLE PIEBALD FEMALE CARDINAL

or sudden changes in the arrangement of the parts of a gene. In this case, a gene for pigmentation is changed enough to prevent its giving off the enzyme which produces melanin. This changed gene may remain hidden for several generations, but when it is paired with another gene for albinism during fertilization, an albino results.

Piebald or large irregular spots or blotches of white is generally the result of action of a dominant gene which allows pigment to form only in certain parts of the body. The corresponding gene for piebald is the recessive gene for normal color pattern, so that any individual with the gene for piebald will appear piebald unless there are, in addition, two genes for albinism in the same body cells. A gene on one locus or position on a chromosome may influence the expression of a gene at another locus. The photograph in this issue shows a piebald female cardinal in my study-skin collection. This bird was collected on December 27, 1940 near Ashwood, Tennessee and was reported by me in THE MIGRANT, 13, 18, 1942.

In some cases, white plumage (not albinism, because the eyes and sometimes other structures are pigmented) is due to a dominant gene and sometimes to a recessive gene, and sometimes to the combind action of several genes. In this multiple gene case, the more genes for lightness of shade, that are present in the cells, the more nearly white will be the plumage. Birds appearing very light brown, light gray, or "dirty" whites are explained by this case. Kortright's Ducks, Geess, and Swans of North America shows in plate no. 36, a light brownish Mallard which is incorrectly called a partial albino, and I have observed a light brown Crow.

Department of Biology, The University of the South, Sewanee.

THE SEASON

COOKEVILLE—The weather of the season has been typical of the western Highland Rim—usually cooler than that in Nashville and warmer than that in Crossville. Slightly out of ordinary has been the absence of more than **one** warm day at a time since Feb. 15. This consistently cool weather is keeping the buds in check and perhaps, affecting bird movements to some extent.

The winter census of 1958 was notable in one respect, the addition of three species of ducks. None was reported in December 1957. Strange-to-say, however, no other water birds were sighted then. Since then, a Great Blue Heron has been several times about two miles east of town (M.W. and A.D.).

Two of our very consistent observers (C.H. and B.C.) report an apparent shift in the numbers of certain common species. As compared with previous years, at this season, fewer Cardinals, Mockingbirds, and Blue Jays have been seen.

Observers in town, but near wooded lots, have good records on woodpeckers. Four species, including one Pileated, have been seen well-within the city limits (M.M.).

Strictly within the main residential section, one lonely (or depraved?) Crow was observed for some time on March 10 (B.C.).

While an occasional Robin has been seen hereabout, the first flock (12) was found at the edge of the Tech Campus on Feb. 22. At the same time and place, the first Common Grackles (25-30) of the season were located (PLH). Other early records of small flocks are: ten Bluebirds and thirty

Robins (BC) between Mar. 1 and 10. These were located about five miles northwest of Cookeville.

Probably a late record for the area has been established for the Slate-colored Junco. Two members (CH and BC) have seen small flocks of them since March 1. There is speculation as to whether these are merely passing through on the trip north or local residents preparing to migrate either northward or into the Smokies where their nesting is quite common.

One member of the Upper Cumberland Chapter has been looking for Eagles for some months. It is rumored that nesting has occurred in the cliffs of the escarpment at the western edge of the Cumberland Plateau. Roy Hinds (P. O. Rickman, Tenn.) pushes his boat, from time to time, among the coves and crags around Dale Hollow Lake. Recently he reported that he believed he had seen a pair of Bald Eagles. (Bold face mine.)

P. L. HOLLISTER, Biology, Tennessee Tech, Cookeville.

CHATTANOOGA—Little field work has been done this past winter and no effort was made to search for land birds. Duck records continue to be of most interest. Christmas census provided an unusually good one-day total of 11 species.

Common Goldeneyes increased in number and frequency for the second consecutive year. Redheads and Buffleheads were also seen with more frequency.

The Common Mergansers (1 male and 2 females), recorded on February 21, were the first for the area.

No Phoebes were seen by the writer between December 21, 1958 and March 8, 1959.

MRS. E. M. WEST, 2914 Haywood Ave., Chattanooga 5.

KNOXVILLE—Two new species of birds were added to the Knox County list in the fall of 1958. On October 12 a Purple Gallinule was seen by Mary Enloe, and on October 17 a White-rumped Sandpiper was seen by R. B. Hamilton. Two other unusual shorebirds, also seen by R. B. Hamilton, were a Semipalmated Sandpiper on October 26 and a Red-backed Sandpiper seen repeatedly between October 31 and Novembr 9. Despite these records, there were few sandpipers and snipe in the area this year as compared with the unusual numbers of the previous year.

Remaining in this area later than usual were two Black-crowned Night Herons on November 11, reported by Paul Pardue. Similarly, several scattered individuals of Blue-winged Teal were seen up to November 1, and several Green-winged Teal up to November 16, late dates for both these ducks. Other migrants departed on schedule.

A Common Merganser seen on December 28 by Paul Pardue and five Ruddy Ducks on February 21 by Mary Enloe were rather unusual records for Knox County. Except for these, this has been an uneventful winter for ducks and for most other birds. There has been the usual number of most of our winter visitors; none have appeared to be especially abundant or rare.

An unusual record of birds that might have been rare winter residents or very early migrants was of three Lincoln Sparrows seen on March 1 by R. B. Hamilton and K. Dubke. There is only one previous winter record and one spring record of this species in Knox County.

JAMES T. TANNER, Dept. of Zoology, Univ. of Tenn., Knoxville.

GREENEVILLE—The season in this area brought about the usual amount of rain and some snow. Among the late fall observations was a Yellow-billed Cuckoo by Ruth Nevius on Oct. 11—the latest date on record for that species. A Solitary Sandpiper (RN) on the same date was one day later than one reported by E. Darnell in 1957.

According to recent reports the Bluebird population is on the increase again. We had a low of 9 on the spring count and 18 on the 1958 Christmas count. On Nov. 10 a male was observed inspecting nesting boxes in the Darnell's yard. There were no nesting pairs using any of the boxes during the spring and summer as in previous years. Several have remained in the vicinity all winter, but as yet on March 12 no nesting site has been chosen. On March 3 a pair was observed in the Nevius' yard—the first since Feb. 1958. Mr. Roberts reports two pairs around his home in Glenwood community all winter.

A Great Blue Heron was seen on Dec. 11 and 23 (RN) and one was flushed by the Darnells on Feb. 28 as they walked along the river bank.

Birds often employ unusual methods of supplying their needs. During the Jan. 17 snow and ice, Ruth Nevius noticed a Tufted Titmouse and a Mockingbird drinking from melting icicles. She also observed at various times during the winter a Downy Woodpecker, Tufted Titmice and a Winter Wren that found a way to get inside a screened-in porch in search of insects and perhaps insect eggs.

A Brown Thrasher used a cold method to obtain water the last week of November in Darnell's yard. He sat on the ice in the bird bath until he melted a small hole through one-eighth inch thick ice then drank for about ten minutes. This incident took place so early in the morning that binoculars had to be used to identify him. Several mornings he was observed at the same place at the same time, until Dec. 4 when he apparently left for a better climate. Cedar Waxwings were first reported by C. B. Darnell in Feb. and large flocks were reported the first few days of Mar. by Dot Clinard and Ruth Nevius.

An abundance of Rufus-sided Towhees and White-crowned Sparrows were reported by the Clemens and more White-crowned Sparrows than at any previous time, but a definite scarcity of Mockingbirds was evident around their home. More Cardinals than usual were reported by Wilma Irvine and Dot Clinard. Myrtle Warblers were present at the White and the Clinard homes. Purple Finches have been more abundant in some areas covered by our observers this winter. Two male Purple Martins returned to the Blanton home Mar. 11—the earliest date on our records—Mar. 15 being the previous early date. A pair of Red-bellied Woodpeckers have been seen and heard frequently around Helen White's home on Union St. and another pair has taken up residence in a wooded area near Darnell's home.

White-throated Sparrows usually winter in considerable numbers in the vicinity of Takoma Hospital, however, this year they are very scarce. Only one Chipping Sparrow has been reported to date, Mar. 13. (ED).

ELVA DARNELL, Rt. 4, Greeneville.

KINGSPORT—The season just past has been unusual in its contrast of numbers. Of some species we've recorded unusually large numbers, of other species usually seen here, none at all. During the fall of 1958 our record for shorebirds is blank except for a few Spotted Sandpipers during the first two weeks of September. Also the fall migration of warblers seemed thin although we have one unusually late date, a Black and White Warbler seen by W. E. Gift on Nov. 9 in his back yard at about ten feet. Throughout the winter we did not record any Bluebirds until the second week of Feb. Since then Arthur Smith has regularly observed them. Also scarce were Phoebes, Nuthatches and Sapsuckers.

We have unusual records of Brown Thrashers, one seen by me the first three weeks of December and one seen by Howard Young the first week

in January.

The abundant numbers appear on the records under Ducks, Crows, Blue Jays, Starlings and Grackles. During October and November in residential areas of Kingsport Grackles appeared in clouds. Areas of as much as 1,000 square feet of lawn would often be covered with a tightly packed mass of the birds. Estimated flocks of 3-5,000 roosted in a windbreak of white pines in a small ravine on the property of M. J. Adams. Large flocks of Starlings devastated the ground supply of food in other neighborhoods. Farther out in the country flocks of Crows congregated, perhaps as many as 10,000 in one roost.

In contrast to last winter we have had a variety of wintering water birds. Throughout the winter we have seen a colony of Great Blue Herons below Boone Dam and the bridge on the airport road. Usually there have been 8, but March 8 there were 18. In the Christmas count I mentioned frequent records of Red-throated Loons (THE MIGRANT 29, 69, 1958). We first recorded for this year Horned Grebe on Oct. 30, and Pied-billed Grebe on Nov. 4. Our first record of ducks was Blue-winged Teal on Sept. 18. On Nov. 4 our records show Lesser Scaup, which were not recorded again until Mar. 8. Throughout the winter we have weekly records of Mallards, Black Ducks, Canvasback, and Common Goldeneye, with frequent records of Gadwall, American Widgeon, Redhead, and Hooded Merganser. On Feb. 17 we have a record of five Canada Geese.

ANN H. SWITZER, 1620 Fairidge Dr., Kingsport.

ELIZABETHTON—The fall migration appeared rather light with most of the warbler species being reported but in smaller numbers than usual. The rarer sparrows were not found although searched for in the usual places somewhat more diligently than usual. Several species which are normally observed during the winter were very rarely observed or entirely absent. Among the scarce species were the Phoebe—not observed from late Nov. to 1-31; Golden-crowned Kinglet—Dec. 20 to 1-31; Ruby-crowned Kinglet—Dec. 20 to date; Robin—Dec. 20 to 2-7 becoming common after 2-16; Common Snipe, Redwinged Blackbirds and a Palm Warbler (FW) first appeared 2-14; White-breasted Nuthatch, Red-breasted Nuthatch, Brown Creeper, Hermit Thrush and Purple Finch were not recorded during the winter except a single Brown Creeper on 2-8 (LRH); Common Grackles appeared on 2-5; Cetar Waxwings returned 2-22; Wood Duck—2-28; Gadwall (2) 3-7; Blue-winged Teal (3) and Rusty Blackbird (1) 3-14.

A note in the Elizabethton Star credited Dave Harrell of Burbank with seeing 14 Evening Grosbeaks in Roan Mountain village on Feb. 8. The following Sunday a flock of Pine Siskins were reported feeding on the seeds of the mountain alder and balsam in the Rhododendron Gardens on top of Roan Mountain. These are the only reports of these species for the area this winter.

LEE R. HERNDON, 1533 Burgie Place.

ROBINS USE OF HACKBERRIES By ALBERT F. GANIER

The use of hackberries (Celtis laevigata) as a winter food by Robins and many other birds is well known. This is particularly true in Middle Tennessee, where this is the most abundant tree. On the higher surrounding Highland Rim (altitude 700-800 ft), the hackberry is scarce or non-existent and there is a corresponding lesser number of the birds that depend upon it as a source of winter food.

During January 1959, there was a much greater than usual influx of Robins and Starlings into the Nashville area. An immense roost of these birds exists in the western outskirts of the city and they feed in large numbers during the day in hackberry trees and on lawns in the suburbs. Extreme cold and much snow in the North apparently caused their usual northward movement to be halted in Tennessee, where there had been no snow up to and thru January.

Most of the hackberry trees were carrying an abundant crop of their little maroon-colored berries thru the winter. The Robins spent a good part of their time in these trees, swallowing the berries and then dropping to the lawns where they would bask in the sunlight or run aimlessly about while their digestive tracts drew nourishment from their meal.

For those not familiar with these berries, let me say that they consist of a hard, round, yellow pit, about 5/32 inch in diameter, covered by a thin, tough skin which has a sweetish taste and which constitutes the source of food value. Obviously, a vast number of these must pass thru their digestive tracts to sustain the birds, especially in very cold weather.

Wishing to learn more about the physical condition of the birds during a period of bitter cold weather, I procured two specimens at mid-day on January 22 when the thermometer registered 22 above zero and the ground was hard frozen. On dissection, they were found to be plump with even a little fat overlying the belly and their stomach contents consisted entirely of hackberries. The gizzard of one was packed with sixtern berries and that of the other held ten. On some the skin was still intact while on others the wetted skin had already come off preparatory to entering the intestines. This organ, when "unwound," measured about 12 inches in length from gizzard to vent and was completely filled with the pits and the skins with which they had been covered. The pits were spaced about 1/3 of an inch apart so that the tract held about 35 in all. The plumage of the birds was soiled in several places with dried excreta, evidently caused by other birds having occupied a place above them in the communal roost. Study skins were made of the two specimens for further comparison. Three more birds were picked up dead in the roost the following day and all were in good physical condition.

In watching the birds on the lawns. I noted that about twenty percent of them were smaller and had breasts of a paler red color and with more white-tipping on the breast feathers. Of the two specimens I procured I took pains to get one of each kind. The larger of the two had breast plumage of dark rufous-red (chestnut) with practically no white tipping of the breast feathers. The ends of the outer tail feathers were white. The length, wing and tail measurements were 10.00, 5.20 and 3.94 inches. The smaller of the two birds had breast plumage of light brick-red and all of these feathers were broadly tipped with white. The ends of the tail feathers bore no

white spots. The measurements of this bird was 9.78, 4.95 and 3.80 inches. Both birds were males. According to the best authorities, the light colored birds are immatures, that is, birds that were fledged the past summer.

Although the hackberry trees still held a large part of their crop, the ground under them was liberally strewn with berries that had fallen without being eaten as well as the pits that had been excreted. At the roost, the ground under the trees and bushes was coverd with pits dropped during the night. Another bird that relies upon hackberries for a good part of its winter food is the Cardinal. They prefer to hunt for the berries in the grass after they have fallen for when thus found the dampness has softened and swelled the skins so that the birds can remove the edible part with their strong beaks and discard the pits at once. In the Gulf states, Robins are known to eat the large yellow drupes of the chinaberry tree which remain on the tree thru the winter. In this connection, it is of interest to record that one of these trees growing in Nashville (at 2303-21st Ave. S.) is at present leaded with the berries but the Robins have not availed themselves of its fruit. This tree, 15 feet in height, is growing at the northern extremity of its range.

The roost referred to began on Golf Club Lane (at 23rd) in the fall but during January it expanded to a half mile wast and there concentrates in a four acre thicket composed mostly of young black locust trees. This is on Woodlawn Drive, where it passes the Richland Golf Club grounds. By the last of January this had grown to be perhaps the largest Robin-Starling roost we have ever had in Nathville. About 1/3 were Robins and a fairly conservative estimate would be between two and three million birds. Viewed after the birds are all in, the trees appear to be in full summer foliage, only that the "foliage" consists of close-packed birds.

I have witnessed many roosts thru the years and have attempted to find the best way to estimate their approximate numbers. The method may be of interest and is as follows. I have learned to know by actual counting what a flock of 1,000 birds looks like. A flock ten times that big of course would contain 10,000 birds and I have a fair mental picture of what that looks like. This is as high a unit as one should attempt to keep in mind. Flocks of lesser size can be estimated to the nearest thousand and huge flocks can be broken up into 10,000 units. If then, the observer stands where he can see all the birds coming in from one-fourth of the entire circle and sees the equivalent of 50 flocks of 10,000 each come in, he has seen around 500,000. If the birds are found to be coming in equally from all four quarters, his total will be around 2,000,000. It is quite possible of course that this figure could be off as much as 25 percent.

In the current roost, first arriving flocks come an hour before the last are in and toward the end they converge in an unbroken stream.

2112 Woodlawn Dr., Nashville 12, Tenn. Jan. 31, 1959.

ROUND TABLE

PARTIAL ALBINO JUNCO IN THE SMOKIES — On June 1, 1958, we were in the Smokies for the weekend. At the parking area in Newfound Gap, several Juncoes frequented the paved surface, picking up bits of food dropped by the tourists. Among them was a partial albino with

extensive white areas on the body, wings, and tail. I did not make detailed notes on the exact placement of the white areas, but they were sufficient to make the bird very conspicuous both on the ground and in flight.

ADELE H. WEST, 2914 Haywood Ave., Apt. 1-D, Chattanooga, 5.

PURPLE FINCH—PARTIAL ALBINO—From Feb. 26 to Mar. 11, I've had a very striking bird visit my feeder—a partial albino male Purple Finch. I call him "Pinky" because he is pure white washed with a delicate rose-pink, forehead raspberry, wings and tail dark with white wing-coverts and one very white upper tail feather. He is very active and alert and has dark eyes. I hope to get some better colored pictures of him before his departure.

MRS. ROBERT A. MONROE, 1424 Tugaloo Drive, Knoxville 19.

SIX SWALLOWS ON A WIRE—On April 30th, 1958 I visited Bush Lake. I noticed about 75 Swallows perched on a utility wire near the lake office. I checked them for identification and was very much surprised to find all six of our Swallow species on one wire at the same time. There were approximately 13 Tree, 27 Bank, 20 Rough-winged, 4 Barn, 7 Cliff, and 4 Purple Martins. Bank and Tree Swallows are rare at Nashville. About 200 Swallows were feeding over the lake at that time.

A LATE CLIFF SWALLOW AT NASHVILLE—On Sept. 30th, 1953, 25 Cliff Swallows were seen at Bush Lake. On Oct. 6th, only one was there. This bird was quite tame and would allow me to approach to within 8 to 20 feet. I think it was an immature bird as its plumage was very dull. Two primary feathers were missing from its right wing. This didn't seem to bother its flight. I saw it there at least three times a week until Oct. 24th. On Oct. 17th, another Cliff Swallow, in fully mature plumage, joined it for one day only. These dates are of interest as Cliff Swallows are rarely seen here and never after Sept. 15th.

FALL MIGRATION OF SPOTTED SANDPIPERS AT NASHVILLE—My first Spotted Sandpiper of the fall migration was seen at Bush Lake on July 21st, 1958. On at least three trips per week to this area I saw from one to four. The last was a single on Nov. 11th. That makes a migration period of 114 days, long for any bird.

A RARE VISIT OF TERNS AT NASHVILLE—On Sept. 12th, 1858 I found three species of tern at Bush Lake. There were 7 Caspian, 1 Forster's, and 1 Least Tern. All are rare in Nashville. Two of the Caspian were in summer plumage. Five were either moulting, or in immature plumage. All were sunning on bare ground. The Forster's Tern stayed on the opposite side of the lake from the others. Twice, while in the car, it allowed me to examine it from a distance of twenty feet. The markings that Peterson gives to distinguish it from the Common Tern were very apparent.

A TRULY "LESSER" YELLOWLEG—On a late date, Nov. 14th, 1958, I found a Lesser Yellowlegs at Bush Lake. It had one entire leg missing. This slowed down its rate of feeding considerably. It would peck at the mud flat, straighten up, take 3 or 4 seconds to regain its balance, then peck again. I finally flushed the bird. Its power of flight was not impaired.

HENRY E. PARMER, 3800 Richland Ave., Nashville 5.

CASUALTIES AT WJHL-TV TOWER. Following a rather heavy rain storm during the night of Sept. 20-21, 1958 the area in the vicinity of the WJHL Television Tower in Johnson City, Tenn., was visited and eight birds of six species, which had perished during the night, were picked up and identified. Judging by the remains of skeletons and fragmentary remains, several other birds had previously met similar destruction.

Acting upon Mrs. Laskey's suggestion, beginning on September 24 and continuing through October 25, the area was visited daily at about 7:00 a.m. and the birds collected, which had been killed during the preceding night, for identification.

On six mornings, during this period, mostly all following cloudy, windy nights during which there was an appreciable temperature drop, some dead birds were found. The entire list of casualties consisted of 16 species and 27 individuals as follows: 9-21, Yellow-bellied Flycatcher (1), Swainson's Thrush (1), Red-eyed Vireo (3), Yellow Warbler (1), Scarlet Tanager (1), Summer Tanager (1); 9-28, Swainson's Thrush (1), Ovenbird (1); 10-2, Swainson's Thrush (1), Black-throated Green Warbler (1), Blackburnian Warbler (1), Ovenbird (2) and Rose-breasted Grosbeak (1); 10-4, Yellow-breasted Chat (1); 10-10, Catbird (1), Wood Thrush (1); 10-13, Common Yellowthroat (1); 10-18, Black-throated Blue Warbler (1), Bay-breasted Warbler (6).

-THOMAS E. McPHERSON, 118 West Pine St., Johnson City.

LARK SPARROWS ON MEMPHIS GOLF COURSE. — I discovered the joy of observing the arrival of many colorful sparrows in the lush green grass on the knolls and slopes at Forrest Hill while operating a banding station there several seasons ago. I believe this type of birding from early March until mid-May is being overlooked by many birders in favor of woodlands, marshes and fields when observing migrating sparrows. The first Chipping Vesper, White-crowned Sparrows, Indigo Buntings and an occasional individual of another species can be observed in the open sunlight. I always record the last Slate-colored Junco about April 20 in such flocks. There is nothing more colorful than a flock of Indigo Buntings and Goldfinches feeding on the ground in late April. I naturally became aware of the large expanses of green fairways on the many golf courses in Memphis and covered Overton and Riverside Parks daily in addition to my woodland birding this spring. Much to my surprise I found an Eastern Lark Sparrow in breeding plumage at No. 8 green at Riverside on April 13 and two feeding in the middle of No. 9 fairway, near the Art Gallery at Overton Park on April 24. The latter birds would fly up into the trees when disturbed by golfers and the black tail with the white pattern could be clearly seen. The "Quail" head pattern, "stickpin" breast spot, was noted on each of these brightly plumaged birds. This sparrow is a rare summer resident in west Tennessee and it is not often recorded in migration here.—OLIVER F. IRWIN, 1789 Glenview Ave., Memphis, 14.

YELLOW-HEADED BLACKBIRD SEEN AGAIN — As of April 20, 1958, it should now be proper to add this species to the hypothetical list for Tennessee. It was 3:30 p. m. when Miss Carroll Thompson happened to look out a window at her home and saw a male bird moving about in a mock orange bush. She called her father and he also saw it. This species was originally reported by another member of the family in August 1956, (See MIGRANT, 27, 56, 1956).

ADELE H. WEST, 2914 Haywood Ave., Apt. 1-D, Chattanooga 5.

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LEE R. HERNDON, Editor, 1533 Burgie Place ELIZABETHTON, TENN.

The simple truth about birds is interesting enough; it is not necessary to go beyond it.

REELFOOT LAKE CHRISTMAS BIRD COUNT - 1958

(15 mile diameter circle). Lake 20%, Marsh 5%, Deciduous Woods 45%, Field and Farm 18%, Roadside 12%. Dec. 30, 7:00 a.m. to 5:00 p.m. overcast; temperature 37 to 53° F.; wind N-NE, 5-30 m.p.h.; 8 observers in 4 parties; total party-hours, 40 (25 on foot, 7 by car, 8 by boat); total partymiles, 106 (24 on foot, 60 by car, 22 by boat). Pied-billed Grebe, 2; Great Blue Heron, 27; Canada Goose, 22,300; Mallard, 53,000; Black Duck, 35; Gadwall, 2; American Widgeon, 18; Pintail, 48; Green-winged Teal, 25; Shoveler, 4; Ring-necked Duck, 25,000; Canvasback, 1; Lesser Scaup, 3; Common Goldeneye, 40; Hooded Merganser, 120; Turkey Vulture, 1; Black Vulture, 16; Cooper's Hawk, 1; Red-tailed Hawk, 9; Red-shouldered Hawk, 1; Rough-legged Hawk, 1; Bald Eagle, 20; Marsh Hawk, 3; Sparrow Hawk, 6; American Coot, 23; Killdeer, 7; Common Snipe, 1; Ring-billed Gull, 82; Mourning Dove, 5; Long-eared Owl, 1; Belted Kingfisher, 3; Yellow-shafted Flicker, 2; Pileated Woodpecker, 7; Red-bellied Woodpecker, 36; Red-headed Woodpecker, 1; Hairy Woodpecker, 9; Downy Woodpecker, 10; Phoebe, 1; Blue Jay, 27; Common Crow, 300; Carolina Chickadee, 30; Tufted Titmouse, 31; White-breasted Nuthatch, 8; Winter Wren, 1; Carolina Wren, 19; Mockingbird, 10; Brown Thrasher, 1; Robin, 2; Hermit Thrush, 1; Bluebird, 6; Golden-crowned Kinglet, 1; Ruby-crowned Kinglet, 17; Loggerhead Shrike, 4; Starling, 200,000; House Sparrow, 250; Eastern Meadowlark, 5; Redwinged Blackbird, 5,000,000; Brewer's Blackbird, 8; Common Grackle, 48,000; Cardinal, 89; Purple Finch, 49; Rufus-sided Towhee, 3; Slate-colored Junco, 45; Tree Sparrow, 2; Field Sparrow, 4; White-throated Sparrow, 70; Fox Sparrow, 40; Song Sparrow, 12. Total species-68. Total individuals-5,349,897. Seen in area during count week—Barred Owl and Bufflehead. John R. Conder (compiler), W. Fickle, Hunter M. Hancock, Preston Lane, Gerhardt Megow, Bill Mitchell, Clell T. Peterson, Bill Slade, and L. D. Thompson.

JOHN R. CONDER, Highland Heights, Camden.

Note: This report was received too late to be included in the Dec. 1958 issue of THE MIGRANT. This list added. Rough-legged Hawk. Bald Eagle, Long-eared Owl and Tree Sparrow making a total of 113 species for the 1958 Christmas Count. Ed.

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