



The Raven

BULLETIN OF THE VIRGINIA SOCIETY OF ORNITHOLOGY
PUBLISHED AT LYNCHBURG, VIRGINIA

DR. J. J. MURRAY, EDITOR
LEXINGTON, VA.

Vol. XIII

JANUARY - 1942

No. 1

THE 1941 CHRISTMAS CENSUS

Norfolk, Va. (Route 615 at intersection with Sand Bridge Road, south to brook swamp on Route 623, north to cypress swamp and Horn Point on Route 603, north to Dam Neck and Fresh Pond, south on beach to Biological Survey Refuge including that part called Green Hills, Sand Bay, and Long Island, return to Sand Bridge). -- Dec. 22; 7:45 A. M. to 5:15 P. M. Heavy frost and ground fog early morning, then sunshine thru overcast clouds, thickening in afternoon; light south wind; temp. 35° at start, 48° at finish. Four observers, 3 together for 5 $\frac{1}{4}$ hours, all 4 together for 4 $\frac{1}{4}$ hours. Total party hours afield 9 $\frac{1}{2}$ (6 $\frac{1}{2}$ afoot, 3 by transportation); total party miles, 62 (30 by car, 21 by truck, 6 by motorboat, 5 afoot). Common Loon, 6; Pied-billed Grebe, 4; Great Blue Heron, 2; American Bittern, 2; Whistling Swan, 2,500 (est.); Canada Goose, 8,000 (est.); Greater Snow Goose, 8,000 (est.); Blue Goose, 20; Mallard, 100; Black Duck, 1000 (est.); European Widgeon, 1; Baldpate, 15,000 (est.); Pintail, 6000 (est.); Green-winged Teal, 4; Redhead, 400 (est.); Ringnecked Duck, 2,000 (est.); Canvas-back, 8,000 (est.); Greater Scaup, 2,000 (est.); Lesser Scaup, 6,000 (est.); Buffle-head, 3; Ruddy Duck, 400 (est.); American Merganser, 25; Red-breasted Merganser, 6; Turkey Vulture, 17; Black Vulture, 7; Cooper's Hawk, 1; Red-shouldered Hawk, 3; Bald Eagle, 6; Marsh Hawk, 6; Duck Hawk, 2; Sparrow Hawk, 4; Coot, 2,500 (est.); Killdeer, 32; Black-bellied Plover, 4; Red-backed Sandpiper, 7; Herring Gull, 57; Ring-billed Gull, 25; Mourning Dove, 4; Screech Owl, 1; Great Horned Owl, 1; Kingfisher, 1; Flicker, 6; Pileated Woodpecker, 1; Red-bellied Woodpecker, 5; Hairy Woodpecker, 2; Downy Woodpecker, 1; Crow, 5; Fish Crow, 4; Carolina Chickadee, 20; Tufted Titmouse, 2; White-breasted Nuthatch, 1; Brown-headed Nuthatch, 25; Brown Creeper, 1; Carolina Wren, 5; Short-billed Marsh Wren, 1; Mockingbird, 15; Catbird, 3; Robin, 2; Hermit Thrush, 1; Bluebird, 14; Golden-crowned Kinglet, 4; Pipit, 78; Starling, 36; Myrtle Warbler, 89; Yellow-throat, 1; English Sparrow, 19; Meadowlark, 91; Red-wing, 629; Purple Grackle, 16; Cardinal, 2; Goldfinch, 6; Towhee, 3; Savannah Sparrow, 26; Junco, 5; Field Sparrow, 16; White-throated Sparrow, 4; Fox Sparrow, 2; Swamp Sparrow, 30; Song Sparrow, 34. Total, 79 species; 63,356 individuals (est.). Two Double-crested Cormorants and four Sanderlings were noted on the Refuge in the morning by John H. Southerlin of the Fish and Wildlife Service; 1 Green Heron was observed on way to census area; and one Red-tailed Hawk was seen at Horn Point, Dec. 18.-- H. A. Bailey, Mrs. C. A. Barefield, Jimmy C. Harmon, Mrs. A. C. Reed.

Brunswick County, Va. December 22, 1941. A. M. through fields, pastures and pine woods, north to Whiteoak Creek; up creek about a mile, through wooded lowgrounds, and return through fields and woods; P. M. through fields to Rattlesnake Creek, then down creek through beech-oak-holly woods to confluence of Mill Branch and up branch, home. Time: 7:30 to 12 A. M., 1:30 to 4:15 P. M. Total time afield 7 hours, 15 minutes. About 7 miles on foot, observer alone. Weather clear, little wind, no snow. Temp. at start 21°, at noon 44°.

Turkey Vulture, 15; Black Vulture, 11; Cooper's Hawk, 1; Killdeer, 7; Mourning Dove, 24; Great-Horned Owl, 1 (heard before dawn); Flicker, 5; Pileated Woodpecker, 1; Red-bellied Woodpecker, 4; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 3; Downy Woodpecker, 4; Phoebe, 1; Prairie Horned Lark, 2; Blue Jay, 2; Crow, 32; Carolina Chickadee, 6; Tufted Titmouse, 7; Carolina Wren, 3; Mockingbird, 6; Robin, 35; Hermit Thrush, 8; Bluebird, 21; Golden-crowned Kinglet, 4; Myrtle Warbler, 1; Meadowlark, 60; Cardinal, 8; Purple Finch, 8; Goldfinch, 3; Towhee, 5; Savannah Sparrow, 9; Junco, 110 (partly est.); Field Sparrow, 29; White-throated Sparrow, 29; Song Sparrow, 12. Species 35, individuals 482.

John B. Lewis
Seward Forest
Triplett, Va.

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Lynchburg, Va. (fields, woods, low ground around Timber Lake, College Lake, Tomahawk Swamp.) -- Dec. 26; 7:00 A. M. -- 4:45 P. M. Cloudy with drizzling rain from east up to 10 A. M., then clearing, no wind at surface; ground bare; temp. 45° at start, little change through day. Six observers in three parties. Total party hours afield, 29½ (27½ on foot, 1¾ in car); total party miles, 41 (26 on foot, 15 in car). Black Duck, 1; Blue-winged Teal, 1; Ring-necked Duck, 3; Lesser Scaup, 6; Hooded Merganser, 2; American Merganser, 7; Turkey Vulture, 22; Black Vulture, 11; Cooper's Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 4; Bobwhite, 15; Rock Dove, 47; Mourning Dove, 42; Barred Owl, 1; Kingfisher, 3; Flicker, 12; Pileated Woodpecker, 5; Red-bellied Woodpecker, 1; Red-headed Woodpecker, 3; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 5; Downy Woodpecker, 14; Phoebe, 3; Prairie Horned Lark, 2; Blue Jay, 11; Crow, 198; Chickadee, 62; Tufted Titmouse, 21; White-breasted Nuthatch, 16; Red-breasted Nuthatch, 17; Brown Creeper, 2; Carolina Wren, 21; Mockingbird, 9; Robin, 22; Hermit Thrush, 10; Bluebird, 46; Golden-crowned Kinglet, 73; Ruby-crowned Kinglet, 1; Starling, 45; Myrtle Warbler, 2; English Sparrow, 5; Meadowlark, 10; Cardinal, 72; Purple Finch, 42; Goldfinch, 57; Junco, 384; Tree Sparrow, 6; Field Sparrow, 37; White-throated Sparrow, 79; Swamp Sparrow, 1; Song Sparrow, 195. Total, 52 species; 1667 individuals.-- Lynchburg Chapter, Virginia Society of Ornithology (Kingsley Stevens, Kenneth Lawless, Billy McIntosh, Clyde Ward, Mr. and Mrs. Ruskin S. Freer).

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Naruna, Va. --Dec. 27; 8:00 A. M. to 9:30. Sun shining dimly, white haze drifting over sky. Slight wind blowing, ground damp from rain of the day before. Temperature around 45° or 50°. One hour spent in yard and lot back of my home in the village. Turkey Vulture, 1; Mourning Dove, 1; Yellow-bellied

Sapsucker, 1; Crow, 1; Chickadee, 2; Tufted Titmouse, 2; Carolina Wren, 2; Bewick's Wren, 1; Robin, 1; Bluebird, 3; Mockingbird, 1; Starling, 5; English Sparrow, 6; Meadowlark, 30; Cardinal, 5; Slate-colored Junco, 4; Field Sparrow, 25; White-throated Sparrow, 2; Song Sparrow, 15; Species 19, individuals 103. Meadowlarks, Cardinals, Bluebirds, Song and White-throated Sparrows were singing. The ever present White-breasted Nuthatches were absent as well as the Downy Woodpecker.

Bertha Daniel.

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Lexington, Va. (Territory usually covered: Big Spring Pond, Wood's Creek Glen, cedar woods and oak woods along North River near Lime Kiln Bridge, over-grown fields). - Dec. 22; 8 A. M. to 2 P. M., 3:30 to 5:00 P. M. Clear, clouding in afternoon; ground bare and not frozen; no wind; temp., 25° at start, about 50° at return. Observers: 3 in morning, 6 hours, 5 miles afoot, 16 by auto; 3 in afternoon, 1½ hours. 2 miles afoot, 6 by auto. Total miles afoot, 7, by auto, 22. Green-winged Teal, 10; Turkey Vulture, 81; Black Vulture, 2; Sparrow Hawk, 5; Bob-white, 10; Killdeer, 1; Wilson's Snipe, 1; Kingfisher, 2; Screech Owl, 1; Great Horned Owl, 1; Sapsucker, 2; Downy Woodpecker, 12; Horned Lark, 1; Blue Jay, 3; Raven, 1; Crow, 33; Chickadee, 26; Tufted Titmouse, 6; White-breasted Nuthatch, 6; Carolina Wren, 12; Mockingbird, 13; Bluebird, 32; Golden-crowned Kinglet, 5; Starling, 83; Myrtle Warbler, 5; English Sparrow, 69; Cardinal, 57; Purple Finch, 2; Goldfinch, 12; Towhee, 1; Junco, 183; Tree Sparrow, 46; Field Sparrow, 10; White-crowned Sparrow, 3; White-throated Sparrow, 19; Song Sparrow, 35. Total 36 species; 791 individuals. - Dickson Vardell, Murray (morning). Jimmy Murray (afternoon). R. P. Carroll and J. J. Murray (all day).

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Roanoke, Va. (Murray's Pond and Bennett's Springs) December 27; 9 A. M. to 4:30 P. M. - Clear, Temp. 50° at start with fresh wind in the afternoon. On foot and in car. Turkey Vulture, 12; Mourning Dove, 15; Kingfisher, 1; Piloted Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 3; Crow, 20; Chickadee, 8; Titmouse, 1; White-breasted Nuthatch, 1; Brown Creeper, 1; Winter Wren, 2; Carolina Wren, 2; Mockingbird, 2; Hermit Thrush, 1; Bluebird, 2; Golden-crowned Kinglet, 26; Shrike, 1; Starling, 60; Meadowlark, 5; Cardinal, 8; Goldfinch, 7; Tree Sparrow, 2; Field Sparrow, 3; White-crowned Sparrow, 8; English Sparrow, 9; Song Sparrow, 8; Slate-colored Junco, 40; Total species 28.

Mr. & Mrs. A. O. English

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Blacksburg, (Montgomery Co.), Va. (V. P. I. Campus and farm, Brush Mountain and Strouble's Creek to New River, along New River 4 miles from McCoy to Whitethorne Ferry, within 13 mile diameter). -- Dec. 22; 6:15 A. M. to 5:00 P. M. Clear to increased cloudiness, raining at 7 P. M.; ground bare; no wind at start,

to brisk south wind by late afternoon; temp. 26° at start, 40° at return. Observers 9 in 4 groups, afield all day. Total miles afoot, 45; by car, 60; total hours afoot and by car, 43. Mallard, 3; Black Duck, 15; Gadwall, 1; Baldpate, 5; Pintail, 1; Green-winged Teal, 1; Blue-winged Teal, 1; Shoveller, 1; Ring-necked Duck, 1; Lesser Scaup, 7; American Golden-eye, 3; Bufflehead, 1; Hooded Merganser, 14; Turkey Vulture, 51; Black Vulture, 3; Cooper's Hawk, 4; Red-tailed Hawk, 1; Red-shouldered Hawk, 2; Sparrow Hawk, 5; Ruffed Grouse, 1; Bob-white, 40 (est.) (5 coveys, 3 of which were heard whistling from roosts at daybreak); Killdeer, 10; Wilson's Snipe, 27; Rock Dove (Wild), 15; Mourning Dove, 103; Screech Owl, 2 (heard at daybreak); Great Horned Owl, 1 (heard at 6:45 A. M.); Barred Owl, 1; Belted Kingfisher, 3; Flicker, 20; Pileated Woodpecker, 3; Red-bellied Woodpecker, 2; Red-headed Woodpecker, 58; Yellow-bellied Sapsucker, 6; Hairy Woodpecker, 6; Downy Woodpecker, 27; Prairie-horned Lark, 86; Blue Jay, 46; Crow, 300 (est.); Carolina Chickadee, 127; Tufted Titmouse, 71; Red-breasted Nuthatch, 25; White-breasted Nuthatch, 38; Brown Creeper, 4; Winter Wren, 27; Carolina Wren, 12; Mockingbird, 10; Robin, 8; Hermit Thrush, 8; Bluebird, 49; Golden-crowned Kinglet, 66; Migrant Shrike (Var.?), 3; Starling, 1710 (est.); English Sparrow, 217, (est.); Meadowlark, 25; Rusty Blackbird, 17; Grackle, 3; Cowbird, 1 (CEA); Cardinal, 104; Purple Finch, 1; Pine Siskin, 15; Goldfinch, 105; Red Crossbill, 1 (COH, Jr.); Towhee, 3; Junco, 462 (est.); Tree Sparrow, 83; Field Sparrow, 118; White-crowned Sparrow, 72; White-throated Sparrow, 63; Fox Sparrow, 6; Swamp Sparrow, 13; Song Sparrow, 284; Total, 72 species; 4,638 individuals.--- C. E. Addy, R. H. Cross, Jr. C. O. Handley, Jr., W. B. McIntosh, R. J. Watson, Ward Mathews, A. B. Massey, A. B. Culbertson, C. O. Handley. The additional species were observed on the V. P. I. Campus on December 23; Red-legged Black Duck, 1; Ring-necked Pheasant, 1; Western Palm Warbler, 1. C. O. Handley, Jr.

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FEBRUARY-MARCH, 1942

Nos. 2 & 3

THE ATLANTIC SONG SPARROW IN BRUNSWICK COUNTY

Song sparrows are common in both Brunswick and Amelia counties, Virginia, from about October 10 to the middle of April, but I have never seen one in either county in the nesting season. According to my records, covering 17 years in Brunswick and 10 years in Amelia, the average date of "last seen" in Brunswick is April 12, and in Amelia, April 15. As I never intentionally kill a bird unless there is a very real reason for doing so, I had not worked out the sub-species of our song sparrow.

On November 18, 1941, a Song Sparrow was killed in one of my "Museum Special" traps that had been set for small mammals near the water's edge at a small but not permanent pond, a half mile from our home in Brunswick County. The skin was made up and later sent to Dr. John W. Aldrich, of the U.S. Fish and Wildlife Service, to have the sub-species determined. To my great surprise, Dr. Aldrich wrote back that the bird was an Atlantic Song Sparrow, Melospiza melodia atlantica, a race that is supposed to occur only on the coastal islands and the border of the mainland, from Long Island to North Carolina.

This was so interesting that I collected five more Song Sparrows from separate localities, over an area about three miles across, and sent them to Dr. Aldrich. Three of the five proved to be atlantica. Including the first specimen sent in, four out of six were atlantica. The location is about 100 miles east of the ocean shore and 8 miles north of the Virginia-North Carolina state line. The average elevation is about 260 feet.

Is it possible that Atlantic Song Sparrows from the northern part of the range migrate southwestward to this section? It is an interesting question that needs more study.

Dr. John W. Aldrich, under date of March 9, 1942, has written as follows about these specimens: "It is very likely that the song sparrows that I identified as atlantica came from a region farther north than has generally been ascribed to the breeding range of that race. Birds from the coastal regions as far north

as southern Rhode Island are very similar *atlantica*, and I am tentatively calling them that, at least until further study has been made to determine whether or not they should be segregated into another distinct form. In any event they are certainly not anything from *molodia* of Nova Scotia and other regions farther north, nor are they like *euphonia*, which is the bird of the Appalachian Mountain Region described by Doctor Wetmore".

John B. Lewis, Seward Forest,
Triplott, Virginia

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CAROLINA WREN SPECIMENS IN SOUTHERN VIRGINIA

Having been much interested in the paper entitled, "Geographical Variation in the Carolina Wren", by George H. Lowery, in THE RAVEN for January, 1940. I decided recently to send the few specimens I had to the Fish and Wildlife Service for determination of the subspecies. I expected, of course, that they would be the Northern Carolina Wren, *Thryothorus ludovicianus carolinianus*, as that is the credited to Virginia by Mr. Lowery.

Three of the four specimens sent in were from Seward Forest, in southeastern Brunswick County, the other one was from the north side of Amelia County. Dr. Aldrich wrote back that all were *Thryothorus ludovicianus ludovicianus*, the Southern Carolina, which had not been reported before, from as far north as Virginia.

John B. Lewis

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CHUCK-WILL'S-WIDOW IN AMHERST COUNTY, VIRGINIA

A Chuck-Will's Widow (*Antrostomus carolinensis*) was heard calling about one mile south of Amherst in Amherst County, Virginia, at about 11:30 P. M. on the night of June 10, 1941. At the same time a Whip-poor-will was calling, and the louder, more leisurely cadence of the former bird's call was easily differentiated from that of the Whip-poor-will. On two succeeding nights that the author spent in this vicinity neither species was heard. This instance is the first time the author has recorded the Chuck-Will's-Widow in Amherst County.

Ernest P. Edwards
Laboratory of Ornithology
Cornell University
Ithaca, N. Y.

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RICHMONDERS GIVE 200 PIGEONS TO THE ARMY SIGNAL CORPS

Army-trained offspring of Richmond homing pigeons may fly important messages when American troops take the offensive against the Axis invaders.

To breed these homers for Signal Corps service, a group of local pigeon fanciers sent 200 of their choice birds to Washington last week as a gift. They will be housed in Army lofts and their progeny will be trained to carry on the pigeon communication service for combat troupes in the war. Finest of the young birds will be selected for development as "two-way" fliers, the pride of the pigeon service.

Procurement of champion breeders is a nation-wide move by the Signal Corps to expand its pigeon service, which, despite the development of modern communications methods such as the radio, still plays an important role in military maneuvers. The pigeons, officers explain, can get through when all other means of communications fail.

The Government made three offers to pigeon fanciers throughout the nation: it would buy the birds at \$5 each, accept them as gifts, or take them as loans.

Twenty-one Richmond fanciers--members of three different clubs--reached into their lofts, pulled out the best birds and sent them to the Government as an outright donation.

"There're no strings attached," declared Louis M. Conte, one of the leaders in the Richmond movement to help the Government with pigeons. "Uncle Sam can do what he wants with them. We hope the birds will raise some young ones who will save our boys' lives."

George W. Turner, another leader in the group, agreed with enthusiasm. "We didn't spare our lofts," he said. "I picked the best of my birds."

"The birds they raise are really going to see some action," he added. "That's why it will take a hardened flyer to produce young birds that will stand up under the strain."

The Army would take only birds with the proper hereditary background. So 200 pedigrees, some of them going as far back as the pigeon's great-grandparents, accompanied the flyers.

"Some of my birds' pedigrees go back farther than mine," declared Mr. Conte smiling.

Besides Mr. Conte and Mr. Turner, Richmond fanciers contributing pigeons to Uncle Sam included: W. N. Gregory, Forrest J. Mitchell, R. L. Torrence, R. L. Crowder, R. C. Nickolson, J. E. Padgett, G. M. Tye, J. M. Harris, W. L. Wuest, A. C. Beck, H. N. Southworth, F. E. Kemmerer, A. F. Phaup, J. R. Ferriter, F. H. Kemmerer, J. W. Marshall, C. N. Buckols, R. R. Brown, and H. B. Seifert.

They are members of the Richmond Homing Pigeon Club, North Side Club and Hi-Plane Club.

(The above news item, taken from the Richmond Times-Dispatch of March 17, 1942, will be of interest to V. S. O. members. In that same connection some paragraphs from a news item in the same paper a year ago, February 10, 1941, will also be of interest. They form part of the report of an address made in Richmond by Major John K. Shawvan, of the Army's Pigeon Service, a branch of the Signal Corps, to the Chesapeake Center of the American Racing Pigeon Union. Editor)

ARMY IS TRAINING 'TWO-WAY' HOMING PIGEONS MAJOR SHAWVAN

TELLS BIRD FANCIERS' UNION

Major Shawvan, who talks about pigeons as enthusiastically as an admiral does about battleships, addressed over 150 members of the Chesapeake Center of the American Racing Pigeon Union assembled to hear the part they may play in the nation's defense program.

The first pigeon company to be mobilized will take part in Army field maneuvers in the South this summer, Major Shawvan said, and this company will need some 3,600 pigeons. Three other companies will be formed with a total of 20,000 pigeons. To supply this number the service will register pigeon fanciers throughout the nation and will borrow from them pairs of birds to be used for breeding purposes.

The pigeon service, keeping up with the Army units, has gone streamlined, Major Shawvan stated. In the field pigeons will travel in mobile lofts, fitted to hold 120 birds. When the going becomes too rough for the loft, the flyers will be transported in portable cases with a capacity for four birds.

The major explained that all the pigeons have been trained to fly "two-ways"--from the front line to headquarters and back again--while pigeons in other countries are "one-way" flyers. The training procedure is a military secret.

These birds also have been groomed for either night or day work and for the worst battle conditions. Traveling at a mile a minute, high above the scene of action, they suffer few casualties.

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SEWARD FOREST NOTES

Bird observations in central Brunswick county and in all sections of Amelia county had led me to consider the Swamp Sparrow, *Melospiza georgiana*, a rather rare migrant and winter resident. Since coming to the Seward Forest, in the southeast corner of Brunswick county, I find them quite common in suitable locations. In the wide, mostly wooded lowgrounds of Rattlesnake Creek there are occasional tracts, up to a half acre or more in extent, of open swamps, covered with a dense growth of tall sedges, grasses, cat-tails, and other swamp loving herbaceous plants. In these places the Swamp Sparrow is really abundant, often outnumbering either the Song Sparrow or White-throated Sparrow.

They differ from both the Song Sparrow and White-throat in that they stick much closer to the dense cover. When they take wing they are likely to fly only a short distance before dropping back into the herbage. If left undisturbed these

often fly to the top of a tall grass or sedge stem and sit in the sunshine for a few minutes. Their call note has some resemblance to that of the White-throat, but is weaker. It has none of the nasal quality that is so characteristic of the call note of the Song Sparrow.

The White-breasted Nuthatch is quite rare in the Soward Forest area. Most of the upland woods is an almost clear stand of the loblolly pine, Pinus taeda, which apparently does not suit them. I find them occasionally in the lowgrounds of the larger streams, where deciduous trees predominate.

The Brown-headed Nuthatch is a rather rare and erratic resident of our upland pine woods.

John B. Lewis

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A NORFOLK NOTE

During the last week of September, 1941, a flight of small birds was observed in the pine tops of our garden on North Shore Point. Examination over a period of six days convinced me that we were being visited by Pine Siskins.

Knowing the rarity of that bird in these regions, I took great care to study all my texts and to make accurate observations. Consistently the visitors refused to show any field marks except all of those indicative of the Pine Siskins! My own findings were checked by an expert "Birder" in the neighborhood and, later, a conversation with Mrs. A. C. Reed brought out items of behavior which further asserted the verdict to be correct.

The gay little flight numbered thirty to forty individuals, difficult to count because they kept to the thick pine needle sprays, except for lively forays and quick dashes.

Mrs. William A. Angwin,
Quarters H-8-B
Naval Operating Base, Norfolk, Va.

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GENERAL NOTES

Mr. William Montagna, of the Department of Zoology, Cornell University, writes that in the course of some field work on the Virginia coast last summer he and Dr. Arthur A. Allen found a fair sized and well established colony of nesting herons, including Little Blues, Snowy Egrets and Louisiana Herons, on Rogue Island, Virginia. The records of the Snowy Egrets and Louisiana Herons are of particular interest.

Mr. Robert E. Stewart, Junior Biologist of the Fish and Wildlife Service, has made a study of the breeding bird population of the Shenandoah Mountains. This will probably appear soon in The Auk. He writes that in connection with this

he came across a small colony of five or six pairs of Cliff Swallows, nesting under the eaves of the north end of an old unpainted barn, in Highland County, in the Cow Pasture River Valley, two or three miles north of U. S. Highway No. 250.

The Forest Service, in cooperation with the Virginia Commission of Game and Inland Fisheries, has published in the form of a folded card a pocket check list, "Common Birds of the Virginia National Forests." These cards will be found very useful in listing birds seen on a field trip in this region. Copies in any reasonable number may be obtained without charge by writing to: Forest Supervisor, George Washington National Forest, Harrisonburg, Virginia.

"The cupboard is bare" at the headquarters of The Raven. Unless some of the members of the V. S. O. stir themselves and send in some material, the prospects for forthcoming issues are scanty.

J. J. Murray.

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THE VIRGINIA SOCIETY OF ORNITHOLOGY

Statement of Treasurer, covering receipts and disbursements from
January 1, 1941 to December 31, 1941

December 31, 1940 - Balance on hand as per last report..... \$ 172.48

Receipts - 1941

Membership dues 124.50

TOTAL..... \$ 296.98

Disbursements

Voucher No.	5 - February 15, 1941	- Fallon	
"	"	Flowers M. G. Lewis.....	\$ 5.00
"	6 - February 18, 1941	- Mrs. Elsie W. Garst	
"	"	Stationery - "Raven".....	6.72
"	7 - March 6, 1941	- Cash	
"	"	Stamped envelopes.....	3.26
"	8 - May 17, 1941	- Mrs. Elsie W. Garst	
"	"	Postage - "Raven".....	4.53
"	9 - June 10, 1941	- T. L. Engleby	
"	"	Guest tickets - Annual Meeting	6.50
"	10 - June 13, 1941	- T. L. Engleby	
"	"	Stamped Envelopes.....	1.62
"	11 - July 12, 1941	- Mrs. Elsie W. Garst	
"	"	May "Raven".....	5.00
"	12 - July 12, 1941	- Mrs. Elsie W. Garst	
"	"	Postage and supplies for	
"	"	"Raven" June, July, August...	11.58
"	13 - July 21, 1941	- Mrs. Elsie W. Garst	
"	"	June "Raven".....	5.00
"	14 - July 23, 1941	- Mrs. Elsie W. Garst	
"	"	Supplies for Raven.....	23.03
"	15 - July 23, 1941	- Salem Publishing Company	
"	"	Printing fronts for "Raven"...	8.50
"	16 - July 31, 1941	- National Audubon Society	
"	"	Dues.....	10.00
"	17 - August 1, 1941	- Mrs. Elsie W. Garst	
"	"	July "Raven".....	5.00
"	18 - October 15, 1941	- Mrs. Elsie W. Garst	
"	"	August-September "Raven".....	5.00
"	19 - October 15, 1941	- Mrs. Elsie W. Garst	
"	"	Postage for "Raven".....	4.00
"	20 - December 30, 1941	- Mrs. Elsie W. Garst.....	4.00
		Postage for "Raven"	

TOTAL..... 108.71

Balance on hand December 31, 1941

as per bank statements..... 182.24

Respectfully submitted,
T. L. Engleby, Treasurer.

TOTAL \$ 296.93



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APRIL - MAY, 1942

Nos. 4 & 5

WOODLAND NESTING POPULATION AT BLACKSBURG, VIRGINIA By C. E. Addy

In connection with studies being made of field borders at Blacksburg, Virginia, a census was made of the nesting bird population of a 50 acre section of mature oak woodland. This farm woodlot is characterized by an extremely open stand of timber. The under cover for the most part consists of scattered patches of bramble (*Rubus* sp.) and thorn bushes (*Crataegus* sp.). Such cover offers excellent nesting sites for many song birds such as indigo buntings, brown thrashers and catbirds. Considerable areas of the woodland, however, are devoid of protective cover and these areas are cropped close by numerous livestock.

Intensive observations were conducted from April 1 to June 16, 1941 while only casual observations were made during the remainder of the nesting season. It appears likely that a few starlings had already completed their first nesting before this study was started and no attempt was made during July and August to find the nests of such late nesting birds as goldfinches and cedar waxwings. Most, if not all of the nests found, therefore, represent first nestings.

A total of 89 nests were located in the woodland. Of this number 40 were starling nests. The high starling population was apparently encouraged by a wealth of nesting cavities. Incidentally these cavities also supported a large gray squirrel population.

It was assumed in the beginning that some of the nests on the area would not be found. Therefore, a record was made of all the singing males, or mated pairs present whose nests were not recorded. It is likely that most of these were nesting birds.

A list by species of the nests recorded; also, additional males, or mated pairs whose nests were not recorded, follows:

Species	Nests Observed	Singing males or mated pairs (nests not observed)
Sparrow Hawk	1	1
Bobwhite Quail		3
Mourning Dove		2
Yellow-billed Cuckoo	1	1
Black-billed Cuckoo	1	
Screech Owl		1
Ruby-throated Hummingbird		1
Flicker	7	
Red-bellied Woodpecker		1
Red-headed Woodpecker	4	5
Hairy Woodpecker		1
Downy Woodpecker		1
Kingbird	1	
Crested Flycatcher		2
Wood Pewee		3
Common Crow	2	
Carolina Chickadee	1	1
Tufted Titmouse	2	
White-breasted Nuthatch	1	1
Catbird	5	6
Brown Thrasher	7	5
American Robin		1
Bluebird	2	
Blue-gray Gnatcatcher	1	1
Cedar Waxwing		2
Starling	40	6
Red-eyed Vireo	3*	2
Black and White Warbler		2
Ovenbird		5
Maryland Yellowthroat		3
Yellow-breasted Chat		6
Scarlet Tanager		1
Cardinal	1	3
Indigo Bunting	3	7
Goldfinch		1
Red-eyed Towhee	1	9
Field Sparrow	5	7
Song Sparrow		1
Total	89	92

Total species - 39 (including cowbird)

*two of the nests contained 1 cowbird egg each

Assuming that all of the birds listed were nesting, the total nesting species recorded for the woodland would be 181 pairs, or approximately 3.6 nests per acre for the 50 acre woodland plot.

Conservation Commission
Charleston, W. Virginia.

BIRD NOTES FROM SEWARD FOREST

From early December through the winter a group of about five Prairie Horned Larks, Otocoris alpestris praticola, were seen regularly in fields of fall sown wheat and winter oats on a farm adjoining the Seward Forest. April 6 while passing through a field of winter oats, then beginning to cover the ground, I saw a male in full spring plumage, about 15 yards from me. He was behaving just as the male of a pair that nested in Amelia County did when the nest was approached. He would not fly, but ran a short distance ahead of me, constantly pretending to pick something up from the ground. I spent a half hour looking for a nest, but failed to find it. On April 8 another visit was made to the field. The male Lark was found in the same place, and acted in the same way. April 9 both male and female were found in the same field, about 70 yards from the spot where the male had been on the two previous occasions. April 14: Pressure of other work prevented an earlier visit and at this time I failed to see either of the Larks. The oats were then large enough that the larks would have been hard to see, had they been present. I fully believe that this pair had either a nest, or young recently out of the nest in the field. The location is about 65 miles southeast of central Amelia County, where the species nests regularly.

The Brown-headed Nuthatch, Sitta p. pusilla, is a regular but not common resident of the Seward Forest Area. Except in the nesting season they usually go in groups of a half dozen or so, probably family groups. April 14 the soft nasal calls of these birds drew my attention to a group of large loblolly pines that stand in the border of an old field a short distance from a large tract of pine forest. After a few minutes watching one of them was seen to enter a hole in a nearly perpendicular dead limb about four inches thick in the top of one of these pines. Ten minutes later another one came and entered the hole, reappearing in less than a minute. On April 24 the pair were feeding nearly grown young in this hole. They were watched for some time as they fed at intervals that averaged slightly over ten minutes. Several times a young bird's head appeared at the opening during the absence of the parent birds. This nest hole, probably an old Downy Woodpecker hole, was at least 55 feet up. All my previous experience with the species have been with nests near the ground, usually in old stumps.

April 24 a Turkey Vulture, Cathartes aura septentrionalis, was flushed from under the top of a large fallen pine, in a tract of rather open forest land. The location is about 50 yards up a gentle slope from Whiteoak Creek, two miles north of the Seward Forest headquarters. Two fresh looking, rather heavily speckled white eggs were lying on the litter of forest leaves under a heavy canopy of branches of the fallen pine. This covering was about three feet above the ground, and the space under it is open and free from brush. On visiting the nest on May 22, I found the eggs broken, probably by some predator.

May 6 a Black Vulture, Coragyps a. atratus, took wing at my approach to a large honeysuckle thicket about half a mile down Whiteoak Creek from the nest described above. A search soon revealed two fresh looking eggs in an open space under a dense covering of honeysuckle vines supported by some small trees. The eggs were bluish white with numerous brown blotches. On visiting the nest on May 22 I found that the eggs had hatched.

John B. Lewis

BLACK VULTURE'S NEST AT NARUNA, VIRGINIA.

During the month of March I noticed a pair of Black Vultures hovering around the remains of an old log cabin which had fallen down and was over run with honeysuckle vines. This place was near the edge of a forest and beside a small stream.

On April 17, 1942, I located the nest in one corner of the cabin and found two eggs in the nest. Visiting the nest again on April 28 I found one downy buff chick and one egg not yet hatched.

Bertha Daniel

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BOBOLINKS AT NARUNA, VIRGINIA

On May 12, 1942, I found about 25 Bobolinks in a flock near my home. I enjoyed their singing which was punctuated with much chatter. We see them very seldom here at Naruna.

Bertha Daniel.

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NORFOLK NOTES

January 8 - One adult Yellow-crowned Night Heron - (Mrs. Herbert D. Thompson).

January and February - Fully 1000 sea birds perished because of oil resulting from submarine attacks on tankers off the Virginia coast. All three species of Scoters and Horned Grebes were the chief sufferers, with some loons also. (Harry Bailey).

March and April - Over 300 Loons, both Red-throated and Common Loons, but chiefly Common Loons, died as a result of oil. (Harry Bailey).

The destruction of these birds has aroused considerable attention in Norfolk, with people anxious to do something for the birds.

Mrs. A. C. Reed.

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THE RAVEN IN PENNSYLVANIA

The raven in Pennsylvania is fast nearing extinction -- in fact, game officials claim that a recent survey revealed less than a dozen pairs of birds in the

entire state. These remaining birds are to be found only in the remote mountainous sections, and are seldom observed even by natives.

Only a few nesting sites are definitely known, but these are carefully guarded to prevent anyone from collecting the birds or their eggs, a practice which the Commission is equally determined to break up in connection with duck hawks. Duck Hawks in eastern North America are none too plentiful either, yet there are commercial collectors and others who think nothing of violating the law in order to acquire the birds alive for falconry or as valuable classroom specimens.

News Release, Pennsylvania Game
Commission, Harrisburg, Pa.

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The Raven

BULLETIN OF THE VIRGINIA SOCIETY OF ORNITHOLOGY
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DR. J. J. MURRAY, EDITOR
LEXINGTON, VA.

Vol. XIII

JUNE - JULY, 1942

Nos. 6 & 7

A WEEK IN MAY AT CAMP RAPIDAN, VIRGINIA.

By James R. Sydnor

Camp Rapidan is located on the western side of Madison County, Virginia, about a mile below Hoover's Camp. It is about five miles east of the Skyline Drive (Big Meadows) and is about ten miles west of Criglersville. The cabins which we occupied were erected about the same time as the President's Camp and were used by members of the President's cabinet. Through the kindness of Mr. B. S. Utz of Madison they were placed at our disposal.

The camp is beautifully situated by the sparkling headwaters of the Rapidan and is built under the canopy of large hemlocks which still crowd the watercourses in that area. The elevation at Camp is 2250. On one side of the camp is Fork Mountain which rises to 3852 feet while on the other side is Doubletop Mountain of 3200 ft. According to an old inhabitant of that vicinity the mountain had been heavily lumbered about 40 years ago with the result that few evergreens exist except for a narrow margin along some of the streams. A good stand of deciduous trees exists in the valleys but becomes more dwarfed at higher elevations.

We took with us detailed topographical maps in order to check the bird population at various altitudes. In the immediate vicinity of the cabins we found the sheltered habitat of heavy forest and abundance of water while a quarter of a mile away and several hundred feet higher were the brushy pastures near the Marine Camp which formerly housed the President's guard. The top of nearby Fork Mountain offered a habitat of young hardwoods, laurel tangles, and spring branches while across the Laurel Prong valley was Big Meadows which name describes the large expanse of open grass fields situated at an elevation of 3500 feet. The author spent one day hiking in the farm country (600-800 feet elevation) just outside the mountains toward Criglersville to discover the bird population in this adjacent area. Thus a variety of habitats at different elevations were observed.

Our week of birding commenced about the same time as the extensive showers and storms broke the drought in the western part of the state. The generally rainy weather caused the birds to be rather quiescent and undoubtedly limited our list. We camped from May 18 through May 25. The writer was accompanied by Dr. John Grey,

Jr., of Raleigh, N. C., and Rev. W. B. Ward of Orange, Virginia, both of whom returned home on the morning of May 22, Mr. Ward to return to camp for the last day's trip.

May I pay tribute to the splendid help we received from constant reference to Saunder's A Guide to Bird Songs. In a country of heavy foliage and an assortment of migrating warblers we found it a distinct help.

1. Green Heron - One individual was seen flying along Robertson River near Criglersville.
2. Turkey Vulture - Very Common.
3. Black Vulture - Several individuals seen near camp.
4. Cooper's Hawk. One seen flying over the Marine Camp
5. Red-tailed Hawk. Excellent view from the Fire Tower atop Fork Mountain of individual sailing below us.
6. Red-shouldered Hawk. Individual seen at Big Meadows.
7. Bald Eagle. An immature seen sailing near Fork Mountain.
8. Duck Hawk. A pair seen in graceful flight over Big Meadows and perched atop a dead hickory.
9. Ruffed Grouse. One was heard drumming near top of Fork Mountain and on way down Fork an individual allowed the car to stop seven feet away without moving. Another was seen in the road near top of Big Meadows.
10. Bob-white. Were heard whistling at Big Meadows and Marine Camp.
11. Killdeer. One seen flying over field near Criglersville.
12. Mourning Dove. A few were seen around Marine Camp and outside Mountain area.
13. Black-billed Cuckoo. One heard half-way up Fork Mountain.
14. Whip-poor-will. One heard for a few minutes first night at Camp.
15. Chimney Swift. Three or four pair used the chimneys at the Marine Camp. One bold individual was seen sailing blithely some distance above the Fork Mountain Tower, at 3852 feet.
16. Ruby-throated Hummingbird. Rather common in more open areas. One individual was observed defending his homestead in a gnarled apple tree.
17. Belted Kingfisher. One was heard rattling up Rapidan near Camp and one was seen perched on wire near Criglersville.
18. Flicker. Most common woodpecker seen.
19. Pileated Woodpecker. A pair heard and one seen at 2700 feet on south side of Fork Mountain.
20. Red-bellied Woodpecker. Heard on Fork Mountain, and seen near Criglersville.
21. Hairy Woodpecker. A few seen.
22. Downy Woodpecker. More abundant than Hairy.
23. Eastern Kingbird. Not seen in mountain area but very common in farming country near Criglersville.
24. Crested Flycatcher. Frequently seen and heard at all elevations.
25. Phoebe. Five juveniles at Camp were banded. A pair was observed at nearly every bridge.
26. Acadian Flycatcher. An individual was taken again this year to clinch identification. Heard occasionally.

27. Wood Pewee. A common flycatcher. An individual constructing nest was observed.
28. Prairie Horned Lark. A pair seemingly enjoying respite from raising their **first** brood were observed by the road across Big Meadows.
29. Rough-winged Swallows. A pair observed just outside Mountain area.
30. Barn Swallow. Common in farming country.
31. Blue Jay. Heard infrequently throughout area.
- Raven. We did not visit the Raven's nest which was observed last year atop Old Rag Mountain.
32. Crow. Were seen occasionally near Marine Camp and at Big Meadows.
33. Black-capped Chickadee. Several were seen almost at arm's length at abandoned farmhouse near Camp on May 23. The larger size, white-edging on wing feathers, and distinctive song clinched the identification.
34. Carolina Chickadee. Seen and heard at scattered localities.
35. Tufted Titmouse. Heard infrequently.
36. White-breasted Nuthatch. Seen investigating dead hickories, at the Sag, a high pass of 3350 feet on southside of Fork Mt.
37. House Wren. A few near buildings of Marine Camp and near lodge on west side of Big Meadows.
38. Carolina Wren. A pair feeding young were seen at abandoned farmhouse near camp.
39. Mockingbird. Several observed in farm area near Criglersville. None in mountain area.
40. Catbird. The most abundant member of this family. Seen throughout area.
41. Brown Thrasher. Seen near Criglersville. Also seen at 2800 feet but quite scarce.
42. Robin. Common near Criglersville, occasional near camp. Seen atop Big Meadows.
43. Wood Thrush. Heard singing throughout area.
44. Veery Thrush. Common on Fork Mountain from 2750 feet up. Heard on border of Big Meadows. An accomplished individual serenaded the three of us in full view at distance of forty feet.
45. Bluebird. Seen around Marine Camp and a nest with five eggs found near Criglersville.
46. American Pipit. This record is offered with a great deal of hesitancy. The three of us examined this bird at fairly close range with our glasses, observed the bird walk a good distance along edge of the road and through nearby meadow, saw the buffy streakings along upper breast, and saw white tail feathers in its irregular flight. The National Park and absence of a gun precluded collecting. The presence of many similar-looking Vesper Sparrows and the late date (5/21) causes our hesitancy.
47. Cedar Waxwing. A lone individual seen perched on wire near Criglersville, May 20.
48. Shrike. Presumably a Migrant seen between Criglersville and camp.

49. Starling. Common around buildings and dead chestnuts at Big Meadows and Marine Camp.
50. Mountain Vireo. The cool song of this bird was heard in the trees of all elevations in the mountains.
51. Red-eyed Vireo. Very Common.
52. Black and White Warbler. Fairly common.
53. Worm-eating Warbler. One individual seen. Saunder's description and the high thin trill helped our identification.
54. Golden-winged Warbler. One individual seen by stream near Marine Camp, at 2500 feet, May 20, singing, but probably a migrant as we did not find it the following day.
55. Parula Warbler. A common warbler.
56. Yellow Warbler. Seen only around farms near Criglersville.
57. Black-throated Blue Warbler. Heard frequently around camp and on mountains.
58. Cairn's Warbler. A pair seen mating probably belonged to this subspecies since this area is in their breeding range. Most of the individuals in this area began their husky song with two or three downward slurs before the final ascending passage instead of the even-pitched notes as given by Saunders.
59. Black-throated Green Warbler. One seen at the Sag.
60. Blackburnian Warbler. Quite a number were seen and heard in the area.
61. Yellow-throated Warbler. A pair nested about 60 feet high in a hemlock across road from cabin. They were observed nesting in this same tree last year.
62. Chestnut-sided Warbler. Very common in more open country near Marine Camp and on Big Meadows.
63. Black-poll Warbler. Infrequently heard.
64. Prairie Warbler. Occasionally heard near Marine Camp.
65. Oven Bird. Very common.
66. Louisiana Water-Thrush. A few pair along the Rapidan.
67. Kentucky Warbler. Infrequently heard.
68. Maryland Yellow-throat. In thickets at Marine Camp and on Big Meadows.
69. Yellow-breasted Chat. These shy clowns heard in most of the clearings.
70. Hooded Warbler. A common warbler.
71. Canada Warbler. Seemed to be nesting near camp. Quite abundant.
72. Redstart. Abundant.
73. English Sparrow. Found in valley near Criglersville.
74. Meadowlark. Many heard whistling at Big Meadows and on farms in valley near Criglersville.
75. Red-wing. Small groups nesting along streams near Criglersville.
76. Orchard Oriole. Male singing near farm house near Criglersville.
77. Baltimore Oriole. Male flying near Criglersville.
78. Purple Grackle. Abundant near Criglersville where they were busy feeding young.
79. Scarlet Tanager. Two males fighting over female in front of camp. Their hoarse warble was heard frequently in mountains.
80. Cardinal. Pair nested just above camp. Were seen as high as 2750 on Fork Mountain.
81. Rose-breasted Grosbeak. Quite prevalent at all levels from Camp to mountain top. Pair observed fighting off another male at the Sag.

82. Blue Grosbeak. Few observed at elevation of 2750 on Fork Mountain and near Criglersville.
83. Indigo Bunting. Rather common. Were nesting near Criglersville.
84. Goldfinch. A flock of 100 seen on Big Meadows and others were seen over open territory elsewhere.
85. Towhee. Very common at all elevations.
86. Grasshopper Sparrow. Two individuals were heard in meadows near Criglersville.
87. Vesper Sparrow. Many were nesting at Big Meadows.
88. Carolina Junco. Seen atop Fork Mountain and Big Meadows and down as far as 2750 on Fork.
89. Chipping Sparrow. Fairly common in its accustomed habitat.
90. Field Sparrow. Its clear song was heard in open fields at all elevations.
91. Song Sparrow. Heard in area near Criglersville. Also in Big Meadows at 3,500 feet.

General Assembly's Training School
Richmond, Virginia.

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LAWRENCE'S WARBLER IN MADISON COUNTY

By James R. Sydnor

While camping recently in the Blue Ridge Mountains in the western part of Madison County, Virginia, I decided to take a hike in the nearby farming country lying immediately east of the mountains toward Criglersville. The date was May 23. I had been checking carefully the distribution and population of birds in that vicinity.

A certain section of the road was surrounded by open grain fields and lush pastures. Immediately next to the road flowed a small stream with banks covered with honeysuckle. A short distance ahead was a grove of deciduous trees surrounding a meadow. As I walked along this stretch of road I suddenly noticed two birds alight on the fence about fifty feet ahead. Through my glasses I noticed they were male and female warblers, but the male was extraordinary. These things I saw clearly, a black throat, white wing bars, and a yellowish green back. Since they were facing somewhat away from me I could not discern the color of the male's breast. In a second they flashed away and I could not find them again.

I have seen the Golden-winged Warbler several times and know the unmistakable yellow of its wing. These wing bars were white. And the back was definitely tinged with yellow and presented a yellowish green appearance. The Golden-winged back is gray. So when I looked at my Peterson's Field Guide, I discovered that I had been looking at a Lawrence's Warbler, the interesting and rare hybrid of the Golden-winged and Blue-winged Warbler. If the bird had turned around, I could have seen the yellow breast, but as birds will do, he was standing with his back to me and turning only his head for me to see the patch of black on his throat.

Upon returning to camp I read the more extensive descriptions found in Forbush and Pearson, and discovered that the habitat was exactly suited to the prefer-

ences of the Lawrence's Warbler. Since they might be nesting nearby, I returned the next day and spent two or three hours in search for the individuals, but they could not be found.

General Assembly's Training School.
Richmond, Virginia.

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Lexington Notes: There has been little time, as well as little gas, for field trips during the spring and early summer. Trips to Big Spring and to more distant places have been practically abandoned. Fortunately our own new place, near the Lime Kiln Bridge on North (Maury) River, where we have bought a few acres of ground and built a house of old logs, has a lot of birds, even though there are few rarities. V. S. O. visitors will always be welcome at 'If', when we are camping there. The following observations are all from this place unless otherwise noted. There have been a few ducks on the river. American Mergansers have been fairly common; 3 males and 1 female, 2/2; a pair, 2/9; 2 males and 3 females, 2/12; a pair, 3/16 - Baldpates: male and 2 females, 3/19, below our place; pair, 4/19, below our place; 3/15, one at Big Spring. Wood Ducks are seen regularly along the river, and raised a brood nearby in June. Pigeon Hawk, 4/18. Ospreys, common in April; one seen flying over the center of Lexington. Nesting Notes: A freshet on the river rose to within six inches of a Cardinal's nest in a cedar, where the adult was incubating on May 18; and a second rise of the water on May 23 reached and destroyed the nest. An Indigo Bunting's nest, containing four eggs almost ready to hatch on June 29, was beautifully built of wide strips of yellow bark. Three eggs in the nest of a Yellow-billed Cuckoo in the front yard of our place hatched on July 17 and 18. A pair of Parula Warblers were feeding young out of the nest in the front yard on June 4; and another pair feeding young on July 5. A pair of Cerulean Warblers were similarly feeding young in the woods at the edge of the yard on July 5.

J. J. Murray.

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BIRDS OF NORTH CAROLINA - A Review

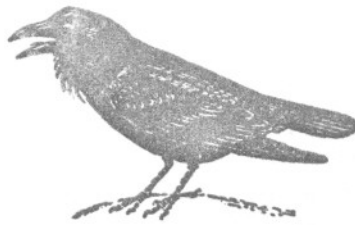
Bird students everywhere in the southeastern states will be delighted to learn that this long awaited volume is now off the press. This is a thorough re-writing of the volume published under the same title in 1919. Its present form is both handsome and satisfying, a book of 416 pages, 20 full page colored plates picturing 85 species, and 140 text cuts of individual species. The price of the book is \$3.50. Sixteen of the colored plates and most of the cuts come from the original edition; four of the colored plates and all of the black and white plates are taken from Roger T. Peterson's successful and popular book, A Field Guide to the Birds; while Peterson has graciously contributed seventeen new text cuts. The price at which this book is being sold has been made possible, by the way, by the fact that all of the work on it has been done without remuneration. The authors are the same as for the earlier edition. T. Gilbert Pearson, President Emeritus of the National Audubon Society, has in the main written the text; but the authors, C. S. and H. H. Brimley, have furnished much of the data as well as constant advice and criticism and have given approval to the final text.

The sketch of the ornithological history of the State, so interesting and valuable in the earlier edition, has been brought down to date. There is a good, although brief, section on bird protection. A brief description and a statement of the range are given for each species, with some discussion of the habits of the more common species. What is most important in a state book, there is a full discussion of the status of each of the 396 birds recorded from North Carolina. It may be pointed out incidentally that this is about forty more forms than we know from Virginia.

The writer of this review, who is fairly familiar with the birds and ornithological literature of both eastern and western North Carolina, can commend this book without reservations. There are gaps in the knowledge which it presents, gaps usually indicated in the text, but such gaps would be true in any state book, and particularly in the case of any Southern State. Certain minor omissions are not worth pointing out in a review. The information here presented is immeasurably better than in the early edition. In 1919 bird students in North Carolina were so few that the book necessarily depended in large measure upon the information in the hands of the three authors themselves; but since that time bird observers have greatly multiplied in the State; and under the leadership of John H. Grey, editor of The Chat, and others in the North Carolina Bird Club localities all over the State have been carefully studied. This improvement in the knowledge of the birds of the State is particularly noticeable as regards the common birds, where it is most important. In the difficult matter of sub-specific boundaries the authors have had very great help from collections made in North Carolina by the United States National Museum as late as 1939 and from Dr. Alexander Wetmore's recently published critical comments on these collections.

This book will be almost as valuable to bird students in Virginia as to those in North Carolina. At the price, it is a bargain.

J. J. Murray.



The Raven

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DR. J. J. MURRAY, EDITOR
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Partial Index to the First Nine Volumes of The Raven

We now have available a detailed index to the first ten volumes of THE RAVEN. It has been prepared by a group of Cadets of the Virginia Military Institute, under the direction of Col. Robert P. Carroll, and with the financial assistance of the National Youth Administration. It will be of great value to members of the V. S. O., and we are deeply indebted to those who have made it possible. The index cards, which number 4,000 or more, record all titles and authors of papers, all Virginia places referred to, and all references to bird species during this ten year period. It is, of course, too voluminous for publication in THE RAVEN, but the cards have been deposited in the new Preston Library at the V. M. I., where they may be consulted at any time by people interested in Virginia birds. The editor will be glad at any time to look up items for those needing the information.

Beginning with the tenth volume, a volume index has been published at the end of each year. We are here presenting a skeleton index to the first nine volumes. It has not been possible to list here references to places and species, but the titles and authors of all papers, even the short ones, which have appeared in these nine volumes are included. The three figures after each entry indicate in order the volume, the issue and the page. The index follows:

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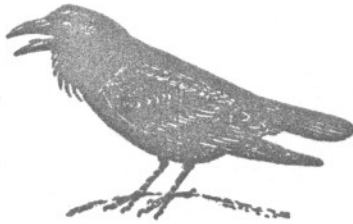
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The Raven

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HUMMINGBIRD MOTIF

By
Mrs. A. C. Reed

This article is written for those VSO members who are hummingbird fans as I am; who feed them sugar-water, who love dearly the little cantankerous, chattering, mercurial mites of birds, and who miss them terribly when they go. Altho no effort was made to particularly study hummingbirds, it is hoped these observations will be of interest.

I first began feeding hummingbirds in 1939. I had visions of attracting many, for I was familiar with the way Mrs. Lawrence J. Webster used to feed them in my home town of Holderness, N. H. Mrs. Webster has been known to readers of *Bird Lore* as the "Hummingbird Lady". Her work with them is also described by A. C. Bent in his *Life Histories of Hummingbirds*. Now the first lesson which I had to learn was that feeding hummingbirds on an estate of spacious lawns and gardens, with wilderness areas all around, was a different matter from feeding them in a city garden 35 x 40 feet.

In 1931 I put up seven vials, spaced about the garden. The largest number of hummingbirds that I could be sure of at one time was ten. In the late afternoon, between 4 and 5 o'clock, a favorite feeding hour, the garden sizzled with hummingbirds chasing each other in a maze of perpetual motion.

Scintillating tho it was, the harmony in my garden was gone. Now I love hummingbirds, but I want other birds too. Our garden is entirely enclosed. It is a sanctuary in a perilous region of cats. All the birds, it seems, bring their young into the garden; partly because fat mulberries are convenient food to cram down gaping mouths. There is also a cherry tree and fig trees by the garage. Besides food, there are three bird baths, filled several times a day in hot weather, and the steady drip, drip all summer of birds taking their baths is sweet music to my ears. However, I have learned that hummingbirds drive away other birds -- if the area is small. Catbird does not like to take a bath with an irate hummer's

rapier bill poised two inches above her gentle head. Nor do the other birds. Nor will they lie on the ground sunning themselves if a hummer, like split lightning, is likely to zoom down on them. A garden filled with contentious hummers becomes a desert as far as other birds are concerned.

In 1940 I put up four vials; in 1941 two, one at each window facing the garden, which has proved the best arrangement. The two vials do not attract many hummers at the beginning of the season, and their sparrings are carried on fairly close to the windows. During a brief period from August 8-15, I had to put up two more vials. At that time the most young of the year were present and there was the keenest competition. During that time some of the garden birds drifted away, which they might have done anyway if moulting. Then the young hummers departed for the south, leaving before the adults; and some of the garden birds came back.

For food I use two-parts of water to one-part of sugar. I have had some trouble with crystallizing of the sugar, and fermentation. The sugar is always in solution when I put it in the vials. Crystallizing may be due partly to evaporation. Yet the rapid whipping of the sugar-water by the tongues of the hummers may cause tiny granules to adhere together, and finally under constant agitation, to form into lumps. One day I saw a hummer lift away from the vial with its bill held tight together in what appeared to be a hard lump of sugar. This mishap was not serious for she flew to the mulberry tree and whacked away the sugar on a twig, and in a few minutes was back again. There is also some stickiness of the fluid, which may be due to evaporation in this hot climate. At any rate I have observed the birds after drinking fly to the cotton tassels hanging from the awnings and either wipe their bills on the tassels or deliberately draw the bill down through a bit of the cotton. Then again after drinking deeply, when their little bodies are so full of sugar-water that they are as round as barrels, they may rest on a twig and then one can see the tongue, like a silver thread being whipped in and out, in and out, as though the hummer was trying to wipe the bill. Fermentation is a more serious matter. During hot weather the sugar-water becomes cloudy. One has only to taste it to realize how much it has fermented. I may have lost one hummer through illness due to fermentation. She was a favorite, and I called her 'Minette'.

More than any other hummer, Minette had the habit of clinging to the iron hoop around the vial with her tiny feet. Sometimes she folded her wings back against her body as a locust might and her body would droop as the body of an insect bends; then curving her slender serpent-shaped head and neck, she would thrust her shoulders well inside the tube until she could reach the sugar-water at the bottom of her tongue. Finally she became expert. Scarcely checking her flight to clasp the rim with her feet, but in almost one continuous movement, she would bend double and thrust herself into the tube;— a sort of jack-knife dive from the air as it were. Watching her I wondered if she were not developing some new technique in feeding, and I speculated as to whether artificial feeding of hummingbirds might create some slow evolution in their feeding habits.

Then something went wrong with Minette. By June 24, her agile movements became heavy and her body sagged. On June 28, she looked weak and seemed to sway as she alighted on the vial. Her breast was dark and soiled looking, her body bloated and she reated heavily. After that I saw her no more. Had she injured her-

self with her acrobatic performances -- overshoot the mark of slow evolution so to speak-- or was it illness due to fermented sugar-water? Thereafter I made up fresh fluid every day, never keeping a supply on hand. Automatic feeders, large enough to hold a supply for more than one day, should not be used in our climate I think.

A possible explanation of Minette's end came from a neighbor. He said that he saw the cat of another neighbor twice kill a hummingbird. The cat would hide among the flowers and shrubbery. When the hummingbird came low to sip from the flowers (sometimes they are only three inches from the ground when sipping from the branches of larkspur blossoms), the cat would reach out and strike the hummer down. I have seen this cat, on top of the garage, leap a foot into the air and at the same time with raised paw strike at a bird flying over the roof.

When I first began feeding humming birds I used test tubes the open ends of which Mr. Reed fluted so as to make them appear like flowers and he painted the whole tubes red. I soon scraped off the paint. The most interesting part in watching hummingbirds feed is to see how the forked, snake-like tongue flicks the sugar-water, ('pumping it up' as it were through the round tubular tongue, (which is a sheath enclosing two tubes.) It is also fun to watch the females 'tank up' with sugar-water. As they drink their little bodies swell and swell, until 'hull-down with freight' they buzz away to their babies. Soon they are back again looking quite streamlined in figure and ready to tank up all over again. I doubt if in the wild hummingbirds ever find so much nectar that they become swollen; but in the artificial feeding of them I cannot see that there is anything to the theory that hummingbirds only 'take sips', even though Mr. Pettingill in Bird Lore (May-June '37) says of Mrs. Webster's hummingbirds, "A sip from each (vial) was enough; at no time did any one bird take a noticeable amount of solution from one vial." To the contrary I have often observed how the fluid in the vial does become noticeably lowered while a hummer is drinking. In Bent we read, "The hummingbird is popularly regarded solely as a sipper of nectar, as it buzzes from flower to flower; as one who might say with Ariel, "Where the bee sucks, there suck I." When the females begin drinking deeply I take it as an indication there are babies in the nest. I also wonder if drinking so much sugar-water increases the size of hummingbirds. My adult females seem bigger than hummingbirds in the wild.

Hummingbirds not only feed by sucking nectar from flowers but it is said the main part of their food consists of small insects. In midsummer I have often seen a female hummingbird revolving around within a swarm of dancing gnats, seemingly picking them out of the air with her bill. I have watched a single hummer clean the air of the gnats in this way. Forbush suggests hummingbirds may catch insects in the air with the tongue in much the same manner as a flicker spears ants with its barb-tipped tongue. Perhaps hummingbirds have several ways of obtaining their food; sucking fluids (and tiny insect) through the tubular tongue, and catching insects with the bill, or with the brush-tipped tongue. On July 13, '39 I saw a hummer follow a cabbage butterfly with a wing spread of almost two inches. She nipped several times at the butterfly's wings as if trying to take a piece out of them. Each time she nipped the butterfly stopped to flutter its wings energetically, then flew on. The hummer gave up.

Mr. Reed happened to make the test tubes $3\frac{1}{4}$ inches long. They were not

quite $\frac{3}{4}$ of an inch wide. From these tubes, the hummers could drink up all the sugar-water except that in the rounded bottom, which was about $\frac{1}{4}$ inch deep. Hummingbirds appear to unroll the tongue until it extends as far beyond the bill as the length of the bill itself. Nevertheless in order to reach the bottom of these tubes with their tongues, they had to cling to the fluted glass rim with their feet and to thrust their head inside the tube, a position which must have been difficult for them to hold and one which left them vulnerable to cruel wing-slaps from assailants. Consequently I discontinued using these tubes and now use as wide-mouthed, small pill bottles as I can find. Hummers enjoy the wide-mouthed vials. They can plunge the bill quickly into the fluid and 'pump' vigorously while at the same time they can watch for attacking hummers.

This perpetual quarrelling, this intolerance on the part of hummers for their own kind and other birds also is their most noticeable characteristic. And it is when they are fencing, sparring, sallying about each other that I think they are the most 'unbirdlike'. Then they give the impression of being little puppets suspended in air, mechanically operated by invisible strings; little jousters forever jousting!

The greatest agitation comes when the young of the year are present thereby increasing the number of hummers feeding at the vials. At such times an assailant may 'crack down' on a drinking hummer with wings that slap with the force of cracking whips. One wonders how the delicate young with their gauze-like wings ever escape injury. There should be no obstacle beneath the vials. In eluding an assailant, a drinking hummer often drops vertically down, with the result the attacker zooms past without striking anything more than thin air. The force of this wing-slapping makes one realize that in hummingbirds the breast muscles are relatively very large and that hummingbirds have more strength and speed, in proportion to size, than any other birds.

There has been one fatality among my hummingbirds due to this quarrelling. On August 23, 1939, a little male hummer came to the vial for the first time. Possibly he was a migrant. At any rate he promptly became master, and he did this by simply 'using his brains'. Instead of pursuing the females a long way off when chasing them away, (the usual procedure) he only followed each one a few feet, then came right back to his perch. Each time he returned from such pursuit his gorget would blaze orange or red. By wasting no time chasing, he was ready to meet the next comer. I called him 'Jewel'. He remained until September 1, departing with a little train of southbound hummers.

About the middle of June '40, a small male hummer again appeared in the garden and became master of the situation. I cannot be certain it was 'Jewel' but I like to think so. Perhaps he had been a-wooing, and so had not appeared sooner. Two twigs in the mulberry tree became his favorite perches. Hummingbirds sometimes use the same spot on twigs as perches so consistently that the twigs become worn by their tiny feet. From these twigs he would fly down to the window, and as he did so I was conscious of only one thing;-- a beautiful floating ruby. The brown blur of his wings scarcely made an impression. Time and again, I enjoyed the changing depths of color in his gorget. I named him 'Fire'. I soon observed one fact. 'Fire' would chase the females away early in the morning, but after having breakfasted he became indifferent about them. During the day he let them pass with little pursuit. In the late afternoon, the favorite drinking time, there would be more

chasing. He spent much time on his favorite twigs preening. His usual position was with his emerald back to the window thus watching over his shoulders the comings and goings of the females. Often he visited the flowers. At times he made trips outside the garden. Sometimes he perched beside the vial guarding it. Then as the light fell on him, his throat would blaze ruby, or his tiny eyes gleam like diamonds. Truly he was a beloved hummer!

By July 27 there was increased activity due to the gathering of the young. On July 31 a new adult female appeared. With sudden apprehension, I noticed she was most belligerent toward 'Fire'. On August 1 I was away all day. When I returned the vials were empty. During dinner I did not see Fire, and I was filled with uneasiness. The next morning he still was not there. Then Mr. Reed stepped out into the garden, and I heard an "Oh! - Oh!" From beneath the rosebushes, he picked up a little dead hummingbird .. 'Fire'! A round neat hole in his throat bore witness to the fact that the bill of the powerful female had found its mark.

I buried 'Fire' in my bird cemetery beneath the crepe myrtle tree, where there are the graves of other wild birds as well as those of two pet canaries, and where I am the Chief Mourner. The joy of feeding the hummingbirds for me had gone out. -- I took the vials down.

However, there was not to be any peace in my garden. Female hummingbirds came to empty windows all day, buzzing angrily away. There were 2 young hummingbirds and I knew there were probably nests with babies. By the middle of August there would be young of a later brood. I considered the rule, "Do not feed hummingbirds unless certain to continue doing so all summer". -- The vials went up again. -- But in my heart there suddenly blossomed, like a scarlet pimpernel, the memory of a ruby glow which would never fade.

In the wild when hummingbirds return in April it is about the stands of coral honeysuckle (*Lonicera Sempervirens*) that I first see the female hummingbirds on guard. In the Fish and Wildlife Refuge, I have observed on Long Island that wherever the coral honeysuckle falls in a cascade of beauty from high up among the trees, there a female hummingbird has taken up her perch. Likewise in the Norfolk Wildflower Sanctuary where the coral honeysuckle drapes a dogwood tree, I have found a female guarding it. In this sanctuary, where the honeysuckle covers the fence and a beautiful stand of columbine blooms nearby, I have found 2 females and a male using it as a feeding territory. (Wild columbine (*Aquilegia Canadensis*) used to grow in masses in this area, but now is scarcely found anywhere except in the Wildflower Preservation.) These flowers are at their best the last of April or early May. After the height of blooming is over, the hummingbirds leave. It would seem that they just linger about these flower larders for awhile. Twice I have watched a male hummingbird going through his courtship-pendulum-zooming before a female in the honeysuckle. Perhaps the coral honeysuckle and columbine are 'wooing areas', and we can think of them as flower stands where the hummingbirds linger to enjoy the sweets and do their courting before going on to the nesting territory.

In June the trumpet creeper (*Tecoma Radicans*) begins to bloom. Near the Navy Base during '38 and '39 there was a spot where the trumpet vines panoplied the thickets and here each season I found a female hummer claiming it as her 'food area'. During July, wherever the cardinal flowers (*Lobelia Cardinales*) grow in some quantity I have always found a hummingbird on guard. Both the trumpet creeper and cardinal flower, I think, form important food areas during the breeding period. In

the cypress swamp, Route 603, the red velvet spires of the cardinal flowers growing beneath the cypress trees are beautiful to see, and not far from this spot is the finest stand of these flowers I have found in the county. On June 19, 1940, Mrs. Lester, Mrs. Darden, and I found a female sitting on her nest in a cypress tree about 20 feet above the water. On August 27, 1941, Dr. Grey and I saw a female in this swamp drive away a wood pewee. In the WPA Sanctuary is a fine stand of cardinal flowers. Here on July 30 I saw a female hummingbird tower up into the pine trees where she tried to put to route a pair of cardinals feeding their young. Next her attention was given to a red-eyed vireo feeding its babies elderberry fruits. Several times she went after a pair of chipping sparrows feeding their young on the ground. Again she prodded a common swallowtail butterfly (*Papilio asterias*; Holland) which had alighted on a spire of blossoms. In between these sallies she sipped from the flowers. I did not see any nest, though doubtless one was there. All this occurred within about 20 minutes. Evidently female hummingbirds 'stake' as their own, when possible, a stand of wildflowers, and a stand which provides food for growing babies is a find indeed! Since the flower food source is so important to hummingbirds, and guarding it seems to be an hereditary habit or instinct, it is not surprising that there is so much rivalry when two or more females come together to feed at a sugar-water vial.

Each year I have hoped a female would build her nest in my garden, but so far, after feeding they all depart over the roofs of surrounding houses. It has been found that the male generally does not help the female with nest building and rearing of the young, and the reason for it is supposed to be that his flaming gorget would be too conspicuous at the nest. Aretas Saunders in his "Ecology of the Birds of Quaker Run Valley" shows that male hummingbirds have separate feeding territories from females; although at one bee balm patch he records a male and three females. Witmer Stone says that at Cape May the place to look for males early in the season is in the old gardens of the town; while in midsummer they are seldom seen anywhere.

Looking through my notebooks I find I have not recorded seeing a male hummingbird in the wild in midsummer. In '39, during August, a handsome male visited our garden a few times and twice I noted his attempt to feed at the vials, but he was driven away by the females. 1940 was made memorable by little 'Fire'. In '41, a large male came to the garden regularly from mid-June to July 17. While the bee balm was in bloom he came once a day, sometimes twice. Only once did I see him come toward a vial, when he was promptly chased away. He made his daily round of the flowers methodically and business-like, and to my eyes, never even seemed to look in the direction of the vials, or at the females drinking there. During the nesting season, it would appear to be hummingbird ethics for the male not to frequent the same food area as the female. Did 'Fire' break this rule, and does this in part account for his death?

When poised before feeding, the customary position taken by hummingbirds is a horizontal one with the body slightly curved in an arc, the head and tail tilted up. In my garden are two poinsettia bushes. A wire clothesline runs through their branches. On July 6, and 13, 1939, I saw a hummingbird hang completely upside down from the wire while it probed the orange pea-like blossoms beneath with its bill. Once it whirled round and round the wire, its wings making a smoky blue like a spinning top. Perhaps exuberance, or the fun of doing a 'stunt', account for the latter behavior.

Learning to know individual hummingbirds and to recognize them from year to year is one of the pleasures to be derived from feeding them. Often there is some characteristic which helps one to identify an individual. For those who know as little about hummingbirds as I did, a word of warning might be in order. I early noted that sometimes a female seemed to have the top of the head yellow, while another's would be whitish. I thought this characteristic by which I could identify them, until I observed the trait to be a variable one. A hummer which should have a yellow crown would suddenly appear dark headed. Not till I read Saunder's book did I realize hummingbirds receive their colored crowns from the pollen of flowers.

Young hummingbirds are easily told from adults. They are dainty, their bodies appear very flexible; their wings so soft they scarcely make an audible sound. In a week or so their bodies seem to stiffen, and they acquire a rapier resiliency which denotes 'youth'.

One female, I believe, I have had for three seasons. The first year I quite rudely named her 'Old Female', and 'Old Female' she has remained! She is a square-shaped hummer with a thick neck and body. Her wings rattle like sabers. In 1940, she was the first to arrive in spring, appearing at the window April 23. In the fall she lingered after the others had gone. On September 11 the weather turned cold. We had a little heat in the house to take off the chill. The days grew dark early and we ate dinner with the lights on. Outside in the dark, 'Old Female' would come to feed, a little shadow at the vial, a tiny figure beyond the screen. I felt sad for surely it was time she left for the south. I have read that the artificial feeding of hummingbirds sometimes detains them too long. September 14 was a bright morning. Mr. Reed and I stood by the rosebushes when 'Old Female' came to drink. She passed close to my head, and as she leisurely drank her fill, she eyed us with her tiny black eyes. I said, "How tame she has grown!" Then she lifted herself from the vial, towered up above the mulberry tree, and was gone.

In 1941, 'Old Female' and another hummer which I named 'Debora' dominated the garden. Debora was shaped like a ninepin, with a slim neck and small head. Her wings also rattled noisily. By September 1, all my hummers were gone except these two. Then a strange thing happened. With the young departed and the cares of summer over, these two hummers found they had nothing to do but fight. I believe they were trying to determine for good to which of them the garden belonged. They chased each other endlessly. As the days went by there seemed to be increased intensity in their rivalry. At first I worried lest one of them would be hurt, but the more I watched I decided they were too evenly matched for either to get the upper hand. On September 6, however, there seemed to me to be something deadly earnest in their pursuits. Finally they faced each other in a vertical position, white breast opposite white breast, their wings appearing like one pair of wings. It looked to me as though they were hooked together. In this position they shot up and down, and back and forth. I watched spellbound. Suddenly they went up into the air, then straight down to the ground where they toppled over sideways on the grass still in that position. With a cry, I ran out of the house, bent over them; my cupped hands were about to close upon them, when from beneath my fingers there wafted out two dazed little hummers that slowly flew away.

From that moment a change came over them. Some instinct, which had burned so fiercely, quite evidently died out. Gone was all the chasing. Demurely they sat on the wires in the garden, often within a few feet of each other. If one went

to drink, the other only stopped preening for a moment to look. Thus September passed to the 8th; the 8th into the 9th. On the morning of the 10th, Mr. Reed saw them both at the vials. I did not see them but in the late afternoon, there was that 'void' upon the air, that 'stillness' which bespeaks the inevitable departure.

After a summer of contention had my two hummingbirds gone south together? I like to think so. In my mind's eye I saw them speeding over southern states, crossing together the dangerous Caribbean in a course strong and true to some tropic clime .. and sure on each little hummingbird's head there rested my blessing!

As I washed the vials and removed the soiled ribbons, I felt much as I do when I take down the ornaments from the Christmas tree. At the moment, the small objects in the hand become freighted with a deep emotion. It seems so long before another Christmas! Then dimly in my ears, I heard Mr. Reed saying quite cheerfully, - "It is only seven months before the hummingbirds will be back."

Today as I write, it is only a few weeks before the hummingbird story of another season will begin to unroll, with its moments of comedy, its glowing antagonisms, its little tragedies which make their tug upon the heart.

Norfolk
April 8, 1942.

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Green-winged Teal Seeking Man's Protection

On March 29, 1942, Charles Handley and I were enjoying a brief jaunt down Strubles Creek, which flows westward from the Virginia Tech campus through a wide, rolling valley, when we flushed four female Green-winged Teal. We stood where they left the water and watched them fly back and forth high over our heads a number of times, at least ten, before they alighted a good distance below us. We had obviously started them from a choice feeding spot, to which they were waiting to return.

When we caught up with them again, they flushed and were heading straight down the creek when suddenly I saw a large bird, which proved to be a duck hawk, swiftly flying toward us. I watched the falcon while Charles watched the Teal. They abruptly banked and sped back toward us, landing on the water only ten feet from the bank on which we were standing. The ducks apparently knew where they were safe. The duck hawk veered off and was leisurely making its way over the distant woods when last seen. It had probably been attracted by the lengthy flights of the teal when they were first flushed, but when first seen it was flying horizontally not far from the ground; if it had stooped from the heights above, neither of us saw it. The teal meanwhile swam slowly around a bend in the creek, and upon being flushed the third time, flew down the creek without rising more than a few feet above the water.

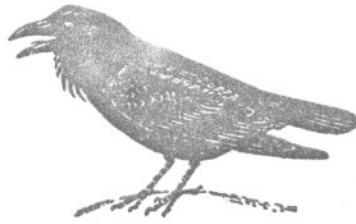
This was my first positive observation of this species of hawk, but we both had 8X binoculars and the identification is beyond doubt. The black markings about the head were very noticeable. About a month previously R. J. Watson, now an ensign in the navy, observed a duck hawk perched by the college lakes, rather removed from the wilds usually associated with this rare falcon.

William B. McIntosh
V. P. I.
Blacksburg, Virginia.

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Audubon Wildlife Tours
Bull's Island, Charleston, South Carolina
November 16 - December 31, 1942

Due to the exigencies of the war the National Audubon Society has had to curtail some of its field activities. It will not be possible this season to hold some of the Wildlife Tours which have been so popular in recent years. However, permission has been granted by the government to conduct the Bull's Island tours again. Bull's Island, twenty-five miles north of Charleston, is a unit of the Cape Romian National Wildlife Refuge and is a paradise for bird lovers. Twenty species of ducks can be seen in a few minutes; many of the more southern forms of bird life can be met with; deer abound, and alligators can usually be seen. The tours are arranged in two-day trips, for which reservations may be made at the offices of the National Audubon Society, 1006 Fifth Avenue, New York City, and for which the fee is \$10 per trip. The tours will again be led by Mr. Alexander Sprunt of Charleston.



The Raven

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WOODPECKERS

March 7th (1780). Rode up to St. Asaphs (also known as Logan's Fort, twenty miles south-east of Harrodsburg, Kentucky) from Col. Bowmans. I observed a species of the woodpecker which I had not met before, the Cock and the hen they are larger than the large brown the cock had a bright red head with remarkable large tuft of feathers on the Crown so that it may be called the Peacock Woodpecker the body and wings white and black.

One of these birds was shot by my servant, which I took to be the hen, the feathers on the throat and belly and part of the wing and tail a shining black, it had nine stiff and strong feathers in the tail forked at the end, the middle one being six inches long from where the feather begin the whole length being $7\frac{1}{2}$ inches the others on each side shortened in length. Its wings ten inches long from the shoulder to the tip, 18 long feathers in the wing, the two first and longest black the 3d tipped with white and each succeeding one more and more till the next to the back are white, both above and below, the front and fore part of the Crown black, from the junction of the upper and lower bill white feathers on each side, leaving a triangle of black feathers from the Eyes and back part of the crown which is deep red, the white feathers run backwards as far as the white on the wings intermixed with black so that the bird from the head so far appears speckled, the red part of the crown appears triangular, its legs was an inch and a half long with four toes set forward and back two each way, armed with strong crooked claws, the two outer ones the longest and four inches in length the bill white and bony very strong and firm at the point shaped like a wedge each $\frac{1}{8}$ of an inch broad and from that a ridge runs both in the upper and lower so that each forms a triangle an inch and a quarter broad at the Junction of the upper and lower bills, which is three inches in length, the tongue is six inches in length. The Iris when dead of a bright Yellow so far it differs from any of the species I have seen, the mechanism of its parts being as usual in birds of this kind, it weighed upwards of 1 lb. - Note in MS.

(In Fleming, Colonel William. Journal of Travels in Kentucky, 1779-1780, pages 632-633.)

Ralph M. Brown
V. F. I. Library
Blacksburg, Va.

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WATCHES HUMMING BIRD FAMILY LIFE

Gardner Bond, Jr., this spring enjoyed the unusual experience of watching a pair of humming birds raise their family, from nest building to maturing of the young, and now has the nest as a souvenir. In a body of woods near the home

of his grandmother, Mrs. R. H. Luck, in Goose Creek Valley, he discovered the pair of midget birds building their nest in the crotch of a low-swinging limb and made almost daily inspection of the progress of events until the two young birds were able to leave the home roof, so to speak.

The nest, the interior of which is not much larger than a half dollar in circumference, is not made of grass straw, twigs or other things customarily used by birds for this purpose, but is composed of a soft, spongy substance, mixed by the birds and which clings to the limb almost like glue. The nest built and the tiny eggs layed, the lady of the family perched on the nest and refused to be frightened by the presence of the boy at times and did not even resent Bond, Sr., pulling down the limb to which the nest clung to get a better view. The young were about the size of hornets a few days after they were hatched, but grew rapidly and last week were old enough to leave the nest and fend for themselves.

(From Bedford, Virginia, Newspaper).

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SOME NORFOLK BIRD NOTES, 1941

May 31 - Mrs. Darden and Dr. Grey found a fine colony of Least Terns nesting on Sandy Hook. They also saw one Baird's Sandpiper and one Northern Phalarope. On June 19 another visit was made. This time only about 35 pairs were found nesting. It was thought perhaps a severe rainstorm on the 15th had destroyed many of the nests.

In 1940 Lt. Thomas Stewart, Virginia Beach, saw some terns nesting on a point of land in Lafayette River which he reported. He did not know the species. It was this which lead Dr. Grey and Mrs. Darden to go exploring, when they found the Least Tern colony on Sandy Hook.

May 17 - Magnolia Warbler. Dr. Grey and Mrs. Barefield, Biological Survey Refuge.

Sept. 30 Philadelphia Vireo. Barefield - Reed. Old's Woods, Rt. 615. We noted the head and bill which distinctly were not that of a warbler. This little vireo was low in a bush. Its movements were slow and leisurely. It sat on a twig turning its head and scrutinizing the under side of the leaves. It was clear yellow on breast, paler yellow beneath tail, no wing bars, and with a definite, though not clear white, line over eye.

Oct. 16 - Rusty Black-birds, 5. Mrs. Barefield saw these at her bird bath.

Oct. 16 - Connecticut Warbler. Reed - Darden. Long Island, Biological Survey Refuge. This warbler was among the thickets between the picnic grove and the marsh. It slipped in and out of the shrubs and tangle. We had a good view when we saw it, but we lost it quickly. It had a very distinct eye ring, no wing bars, and was pale gray on the upper breast, and pale yellow beneath. We failed to note the undertail coverts.

Oct. 21 - Nov. 4. During this time there was an unusual number of Red-breasted Nuthatches and Golden-crowned Kinglets. Mrs. Angwin and Mr. Dobie also

saw Pine Siskins. It is interesting that News Notes from Hawk Mountain report an unprecedented number of Red-breasted Nuthatches in September and October, with both species of Kinglets swarming over the mountain on two days, and Siskins seen every day.

Oct. 30 - Magnolia Warbler. Barefield, Dobie. Biological Survey Refuge.

Great Horned Owl, Barefield, Dobie, Angwin, Reed.

Nov. 22 - Great Horned Owl, Seashore State Park, Reed.

Nov. 4 - Shrike. Barefield - Reed. I have seen the Loggerhead Shrike in Florida. This shrike was very small; we thought it to be this species.

Nov. 11 - Shrike. Mrs. Barefield. She says this was definitely larger than the one we studied November 4.

Nov. 13 - Upland Plovers, 4. Barefield - Reed. Mrs. Barefield was the first to see these. We watched them a long time. Their call notes were musical and distinct even above the continuous calling of a very large flock of killdeer. They were in a plowed field, Rt. 615.

Nov. 28 - Bewick's Wren - Biological Survey Refuge. McIlwaine, Darden, Barefield, Reed.

Nov. 21 - Short-eared Owl. B. S. Refuge. Reed. The creamy areas on the wings showed beautifully. It flew from the mainland to Long Island and back again. When crossing the water, it kept low to the surface.

Mrs. A. C. Reed
Norfolk, Virginia.

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A LETTER TO GARDEN CLUBS

Dear Club President:

In the present crisis birds have rightly been called "our first line of defense", for they are our most important form of animal life since they feed upon insects, that if left unmolested would devour every green thing upon the earth. "Insects are a constant menace to our food supply and the birds are a constant menace to insects". We need our army of friendly birds in the garden for insect control, FOR FOOD WILL WIN THE WAR.

Then, too, Birds appeal to the interests and affections of all mankind with their sprightly habits, bright colors, grace of flight and beautiful songs. So for both economic and esthetic reasons, we should, as gardeners and as good citizens, do everything we can to protect and help increase their numbers. Please appoint a Bird Chairman in your club and ask her:

1. To give a two minute talk (or reading) at every club meeting fostering the study and love of birds, telling of their needs as to food, nesting sites, and protection from useless killing (as from stray cats,

- boys with BB guns, self-hunting, bird dogs, and many other needless ways).
2. To be responsible for at least two programs at the local schools each year (first contacting Principal and teachers) with a speaker on Birds and prizes for the best essays on Birds and prizes for the best Bird houses (these prizes could be presented as a nice finish to the programs).
 3. To organize a Junior Bird Club in the town. (Please ask for information.)
 4. To organize as many Junior Audubon Clubs at the schools as possible. (I'll be glad to give her information along this line, also.)
 5. To co-operate with local Garden Club Program Chairman in giving a program to the Garden Club and a public program if possible. The Garden Clubs wield a great influence in their communities and should always set the good example.
 6. To urge members to plant berry-bearing shrubs, trees, and vines for the Birds. Every garden can be a Bird Sanctuary.
 7. To urge members (and all women) not to forget the campaign to prohibit the use of wild bird plumage on millinery. DON'T WEAR FEATHERS.

Enclosed are partial lists of berry-bearing trees, shrubs, and vines, and a list of Bird Sanctuaries in Virginia that clubs may visit to study bird life. There is also a list of speakers who may be available to your club.

Please send me the name of your Bird Chairman, and ask her to write me for any information she may want on this subject or for ideas on supplying food, water, and nesting material for birds; for programs for Garden Clubs and schools; for organizing Junior Audubon Clubs; for lists of Bird Books and pamphlets; for contests for Bird houses, or for any problems she may have.

I have a scrapbook folder of articles and pictures I will be glad to lend her to be returned in six days. This contains good program material.

May this be a year of many Birds in your Garden.

Sincerely yours,

S/ Evie Key

Mrs. J. Frank Key, Bauna Vista, Va.
Chairman, Committee on Birds
Virginia Federation of Garden Clubs.

(This letter, which was mailed to all Presidents of Clubs belonging to the Virginia Federation of Garden Clubs, is an example of the fine work being done by Mrs. Key, who is an active member of the V. S. O. Editor)

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Bounties on Hawks Still Paid in Some Virginia Counties

According to information secured by Mrs. J. Frank Key from the Virginia Commission of Game and Inland Fisheries, at least sixteen Virginia Counties are

still paying bounties on hawks. Here are the Counties:

Alleghany	Buckingham	Loudon	Shenandoah
Appomattox	Fauquier	Northumberland	Stafford
Augusta	Gloucester	Orange	Warren
Bath	Halifax	Richmond	Westmoreland

It is hoped that V. S. O. members living in these counties will use their influence and organize their friends to put a stop to this harmful, foolish and wasteful practice. Scientific research has shown that harm rather than good is done to game birds by this practice. The hunter-sponsored quail investigation in south Georgia by Stoddard has indicated this. But even if it were true that the majority of hawks were harmful instead of being beneficial, the bounty system is the poorest and most wasteful method of controlling them. Bounties are paid not only on harmful hawks, not only on hawks in general, but on any bird scalp that may be brought in. The clerks who have to pay the bounties in most cases know little or nothing about hawks. It has been shown that in some cases bounties have been paid on chicken heads. Other types of fraud are easily perpetrated. In one of the counties, which still pays the bounty, it was shown at one time that bounties were paid over and over again on the same hawk scalps. Even sportsmen should join to stop this absurd practice.

J. J. Murray

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"The Ivory-Billed Woodpecker"

A Review

Five years ago the National Audubon Society made provision for a number of research fellowships in animal ecology to deal with problems that had a special bearing on conservation. So far studies have been made of the Ivory-billed Woodpecker, the Roseate Spoonbill, the Desert Big-horn Sheep, and the California Condor; and at present a study of tick-deer relationships in Southern Florida is in process. To make the results of these studies available the National Audubon Society has now initiated a series of Research Reports. Naturally enough, the first research assignment made and the first report to be published deal with the Ivory-billed Woodpecker, the rarest of all North American birds. Research Report No. 1, with the title noted above, by James T. Tanner, was released in October. It is a book in paper covers of 107 large octavo pages, printed in two columns, with a colored frontispiece by George M. Sutton of a pair of the handsome woodpeckers, and with many photographs, drawings and maps. The price is \$2.50. This report will be followed shortly by a similar book by Robert P. Allen on the Roseate Spoonbill.

To this reviewer the most interesting type of ornithological literature is the monographic account of a single species. This kind of study is even more appealing when it deals with a bird like the Ivory-bill, which is not only striking in appearance and unusual in habits, but which is now on the verge of extinction. That makes this book a document in front-line conservation. Mr. Tanner has done a splendid piece of work. His background is that of a thorough training in laboratory and field ornithology at Cornell. While doing this work he has had the advantage of the constant supervision and help of Dr. Arthur A. Allen. For three

years. 1937-1939, he made an intensive study of the bird in all parts of the territory where it formerly occurred and might now possibly still exist, having had in consequence more experience in the field with this bird than any naturalist has ever been privileged to have. With no effort at fine writing he has given us in his book a plain, scientific account of all the known facts about this bird and a convincing study of the factors that brought about its decline in numbers and that might be used to restore it. I note one minor error of typography, where in the first line, second column, page 74, the date should be March 1, 1938, instead of March 5.

Mr. Tanner describes the original and the present much-shrunk range of this species, and discusses the causes back of its disappearance over so much of that range, the chief of which was the destruction of the primeval type of forest necessary to maintain its food supply. He rather definitely doubts the importance of other factors, such as shooting (except as scientific collecting caused local reduction or disappearance of the bird), predators, inter-breeding, or any unexplained and unproven weakening of the biological stamina of the total stock. He does recognize that at the present low state of the species even a little shooting by hunters or collecting by scientists might extirpate it. He describes the typical habitats of the bird, and its feeding habits; and tells the story, so far as it is known, of the courtship, breeding, and care of the young. There are gaps in this record, of course; and much that is told is based on the study of a few pairs only. There is not room here to re-tell the story. Anyone who is interested in birds and in wild America will want to read it in full.

While the National Audubon Society was interested in producing a good piece of life history research that would bring to light all possible information about the Ivory-billed Woodpecker, its chief concern was the possibility of saving this noble bird for future generations of Americans. The book comes back again and again to this point. The problem of conservation as it concerns this particular species centers around the fact that its feeding habits are rigidly selective. The Ivory-bill feeds mainly on the types of borers (larvae of Buprestid and Cerambycid beetles) which live between the bark and sap wood of dead trees and which are present only for the brief period (of about two years) when the dead bark still clings tightly to the wood. This means that the bird requires a territory where numbers of trees are constantly dying, which in turn means a stand of virgin or near-virgin timber. The minimum area required to support a pair of Ivory-bills runs from two and a half to three square miles. Practically the one hope, according to the author, of preserving the bird lies in securing a sanctuary area of considerable size; but, if that can be realized, he is very hopeful of success. Since this type of timber is very valuable, the cost of securing such an area is great; but it is likely that by wise lumbering the tract might be made in part to pay for itself. The best area for such a purpose would be the Singer Tract in Louisiana, where there are more birds known than anywhere else and where most of Mr. Tanner's work was done. The next best would seem to be the Big Cypress County in southwest Florida. Such a sanctuary would not only probably save the Ivory-billed Woodpecker for the future, but would also be for all posterity a magnificent sample of an original Southern wilderness area, and would at the same time be a retreat for other endangered animals of the wilds, such as the bear, panther and alligator.

J. J. Murray
Lexington, Va.