

The Chat

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JOHN H. GREY, JR., EDITOR
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1937 ACCOMPLISHMENTS

No private organization has done more to further the work of conservation in North Carolina during 1937 than the N.C.B.C. The work has been carried on by the one dollar dues of the 108 members, and gifts by the members which amounted to twenty-five dollars. The only outside help has been that furnished through the State Museum which has been generous in furnishing much of the labor in getting out the CHAT and also part of the mimeograph paper used. Without this co-operation, the CHAT could only have been a quarterly journal. The accomplishments are summarized under the three heads of Information, Education and Conservation.

Information: Six issues of the Chat: 72 pages, including four pages of pictures (the only mimeographed journal we know printing bird pictures), 1200 copies mailed to 19 states and Cuba and to 54 communities in N. C. More information gained about the birds of the State than in the past five years. List of N. C. birds brought up-to-date with addition of four birds with a total of 379 birds: 336 species, 41 sub-species and 2 hybrids. Detailed study of birds of Lake Mattamuskeet. Notes on birds from 30 communities, special study of 6 species, two articles on birds of other countries.

Education: Courses given to Boy Scouts in troop meetings and also in summer camps on birds. Courses on ornithology at State College by Z. P. Metcalf and at Woman's College of U. N. C. by A. D. Shaftsbury. Lectures on birds in many schools. Junior Audubon Societies formed in several schools. Contacts made with 4-H Clubs for future work.

Conservation: Two new heron rookeries discovered in the State. Henderson becomes a song-bird sanctuary. Pinebluff is already a sanctuary. Two new local clubs formed. Co-operating with the State Garden Clubs in creating a better outdoor environment. Co-operating with the Biological Survey and with the National Association of Audubon Societies.

Your dollar helped do all this!

Membership in the N. C. B. C. is open to all those interested in birds. Dues are \$1.00 a year, which includes subscription to the CHAT.

A VISIT TO THE ISLE OF MAY - A SCOTTISH BANDING STATION
John H. Grey, Jr.

On May 8, 1937, while visiting in Scotland, I had the pleasure of visiting the Isle of May. The May is a small island, not far from Edinburgh, located near the mouth of the Firth of Forth. On this island is one of the newest, but most important bird-banding stations in Europe. The Island is privately owned and is leased by the Midlothian Ornithologists Club. When I heard that formal title I took for granted they had about as many members as our own Club. To my astonishment the Midlothian had but half a dozen members; young men in business who devoted their spare time to bird banding, "Ringing" they call it.

The trip to the May really started in North Carolina. H. H. Brimley told me to visit The Bass Rock, in the Firth of Forth, and see the Gannets nesting. The Bass is kept under lock and key, so to speak, in order to protect the Gannets. In asking various ones how to obtain permission to visit the Bass I was directed to George Waterson, Secretary of both the Midlothian and the Scottish Ornithologists Clubs. Waterson was about twenty-five and an avid ornithologist. After explaining about the Bass and the fairly heavy expense in getting there because of the landing fee he invited me to go with him "bird-nesting". I knew any trip with him would be fascinating so off we went. I must have passed master for he invited me to make the trip to the banding station.

It was nine o'clock in the morning when we left Edinburgh in Waterson's Austin to go to the May. That hour was a set-back to our American idea of starting a bird trip by dawn, but it would be daylight until nearly ten that night, so we really had the day before us. We ferried across the Firth at Queensferry, and went down the northern shore through Fifeshire to the little fishing village of Anstruther. Here we were joined by some thirty members of the Scottish Physical Society, among the oldest and most honored of the natural history groups in the country. The expedition was headed by a one-time professor of marine biology in Stanford University, California. Crawling aboard the fishing smacks we began the journey across the seven miles of water to the May. A pair of Eider Ducks were sighted just outside the harbor, then came Puffins, Razor-billed Auks, Fulmar Petrels, Oyster Catchers and Guillemots. Only one Gannet was seen though the Bass was only a few miles away in plain sight.

When I began to lament missing a trip to the Bass, Waterson assured me that we would see everything at the May, except Gannets, that could be seen at the Bass. There would be no Gannets on the May because the ledges were too narrow to allow such a large bird to nest. He proved as good as his word. Coming near the May he persuaded the boatman to circle the island and go up close to the cliffs so that we could see the nesting birds. It was a sight I shall not forget. Thousands of Kittiwake Gulls flew off the cliffs and circled the boat. Guillemots - called Murre with us - were everywhere: on the cliff, in the air, on the surface of the water and diving below for fish and crustacea. At one time the boat headed for a flock on the surface and every one of them dived out of sight only to come up after we had passed. Here and there were to be seen groups of Puffins, or "Sea Parrots" as they are often called. A tremendous beak for such a small bird makes the Puffin look most unbirdlike: the beak is tri-colored, dull yellow, bluish and then vermillion. The large eye is rimmed with black that makes one think of spectacles and the orange feet make one think the bird must have been standing in paint. There were also many Razor-billed Auks; these dropped from the cliff into the water and bobbed about like a cork or dived leaving hardly a ripple behind them. The cliffs towered above us for a hundred fifty feet and were about four hundred yards long, stretched out in the shape of a half circle. In every nook and cranny there were birds: one wondered where there would be room for those now in the water or in the air.

The boats beached on the seaward, or eastern side of the island. Luxurious green grass came down to the waters edge and stretched away before us in a steep slope. The whole island was diamond shape and four hundred yards each way. Waterson had explained that the island was of volcanic origin, actually being the plug or core of the volcano. We climbed up the slope to inspect the banding station before the Scottish Physical Society began their search for mosses, insects, fish in pools and curious rock formations. Incidentally, they managed to scare most of the birds away.

The trap was in the center of the isle, and was of the Heligoland type. This means a great V-shaped trap about thirty feet across at the open end of the V and the same distance deep to the neck. Fine-mesh wire is stretched on poles down each side of the V and then across the top. Thus a bird may be feeding near the mouth of the trap and if flushed suddenly may dart forward into the trap. It is then driven forward toward the neck, or small end of the V, which leads to a tiny pen. This pen ends in a small box which has glass at the end to make the bird think it is a way out of the trap. From the box the bird is taken in the hand to the banding shed where a tiny aluminum band is placed on its leg. The number on the band is then entered in the log book together with the species of the bird, the date, the weight of the bird and its wing length. Then the bird is released. This day we only managed to trap a few Willow Warblers, also called Willow Wren. It is a small warbler yellowish-green in color much like our female yellow-throat.

The ground in front of the trap had been planted with shrubbery to attract the insect-eating birds, and here and there were pools to attract some of the smaller water birds. The shrubbery which had been planted was the only bushy growth on the isle, all the rest was grass. This absence of bushes is typical of the mountains and hills of the British Isles, which are grass covered instead of heavily wooded as with us. The wind had played havoc with their shrubbery on the May. Although we were there on May 8, there was not a bud to be seen, nor a green leaf. Some of it was alive and would probably put out later, but much had been killed by the force of the wind which often drove the sea over the lower parts of the island. Paths had been left through the bushes, and along these the boys would rush toward the trap to flush the birds.

The importance of the May as a banding station is due in part to the route of migration in the British Isles. I had expected it to be along the west coast, with birds coming from Africa around the coast of Spain and France across the Channel to Landsend, England. Waterson said that Landsend got few birds, most of them coming from Africa across Europe to Germany, then across the North Sea. This placed the May in the line of the heaviest migration. In fact it was this line of migration which led to the establishment of the Heligoland Banding Station. This was the pioneer station and has become almost the headquarters for the study of migration. There are few other places in the world where so many species in such large numbers rest for a while on their way across the sea. Waterson had just learned through the German Consul that Heligoland was to be made a naval base and closed to bird banding.

The May had led the boys to an interesting discovery regarding the effect of weather on migration. They kept a log of weather conditions taken four times a day. By comparing these conditions with regular reports from Heligoland they found that migration was heavier with them when the barometer readings were low on the May and higher on Heligoland. That is, high-pressure areas over the North Sea and low-pressure areas over the May would drive birds from Heligoland to

the May. I would have expected just the opposite. High-pressure areas indicate good weather and the lows indicate falling weather.

During the spring migration a year or so ago the boys had been on the May during a heavy rush. Birds by the thousands had swarmed everywhere. They had trapped and banded day and night for three days without stopping, catching food on the run. Then just as suddenly the birds were gone. Migration in the Isles is much more concentrated than with us. Spring does not come as soon and therefore many birds that arrive with us early in the year arrive on the May along with the late comers. For instance, the Willow Warblers that we trapped that day arrive almost over-night. One day there may be an occasional one about and a day or so later they are everywhere. The Spotted Sandpiper arrives in Raleigh the first part of April and in Scotland the latter part of April. Such conditions make their migration much more concentrated than ours.

Waterson took me to their hut which is higher on the island, above the traps. It is an abandoned house formerly used by the keeper of the lighthouse. There was a small living room equipped with one of the few coal stoves I saw in the Isles - most of the others have open fires - also a bunk room that would sleep six, and a store room. A Norwegian ship had run aground during a storm and when it was abandoned the boys had secured mattresses for their bunks. The log book was brought out and we saw that the day before our visit they had secured one of their rare visitors a Norwegian Bluethroat; a small bird somewhat similar in size to our Redstart, the breast being a beautiful blue with a large central chestnut spot and a band of chestnut below the blue. They get but few of these in the spring, but find them more common in the autumn migration. Well, I had seen so many new things that even missing a Bluethroat did not matter so much.

MORE SONG-BIRD SANCTUARIES IN THE STATE

The last issue of the CHAT carried a story about Henderson becoming a municipal bird sanctuary. The Editor added some information to that given him by Miss Hunter of Henderson, and therefore is responsible for the statement: "The only other town in the South, which is a sanctuary, is Milledgeville, Georgia." There was an immediate reaction.

Pinobluff is a sanctuary. To quote a letter from Miss Marian MacNeille: "Pinobluff, Moore Co., N. C., was made a Bird Reservation November 6, 1922, by vote of the Town Commissioners. Eleven years later at Pinobluff's request, and for the purpose of placing the protection of birds on a surer foundation, the North Carolina General Assembly passed House Bill No. 249, March 1, 1933, making the city a Bird Sanctuary by state law....It may be stated from experience that it simplifies the enforcement of bird protection if the town is made a sanctuary by act of the legislature."

Statesville is a sanctuary. To quote a letter from Miss Grace Anderson: "Statesville Audubon Club was organized in April 1930, and in March 1933, at the request of the club's president our town became a bird sanctuary by special ordinance by the mayor and city council. The Club has erected two sanctuary signs. One sign is at a town entrance, surrounded by a landscaped green. The other sign is at an entrance of Oakwood Cemetery, this spot was also planted by the Club. Grass was sown, pink and white dogwood, maples and spring-flowering bulbs. A bird bath and house were placed on the Community House lawn, and a planting made for the birds. The Club is especially interested in attracting more birds to Oakwood Cemetery. Here we have placed a marble bird fountain, and put out numerous berry-bearing shrubs and trees. Our program also includes the planting of trees along the streets of the town."

Someone suggests that Wilmington is a sanctuary. Does anyone know? The prospects for bird life in the State look brighter with at least three towns working to provide food, shelter and water for the birds.

ANNUAL MEETING N. C. B. C. April 23, 1938

The date for the next annual meeting of the Club has been set for Saturday, April 23. This is the Saturday after Easter. The place has not definitely been decided upon, but will be announced shortly. Members of the Club are asked to send in to the CHAT the titles of papers they would be willing to read before the meeting.

WILD LIFE MANAGEMENT IN NORTH CAROLINA

Last July the Department of Conservation and Development working with State College inaugurated a program of wild life management. Mr. Ross O. Stevens was placed in charge. With him were five men to serve as field biologists, being stationed in various parts of the State. Their work was to be the promotion of game, by getting certain farmers to use their lands for demonstration farms in connection with game production. The purpose being to increase the areas of good hunting by making game more abundant. A large tract of land in Chatham County has been secured for the promotion of wild Turkeys. In other areas quail and squirrels are to be encouraged. Patches of lespedeza are to be left in the corners of the fields, as well as peas and soy beans. The January issue of their bulletin announces that 109 farms containing a total of 36,587 acres have been used in the wild life management demonstration. This work deserves the interest and co-operation of all members of the N. C. B. C. If you would like to receive their bulletins send a card to: Wildlife Management in North Carolina, State College Station, Raleigh. The bulletins are free.

THE 1937 CHRISTMAS CENSUS

Six communities cooperated in our first attempt to make a state-wide Christmas census: Chapel Hill, Raleigh, Southern Pines, Pinebluff, Niagra and Washington. For three of these communities it was their first census. Chapel Hill is the only one that has taken it regularly, and leads the list with the largest number of species and individual birds. Joe Biggs, of the Washington Field Museum, was the only one to take an individual census, accounting for fifty-one species which would be an excellent record for a group, much less for an individual. The heavy rains during Christmas week probably kept a good many observers from making their censuses. Next Christmas, we hope to have a census which will fully cover the state.

Niagra, Moore County, December 23, 1937; casual observation, dooryard and roadside birds all day. Steady downpour of rain, no wind. Two observers, together. Mourning Dove, 9; Flicker, 5; Downy Woodpecker, 2; Blue Jay, 10; Crow, 8; Brown Thrasher, 1; Meadow Lark, 20; Cardinal, 4; Towhee, 2; White-throated Sparrow, 50. Total: 10 species; about 111 individuals. Mr. and Mrs. W. R. Wilson.

Pinebluff, N. C., Dec. 23; 8 A. M. to 5 P. M. Steady downpour rain, no wind, 40° to 50°. Area of 3 sq. miles around town. One party; last two observers at home in section not otherwise covered. Sparrow Hawk, 1; Mourning Dove, 29; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 16; Crow, 3; Carolina Chickadee, 8; Tufted Titmouse, 9; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Mockingbird, 5; Catbird (heard), 1; Brown Thrasher, 1; Robin, 100; Golden-crowned Kinglet, 1; Ruby-crowned Kinglet, 4; Cedar Waxwing, 51; Migrant Shrike, 1; Myrtle Warbler, 1; Cardinal, 19; Purple Finch, 7; Goldfinch, 1; Towhee, 5; Slate-colored Junco, 169; White-throated Sparrow, 64; Song Sparrow, 3. Total, 27 species, about 504 individuals. Mrs. Walter Macneille, Mrs. W. D. Shannon, Joseph Reardon, Jr., Mrs. May C. Benedict, Mrs. Levi Packard.

Southern Pines, December 22, 1937; Clear with strong wind. Morning in and around birdhaven and western part of town, afternoon around Watson's Lake and Powell's Pond; all within five mile radius. Observers together. Lesser Scaup, 2; Marsh Hawk, 1; Mourning Dove, 27; Flicker, 4; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 1; Blue Jay, 13; Crow, 4; Carolina Chickadee, 2; Tufted Titmouse, 2; White-breasted Nuthatch, 2; Brown-headed Nuthatch, 1; Carolina Wren, 1; Mockingbird, 9; Brown Thrasher, 1; Robin, 16; Hermit Thrush, 1; Bluebird, 14; Golden-crowned Kinglet, 5; Ruby-crowned Kinglet, 2; Cedar Waxwing, 9; Starling, 2; Myrtle Warbler, 12; Pine Warbler, 10; English Sparrow, 38; Cardinal, 22; Towhee, 2; Slate-colored Junco, 63; Chipping Sparrow, 3; Field Sparrow, 15; White-throated Sparrow, 18. Total 31 species, about 306 individuals. Nellie F. Sanborn and Mary Wintyen, members Southern Pines Bird Club.

Washington, December 26, 1937; 7:30 A. M. to 12 noon; 2 till 5 P. M. Clear, moderately calm; temperature 36 to 57 degrees. Territory: one mile radius north and east, including outskirts of city, both banks Runyon's Creek and north bank Pamlico River through Washington Park. Alone and on foot, covering many points within this area. Cooper's (?) Hawk, 2; Sparrow Hawk, 1; Bob-white, 6; Killdeer, 2; Wilson's Snipe, 1; Herring Gull, 1; Mourning Dove, 12; Barred Owl, 1; Flicker, 15; Red-bellied Woodpecker, 3; Yellow-bellied Sapsucker, 3; Hairy Woodpecker, 2; Downy Woodpecker, 6; Phoebe, 1; Blue Jay, 25; Crow, 6; Carolina Chickadee, 15; Tufted Titmouse, 8; White-breasted Nuthatch, 2; Brown Creeper, 2; Carolina Wren, 22; Mockingbird, 5; Catbird, 1; Brown Thrasher, 2; Robin, 45; Hermit Thrush, 1; Bluebird, 9; Golden-crowned Kinglet, 5; Ruby-crowned Kinglet, 3; Pipit, 10; Loggerhead Shrike, 3; Starling, 93; Myrtle Warbler, 12; Pine Warbler, 8; Yellow Palm Warbler, 3; English Sparrow, 65; Meadow Lark, 75; Redwing, 130; Rusty Blackbird, 4; Purple Grackle, 1; Cardinal, 8; Goldfinch, 2; Towhee, 8; Savannah Sparrow, 8; Slate-colored Junco, 55; Chipping Sparrow, 3; Field Sparrow, 30; White-throated Sparrow, 85; Fox Sparrow, 8; Swamp Sparrow, 10; Song Sparrow, 90. Total 51 species, 818 individuals. Usual absence of ducks over this area. Brown-headed Nuthatch and Winter Wren, though common to this area, not seen. Red-breasted Nuthatches not observed this winter. Joseph D. Biggs.

Raleigh, N. C., December 21; 8 A. M. to 5 P. M. Clear, fresh wind in middle of day; temperature 32 to 48 degrees. Territory covered, a triangular area, mostly in and south of Raleigh, about 5 miles from east to west and about 3 miles from north to south (Boone's Pond, Lake Johnson, Lake Raleigh, Pullen Park, and Boneyard Lake). Observers in two parties, meeting at intervals. Piedbilled Grebe, 2; Great Blue Heron, 1; Black Duck, 11; Pintail, 9; Redhead, 1; Ring-necked Duck, 108; Lesser Scaup, 12; Goldeneye, 3; Bufflehead, 4; Old Squaw, 1; Ruddy Duck, 4; Hooded Merganser, 4; Redbreasted Merganser, 4; Turkey Vulture, 25; Black Vulture, 3; Sharpshinned Hawk, 1; Cooper's Hawk, 1; Redtailed Hawk, 2; Redshouldered Hawk, 1; Sparrow Hawk, 6; Bobwhite, 9; Killdeer, 17; Mourning Dove, 28; Belted Kingfisher, 4; Flicker, 12; Redheaded Woodpecker, 2; Downy Woodpecker, 25; Phoebe, 3; Blue Jay, 25; Crow, 45; Carolina Chickadee, 30; Tufted Titmouse, 8; Whitebreasted Nuthatch, 2; Brownheaded Nuthatch, 3; Brown Creeper, 8; Winter Wren, 5; Carolina Wren, 9; Mockingbird, 10; Brown Thrasher, 1; Robin, 1; Hermit Thrush, 4; Bluebird, 25; Goldercrowned Kinglet, 25; Rubycrowned Kinglet, 5; Pipit, 60; Cedar Waxwing, 8; Starling, 105; Pine Warbler, 3; English Sparrow, 95; Meadow Lark, 16; Cowbird, 100; Cardinal, 25; Purple Finch, 20; Goldfinch, 3; Towhee, 5; Junco, 90; Field Sparrow, 20; Whitethroated Sparrow, 110; Swamp Sparrow, 8; Song Sparrow, 105. Total 60 species, about 1281 individuals. Fully twice as many sparrows were seen as could be positively identified as to species. The Redhead (duck) is a new species for this locality. J. H. Grey, F. H. Craighill, W. Anderson, D. L. Wray, R. Collie, and C. S. Brimley.

Chapel Hill, N. C., Dec. 26; 7 A. M. to 5 P. M. (1 hour out at noon). Clear to partly cloudy; fairly brisk wind around noon; temp. 38° to 55°. Approximately same territory covered as in censuses of past five years (6-mile radius including University Lake, Strowd's Lowgrounds, Hogan's Pond, New Hope Swamp, University campus and intermediate points). Four parties in morning on foot (total mileage 18); observers together in afternoon by car (total mileage 30). Pied-billed Grebe, 2; Great Blue Heron, 2; Mallard, 19; Black Duck, 34; Baldpate, 5; Buffle-head, 4; American Merganser, 9; Turkey Vulture, 20; Black Vulture, 8; Sharp-shinned (?) Hawk, 2; Cooper's Hawk, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 13; Sparrow Hawk, 1; Bob-white, 20; Ring-necked Pheasant, 1; Wild Turkey, 2; Woodcock, 1; Wilson Snipe, 12; Mourning Dove, 18; Great Horned Owl, 2; Barred Owl, 1; Belted Kingfisher, 1; Flicker, 46; Piliated Woodpecker, 2; Red-bellied Woodpecker, 37; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 9; Hairy Woodpecker, 4; Downy Woodpecker, 15; Phoebe, 7; Horned Lark 25 (flock); Blue Jay, 20; Crow, 37; Carolina Chickadee, 47; Tufted Titmouse, 43; White-breasted Nuthatch, 7; Red-breasted Nuthatch, 1; Brown-headed Nuthatch, 3; Brown Creeper, 4; Winter Wren, 12; Carolina Wren, 32; Mockingbird, 4; Brown Thrasher, 2; Hermit Thrush, 29; Bluebird, 50; Golden-crowned Kinglet, 53; Ruby-crowned Kinglet, 5; American Pipit, 3; Starling, 10; Blue-headed (Solitary) Vireo, 1; Myrtle Warbler, 55; Pine Warbler, 2; English Sparrow, 5; Meadowlark, 50; Red-wing, 51; Rusty Blackbird, 15; Cardinal, 28; Purple Finch, 43; Goldfinch, 40; Towhee, 7; Savannah Sparrow, 5; Junco, 425; Field Sparrow, 170; White-throated Sparrow, 230; Fox Sparrow, 15; Swamp Sparrow, 42; Song Sparrow, 250. Total, 68 species, about 2121 individuals. Larger numbers are partly estimates. American Mergansers were all females; large size, sharp contrast of color of head, throat and back, and blue-gray upperparts noted. Failure to find Robin and also Killdeer without precedent in former censuses. The Solitary Vireo is unusual in winter. Eugene Odum, Edmund Taylor, Arnold Breckenridge, Coit Coker, M. S. Breckenridge.

FISH CROW AT ROCKY MOUNT

In April 1936, Richmond Corinth was hunting crows near Rocky Mount. While watching a large flock of crows he noticed one much smaller than the others, and was able to shoot it. It proved to be a Fish Crow (*Corvus ossifragus*), length 13.5 inches compared with 19 inches for the Crow. The Fish Crow is a bird of the beaches that is sometimes found inland. This is the first N. C. record of the bird inland. J. J. Murray has recorded the bird in the Valley of Virginia at Lexington. The specimen has been mounted and is in the possession of Mr. Corinth.

GOOD LITERATURE ON BIRDS

AUDUBON'S BIRDS OF AMERICA, MacMillan, N. Y., \$12.50. Includes the 435 illustrations of birds of the famous Elephant Folio and 65 later plates. The Saturday Review of Literature says "it is the one book of the year about which there can be no question." It should be

in every school and city library as well as in the home of every bird student.

BIRD LORE, Bulletin of the National Association of Audubon Societies, 1775 Broadway, N. Y. \$1.50 a year. Excellent for material and pictures, suggestions about bird study, also picture and description of a bird to learn each week.

THE RAVEN, Bulletin of the Virginia Society of Ornithology, A. O. English, Treasurer, 308 Westover Avenue, Roanoke, Va. \$1.50 a year, being dues for associate-member in the V. S. O.

THE ORIOLE, Quarterly journal of the Georgia Ornithological Society, \$1, Don Eyles, Editor, 664 Linwood Ave., Atlanta.

SEASONAL LIST OF SOUTH CAROLINA BIRDS, Charleston Museum, Leaflet No. 8, 10¢. Revised to Nov. 1936. This is a 21 page leaflet, which may easily be taken apart and interleaved with blank pages, making a good permanent field book.

THE BIRDS OF SOUTH CAROLINA, Arthur T. Wayne, 1910. We understand that Mrs. Wayne still has a few copies for sale. When they are gone there will be no more available. Mount Pleasant, S. C.

LARGEST AMERICAN WILD FOWL MAY YET SURVIVE

(From Massachusetts Audubon Bulletin)

Trumpeter Swans, largest North American wild fowl, once considered on the road to extinction, may yet be perpetuated. This summer's census revealed at least 158 birds in the U. S., an increase of 43 from last year. Great hope is seen in the fact that the count this year included 77 cygnets, or young swans, as compared with only 41 last year. Most of the birds were counted on the Red Rocks Migratory Waterfowl Refuge, administered by the Biological Survey in southwestern Montana.

A small dam holds water at a fairly constant level. Twenty-four artificial nesting islands have been constructed and anchored in place. Refuge officials guard the swan's nesting area with special care. "From the time the ice leaves the lake until the first of August when the young birds are fairly well grown," says A. V. Hull, refuge manager, "I do not permit anyone to venture on the lakes where the swans nest. I do not go on the nesting grounds at all myself for fear that the sun's rays may injure the embryo within the eggs, also for fear that an overcast sky or storm may chill the eggs before the adult swan returns to the nest."

Trumpeter Swans tip the scales at 30 lbs. In size and splendor the Whistling Swan is so nearly its equal that the two can hardly be distinguished at a distance, but the trumpeter swan has a windpipe which has "just one more convolution, which enables it to produce a

louder and more far-reaching note on a lower key, with the musical resonance of a French horn.

FIELD NOTES

Buncombe County: I have noticed the following regularly this fall and suppose they are permanent residents: Carolina Chickadee, Cardinal, Goldfinch, Blue Jay, Tufted Titmouse, White-breasted Nuthatch, Downy Woodpecker, Flicker, Carolina Wren, Phoebe, Hairy Woodpecker, Robin, Red-headed Woodpecker (unusual here), Blue Bird. Firsts: Winter Wren, Sept. 23; Blackpoll Warbler, Sept. 9; Myrtle Warbler, Oct. 5; Magnolia Warbler, Oct. 5; Red-breasted Nuthatch, Oct. 12; Song Sparrow, Oct. 12; Slate-colored (?) Junco, Nov. 1; Carolina (?) Junco, Nov. 7; (Doubtful if can be distinguished in field. Ed.) White-throated Sparrow, Nov. 3; Yellow-bellied Sapsucker, Nov. 7; Savannah (?) Sparrow, Nov. 21; Tree Sparrow, Nov. 25; Golden-crowned Kinglet, Nov. 26; Hermit Thrush, Nov. 29; Brown Creeper, Dec. 1. Lasts: Black and White Warbler, Oct. 7; Wood Pewee, Sept. 28; Catbird, Aug. 30; Least Flycatcher, Spt. 3; Crested Flycatcher, Sept. 8; White-eyed Vireo, Sept. 8; Wood Thrush, Sept. 26; Yellow-throated Warbler, Oct. 1; Brown Thrasher, Oct. 5; Towhee, Nov. 24; Pine Warbler, Oct. 15.

*****Mrs. Dodette Westfeldt Grinnell, Ardin

Clingman's Dome: On a recent trip to the Smoky Mountain National Park we spent practically a whole day and a night on Clingman's Dome (6300 ft.), August 26-27, 1937. We took notes on the birds seen and heard and while not exhaustive the list is interesting: Turkey Vulture, 1 flying on the Tennessee side; Red-tailed Hawk, 1 above the road on the Dome; Hairy Woodpecker, several; Red-headed woodpecker, 1 below the road; Flicker, several; Crested Flycatcher, heard several times perhaps the same bird; Wood Pewee, 1; Ravens, 2 at Indian Gap and another in the road feeding on a small mammal that had been killed by a car the night before. We drove our car within 10 yards before it would fly; Goldfinch, several; Vesper Sparrow, 1 at Indian Gap along the side of the road; Junco, abundant in the woods and along the road; Towhee, several calling below the road; Indigo Bunting, 1 seen; Scarlet Tanager, several heard singing below the road. There were 3 birds singing simultaneously; White-eyed vireo, 1 below the road; Black and white warbler, 1 seen at the parking area; Black-throated Blue Warbler, several; Chestnut-sided warbler, 1 adult male at the parking area; Hooded Warbler in the woods below the road; Redstart, 1 at the parking area; Winter Wren, at least 2 pairs at the parking area. The males gave us a perfect concert when the sun came up; White-breasted Nuthatch, 1 on the trail to the Dome; Tufted Titmouse, only 1 seen; Chickadee, several along the trail to the Dome; Robin, several at the parking area; many birds were missed perhaps because it was so late in the season. Although we spent the whole night on the Dome not a single owl was heard.

*****Z. P. and Luella G. Metcalf

Smoky Mountains: Black-poll Warbler and Pine Siskins, Aug. 26; American Crossbill on small balsam giving faintest kind of trill, Aug. 39 (Clingman's Dome); Pine Siskins, Oct. 22.

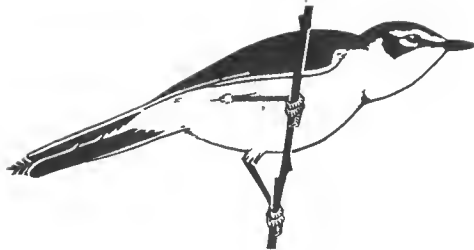
*****Mrs. Dodette Westfeldt Grinnell, Ardin

Nag's Head Region: On a trip, Sept. 29-Oct. 1, 1937, to Roanoke Island, Pea Island and up the banks to Back Bay, we observed the following: Pied-billed Grebe (numerous); Cormorant (1 sp?); Heron, Great Blue; Egret, American (2); Egret, Snowy (2); Heron, Little Blue (3); Canada Goose (12 Currituck Co. 1,000 Pine Island Club last week); Duck, Black (500 or more Pea Island, 40 Bodie Island Light); Duck, Baldpate (1,500 Bodie Light, Many on Pea Island - Walker); Duck, Pintail (flock of several hundred Pea Island); Duck, Blue-winged Teal (Walker says many on Pea Island); Turkey Vulture, Bald Eagle, Marsh Hawk (common); Osprey (plentiful); Duck Hawk (common, saw dozen or more); Pigeon Hawk (2); Sparrow Hawk (3); Semi-palmated Plover (common); Black-bellied Plover (common - more seen above Kittiwake, Duck, N. C.); Ruddy Turnstone (scarce); Eastern Willett (3); Lesser Yellowlegs (25); Knot (few); Pectoral Sandpiper (4); Least Sandpiper (60); Semi-palmated Sandpiper (60); Western Sandpiper (numerous); Sanderling (abundant); Jaeger, Pomarine (Chasing R. B. Gull, same size as Gull, 1st record); Gull, Herring (abundant); Ring-billed Gull (abundant); Laughing Gull (common); Common Terns (scarce); Least Terns (2); Royal Terns, (12 or more); Caspian Terns (common); Dove, Kingfisher; Flicker; Cliff Swallow (400); Crow; Chickadee; Mockingbird; Catbird; Cedar Waxwing (8 or more); Starling (100 or more); Pine Warbler; Meadowlark; Boat-tail Grackle; Cowbird; English Sparrow; Seaside Sparrow; Song Sparrow.

*****Francis H. Craighill
John H. Grey, Jr.

Whiteville: Robins were plentiful around here, Jan. 25. Saw a flock of more than 200.

*****Henry E. Kendall



The Chat

BULLETIN OF THE NORTH CAROLINA BIRD CLUB
PUBLISHED AT RALEIGH, N. C.

JOHN H. GREY, JR., EDITOR
1719 PARK DRIVE

VOL. II

FEBRUARY 1938

No. 2

COME TO GREENSBORO!

Second Annual Meeting N. C. B. C., April 23, 1938

The Piedmont Bird Club of Greensboro extends to the North Carolina Bird Club a most cordial invitation to hold the second annual meeting in Greensboro, on Saturday, April 23, 1938. Headquarters to be the O'Henry Hotel. Greensboro is an ideal place for this second meeting. Many of the friends of Dr. T. Gilbert Pearson live here, and have maintained their interest in birds. Bird projects are being promoted through the Garden Club and the Scouts. Also, the city lies near the center of the State and should be easily reached by a large group. Every member of the local Club stands ready to do anything we can for the comfort of our guests, and the success of the meeting.

-----Earl H. Hall, Chairman
Committee on Arrangements

The meeting will open at 11:00 a. m., in the O'Henry Hotel. The luncheon will also be served there at 75¢ a plate at 1:00 p. m. One feature of the program will be moving pictures in color of the Waterfowl of Lake Mattamuskeet; as far as we know, the first colored movies to be shown of our North Carolina wildlife.

The Executive Committee of the N. C. B. C. stresses the fact that the success of the meeting will depend on the number of papers read by our own members. We could import an outsider and draw a crowd, but we could not develop a club on that basis. Please send to the Editor the title of the paper which you will be willing to read. If you do not know just what to write about in your paper, write to the Editor anyway. If he cannot answer, he will turn it over to the President of the N. C. B. C.

The Executive Committee has voted to divide the work of Secretary, Editor and Treasurer, making three offices instead of one. This will spread out the work and thus increase the interest in the work of the Club. Therefore, the following amendment to the Constitution of the N. C. B. C. is proposed: "ARTICLE III Officers, Section 1: The officers of the Club shall be President, three (3) Vice-Presidents, Secretary, Treasurer and Editor. The duties of each shall be those usually pertaining thereto. These officers shall constitute the Executive Committee."

Another matter up for consideration is the nature of the annual meeting. Whether to continue it as a one-day meeting, or to hold it one afternoon and evening, with a field trip the following morning.

-----John H. Grey, Jr., Sec.

ORGANIZATION OF THE PIEDMONT BIRD CLUB
Thornton H. Brooks, Greensboro

Guilford County claims T. Gilbert Pearson as its native son. It is only natural, therefore, that this County should have a Club whose aim is the preservation and the protection of song birds.

In the early part of January of this year, a group of bird lovers met and decided to form a Club, and January 14 was fixed as the date for a first meeting. At this meeting approximately forty people attended and showed a keen interest in birds. The Club has since become well organized and has adopted as its name The Piedmont Bird Club, with a membership of fifty-five. The Club has a desire to accomplish something beneficial in its chosen field.

Primarily the Club is interested in the preservation and protection of song birds in this community. It proposes to accomplish this end, first, by educating the public to believe in bird protection and let them cure the ills; second, by the members of the Club adopting and using active steps to eradicate the ills. The Club is attempting to carry out the first method by talks made by its members to the different civic clubs, garden clubs, schools, Boy Scouts and other similar organizations, and by periodic articles in the newspapers. In the event this method does not produce the desired results, the Club intends to see that the ordinance prohibiting the use of firearms in the City by boys is enforced, and further, intends to seek the adoption by the City of an ordinance which will impound stray cats just as our present laws permit the impounding of stray dogs. The stray cat is a menace to all birds and the Club is devoting special attention to this subject.

Another aim of the Club is the dissemination of bird news amongst the members themselves. It is the Club's ultimate aim to have a guest speaker at most of its meetings, and in the meantime carry on round-

table discussions and informal talks are made by the members themselves. Several of the members have homes in the country which have become veritable bird sanctuaries, and field trips are planned for the members of the Club in the Spring.

The Club anticipates the future with enthusiasm. It is an active Club and there is much beneficial work that can be accomplished in this vicinity. The Club fervently desires that its work will, if only in a small way, add to the welfare of the community.

WE NEED MORE REALISM IN CONSERVATION

Joseph A. Hagar
State Ornithologist of Massachusetts

(From Bulletin of the Massachusetts Audubon Society, January 1938.
Used by kind permission of the Society, Carl H. Buchheister, Secretary)

One day last week I had a caller--a ruddy-faced young man with the look of outdoors about him, enthusiasm and conviction in his voice. He knew what ailed the pheasants and quail and ducks in his neighborhood. It was Crows! Why once, when...We had a pleasant chat, and when he was gone I sat back in my chair and thought some more about a problem that comes up in my work every day. Presently I got out my correspondence for a month past, and riffled slowly through it, picking out a letter here and there until a little pile of them lay at one side. Glance through them with me, if you will.

The writer of the top one is decidedly "agin" hunters. His letter speaks frankly of "murderers", "bloodthirsty butchers", "un-Christian spoilers". Next comes an inquiry about a bird found dead beneath a feeding-tray--"do you think this bird was poisoned?" Number three is critical of the State's sanctuary policy--"Why doesn't the State buy 100,000 acres of wild-life sanctuaries so that there will be as many birds as there used to be?" Here is one from a writer for a sports magazine, who is collecting data to refute the charge that hunters are responsible for it all. Another--"I saw a hawk catch one of my Pigeons--why does the State protect hawks?" "A boy brought me a young hawk which cannot stand up. How can I make it well?" "Why don't ducks come to my pond any more?" "All vermin should be killed." "All hunting should be stopped..." "It's cats that kill our birds..." "Oil pollution is wiping out all bird-life..." "No guns or traps..." "A cruel hawk..." "A poor little dead bird..." "A wicked hunter..." "Crows..."

"Well, well," you are thinking. "What a lot of different ideas! Why should these letters--no two alike--go in the same pile?" But to my mind they all have one common denominator: their writers do not yet have an understanding of the immense complexity, the extreme delicacy of the bird's relation to its physical environment, and of the imminence, the naturalness, and the inevitability of quick death for the individual bird.

Do not misunderstand me. I would not want to be entirely callous to this constant loss of bird-life. I would not wish to answer these letters otherwise than helpfully, within the bounds of such truth as I know. Nor would I mention their common lack as though I myself had full understanding, for indeed the very best ecological investigators of our day are only beginning to glimpse the tremendous interdependence of all forms of life. But I do feel that some very real steps in what we call "Conservation" are waiting upon a wider knowledge by the lay worker and the general public of the methods by which Nature achieves her ends. Contrarily, I feel that the ultimate benefit a thoughtful man may derive from a knowledge of bird-life will be found in an increased appreciation of his own position in a universe where life is incredibly cheap for all other animate things, and where his own groping idea of the preciousness of human life is pitifully young and insecure against the background of unnumbered ages.

Before we tackle our problem in earnest, let's define it very carefully, and let's set up guards against two possibilities which are capable of leading our thoughts utterly astray. Our problem is this: We want a simple but well-rounded picture of the exact ways by which Nature controls the life and death of birds, to the end that we may effectively modify the physical environment of birds for our own purposes.

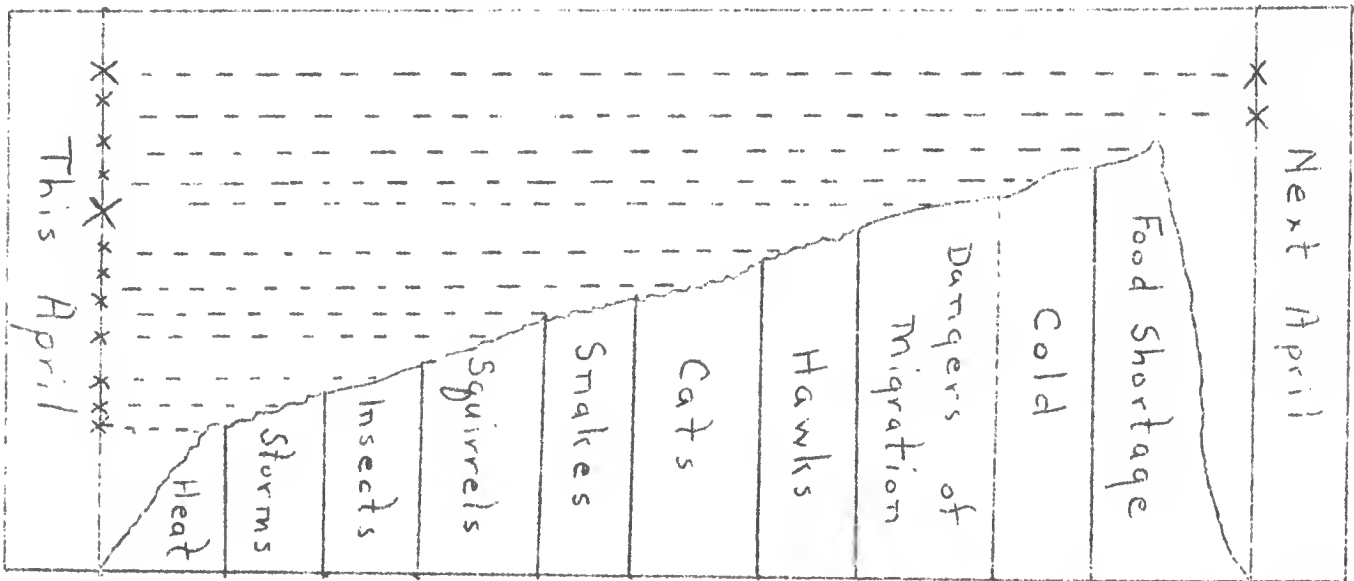
The first guard is this: We will not confuse man's effect on bird-life, with the effect of killing birds on man. When a hunter kills a bird, his action differs in no way from the killing of the same bird by any other animal, except insofar as some men have a higher standard of conduct than animals. This then is a problem in human ethics. The conservationist should think of human predation on birds in the same terms as animal predation, until such time as he tries to control human predation, when the ethical factor becomes an additional tool.

The second guard: We will not transfer human emotions to the birds we are studying. Human beings experience joy, pleasure, pain, sorrow. Every bird-student has an equal number of instances with an opposite implication. We find it difficult to consider some birds without our emotions, but none of us gives a second thought to snuffing out the lives of a thousand insects. If there is any degree of difference between the insect and the bird, surely there is some degree of difference between the bird and man.

If Nature has a goal, it is very obviously not the preservation of the individual, but of the species, the seed. At the moment, man is interested in prolonging his own individual span of existence, but whether his experiment has real significance remains for future ages to tell. At any given time most species are tending to preserve a status quo. Some are slowly expanding their numbers or their range, others contracting, but species-development is almost infinitely slow, and changes of status in a species are usually gradual until the final chapter, when a relatively quick downhill acceleration ends in the instantaneous death of the last individual. It follows then, by and

large, that if Nature has on hand next spring as many mated pairs of any species as she had this spring, she has achieved her goal of species perpetuation, and a number of individuals equal to the number of young born this year may safely be sacrificed in the process. In fact, since our world has definite physical limits, they must be sacrificed if serious dislocation and then decrease of other species is not to follow.

Now, the error into which every conservation-minded and every tender-hearted person is almost sure to fall, unconsciously, is that a bird saved from death by human intervention is saved for an indefinitely long time--long enough to complete a full life-cycle, in fact. Nothing could be further from the truth. The existence of any wild thing is a constant succession of hazards, and death is always just ahead. The mere fact that an individual bird must be rescued from today's hazard is an indication that the same bird will almost surely fail to survive tomorrow's greater hazard.



To simplify and clarify our further discussion, let us leave general statement and confine ourselves for the moment to a diagrammatic picture of a special case. Imagine with me a pair of Robins building a nest in early April. At the left hand side of our diagram on a vertical line called "This April" we make two large crosses to represent this mated pair, one cross being at the very top of the line to indicate an adult male in the fullest vigor, the other somewhat lower down to show a female one year older, and slightly past her prime. Let us make the not improbable assumption that these Robins will nest three times before late summer, laying a clutch of four each time, and hatching from the twelve eggs, ten young birds. Ten small crosses in the same vertical line as the two large ones represent these youngsters, three of them having more vitality than their mother and consequently standing above her on the line, the other seven dropping away to the weaklings at the bottom. Now suppose that careful observation has shown us ten chief causes for Robin mortality in this

particular region, the losses being divided about equally among the ten. Let us represent each hazard by a mountain peak which is slightly higher than the preceding one to the left, and let us label our peaks, in the approximate order in which the young birds first encounter them, as heat, storms, insect parasites, squirrels, snakes, cats, hawks, dangers of migration, cold, and food shortage. Finally let us say that each of the twelve birds must move to the right during the year in an attempt to cross the ten mountain peaks and reach a line labeled "Next April". What is the result? The weakest bird, at the bottom, is killed in the nest by a scorching sun, the next weakest succumbs to a sudden drenching storm, others are eliminated by parasites, snakes, and cats, the mother is caught in a blizzard during her southward migration in the early winter, and only the father and the one strongest youngster cross all of the ten hazards and arrive at the line called "Next April". But although ten have died, Nature has still achieved her end, for two birds are left to carry on their race.

If our diagram is valid, it will help us to understand all the situations which may affect the survival-rate of individual birds. The next step is to apply it to the solution of sample problems suggested by my pile of letters. Suppose for a moment that the four birds indicated by the four lowest crosses on the left are one brood, and they have successfully withstood heat, storms, and parasites until a marauding squirrel appears on the scene, and finds in the nest not the one youngster which would have been there had the other hazards already taken toll, but four. A squirrel commonly cleans out the entire contents of a nest; this one does so, and is the gainer, but the net result so far as the Robin species is concerned, is exactly the same as though each of four hazards had taken one bird apiece.

Suppose again that a sportsmen's club carries on an anti-hawk campaign, and substantially eliminates hawks as a factor in Robin mortality. The first result is that the young Robin which would not have had quite enough vitality to escape a hawk, has proportionately less vitality to cross the still higher peak called "Dangers of migration", and dies just the same. The second result is, because the indiscriminating sportsmen have killed not only the kinds of hawks that kill Robins but the kinds that live on squirrels and snakes, that life becomes easier for squirrels and snakes, and the peaks that represent them in our diagram presently push up high enough to cut off the young Robins that would otherwise reach the hazards to the right.

Finally, suppose that our twelve Robins have been so fortunate as to escape every one of the first nine dangers, and only a shortage of winter food stands in the way of their complete survival. But since now, in the middle of winter, there are twelve birds to glean a living from the supply that would normally carry two, it is crystal clear that ten must die just the same. Indeed, there is the tragic possibility that before Nature can eliminate the ten, the two strongest will be so weakened by the abnormal competition that they too will succumb. A very similar thing almost certainly happens to Black Ducks on the Massachusetts coast in severe winters.

What does our diagram tell us about the possibility of modifying the birds' environment to serve man's purposes? Just this, at one glance:--the only logical point of attack is the highest peak, or in more technical language, the limiting factor in the bird's survival. In the case of our Robins, it is perfectly obvious that removing the cats leaves more for the hawks, that removing the hawks leaves more to die in migration; but if we can contrive to supply a little more food at the crucial time in late winter, then we lower the peak called "Lack of Food", we save the one Robin which has survived the first nine dangers, and "Next April" finds us with three Robins where last year there were two.

It will not pay us to lower the "Lack of Food" peak very far, however, for the instant it drops below the "Cold" peak, then "Cold" becomes the limiting factor, and we must turn our attention to devising some way of giving our Robins more shelter from bitter nights. If we succeed in that, and at the same time lower the "Lack of Food" peak by the same amount, then "Next April" finds us with four Robins.

Always we must search for the highest peak on our diagram and shave off its top. It does no good to touch a lesser peak. To remove entirely any peak is worse than useless, for the whole picture is thrown out of balance and we must study it again from the beginning. The lower we push our peaks, the more peaks we must consider. All our changes must be slow and methodical. If this seems difficult, yet we may also find encouragement in the diagram, for it suggests the very narrow margin between a decreasing and an increasing species. So prodigal is Nature that a comparatively small increase in the rate of survival may mean for many species a great increase in the total number of individuals; saving two out of ten of our theoretical Robins doubled the breeding population.

Turning now from the theoretical to the actual, our diagrammatic treatment of a Robin family is not to be thought of as an entirely accurate story, or the whole story, of all Robins, for Robin survival depends on a great number of variable and constantly shifting factors. Even less is it the story of all birds, for each species occupies a niche of its own, with its own hazards and risks, so that each must be studied separately. The diagram does point, however, to certain principles which control survival, and when these principles are more widely and thoroughly understood, I believe wild-life conservation is going ahead with greater directness and speed. The matter of Crow-shoots, so-called, will illustrate the point.

I find it difficult to get excited over Crow-shoots in Massachusetts--either for or against. Let's see why. The essential facts we need are these:--The Crow is an exceptionally vigorous and adaptable bird. It occupies in this state an environment with not only ample cover, but large areas of park and suburban territory where it indirectly receives much protection. It is relatively free of predatory enemies, man being perhaps the most dangerous, and there is no particular evidence that disease or parasites are important. Its food is so varied that it can shift ground readily as circumstances require, but on the whole, seasonal food-shortage is probably the limiting

factor for Crows; in other words, there are roughly as many Crows in Massachusetts as can find food here or further south during mid-winter. Translating these facts into diagrammatic form will give a series of low peaks on the left, a slightly greater peak labelled "Man", and at the right, a very high peak called "Food Shortage".

Appraising the effect of Crow-shoots against this general picture of Crow-survival, two questions come to my mind. Have those nature-lovers who fear for the bird considered the extreme improbability of sportsmen being able to push the peak called "Man" higher than the peak called "Food Shortage"? Granting the adaptability of the bird and the fact that food supply is the limiting factor, it immediately follows that shooting some Crows makes life easier for other Crows, which therefore raise more young to maturity than would otherwise be possible. Have Crow-shooting sportsmen, on the other hand, any real conception of the size of their self-appointed task? Shoot the first unsuspecting Crows and their place is taken by more educated birds, shoot out unprotected areas and in come surplus Crows from protected regions, shoot the breeders and there is more food in the fall for migrants from the north, shoot in winter and conditions are improved for birds from the south. If you would gauge the difficulty of reducing so ubiquitous a bird as the Crow, consider the slow progress which man makes against the rat, altho rats cause a demonstrable loss of millions of dollars annually, so that anti-rat campaigns have an impelling economic force behind them which is not conspicuous in the case of the bird.

Nevertheless, if Crow-shooters must learn from experience, I see no need for abusing them during the process; hard names thrown at them are wasted no less than shot thrown at the Crows, for the Crow population will still be fixed by winter food supply. It is only unfortunate that energy is being diverted from the real answer to Crow-predation on game-birds, which is probably better nesting cover for the game-birds.

A wider understanding of how Nature controls survival will advance Conservation by focussing attention and effort on really vital matters. Given time to collect and analyze the facts, none of these problems are insoluble nor indeed so difficult as they appear at first, but they do require straight thinking. I look forward to the time when most sportsmen will see that breeding stocks must be maintained if we would have birds and animals about us; and when most nature-lovers will understand that surplus populations of living things must be eliminated, the exact time and method being of lesser importance.

COUNT THE PURPLE MARTINS

The first notes received about the martins comes from R. A. Urkuhart of Lewiston who recorded them on March 9. As there was so much discussion last year whether the martins were increasing or de-

creasing, it will be interesting if all observers will report all the martins they see, with the dates on which they were observed. Also we would like to know the number of birds that are found nesting throughout the State. Any data you collect will be of value.

STARLINGS PUTTING ANTS IN THEIR PLUMAGE

T. Gilbert Pearson, New York

The Auk for January 1938 contains a short article by McAtee, entitled "'Anting' by Birds", which probably gives an explanation of something I witnessed last summer.

Just back of my house is an apple tree, the top of which is about on a level with my bedroom window, and about eighteen feet away. Every morning as I dress I look out there for birds, and usually I see Starlings and English Sparrows. During migrations I see other birds.

One morning in August 1937 I noticed that there were two Starlings behaving in, what was to me, a very peculiar manner. Both were busily engaged apparently in picking insects from the underside of the apple leaves, but after ever capture the bird would turn and thrust its bill among the feathers of its flank or lower back. They were working in such an animated manner as to suggest a fair amount of excitement on their part. I watched for ten minutes, when they flew away. The next morning two starlings, at the same place, and about the same time, were going through similar maneuvers.

Then I had to leave for Mexico, and after returning I was never able to see the performance repeated.

In addition to putting ants in their plumage, McAtee mentions accounts of people observing other forms of small life handled in the same way. He quotes my friend, Dr. Stresemann of Germany, who has gathered a little data on the same subject; and recently I read with a great interest of something of the same kind reported by Alex H. Chisholm in his charming book, "Bird Wonders of Australia". Evidently here is something new in the science of ornithology, and concerning which extremely little is known.

The readers of The Chat are asked to be on the lookout for similar occurrences. If you note anything that appears to be similar, please send me as full an account as possible to Room 841, 1775 Broadway, New York, N. Y., or send it to The Chat.

MATTAMUSKEET WATERFOWL CENSUS

Harley C. Lawrence, Refuge Manager

In the article by Earle R. Greene on "Birds of Lake Mattamuskeet", (Chat I:7-8, p. 45ff) there is given the waterfowl counts for the winters 1934-35 and 1935-36. Below are the counts for the years since.

<u>Species</u>	<u>Season 1936 - 37</u>	<u>Season 1937 - 38</u>
Mallard	1,550	775
Black Duck	2,350	1,175
Baldpate	2,200	1,100
Green Wing Teal	250	150
Blue Wing Teal	100	50
Shoveller	600	300
Pintail	42,000	21,000
Wood Duck	17	50
Coot	500	---
Canada Goose	48,000	55,000
Whistling Swan	15,000	12,840
Totals	<u>112,567</u>	<u>92,080</u>

You will note from the above tables that our duck population is exactly one-half that of last winter. We arrive at these figures through seasonal observation rather than physical check. We make as near an actual count as is humanly possible on the day our annual check is made, but we divide the ducks by species, through our daily observations over the entire refuge.

The reason for the drop in duck population I believe, lies in the fact that ducks as a whole, go where the best food is found and this year better food conditions for ducks were found in the Back Bay, Susquehanna Flats and other areas within this zone. High water levels prevailed in our refuge throughout the spring and summer of 1937 and as a result only a meagre supply of duck foods was produced.

Food crops for geese and swan were likewise curtailed, but we noted a good increase in the numbers of geese. They persisted in remaining with us in spite of unfavorable food conditions. This fact tends to prove my theory that even under adverse conditions they follow habits in migration and seasonal residence, rather than adapt themselves to variations in food supply. Of course, I do not believe that they would continue over a period of years, to winter in an area lacking sufficient food, but I firmly believe that every goose that stayed here this winter will return next fall, if he survives the many dangers he will encounter between now and then.

RAZOR-BILLED AUK AT CURRITUCK LIGHT

Clarence Cottam, Biological Survey, Washington, D. C.

(Ed. note: State records for this species, since the publication of Birds of North Carolina in 1919, are taken from the records kept by C. S. Brimley, N. C. Department of Agriculture as follows: Currituck Sound, Jan. 29, 1923; Ocracoke, Jan. 14, 1927; Duck Island Club, Feb. 21, 1927; New River, Jan. 18, 1933; also eighteen seen off Pea Island, Bodie Island and Cape Hatteras in mid January 1937, by S. N. Walker. ((Auk, October 1937, p. 549)))

Messrs. A. L. Nelson, R. C. McClanahan, and I participated in a waterfowl inventory of coastal Virginia and North Carolina on January 26 and 27. You may be interested to know that on the barrier reef about one mile south of Currituck Light, in company with Mr. Sam Walker, Junior Refuge Manager of Pea Island Migratory Bird Refuge, we picked up an oiled razor-billed auk. We put the bird in the back of the car with the hope of cleaning it up and placing it in the Zoological Park in Washington, D. C., but unfortunately the bird died shortly after its arrival in Washington. While I am aware that there are a few other records of this bird in the state, this observation seemed worthy of being placed in more permanent record.

TAKE A BREEDING BIRD CENSUS

Last year Bird Lore sponsored its first census of breeding birds. From such data it is hoped to work out more definitely what we mean by bird territory, how much territory a pair of birds need to gather food for their young, etc. Members of the N. C. B. C. can add to our own information by taking such a census.

SIZE OF AREA: Not less than 15 acres, nor more than 150. 50 or 60 acres may prove best. The exact size in acres must be known. If your area is not surveyed, measure it by making a large "A" with sticks, which is five feet between the points of the "A". Measure by rotating the measure as you walk in a straight line. Take an area that can be covered in succeeding years.

TYPE AREA: (1) Stable growth, including not more than two blocks of vegetation (as woods with adjoining meadow, etc.), (2) Recently-disturbed habitats, like a burnt-over area, or one that has been drained. In this the succession of plant life may be watched. The simpler the area the better.

MANNER OF TAKING: Actual nest counts as far as possible, taken on at least five trips over area, trips to be at least five days apart. Singing males are not to be taken as sole criterion, because

nesting of summer visitors and the passage of migrants overlaps. Carrying nesting material, of food, young crying, young birds out of nest and other definite evidence of nesting will be accepted as the equivalent of nest discovered. Make a round map of the area, and then mimeograph it, so that each nest discovered can be marked on a map for each trip. Then the total compiled on another map. Mark all singing males observed, and whether mate present or not, so that status of all birds may be determined. Thus unmated individuals will be noted. Some nests are more difficult to locate, and those of owls, woodcocks, whip-poorwills, etc., may be taken on calls only. The point is not competition to see who can get the most species, but accuracy and thoroughness. The time to take a census is any part of the breeding season - but be sure that birds are nesting, and not transients that will nest further North.

MANNER OF REPORTING: Dates of visits, with weather data such as temperature, direction and force of wind, barometer pressure if available (see weather reports in local paper). Describe the habitat in detail, the amount of shrubbery, and whether primitive or second growth. List species in present A. O. U. order. Accompany by a rough sketch map, locating all nests found, as well as immature males found. Give each species found a number, starting with 1, thus: Robin No. 5, or any other number, then N is for nest, U. M. for unmated male singing. So 5N would be a robin nest, 5NY nest with young, etc.

Mail in to Bird Lore, 1775 Broadway, New York City. Also to the CHAT. If you have any doubts about your list, send it to the CHAT, and we will mail it in.

FIELD NOTES

Lowiston: Two Purple Martins dropped in to see me March 9. Earliest I have known heretofore was March 16. Generally come on St. Patrick's Day.

*****R. A. Urquhart

Winnabow: Orton Plantation, 18 miles below Wilmington on the Cape Fear River: We did not get to take a Christmas census, so send this census in that form. Expected to get at least 50 species.

Feb. 27, 1938, 8:00 to 9:00 A. M. and 10:10 A. M. to 3:15 P. M. Weather clear, still in morning, breeze springing up in afternoon. Warm. Territory covered, 8 miles, rice fields and upland around Orton Plantation house and along edge of Orton Pond. Observers together on foot and in car. Pied-billed Grebe, 2; Great Blue Heron, 1; Egret, 1; Mallard, 25; Ring-necked Duck, 3; Marsh Hawk, 5; Sharp-shinned Hawk, 1; Bald Eagle, 5; Mourning Dove, 2; Kingfisher, 1; Pilcated Woodpecker, 1; Downy Woodpecker, 5; Red-bellied Woodpecker, 1; Flicker, 5; Crested Flycatcher, 4; Bluejay, 3; Crow, 5; Fish Cros (?), 1; White-breasted

Nuthatch, 1; Brown Creeper, 1; Carolina Wren, 5; Mockingbird, 2; Brown Thrasher, 3; Robin, 4; Myrtle Warbler, 15; Pine Warbler, 2; Meadow Lark, 6; Cardinal, 10; Towhee, 5; White-throated Sparrow, 10; Fox Sparrow, 1. Total, 31 species and about 135 individuals. Saw numerous signs of Wild Turkey.

There is a heron rookery at Orton Pond. Last year on April 1, we counted 60 newly-built nests. Saw also many egrets, some Great Blue Herons and 5 Anhingas, or Water Turkeys, but they had not begun to nest. This year it was too early for nesting, but we saw one egret (sp.?) and a Great Blue Heron. We saw numbers of old Osprey nests in the tops of cypress trees which stand in the water, but no birds. There have been Wood Duck there all winter, but we were not fortunate enough to see any. Some Ring-neck Ducks have been trapped and are being held for banding.

Mary Shelburne, Sallie Bright,
*****George Ross, Washington Field Museum.
Churchill Bragaw, Orton.

Pittsboro: Last summer there appeared on the place an albino Chipping Sparrow. One wing was almost all white. Every time he flew to the ground with others, they immediately flew away.

On Christmas morning about 10:30 there were seven cardinals feeding on the ground at one time. One was in a low shrub apparently standing guard. Two golden-crowned kinglets came to the yard several times during the day. A flicker has bored a hole in the weather boarding of the house and he was constantly about. Several Bluebirds sang cheerily all day along with the Carolina Chickadee and wrens. All of these are permanent residents on my place. With the Cardinals on Christmas morning were many song-sparrows and white-throated sparrows with dozens of chippies and some field sparrows. A mockingbird and southern dewny were seen in the same tree. A brown-headed nuthatch and the tufted titmouse were seen in the same tree. A flock of robins was seen on December 28. Blue Jays are always around. Pine warblers and gold finches are also seen almost daily.

*****Clara Hearne

Along the Banks: While taking the waterfowl inventory of coastal North Carolina on January 26-27, 1938, I was interested in seeing a number of species normally not common in the State. These include 7 Blue Geese, mixed with a flock of some seven thousand Snow Geese on Pea Island. I saw also a dozen or more Black-backed Gulls. I have observed Black-backed Gulls in all parts of Pamlico Sound for the past five years, and have submitted two or three short articles to The Auk concerning their distribution in this area. It is my personal feeling that this species has increased and that they are, therefore, more common in this area than they formerly were.

*****Clarence Cottam, Washington, D. C.

Roanoke Rapids: Saw an albino English Sparrow, two or more white tail feathers, on the school grounds the middle of February, February 26, Cedar Waxwings, numerous, also Goldfinches and Myrtle Warblers.

*****Clara Hearne

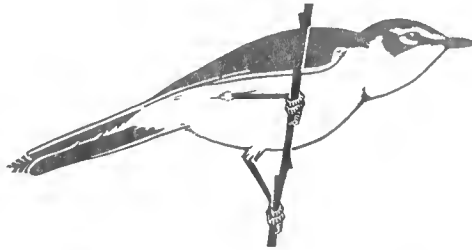
Raleigh: Gadwall and American Merganser, Dec. 27, 1937 to date, observed at intervals, both species are additions to the Raleigh list of birds. Red-legged Black Duck, 2 seen Feb. 28, the red legs showing distinctly when the birds stood on their heads to feed. Wood Duck, March 10, 2 males and a female seen. Wild Turkey, 3 seen Jan. 3, by F. L. Averill in the Rolesville section. Wilson's Snipe, 1 on Mar. 8. Cedar Waxwing, Feb. 28 to date. Purple Finch, Feb. 13, 27. Chipping Sparrow, first seen March 6, 25 seen. Lincoln's Sparrow, Feb. 13, 16, caught in bird banding trap by Jesse Primrose. This is the star record of the year and adds another species to the Raleigh list, making it 224 full species to date. March 10, 1938.

*****C. S. Brimley
J. H. Grey

SPECIAL SALE

A GUIDE TO THE WINTER BIRDS OF THE NORTH CAROLINA SANDHILLS, by Skinner and Achorn, Albany, N. Y., 1928, 300 pages with 13 color plates, printed at \$4.00.

Remaining copies for sale at \$1.00 by Alfred Williams & Co.



The Chat

BULLETIN OF THE NORTH CAROLINA BIRD CLUB
PUBLISHED AT RALEIGH, N. C.

JOHN H. GREY, JR., EDITOR
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VOL. II

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No. 3 & 4

SECOND ANNUAL MEETING

The second annual meeting of the N. C. B. C. was held in the O'Henry Hotel, Greensboro, Saturday, April 23, 1938. The Piedmont Bird Club was the host club. Forty-five people were present, representing: Greensboro, Winston-Salem, Brown Summit, Southern Pines, Oxford, Raleigh, Rocky Mount, Salem, Virginia, and Bryant's Pond, Me. Sixteen new members were received into the Club.

The following local clubs reported on the work accomplished for the year, and of their plans for the coming year: Piedmont Bird Club of Greensboro, Henderson Bird Club, Southern Pines Bird Club, Bug House Laboratory of Washington, and the Raleigh Bird Club. These reports are condensed elsewhere in this issue

John Grey showed moving pictures of "The Bird Life of Lake Mattamuskeet" (in color), "The Ruby-throated Hummingbird", and "Our Wildlife Resources". Mrs. Nellie F. Sanborn, Southern Pines, read a paper on "The Romance of a Chickadee", which we hope to use in the next issue. BIRD LORE grants permission to reprint it. President C. S. Brimley, Raleigh, spoke at the luncheon on "My Ornithological Education" (see this issue). F. H. Craighill, Rocky Mount, read a paper on a new theory of migration, which he called "Migration Stations" (see this issue).

The business session followed the luncheon meeting. The President had appointed a Nominating Committee, consisting of: Dr. Wesley Taylor, Miss Mary Wintyen and Miss Louise Eaton. Also an Auditing Committee: Prof. Earl H. Hall and Mrs. W. N. Hutt. The constitution of the Club was amended to separate the work of Editor from that of Secretary-Treasurer. The Nominating Committee made the following nominations, which were adopted unanimously:

President: The Rev. Francis H. Craighill, Rocky Mount
 First Vice-President: Mrs. Nellie F. Sanborn, Southern Pines
 Second Vice-President: Prof. Earl H. Hall, Greensboro
 Third Vice-President: Miss Mary Shelburne, Washington
 Secretary-Treasurer: Lacy L. McAllister, Greensboro
 Editor: The Rev. John Grey, Raleigh

It was proposed that the next annual meeting be a two-day meeting beginning on Friday afternoon, with a banquet, and an evening session, and then a field trip on Saturday. This matter was referred to the Executive Committee. The Auditing Committee reported that they found the reports of the Secretary-Treasurer in order. Greetings were sent to the Virginia Society of Ornithology, holding their annual meeting in Leington, Virginia, April 29-30. The President expressed the appreciation of the Club to the members of the Piedmont Bird Club for their hospitality. On motion the meeting adjourned, leaving the time, place and nature of the next meeting to the Executive Committee.

 NEW MEMBERS

(This list includes all those elected to membership, since the list of the 101 Charter Members was printed in the CHAT for May-June 1937, one name being omitted and included in the June issue.)

Miss Elva Barrow, Chemistry Dept., W.C.U.N.C., Greensboro
 Dr. J. T. J. Battle, R. F. D., Greensboro
 Mrs. W. V. Blackburn, 2304 Lawndale Drive, Greensboro
 Braswell Memorial Library, Rocky Mount
 Dr. Maurice Brooks, West Virginia University, Morgantown, W. Va.
 Thornton H. Brooks, 901 N. C. Bank Building, Greensboro
 Mrs. M. Louise Bullard, 101 Whitaker Mill Road, Raleigh
 Miss Inez Coldwell, Biology Dept., W. C. U. N. C., Greensboro
 Mrs. R. D. Douglas, Box 406, Greensboro
 Mrs. J. P. Fourquarean, 5231 Powhatan Avenue, Norfolk, Virginia
 George C. Gibbs, 900 Englewood Street, Greensboro
 Dr. Anna W. Gore, 517 Highland Avenue, Greensboro
 Earle R. Greene, Okefinokee Wild Life Refuge, Fargo, Georgia
 Mrs. Dodette Westfeldt Grinnell, Arden
 Mrs. W. N. Hutt, Box 465, Southern Pines
 Mrs. H. W. Kendall, 1850 N. Elm Street, Greensboro
 George B. Lay, State College Station, Raleigh
 Mrs. H. L. Lazenby, 767 Chestnut Street, Greensboro
 M. G. Lewis, 320 Mount Vernon Place, Salem, Virginia
 Paul Kelly, N. C. Dept. Conservation and Development, Raleigh
 Mrs. Eleanor Morton, Apt. 5, 309 McIver Street, Greensboro
 Mrs. A. S. Pearce, Hope Valley, R. 3, Durham
 Miss Anna Shamburger, 517 Highland Avenue, Greensboro
 Shepherd Memorial Library, Greenville
 Mrs. Roxie Collic Simpson, N. C. State Museum, Raleigh
 Mrs. A. J. Skaale, 3401 Hillsboro Street, Raleigh
 Arthur Stupka, Gatlinburg, Tennessee
 Dr. Wesley Taylor, Justamore Farm, Greensboro
 Mrs. C. W. Toms, Jr., Venable Tobacco Company, Durham
 Mrs. N. D. Tyner, 1802 Rollins Road, Greensboro
 Frank Williams, Sycamore Street, Rocky Mount
 Miss Mary K. Wintyen, Southern Pines

ACTIVITIES OF LOCAL CLUBS IN NORTH CAROLINA

PIEDMONT BIRD CLUB, Greensboro: The Club was organized January 13, 1938, and has had bi-monthly meetings. Three main objectives have been set before the members. First: The education of the people of our community so that they will love, attract, and protect our birds. To this end five speakers have been furnished to high schools, Boy and Girl Scouts, study clubs, and the garden clubs. Second: A tax on cats, as on dogs, and petitions to this effect are being presented to the City Council; also six cat traps are in effective operation. Third: meetings for the discussion of bird studies, and field trips. The Club has enjoyed three field trips already.

----- (Mrs. H. W.) Leslie M. Kendall, Secretary

SOUTHERN PINES: Our Club was organized in 1926, and grew out of our interest in birds, and our association with John Warren Achorn, a retired Boston physician, living in Pine Bluff. We have had four presidents: Dr. Ivey, and after his death Miss Mary Mather for five years, myself for six years, and now Miss Mary Wintyen. We have a small bird sanctuary of eight acres, comprising, a small meadow, a pine grove, swamp land, and an alder-fringed brook. A real home for many species of birds. In many places there is such a tangle of the Halliana honey suckle, and other vines, that it had become almost impenetrable. This winter, trails were cut in various directions, and each trail named for some member who had been of service to the Club in the past. For instance, the late Professor William Hutt was our Vice-President, and one trail that was his favorite walk is honored by his name. Our dues of fifty cents cover our membership in the National Association of Audubon Societies, but leave us little for outside work.

----- Mrs. Nellie F. Sanborn, Ex-President

HENDERSON: Our Club was organized in May 1937, and has 41 adult and 75 junior members. We have held regular meetings every month, and have conducted seven field trips. The most important piece of work has been that with school children, under the leadership of H. C. Anderson, Bird Protector. The attempt has been made to have the children know the birds, rather than know about them; therefore, three field trips have been arranged. In March a three-day exhibit was held of some seventy bird houses made by school children, and of posters about the protection of birds. The Club has also sponsored the planting of shrubs that will provide berries for the winter birds, and in co-operation with the garden clubs of the city has helped make the city more attractive for our birds. In November, Henderson was declared a municipal sanctuary, by order of the City Council. At the ceremony of proclamation, the Club sponsored a public meeting, and invited Mr. Alexander Sprunt, of Charleston, South Carolina, Director of Southern Sanctuaries for the Audubon Association, to come to Henderson and tell us something of the work of protection. Our Club also sponsored a meeting in Middleburg, in March, to consider the Wildlife Management Program, and had as the guest speaker Mr. Ross O. Stevens, Director of the Program for the State.

----- Claudia Hunter, Secretary

BUG HOUSE LABORATORY, Washington: Our organization is not limited to the study of birds, but includes all phases of natural history. Joe Biggs co-operated with the N. C. B. B. in taking a Christmas Census for Washington. Several of us made a field trip to Orton Plantation, and reported to the CHAT the birds we saw. Through the BUG HOUSE REPORTER we have proposed that Washington be made a municipal sanctuary. Our most exciting event was the hatching of a Great Horned Owl's egg - news of which will appear later after the AUK has used, or refused, the material.

-----Mary Shelburne, Director

RALEIGH: We were organized in February 1937, with 35 members. Meetings are held regularly each month - with the exception of July and August. Some twenty of our Club joined with Henderson in their proclamation night, and enjoyed hearing Mr. Sprunt. The high spot of the year was an over-night field trip to Lake Mattamuskeet in January to see the Whistling Swans and Canada Geese; eighteen members went on this pilgrimage. Last November we had two special meetings: one to hear Mr. Carl W. Buchheister, Secretary of the Massachusetts Audubon Association, who showed moving pictures of the Audubon Nature Camp, in Maine; and Mr. William Vogt, Editor of BIRD LORE, who spoke on the work of Conservation. The other meeting was to hear and see the sound movies of Dr. A. A. Allen of Cornell. Both of these meetings were open to the public and were attended by several hundred people. One interesting feature of 1937 was the field notes of birds around Raleigh which were included in the mimeographed notices of the meetings. Our Club has affiliated with the National Association of Audubon Societies. This year we are having every member of the Club take part in at least one program. The plan is to have one paper of some twenty minutes and four short talks at each meeting. The short talks are on the subject of "A Bird of Interest To Me", in which the person talks about some of his experiences with birds he likes. We have three important committees, on: Bird House Construction, Work with Students at the Blind School, and Educational Work in the Schools. Over 100 bird houses have been put up in the city as a result of the committee's work. Students from the Blind School have been taken on field trips to identify birds by their songs.

-----Nancy Eliason, Secretary

CHAPEL HILL: Odum is off at Illinois, Taylor and Breckenridge are in Med School here, and Harrston and I are doing graduate work. Consequently, none of us has been able to get out much at all; as you know, it takes concerted and steady work to produce any worthwhile results in bird study, and we have not been able to devote sufficient time to making organized campaign.

-----Coit M. Coker

My Ornithological Education
C. S. Brimley

As I spent the first seventeen years of my life in England, my acquaintance with birds naturally began in that country, and at a comparatively early age. From my early youth up, I knew a good many birds by their local names, and by local names I mean names used by

the population generally and not merely by bird students. Beyond this we occasionally got Yarrell's British Birds from the circulating library at Bedford, four miles from my home which was at Willington, due east of Bedford and situated near the sluggish river Ouse.

We had no woods, only a single wood which was a pheasant preserve but in spite of this there were numerous birds that nested in the orchards, gardens, and hedges, and frequented the banks of the river. Some we knew well, others only slightly, and probably those we actually knew were not more than a third of the regular bird population.

In addition to our infrequent dips into Yarrell which did not, I think, much increase our knowledge, not however owing to Yarrell's defects, but to our youth and lack of experience, we did have in our permanent possession a little book entitled, if I remember rightly, British Birds, Their Eggs and Nests. This book undertook to give a description and a picture of the eggs of all, or nearly all, the birds found in Great Britain, but did not describe the parent birds at all. Consequently, altho we swore by it in those days, it was rather a broken reed for inexperienced youngsters to lean upon.

For instance, I remember once finding a bird's nest with several eggs in a bunch of twigs growing out of the trunk of an elm in one of our pastures, and as the eggs closely resembled the picture of the crossbill we dubbed the eggs as those of that bird. But as crossbills do not nest in deciduous trees they were undoubtedly those of some common bird, probably the linnett or greenfinch.

In spite of our drawbacks we did know quite a number of birds, my own remembered list amounting to about 60 species, while my brother Herbert undoubtedly knew a few more through shooting ducks and plovers near or on the river.

By the time I left England I had acquired a genuine knowledge of about sixty kinds of birds, a few such as mallard, brown creeper, starling and english sparrow being found now on both sides of the Atlantic.

Crossing the Atlantic we saw a number of kinds of gulls but all I am now certain about is that some had black backs, while we also saw at least one lot of petrels or "Mother Cary's Chickens".

On arriving in North Carolina, I tried to find out what were the birds occurring here, but soon found that very few kinds had any reliable local names, and so my education in this respect remained at a standstill till we got hold of Jordan's Manual of Vertebrates and started collecting specimens. Now the Manual had no pictures and bird pictures in the eighties were few and far between so we had to work out the name of a bird when we got one by running it through the keys. This meant, of course, that except in the case of the best known and most conspicuous birds, we had to have a specimen and in order to have a specimen it had to be collected, in other words shot. Therefore our knowledge of birds was acquired through the actual handling of and identifying dead birds, either in the flesh, or after they had been made up into skins, thereby acquiring an actual working knowledge of

the structural as well as the color differences between birds, both large and small.

In those days there was literally a host of bird collectors, mainly in the north who collected birds and their eggs every year, and the remnant of whom form the veteran ornithologists of the present day whose dying out seems at the present time to be reducing the ranks of the A. O. U. for the present generation of bird observers do not as a rule acquire the technical knowledge of birds that the old collecting crowd of the eighties and nineties absorbed through their actual contact with specimens at close quarters; too close for the birds indeed, at least from present day standpoints, altho even now the survivors of the old bunch still usually have collecting permits but they don't like mere tyros to have them any more.

In those days, the American Ornithologists Union had only recently come into existence, the Audubon Society had not yet been formed and when it came to collecting birds, every one "did that which was right in his own eyes". In those days also there was no AOU Check List and no standard names for our birds, for instance: The bird we call Vesper Sparrow was the Baywinged Bunting or Grass Finch; the dickcissel was the Blackthroated Bunting; myrtle warbler was the yellowrumped warbler; magnolia warbler, black and yellow warbler; the goldenwinged warbler, the blue goldenwinged warbler; bluewinged warbler, the bluewinged yellow warbler; parula warbler, the blue yellowbacked warbler; and so on, and whether one likes all the present names or not, the present list is certainly on the whole an improvement on the old one.

My next step came when I agreed to help Dr. Pearson get out the Birds of North Carolina. The more technical part of the work fell to me as well as getting up most of the data on the small birds. When I began I thought in my folly that I knew about all there was to know about our North Carolina birds, but it did not take long to find out that I knew very, very little, and getting up my part of that work increased my knowledge greatly, but I had lots to learn yet.

Another side line that kept up my interest in birds was that in 1885 I started keeping migration records for the Migration Committee of the AOU, which work was later turned over to the U. S. Biological Survey. This work I have kept up ever since so that now I am one of the half-dozen oldest consecutive observers of the Survey, in spite of the fact that in the nineties my zoological interest shifted to herpetology, or the study of reptiles and amphibians.

Of course no one makes such a great amount of headway in any branch of natural history without friends and associates, and in my early days my brother was the only one with similar interests. Later on after he had diverged into being a hunter and fisher rather than a mere ornithologist, Mr. Sherman came here as State Entomologist and not only helped in my bird observing but also turned me once again to the study of insects which had been a bit of a hobby with me when a boy in England. Others that helped out were Dr. Z. P. Metcalf, S. C. Bruner, Dr. Snyder, and many others from time to time.

About 1929 finding that my bird records got less and less every year, I started a regular roster of all birds seen during the year no matter what or where and have continued this to date.

Finally about 1934 or 1935 there came to Raleigh the Rev. John H. Grey, Jr., who completed my education by taking me out to the city reservoirs to observe the water birds and by that it means I have at last acquired a good working knowledge of our native ducks, a group which I knew but little about previously, at least in the field.

MIGRATION STATIONS
Francis H. Craighill

It is one of the familiar facts of bird life that many birds return to the same nesting locality year after year. There is reason to believe that many birds have winter homes as definite as the summer nesting place, and return to them with as great regularity. Banding stations as Summerville, S. C., and Thomasville, Ga., record many returns of winter birds. Mr. W. E. Browne of "Manywings", Putnam County, Florida, expects his guests to return every winter, and, though not banded, they identify themselves by tameness, familiarity, personal characteristics, and even by the ability to do simple tricks. There is one confiding little Yellow Throated Warbler that will come to anyone. In the spring he flies away to his nesting ground, perhaps hundreds of miles away, but every winter for twelve years he has found his way back to the trees in Mr. Brown's side yard. There are 150 Redwings, and a number of them bring back with them the remembered trick of catching the peanuts Mr. Browne throws to them.

The flocks of perfectly tame Scaup and Ringnecked Ducks which are an attractive feature of many Florida resorts, unquestionably contain a strong nucleus of previous visitors who bring their children and companions to well remembered banquet tables. There are also Gulls and other winter tourists equally eager to be fed, and the first bits of food tossed out will bring scores of free, but not at all wild, migrant birds crowding around your feet. The barking of dogs, children shouting and waving their hands, disturb them only about as much as would be the case with domestic birds; and certainly they have not acquired that much poise and confidence in one short visit.

All these birds regularly commute by well established migration routes between their summer and winter homes, some of them for a protracted term of years. They are creatures of habit, controlled and stereotyped by instinct. Their migrations have a definite terminus at each end. As they travel between them are they content merely to follow a general direction, and stop for food and rest wherever hunger and weariness overtake them; or do they have certain definite stopping places, which the same birds or group of birds visit year after year as regular stations on the annual pilgrimage?

An answer to this question might even throw some light on the general problem of migration, of how that mysterious sixth sense of direction guides the bird from summer home to winter home. It may be that the problem is simplified by breaking the journey up into a series of shorter flights from one regular stopping place to another.

No doubt regular and long continued banding and trapping at many points on the flyways can furnish the only definite answer to this query, and perhaps some information can be gathered from the records of banding stations on migration routes. Jack Miner's water fowl return to him, and have done so for many years; but of course he offers them special inducements. No doubt many stations can furnish instances of "repeat" visitors.

Lacking definite proof, some speculative and corroborative material may be gleaned by any local observer who will make definite record of the times and places where he sees our transient visitors.

Some birds are so numerous and pervasive that they may be seen in any suitable spot. Some, such as swallows, swifts and goatsuckers, are so restlessly on the wing that they seem merely passers by. Some places are of such obvious fitness for certain species - ponds for ducks and grebes, marshes for herons and snipe, open pools for sandpipers, berry trees for waxwings, that any bird of appropriate species would as inevitably seek those spots on his first trip through that section as on his third or tenth.

But when rare birds are regularly seen at definite spots, and only there, and when birds which need specific conditions continue to visit places where those conditions formerly existed but are no longer found, we may well wonder whether these things are evidences of a long established racial habit of stopping on migration at that particular place for food and rest.

Here are some local samples from the Rocky Mount area. No doubt some of you can match them with instances from your own territory:

I have learned to look in August for the first Cowbirds of the fall migration at a place that used to be Cooper's pasture, but is now the crossing place of two highways, and is cluttered up with filling stations and shacks. The birds come there raggedly in molt, and look as disreputable as their pirate crew ought to look, and also as uncomfortable as they deserve to be, - but they keep on coming. A few Killdeers and Pectoral Sandpipers also continue to drop in each fall, but do not find the rear premises of the filling stations attractive enough to hold them long.

The first cowbirds of spring, on the other hand, will be seen at a certain bare spot in Pine View Cemetery, which was farm land not long ago. For some reason, our spring Cowbirds like bare ground, and seem to have temporarily lost their interest in cattle.

For two weeks in mid-November we can always feel sure of finding a great flock of Pipits on some newly planted rye field in a certain area of Ocona farm, when hundreds of other fields, which, to human eyes, seem as suitable, are birdless. During the week before Christmas we expect to find two hundred Horned Larks in whatever bare peanut field is nearest to the "Great House" on Old Town Plantation; though they may be scarce elsewhere. Another flock will be found, at the same time, in the western outskirts of the village of Leggetts. On the return trip in spring the Horned Larks like our airport, even though the planes give them little rest there.

A rather trivial record is that every spring two or three Yellow Warblers will spend several days in the Sugar Maples in my front yard, and every fall there will be a few Redstarts in my big Willow Oak, and half a dozen Maryland Yellow Throats in the Fig trees. I live on a business street in the heart of town, and in a very unsuitable place for Warblers.

The Duck Hawk is a very rare bird with us. Our first two records of its presence were contributed by different observers who saw it in October of different years, but in the same place. Might it not have been the same bird revisiting a familiar feeding ground?

Our golf course was pasture land fifteen years ago, and was the resort of many birds. It is crossed by a small stream, now kept carefully within its banks. Also quite away from the stream, there are a number of spots which were once wet and boggy, but are now tiled and ditched and drained to the reliable solidity a good fairway ought to have, but every fall Wilson's Snipe come to those once wet spots, and stay for days and days. A good sized band of Pectoral Sandpipers will linger for two weeks at the low spot on the fifteenth fairway, though it is bone dry except during protracted rains, and perhaps our most interesting record is that a few Golden Plovers can be seen every year early in September at a point on the fourth fairway which was once boggy, but is now thoroughly drained. Perhaps they are beginning to notice that ancestral information is playing them false, for while they stayed with us eight days in 1934, this year they lingered for only two days.

I cannot help feeling that in exceptional records, such as these, there is some indication that at least some birds have the habit of stopping for food and rest at certain definite stations on their migration routes. I believe that they usually spend several days, and sometimes more protracted periods, at such spots before they fly on to the next station.

AUDUBON PRINTS AVAILABLE

Prints from the now Audubon's Birds of America are now available for as little as five cents each. The prints are on heavy paper, 9" x 12½", and are made from the plates used for the book. They are suitable for framing, or to be kept as a reference collection.

These prints can be ordered from the MacMillan Co., New York, N. Y. Order by the number of the plate as it is listed in the book or, if you cannot obtain the book, by the name of the bird. The prices vary according to the quantity ordered as follows: 1 to 24, 15¢ each; 25 to 49, 10¢ each; 50 to 99, 8¢ each; 100 to 249, 7¢ each; 250 to 499, 6¢; 500, 5¢.

1938 ROBIN ROOSTS

T. M. Carter

North Carolina Department of Conservation and Development

There were three large roosts of Robins in the State this year. These were in Montgomery, Randolph and Gaston Counties. Last year there was only one roost, in Orange County. Careful estimates of the numbers of birds were made by men trained in this work, and the total number of birds using the roosts this year was estimated at more than six millions.

W. L. Birsch, U. S. Game Management Agent, says that North Carolina is the only state to have these large roosts. We appear to be on the line of the major migration, and the birds congregate in flocks that cover two thousand acres.

The largest roost was in Montgomery County, about ten miles North of Troy. The pines and thickets in an area four miles long by a mile and a half wide were used by the Robins. To get an estimate of the number of birds in this roost, a small section which seemed typical, was measured and the number of birds using that area counted or estimated as closely as possible. The number of birds in this measured area was then multiplied by the number of such areas in the roost. The result was an estimate of between three and four million birds. This roost was discovered on February 12 and was used for seven weeks following. C. M. Capel, Game Protector, apprehended five men for killing Robins in this roost. They were tried in Federal Court and fined heavily.

Writing of the Montgomery roost in the April number of North Carolina Wildlife Conservation, Roy Komarek says: "From a point of advantage in an open field, a small group of people had assembled to observe the Robins coming to roost near the Uwharrie River. About five-thirty in the evening, an occasional flock was seen, but within an hour an almost steady flight of birds in somewhat open formation was flying overhead in the direction of the roost, a flight almost continuous until it became so dark the birds could scarcely be seen. As one focused his attention in the far distance small black dots pierced the horizon, dots which suddenly coming within the range of human vision took on the shape of birds on the wing. For nearly two hours this procession of Robins, unerring in direction, continued.

During the early evening the birds were flying high, but as the sun disappeared behind tall pines and darkness approached, they skirted the tree-tops, frequently flying so low through the open woods that their wingbeats could be distinctly heard."

The second-largest roost was in Gaston County, and contained an estimated one and one-half to two million birds. This roost was first observed about March 3, and was used for only two weeks longer. J. D. Finley, Game Protector, and I apprehended five men killing robins in this roost, and they were subsequently tried and fined.

The roost in Randolph County was rather small, and no estimate of the number of birds was made. Also no one seemed to trouble the birds there.

In former years the roosts have occurred earlier in the year, in January and the first part of February. This year they were later, the first being observed near the middle of February. The Department kept a constant patrol in and around the roosts, while the birds were roosting. During the day the birds left the roosts to feed, and there was not the same necessity for patrolling the roost.

FIELD NOTES

MORGANTON: The International Shoe Company has a large tannery here; on their grounds is the most successful martin house in town. I have the boys report to me the first arrivals each year. This year they came the earliest of my records. Two birds appeared March 8, and on the 9th, four more came.

-----C. E. Gregory

CHAPEL HILL: Chimney Swifts were observed about 7 p. m. on March 29. I saw about eight or ten birds at this time. This is two days earlier than the date listed in "The Birds of Chapel Hill", by Odum et al., and four days earlier than they have been observed in Raleigh. On the same day, I heard a thrush singing. Being some two hundred yards from the bird, I took it to be a Wood Thrush.

-----George B. Lay

NEW RIVER: The section of the river below French's Creek and Northeast Creek. On March 12 I saw some fifteen hundred scaup duck (probably most of these were Lesser Scaup and some were Ring-necks). Also 30 Canvasback, 50 Bufflehead, 75 Ruddy, 1 Goldeneye, and 40 American Scoters. I was surprised not to see Black Duck and not to find any Wood Duck up the creeks.

-----H. H. Brimley

WASHINGTON: First arrivals: Tree Swallow, March 18; Yellow-throated Warbler, March 21; Maryland Yellow-throat, March 22; Parula Warbler, March 23. First Yellow-throated Warbler, heard singing, March 17 on Chicod Creek, Pitt County. Little Blue Heron about March 27 (Kugler).

-----Joe Biggs

WILLIAMSTON: American Egrets observed on March 20.

-----George B. Lay

GREENVILLE: Arrivals seem to be a little earlier than my previous records, which I suppose is somewhat due to the early season this year. White-eyed Vireo, March 25; Louisiana Water Thrush, March 25; Blue-grey Gnatcatcher, March 26; Chimney Swift, April 2; Hooded Warbler, April 5; and Wood Thrush, April 10.

-----Joe Biggs

HIGH ROCK LAKE: Near Salisbury. On January 25 I was taking a waterfowl census for the Biological Survey. The weather was bitter cold, part of the time I was in an open motor boat. The water level was 10 feet low. 100 Canada Geese were seen, and no ducks.

BADIN LAKE (Between Rowan and Montgomery): January 26, 20 Black Duck, 10 Wood Duck, 20 Goldeneye, 14 Canada Geese, 40 American Merganser, 25 Red-breasted Merganser. Total 115.

RICHMOND COUNTY: Saw Redhead, Black, Wood, Shoveler, Mallard, Canvasback, Canada Geese and few Coots.

Due to high winds and high waves, the rafts of ducks and geese were on creeks and inlets rather than on the open lakes, and most of the ducks I saw were on the rivers and streams. This condition makes a report by lakes rather poor. I notice that the lakes with the most ducks and geese were those in which the water level had varied the least. I also noticed that the farther south I went on the watershed, the more plentiful ducks were. This was probably due to larger food supplies where small streams continued to come into the river.

-----George B. Lay

GREENSBORO: The Piedmont Bird Club listed 34 species on a field trip, April 24. One of these proved to be a rather rare bird for our section. We observed the Lesser Yellowlegs on Dr. Taylor's lagoon. The N. C. bird book states that this bird is very occasional with us. I finished the afternoon, making 47 species for me.

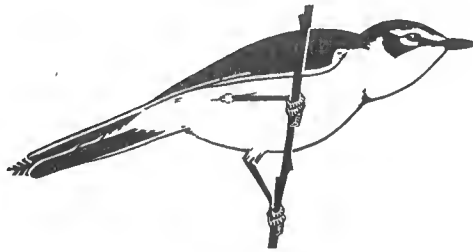
-----Earl H. Hall

NOTICE

Dues to the North Carolina Bird Club are \$1.00 a year, and are payable in advance. Membership is open to anyone interested in birds. Application should be made to the Secretary, and should be accompanied by the one dollar.

Members in arrears with the 1938 dues will be dropped from the mailing list of the CHAT after the next issue. Only 18 members are now in arrears. That is a good record.

The Secretary-Treasurer is Lacy L. McAllister, Pilot Life Insurance Company, Greensboro, N. C.



The Chat

BULLETIN OF THE NORTH CAROLINA BIRD CLUB
PUBLISHED AT RALEIGH, N. C.

JOHN H. GREY, JR., EDITOR
1719 PARK DRIVE

VOL. II

MAY-JUNE 1938

Nos. 5 & 6

NESTING OF BROWN-HEADED NUTHATCH AT GREENSBORO Wade Fox, Jr.

Last April, while I was out observing birds in the vicinity of Pine Croft, which is near Greensboro, I stopped at the home of Mr. Herbert Parks. Upon expressing my interest in birds, Mr. Parks told me of the nest of a small bird in a tree in his front yard. He also said that the birds excavated the hole themselves and had nested in different dogwood trees about his house for several years. I examined the nest and found it to be in a half-dead dogwood stump about seven feet from the ground. The hole seemed about one and one quarter inches in diameter and a musky odor issued from it.

I noticed two small stubby birds nervously twittering in a nearby pine tree. Hoping that these were the owners of the nest and they would enter while I was watching, I slowly backed away from the tree. After some hesitation, one of them flew down to the tree, popped into the hole, popped out again and was gone. After several similar actions by both birds, I had a fairly good picture of their color scheme. Their wings and back were blue-grey, the breast was a dusky white, there was a brown cap on the head and a white patch on the back of the neck. From my field guide, I concluded that they were Brown-headed Nuthatches, a completely new bird to me. This had occurred on April 17, 1937, and already the young were hollering quite loudly. From the sound, I would say there were between four and six birds in the nest, although I was never able to ascertain the number.

Feeling that a rare find had been made, I quickly told my friends about the nest. Mr. Lacy McAlister and George Gibbs went with me to see the nest. Mr. McAlister has been studying birds in Guilford County for about twelve years and had never seen a Brown-headed Nut-

hatch before. As we looked upon him as an authority, we felt that the find was even rarer than at first supposed. George and I took pictures of the birds at the nest. They were very tame and had we had an adequate camera we could have approached within one foot of the nest and could have taken a picture as the birds entered the nest.

Mr. McAlister and I visited Prof. Earl H. Hall of W. C. of U. N. C. to seek his knowledge of the bird. He claimed to have seen it only once before in his life time of bird study. But upon looking up the records he discovered that it was supposed to be the most common Nuthatch in the South. However, we believed that the population of the birds may have changed since Mr. Brimley wrote his book.

The parent bird continued to feed the young ones at regular intervals until April 28, after which neither old nor young birds were seen. As the young birds had grown older, the parent birds became more shy and finally would not approach the nest when anyone was near. On November 26 and 27, I saw three Brown-headed Nuthatches in company with Red-breasted Nuthatches and Golden-crowned Kinglets about one mile from the sight of the nest. They continued in this locality through December and January.

(Hitherto recorded from 16 localities east of Greensboro, and from Statesville and Morganton southwest of Greensboro. T. Gilbert Pearson recorded it from Greensboro, excavating a nesting hole on May 5, 1893, see Birds of North Carolina, p. 323. C.S. Brimley)

UNIVERSITY OF NORTH CAROLINA HONORS PAST-PRESIDENT BRIMLEY

The University of North Carolina, on June 7, 1938, conferred the honorary degree of Doctor of Laws upon Clement Samuel Brimley. In so doing, the University honored itself as well as Brimley; for it made a distinguished naturalist and scientist one of its alumni.

As an entomologist, he has gathered together the present collection of half a million insects, comprising over seven thousand species. He is now publishing a book on the insects of North Carolina. Only New York and New Jersey have published such state lists, so Brimley thus gives to North Carolina not only the honor of being the first Southern state, but the third state in the Union to publish a complete list.

As an ornithologist, he has kept records of bird life around Raleigh since 1884. For over half a century he has furnished migration records to the federal authorities. Joint author of The Birds of North Carolina (1919), he contributed most of the material on the small birds. He is now revising this book for a second edition. Dr. Brimley has kept the official records of N. C. bird life, and is the authority on North Carolina birds.

His real love is herpetology, turtles and reptiles. In this he is one of the national authorities, and, when he speaks on this subject,

those who know turtles and reptiles sit back and listen. He is one of the five living persons who have seen Necturus punctatus (a kind of salamander) in its native state. There is good prospect that the Duke Press will bring out his notes on The Amphibians and Reptiles of North Carolina.

In at least one more field he has proved his authority - mammals. Author of a List of North Carolina Mammals, published in the Elisha Mitchell Journal.

All this without having attended college. So that his Ll. D. is his first degree. Joint organizer of the N. C. Academy of Science, and the only man to be its president who was not a college graduate. He also helped organize the Raleigh Natural History Club, the Raleigh Bird Club and the N. C. Bird Club.

THE BATTERY ISLAND HERON COLONY
near Southport, N. C.

By H. H. Brimley
N. C. State Museum

There is always a thrill in approaching any heron colony for the first time. One wonders what species will be found nesting, and the comparative abundance of each, particularly if the colony should contain egrets of either species. And the thrills were not absent when Harry T. Davis, of the State Museum, Allen Keen, of Raleigh, Waters Thompson, of Southport, and the writer landed on Battery Island, near Southport, N. C., on June 13, 1938.

Battery Island, which may be about two-thirds of a mile in length by about half that in width, consists mainly of salt-water marsh, with a sandy ridge about an acre and a half in area running almost parallel with the island's northern shore line, the ridge being pretty well covered with a dense growth of scrubby cedars and yopon, the former predominating; and in this dense shrubbery the herons have their nests.

But few herons were in evidence when we landed, but it did not take us long to discover that this was no criterion of what would be found when we crouched and stumbled forward into the tangled bushes.

Hérons in every stage of growth seemed to be everywhere, except directly under foot. Five species were identified though only four species were found in any quantity, and a number of the young birds, particularly those of the American Egret, were found to have reached the flying stage.

The ability of the young herons, even when quite small, to climb up and through the dense bushes was fascinating to watch, and the use of the wings in climbing was a noticeable characteristic. Even quite young birds, with hardly any wing quills showing, would hook the wrist

joint of the wing over a limb and hang on with that until a higher toe-hold could be secured. Some of the larger and fairly well-feathered young had the feathers on the underside of the wings stained a dark color from a long use of the wings in holding on to the limbs of the bushes. These young herons had reverted to the quadruped stage in using all four limbs in their movements through the branches. This is no doubt a common practice, but I had never previously visited a colony with the young so plentiful or in such advance stages of growth, and had therefore previously overlooked this method of progression. Nor had I ever been in a colony in such dense bushes through which climbing seemed so necessary.

During our investigations, I was standing on the southern edge of the thicket and noticed that many of the herons were leaving the bushes and congregating on the marsh on that side of the island. At one time I counted 140 herons scattered over the marsh, 26 of them being American Egrets, most of the others being either Snowy Egrets or Little Blue Herons in the white phase of plumage, with a number of Louisianas mixed in.

Mr. Davis and I together made a rough estimate of the population of the colony, with the following results: Louisiana Heron, 300 adult birds; Little Blue Heron, 175; American Egret, 75; Snowy Egret, 40; and Black-crowned Night Heron, 10, a total of about 600 adult birds. And there were many more in the bushes at the same time, to say nothing of those that were away on fishing expeditions.

One pair of Fish Crows (the most destructive bird in any heron colony) had the nerve to build and hatch young right in among the herons, but I do not believe that this pair or its offspring are likely to rob any more heron's nests of their eggs. Mr. Davis assures me that this statement is correct.

Quite a number of this year's nests of the Boat-tailed Grackle were found in the bushes in which the herons were nesting, but their owners had all raised their broods and left.

A few of the heron nests still contained eggs.

A dead frog was picked up under the nests that showed evident signs of having been killed and swallowed and brought to the young for food. It was a noticeably black specimen, with very definite markings showing on the inside of the thighs, so we brought it back for Miss Collie to identify, hoping for something rare in the frog line. But it turned out to be nothing but a common bull-frog!

The Battery Island colony should be easy to protect. It lies directly opposite the water-front of Southport, possibly three quarters of a mile distant, and it is in full view of the Southport Pilot's lookout tower.

Most estimates of the number of adult herons in a colony are gross exaggerations, but we have tried to be conservative in ours. I feel quite sure that my first estimates of the population of the Orton

Colony (which I have visited on six different occasions) might be classed as a very definite exaggeration, though perhaps not deserving the adjective "gross". Later estimates I made at Orton were about half of the first, and I feel sure that there were about as many birds present as when the first was made. The last estimate was based on the number of nests that could be counted. I am also confident that American Egrets have been attributed to colonies in which they did not occur.

Truly, a colony of herons of a number of species is a sight worthy of the visit of any bird lover, even if red-bugs, flies and other noxious insects have to be a part of the incident.

GULL-BILLED TERNS BREEDING ON PEA ISLAND

Francis H. Craighill
Rocky Mount

During a visit to the coast, May 30 to June 4, 1938, S. A. Walker of the Biological Survey showed me a rare sight. It was two small colonies of nesting birds, which he and I are convinced are Gull-billed Terns. The Birds of North Carolina (pp. 32-33) list these as exceedingly rare, and reports only one pair having been found breeding on our coast, on Miller Lump, Dare County, in 1909.

Walker says that last year he showed them to W. F. Kubickek, of the Washington staff, and he pronounced them to be Cabot's Terns, and took pictures of them, but did not handle a specimen. Walker was not satisfied with the identification. It was my good fortune to be along when he investigated further.

The birds are nesting in two groups on the Pamlico Sound side of Pea Island, Pea Island being the part of the banks just south of Oregon Inlet. The nesting sites are on open sand, which is almost bare, but has a little thin Bermuda Grass running through it. We saw approximately twenty nests with eggs, and perhaps fifty birds. The nests are the usual tern nests, mere depressions in the sand, sometimes lined with a few pods of the Pea Island pea.

We watched them through high-powered glasses as they circled over our heads, and agreed that they had heavy black bills with no sign of yellow tip. We were fortunate enough to find on the nesting ground a dead specimen, which had not been dead more than two or three days, and was intact except for a hole in its breast, such as might have been made by the pecking of gulls. We also found, for comparison, the remains of two Common Terns, of which little was left but wings, feet and bill.

Our "Gull Billed" specimen measured as follows: Length, 14 inches; wing spread 33 inches; tail forked $1\frac{1}{2}$ to $1\frac{3}{4}$ inches, as measured from the ends of the middle tail feathers, or into the notch between

them. The tail was shorter, but the bird seemed otherwise a little larger than the Common Tern, and had a wing two inches longer. The bill was completely black except for a slightly worn place at the tip of the upper mandible, and the upper mandible was as wide as both mandibles of the Common Tern. Bill was a little shorter than bill of Common Tern. Feet black.

The back was about two shades lighter in color than the Common Tern, and the gray of the mantle ran somewhat into the tail. There were differences in the color pattern of the wings, but I did not take exact notes.

The call of the birds as they circled in the air was of three distinct high-pitched syllables, repeated over and over. Our specimen was much too ripe to ship; but we cut off the head, and Walker said that he would send it to Washington for verification. I have read up about it in eight different books, including the works of Chapman, Pearson, Howell, Peterson, Reed, and Griscom, and am perfectly sure that the birds are Gull-billed Terns. We saw no Cabot's Terns on this trip, nor have I ever seen any in that section; but my opportunities of observation have been limited.

On the same trip we also visited the nests of the Laughing Gull, Royal, Common and Least Terns, and Black Skimmer. The Gulls and Royal Terns, and some of the Common Terns nested on bushy "Lumps" in Pamlico Sound. Some predator had devastated the nests of Gulls and Royal Terns. Half the eggs of the Gulls had been destroyed, and we were unable to find a single whole egg of the terns. Many shells looked perfect, but each had a hole in it and the contents had been extracted. The gulls hid their nests under bushes; but the Terns nested in the open. The gulls were still there in force, but the Terns had deserted the area, I hope, to nest successfully elsewhere. We were not able to decide what had done the damage. At first Walker said it was the gulls; but it did not seem logical that they destroy the eggs of their own species. Another guess was sand crabs. However, so far as we are concerned, it is a mystery. No Fish Crows were seen in the neighborhood.

The Least Terns had also suffered disaster, as the storm of May 30 had swept over the beach and the first sand fence, and had left not a trace of their nests. However, they were again at work, scratching hollows and sitting on them as though they are preparing to lay again. Walker feels sure that, if no other storm prevents, they will be all right.

The Black Skimmers had several nesting grounds, and seemed to be doing well. They are very numerous on Pea Island, but are seldom seen at Nag's Head.

Many Wilson's Plovers acted as though they had nests near by, but we could not find them. Willets were fairly numerous, but Walker, backed by natives, thinks that they do not nest on Pea Island. He showed me the nest of a Night Hawk with two almost slate-colored eggs.

The sitting bird gave a most artistic performance of feigning injury.

There were still (June 3) many winter birds. Ruddy Turnstones and Semi-palmated Sandpipers were very abundant, not only on Pea Island, but on Bodie Island also. (Nags Head, Kitty Hawk, etc.) We saw one flock of 200 Knots, and many smaller groups. We also saw Least, Western, and Red-backed Sandpipers, Dowitcher, Sanderling, Yellow-legs, Black-bellied and Semi-palmated Plovers.

We stood up in the truck at one point on the Pea Island Refuge and counted 53 Canada Geese. While we were counting a plane flew over and at least a hundred Geese flew up, and about 75 Black Ducks. Red-breasted Mergansers were numerous, as in June of last year. Some had moulted their wing feathers and were unable to fly. All, as was the case last year, looked like females; but it may be that the males are in "eclipse" plumage. Walker endorsed this theory.

Young Black Ducks are half grown. Walker reports that he saw a Northern Phalarope about May 18; that he saw Duck Hawks up to about the same date; also a Petrel in the surf; that he has seen the following unusual land birds this spring on the bare sand of Pea Island: Chuck-Will's-Widow picked up exhausted; Indigo Bunting; Yellow-billed Cuckoo and Towhee. We saw one Song Sparrow in the grass. Seaside Sparrows are everywhere. I believe that the breeding birds on our coast are McGillivray's; the Northern only winter visitors.

We saw three immature Black-backed Gulls, and Walker says they have been there all spring, and that one has had a bad wing, but is now well. He says that he went out with a gun to collect one for the Museum, but some of the islanders were nearby, and he would not shoot in their presence, as it would set them a bad example. It would be easy to get specimens of the Gull-billed Terns, but Walker said he would not be willing to fire a gun on the nesting grounds under any circumstances.

Reverting to the Black-backed Gulls: the 45 I reported as having seen last winter were all mature adults. I am sure that I also saw many immature birds, but mostly at long range, and I was afraid to distinguish them from Herring Gulls. The above three were with immature Herring Gulls when seen on the beach at close range, and were unmistakably different both in size and color, larger and darker.

Walker was away most of the six days I was in Nag's Head, and I was with him only one day. At other times I saw a Common Loon in Winter plumage, a Red-throated Loon in summer plumage; there were two Surf Scoters near the causeway from Nag's Head to Roanoke Island. I saw Least Bitterns in at least four places in the salt marshes, and they seemed quite common, Walker thought this to be true. I saw King Rails, unmistakably reddish, in two places, walking on bare sand near the edge of the marsh. I saw several eagles, and many Ospreys and their nests. Barn Swallows are very numerous. I saw seven nests in a small abandoned building; two under the floor of a house on stilts, two under the eaves of a small cottage, and evidence of nests under the bridges to Roanoke and Collington Islands. Herons were scarce,

Bittern, Great Blue and Little Blue. I saw two Florida Cormorants, and had a not-too-certain view of a Florida Gallinule. I saw my Cowbirds again, and am convinced that Roanoke Island is about the one spot where they are all-year-round residents. Purple Martins, Boat-tailed Grackles, Meadow Larks and Red-wings abound. I saw a Parula Warbler in Fort Raleigh. Prothonotary and Prarie Warblers and Towhees are plentiful. The iris of the Towhees look dark.

FIELD NOTES

Winnabow: On the Orton Plantation on June 14, while looking out of my window over a little plot of ground which was planted in rye this spring, I saw the following birds feeding together: Bobwhite (3 pr.); Mockingbirds (2 pr.); Mourning Doves (2 pr.); Cardinals (2 pr.); Summer Tanagers (1 pr.); all of these as well as I could guess were mated pairs. At the same time, within a period of ten minutes, I saw flying over a Bald Eagle, a Great Blue Heron, a Little Blue Heron, Osprey, American Egret, and possibly a Water Turkey. I am not certain about the latter, for while they are quite common over the pond, they do not usually fly over here.

-----H. Churchill Bragaw

Greensboro: On May 16, 1937, a group of us had the good fortune to find two Towhee's nests on the same day near my father's home in Irving Park. Several years ago while talking with Earl Hall, Joe Armfield and Mrs. Bob Douglas the question was raised as to whether or not the Towhee actually nested in this locality. None of them had ever found a nest, or heard of one being found. A few days later, while on a field trip, I flushed a female while walking through a field of broom sedge, pretty well grown over with small pines, and upon investigation discovered a nest with young birds in it. These are probably the Red-eyed Towhee. It is interesting to note that the Towhee is listed from Greensboro as of May 17, 1899, and April 15, 1898, in the records of C. S. Brimley. Neither of these are listed as breeding.

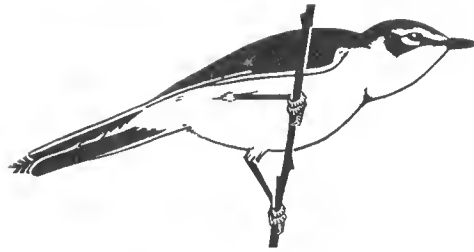
-----Lacy L. McAllister

FLIGHT YEAR: It appears that the winter of 1937-38 has been a flight year for Snowy Owls. We have reports of them being taken in Nash County in December, and a newspaper report said one was killed in Burlington at about the same time.

The same condition is noted in regard to American Mergansers. Chapel Hill and Raleigh added the birds to their local lists for the first time on their Christmas census. George Lay reported them common on Lake Badin near Salisbury. In years past they have been only fairly common near the coast.

THE NEXT ISSUE

The plans at present are to devote the entire next issue to an account of the bird life of the Asheville region. Thomas D. Burleigh, of the Biological Survey, now stationed in New Orleans is preparing his notes made during several years at Asheville. The Biological Survey is also bringing out Burleigh's notes on the birds of Mount Mitchell.



The Chat

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NOS. 7 & 8

EXPERIENCES IN BANDING BIRDS J. G. Primrose, Raleigh

While sitting in my yard one summer day in 1930 watching some of the many birds I had been feeding for several years, the idea occurred to me to try and catch several and mark them in such a way as to be able to identify them. I rigged up an open-work clothes basket in the manner of a drop trap, simply by propping up one side with a stick to which was tied a pull-string. I succeeded in catching one brown thrasher and two catbirds. These I banded by fashioning the metal ferrule of a lead pencil in the shape of bands. I saw these birds many times during that summer, and was much surprised to spot one of my crudely banded catbirds the following summer.

I was then most eager to secure a bird banding license, and the necessary equipment to properly band and record resident and migratory birds. After some preparation I was fortunate in securing one of the some two thousand bird banding permits allotted throughout the United States by the U. S. Biological Survey, and while naturally my activities in banding birds covered only my spare time, I have enjoyed it tremendously and at the same time know I have contributed to some extent to the wonderful work carried on now and since 1920 by the Survey.

The permit was issued me in December of 1932, and since that time I have banded sixty-four species of birds, having trapped all but a few in my yard. Of course one of the thrills in banding comes from banding a new species, or one of a species of which only a few were banded in the United States the previous year. While I have been prevented this year from giving so much time to banding as in previous years, so far since January 1, 1938, I have banded thirty-eight species as follows - given in the order of the A. O. U. Check List:

Pigeon Hawk, Ruby-throated Hummingbird, Red-headed Woodpecker, Downy Woodpecker, Phoebe, Blue Jay, Carolina Chickadee, Tufted Titmouse, Brown-headed Nuthatch, Brown Creeper, Carolina Wren, Mockingbird, Catbird, Brown Thrasher, Robin, Wood Thrush, Veery, Bluebird, Golden-crowned Kinglet, Ruby-crowned Kinglet, Cedar Waxwing, Starling, White-eyed Vireo, Prothonotary Warbler, Myrtle Warbler, Pine Warbler, Maryland Yellow-throat, Redwing, Cardinal, Blue Grosbeak, Goldfinch, Towhee, Slate-colored Junco, Chipping Sparrow, Field Sparrow, White-throated Sparrow, Lincoln's Sparrow, and Song Sparrow.

Eight of the above were new species to my previous list of fifty-six:

Pigeon Hawk, Phoebe, Brown Creeper, Veery, White-eyed Vireo, Prothonotary Warbler, Blue Grosbeak, and Lincoln's Sparrow.

Last year, that is the 1937 report of the Survey, showed 300,894 birds banded in the United States. I was naturally pleased to report some species on which they were short last year, and in fact, every year, such as the Pigeon Hawk - only six having been banded in 1937; five Ruby-throated Hummingbirds - ten reported last year; three White-eyed Vireos - four reported last year; three Prothonotary Warblers - fourteen banded in 1937; three Blue Grosbeaks - only one banded in 1937; and two Brown-headed Nuthatches - of which species none were banded during 1937, and only one in 1936, and I was fortunate enough to have banded that one.

A PROTHONOTARY WARBLER'S NEST
Joseph D. Biggs, Washington Field Museum

One day during the past spring a bird was seen entering the piling of an old pier not far from the mouth of Runyon's Creek, Washington, N. C. Parker Gerard saw the bird, and later on described the bird to me, suggesting that we investigate the spot. His description of the bird seemed to fit that of the Prothonotary Warbler (Protonotaria citrea). We have no local breeding records of this warbler, although it is a common summer visitor to Washington.

We visited the spot August 23, and found the nest. The old piling was upright in the water, and hollow at the top, being one of several abandoned years ago. The "hole" forming the entrance was about two inches in diameter, and was located less than a foot above the water line. Immediately below the hole was the nest, a neatly-constructed affair. The materials had been exposed to the weather for some time, as the nest had been used in May or June. Included in the materials of the nest were fine grass stems and roots. Some extremely fine cypress twigs were also found, together with leaves of the wax myrtle. The latter grows in profusion along the banks of the creek. The upper portion of the piling was completely hollow down to the nest.

Although the cavity had been abandoned a month, or more, bits of egg shell remained. These were deteriorating, but were collected and found to have characteristic markings - blotches and spots of lavender and darker shades. The nest undoubtedly belonged to the Prothonotary.

Prothonotary Warblers are especially common in the vicinity of the nest. A small creek, a tributary of Runyon's Creek, continues nearly a half mile above the point where the nest was found. The locality is fairly a paradise for small waterfowl, and both migrant and nesting warblers. It would make an excellent waterfowl-songbird sanctuary, especially along its upper course.

BREEDING RECORDS OF SHRIKE NEEDED

Dr. T. Gilbert Pearson, who re-visited the State this summer, and spoke at the June meeting of the Raleigh Bird Club, still has a warm place in his heart for our North Carolina birds. At present he is interested in mapping the summer distribution and breeding range of the Loggerhead Shrike.

He writes that early in July of this year he travelled through part of North Carolina with Mr. and Mrs. H. H. Brimley and noted Shrikes in Wayne, Lenoir, Sampson, Bladen, Cumberland and Harnett Counties, but none on the coast; and that this agrees with many previous observations of himself and others.

There appears to be a belt of territory between the Piedmont and Tidewater where the Shrike is a regular summer resident and breeder; but is rare both to the east and to the west. Besides the above counties, this Shrike territory is known to include Nash, Edgecombe, Wilson, Halifax, Northampton, Martin and the western part of Bertie Counties. Members of the Bird Club are invited to send to THE CHAT their records and observations of the summer occurrence and breeding range of the Shrike.

Dr. Pearson tells us that our summer resident and breeding bird is the Loggerhead, (Lanius l. ludovicianus) and that the much more numerous Shrikes of the fall and winter are Migrant (Lanius l. migrans). The Migrant Shrike differs from the Loggerhead chiefly in paler color, and in having the wings longer than the tail. They begin to come into the State in late August, and stay until the end of March.

BREWSTER'S AND LAWRENCE'S WARBLERS

These hybrids of the Golden-winged and Blue-winged Warblers may be roughly defined as follows, Brewster's as a Golden-wing without the black throat and carpatch, and Lawrence's as a Blue-wing with a black throat.

Now the comparative scarcity of Lawrence's as compared with Brewster's Warbler compels us to assume that the presence of a black throat is recessive to its absence and likewise that the gray-white coloration of the Goldenwing is dominant over the yellow-olive of the Bluewing.

Assuming these two points, the result of crossing a pure Goldenwinged Warbler with a similarly pure Bluewing would give an F1 generation of all Brewster's Warblers all genetically mixed in the same way.

And when these F1 hybrids interbreed, the offspring should divide in the following proportions, 9 Brewster's, 8 of them mixed, 1 pure; 3 Goldenwings, 2 mixed, 1 pure; 3 Bluewings, 2 mixed, 1 pure; 1 Lawrence's Warbler, pure.

And when an F1 Brewster's crosses with a Goldenwing (pure), the results should be, 8 Brewster's all mixed, 8 Goldenwings, half mixed, half pure.

Similarly an F1 Brewster's crossing with a pure Bluewing gives, 8 Brewster's, all mixed, 8 Bluewings, half mixed, half pure.

But Lawrence's with Goldenwing gives all Goldenwings, all mixed, and with Bluewing, all Bluewings, all mixed, but crossed with another Lawrence's can only give rise to its own kind, all Lawrence's Warblers being pure.

Certain interesting points come out from this, namely first that in the region where there is hybridization only Lawrence's Warblers are certainly pure blooded (homozygous), while all the other forms may or may not be mixed blooded (heterozygous), and secondly that the percent of hybridisation cannot be high, hence the Brewster's Warblers would predominate whereas they are much exceeded in numbers by both the Bluewings and Goldenwings.

-----C. S. Brimley

Our card catalogue adds to the information on Shrikes, namely that Shrikes occur in summer also in Pitt, Washington, Hyde (one record at Lake Mattamuskeot), Craven, Onslow, Jones, Pender (southeast corner) and New Hanover counties, and further inland in Robeson, Anson, Union, Hoke and Moore counties. In the Piedmont, they have been reported from Guilford, Rowan, Davidson, and Iredell, and in the mountains from Waynesville, apparently resident (Miss Marion A. Boggs), and from Weaverville as spring transient by John S. Cairns.

They seem apparently absent in summer from the northeast corner of the State.

-----C. S. Brimley

Audubon's Caracara (Polyborus cheriway auduboni Cassin)
In North Carolina
By John H. Grey, Jr.

In Bent's Birds of Prey, Volume 2, just issued, appears on Page 135 the statement that a specimen of this species was "observed at close range" at Piney Creek, N. C., on Feb. 19, 1933, but the observer's name is not given.

This adds another bird to our North Carolina List.

A New Bird For Raleigh

On September 5, 1938, Messrs. John H. Grey, Wm. McPherson and C. S. Brimley saw a Common Tern flying over Lake Raleigh, which is an addition to the Raleigh list.

Lawrence's Warbler Again Noted in North Carolina

Mr. Earl M. Hodell of Elkin writes us that on May 8 of this year he saw two specimens of this species on Mr. Thurmond Chatham's estate at Ronda, they were quite tame and allowed him to go within 20 feet of them while they were feeding on some wild raspberry bushes, hanging head downward like a chickadee. He studied them with an eight power glass for ten minutes, all the while comparing them with description and figure in Peterson's Guide, the description tallied exactly, yellow breast, black throat, black line through eye and white wing bars. (For another record of Lawrence's Warbler see CHAT, Vol. I, No. 1, Page 5.)

A Biblical Carolina Junco
J. J. Murray, Lexington, Virginia

On August 11, 1935, as the Sunday morning congregation was filing out of the Presbyterian Church at Blowing Rock, someone called my attention to the nest of a Carolina Junco (Junco hyemalis carolinensis) on a little ledge of the stone wall of the church under the shelter of the portico roof. The nest was ten or twelve feet from the floor, over and just to one side of the main door of the church. The incubating bird, whose bright eyes showed over the edge of the nest, seemed not at all disturbed by the passing crowd. This is an addition to the list of unusual nesting sites of the Carolina Junco reported in The Auk from this same region by Alexander Sprunt. It is also an interesting illustration of the third verse of the 84th Psalm: "Yea, the sparrow hath found an house, and the swallow a nest for herself, where she may lay her young, even thine altars, O Lord of Hosts, my King, and my God".

THE PEA ISLAND WATERFOWL REFUGE

Our knowledge of the coastal birds is being rapidly increased through the careful work of S. A. Walker of Manteo. Walker is Junior Manager of the Migratory Waterfowl Refuge, located on Pea Island, just south of Oregon Inlet. He and the Editor are working up a paper on the birds along this section of the Banks.

Walker located a nesting colony of the Gull-billed Tern - rarest of the terns - on the refuge. He has also observed the Cabot's Tern as a fall migrant. Pearson found these terns nesting on Royal Shoal Island in Pamlico Sound in June 1908. We have only a few other records of these birds for the State. There is also some data to lead us to believe that Foster's Terns may nest on the refuge.

Paul Bartsch, Professor of Zoology at George Washington University, and Curator of Mollusks at the National Museum, visited the refuge with a party of students in July. Under Walker's direction they found 46 species of birds on the refuge about July 4. Bartsch was incorrectly quoted in some of the State papers as saying that Canada Geese were nesting on the refuge. Walker says that about 100 geese did summer there, but there has been no indication of breeding.

This summer, Walker has banded many young Laughing Gulls, Least Terns, Black Skimmers and Wilson's Plovers. He has also identified and reported many birds banded at other stations.

In July, he sent to Jack Miner of Canada six young Mockingbirds. The birds traveled by plane to Kingsville, Ontario, where Miner hopes to naturalize them.

ARE RED-HEADED WOODPECKERS CANNIBALS?

Mary Shelburne, Director
Bug House Laboratory, Washington, N. C.

A most peculiar thing took place last summer, the most unusual thing I think I ever saw. I was a counselor at a camp on the Pamlico River near Washington. One morning while idling around doing nothing in particular my attention was attracted to some animal which seemed to be in distress. Upon investigation, I found a young bird evidently fallen from the nest but unhurt. It seemed to be a mockingbird and as it was too young to fly I looked to see if I could find the nest or the parents. There were only tall pines around, no undergrowth and not finding any nest or other birds, I picked him up and moved him to one side of the clearing where he wouldn't be bothered and where I thought his parents would be attracted by his cries. Then I went back to the porch to await developments.

In a few minutes I noticed a Red-headed Woodpecker alight on one of the trees. Apparently attracted by the bird's cries he flew down

and took two or three pecks at the young one. Before I realized his intentions and could run to the spot he had flown up to a limb of a pine with the bird in his bill and proceeded to put an end to the little fellow by thrusting his bill into the young bird's head. He was joined by another Red-headed Woodpecker and together they fussed and quarreled around and as far as I could see, ate the little bird.

I was so astonished and horrified I could hardly believe I was awake. I knew Red-heads were beginning to have a mighty bad name but that affair seemed to add one more blot to the family escutcheon. That they had been accused of nest robbing I had heard but I thought it was only to steal the eggs; and to see them eat another bird was a shock. Since then I have looked for accounts of this in all reference books on birds which I was able to find. It seems that ornithologists disagree on this point. Mrs. Charlotte Hilton Green in "Birds of the South" says "some ornithologists claim that it robs other birds of both eggs and birdlings. But other ornithologists say that this is a slanderous and untrue accusation, that it is more apt to be the occasional act of an individual bird and is not characteristic of the species as a whole."

In "Birds of America" the account of the Red-headed Woodpecker written by J. Ellis Burdick is as follows: "---of eating the eggs of poultry and pigeons, of pecking open the skulls and devouring the brains of young poultry, and of destroying the eggs of young of Eave Swallows and other birds. These accusations are well grounded, but the habits are probably only local. These reports have been received from hundreds of localities, but in thousands of other places where the bird abounds no such acts have been observed. Stomach examination confirms to some extent the corn-eating habit, and to a less degree the fruit-eating but fails entirely to show that the bird habitually eats young birds or eggs."

It was a revelation to me, this cannibalistic feast, and I wonder if any of the other readers of the Chat have observed anything of this kind.

BIRDS AROUND KANUGA LAKE

The bird life of the mountains was enjoyed by some members of the summer colony at Kanuga Lake near Hendersonville. R. E. Gribben, Jr., of Asheville, reported seeing the Pileated Woodpecker in the trees among the cabins, and other specimens were seen in the mountains surrounding the lake.

The Least Bittern was plentiful in the marshes at the western and northern extremities of the lake, and H. S. Gibbes of Savannah was able to make snapshots of several specimens at close range as they posed motionless in the edge of the rushes. With his telephoto lens he also secured pictures of the Great Blue Heron, Kingfisher, Sandpipers, and other birds of the lake. However, he missed his old friend, the crippled Lesser Scaup drake, which had been a familiar figure on the lake for several summers.

Notably absent from Kanuga were the English Sparrow, the Starling and the Kingbird. Especially abundant were Robins, Wood Pewees, Chipping and Song Sparrows, Hummingbirds, Flickers and Mountain Vireos - the last a subspecies of the Blue-headed Vireo.

The woods were rich in Warblers. Oven Birds were seen in groups which seemed to indicate family parties. Other Warblers seen were the Black and White, Maryland Yellow-throat, Kentucky, Pine, Worm-eating, Yellow-throated, Parula, Hooded, Golden-winged and Redstart.

Of special interest to lowlanders were summer views of Scarlet Tanagers and Baltimore Orioles.

MORE ABOUT THE PURPLE MARTINS

Washington: Joe Biggs reports a considerable number of birds congregating around the city during the migration. August 12 there were 130, August 19, 600 (estimate), August 24 about 700, with many more in the neighborhood. Out of these flocks, a very few adult male birds were seen. In the first flock of 130 birds, only 3 adult males were seen. In another flock of 700, only 2 were adult male, and in another on another day in a flock of the same number there were less than ten adult males.

Currituck: On August 17, J. J. Murray and the Editor observed a large flock of martins in the village of Currituck. There were some thousand birds, perched on the telephone wires and flitting about. Most of these birds were in the immature plumage, which is similar to that of the female bird. There was a wide variety of plumage, much of it quite ragged. The following afternoon there were less than 100 birds there.

Rocky Mount: Rev. Francis H. Craighill writes: "I did not see here nearly so large a concentration of martins as in previous years, but I did not make any exhaustive investigation that would justify me in saying that they were less. I was at Kanuga during most of the time they were flocking, and it is quite possible that I did not see some, or even the largest of their gatherings. They usually send the first detachments off during the second week in August, and it was August 8 when I saw them, so some might have gone by that time.

One year the big flock roosted in the magnolias in my yard, and there were about three thousand. I have seen some concentrations here that I thought would reach five thousand. This year the only flock I watched was in the street trees just one-half block from us, and at its maximum, I thought it was only about one thousand. They left, except a few stragglers, on August 24 - about ten or twelve days later than usual. I continued to see Martins in the country for about a week longer, but think they were members of other flocks, or stragglers, or migrants from further north. I have seen none now for some days.

The story of the Martins here is about as follows: They come to the local gourds the last of March and first of April - this year a little earlier than usual. For two months they stay very close to their nests, within a radius of two hundred yards. About May 25 they begin to come to town and line up on the wires in the evening. These are apparently young birds, with a very few purple males - perhaps one in twenty-five. This group will be 250 - 500, seldom larger. They come to the city lake for an evening drink, sit on the wires four or five blocks away for a while, then fly to their selected trees to roost. If sparrows and starlings like the same trees, they are ejected.

This group starts with a dozen or so, and grows rapidly to several hundred, and is then at a standstill until about the middle of July. Then the real flocks begin to gather, usually to the extent of several thousand. My theory is that the early flock consists of birds of the first hatching, and that a few old ones come along to guide them. I think there must be a second hatching, and when that is over they gather at the concentration point and train for the flight south.

At this period they feed much more widely than during the early nesting time, and can be seen anywhere. About an hour before sunset they come to the city lake and to the wires. There is much passing back and forth. Groups of birds will roost for a while, fly to the lake for a drink, perhaps do a little belated feeding, and then back to the wire. Just about the time the sun sets they fly to their roosting trees about a mile away and circle over them with a good deal of experimental lighting and taking off again. As the twilight fades, they quite suddenly swoop down into the trees and go to bed. The circling occupies about fifteen minutes and is quite spectacular.

They are rather noisy and very dirty neighbors, and their presence is not appreciated. When they lodged with me the next door neighbors called the police, who fired into them with shotguns and killed about sixty, but I stopped that. However during the two weeks they spent here I found several hundred dead ones on the ground - I have an exact record of it, and never knew what killed them - boys or owls. I chased boys off several times, and the biggest slaughter happened on nights when we had gone to the movies. Practically all the dead birds had their heads pulled off, and I would find more heads than bodies. I have heard that owls kill in this manner. Several times the bodies would be in suspiciously neat piles. That looked like boys; but would not the boys have carried them away? - they said they wanted the birds to eat. Owls might have made piles if each time they grabbed a bird they would take it to a selected perch to decapitate it. I have seen smaller birds act that way with pine seeds and beech nuts. However, what killed the birds is still a mystery. After it had happened two or three times, they left and roosted in a grove about half a mile away.

Where the gang of birds comes from I do not know. It must gather from quite a wide area. Possibly the July influx which I have been interpreting as the second brood may really be migrants from further north. I think our birds move southward very slowly. They can be

seen at Nags Head much later than here. According to my note book, Mr. Greyand I saw three at Currituck last year on September 29, and four next day between Manteo and Oregon Inlet.

They do not leave Florida until late November, and a few stay there all winter. I once saw a purple male in Savannah in early February. I do not know whether it had wintered there, or was an advance scout of the returning flocks.

Our Rocky Mount concentration is comparatively slight. Pearson tells of 200,000 having gathered in Greensboro and of really large flocks in other places.

Some years I have noticed the proportion of adult males particularly, for it is easy to determine as they sit on the wires; but this year I am sorry to say I did not do it. If there are two hatchings, you would hardly expect more than one purple bird out of ten. If there is only one hatching, it should be nearer one in five. My impression is that one in ten is nearer our July-August ratio."

Washington: On March 11, we had an owl egg to hatch in our zoo and the young one lived three days. Monday, March 14, it had disappeared and we suppose it was eaten by the others. Mr. William Vogt, Editor of Bird Lore, tells me it is the only record, so far as he knows, of Great Horned Owls breeding in captivity.

The owls are about five years old. The female laid an egg last year but it disappeared after a few days. In December 1937, she laid another but this disappeared also. February 1938 two eggs were laid, one disappeared and one hatched.

Mr. Lee Crandall of the Bronx Zoo also knows of no record where Great Horned Owls have bred in captivity.

We were sorry that the owlet did not live, but we were able to get some pictures of it.

-----Mary Shelburne

FIELD NOTES

Kitty Hawk to Pea Island: On August 17 we made a trip from Kitty Hawk to Manteo, and on the 18th went with S. A. Walker, Refuge Manager, down the coast from Nags Head to Oregon Inlet and across to Pea Island. Walker's car broke down soon after we reached Pea Island, so that we did not get to the Refuge. On the way back to Manteo we stopped for half an hour at the pond at Bodie Island light. We saw the following species:

Great Blue Heron, common; Canada Goose, 10; Common Black Duck, 50; Blue-winged Teal, 12; Marsh Hawk, 1; Osprey, common; Semipalmated Plover, several, but not common; Killdeer, several; Black-bellied Plover, numerous; Ruddy Turnstone, several; Hudsonian Curlew, 1 heard at Bodie Island Pond; Spotted Sandpiper, 1; Eastern (?) Willett, common; Lesser Yellowlegs, 3; Pectoral Sandpiper, 1; Least Sandpiper, common; Red-backed Sandpiper, 1; Dowitcher, several; Semipalmated Sandpiper, common (some of these were probably Western Sandpiper, but due to the lack of time we did not differentiate); Sanderling, abundant; Herring Gull, 2 adult, 1 imm.; Ring-billed Gull, 1 ad.; Laughing Gull, several; Common Tern, common; Royal Tern, 1, but identification doubtful due to similarity to Caspian Tern; Cabot's Tern, 3 on Pea Island; Caspian Tern, 1 (doubtful as above); Black Tern, common; Least Tern, numerous; Mourning Dove, 2; Eastern Nighthawk, 2 Kitty Hawk monument; Kingfisher, common; Kingbird, several at Manteo; Crested Flycatcher, 1; Tree Swallow, numerous north of Kitty Hawk; Barn Swallow, abundant; Purple Martin, abundant; Crow, Fish Crow, Mockingbird, Catbird, Starling, several at Manteo, Meadowlark, Redwing, common; Boat-tailed Grackle, common; Cowbird, flock of 10 at Manteo, where are observed throughout the year; Cardinal, several.

John Grey
-----J. J. Murray

Wilmington: While at Myrtle Beach, I went to Orton Plantation and visited Churchill Bragaw. He reports that he has seen as many as fifteen Water-Turkeys over Orton Pond at one time. While there, I saw only one, but was impressed by the large number of Osprey, as many as twenty being seen at one time. Species in which I was especially interested were, Parula Warbler, Prothonotary Warbler, and Painting Bunting. These were "firsts" on my list, and were seen at the Plantation.

Further south at Murrell's Inlet on the tidal flats were found numerous water birds: Brown Pelican, Willett, American Egret, Louisiana Heron, Black Skimmer, Royal Tern, and Wood Ibis. A flock of seventeen of the latter came so close that they could be readily seen without glasses.

At Myrtle Beach a number of people asked me about a small dove-like bird. It was the Ground Dove, and most of the people about there said it was the first time they had seen it.

-----Earl M. Hodel

Elkin: Marsh Hawk are numerous (August 28). Barn Owls are also rather common here, although I understand that they are not numerous throughout the State.

-----Earl M. Hodel

Nash and Edgecombe Counties: Frank Williams, who served recently as Bird Study Counsellor at Camp Sycamore, has made a continuous record of the presence of Cedar Waxwings this summer in Nash and Edgecombe Counties. The birds fed, while the fruit lasted, first in mulberry, then in wild cherry trees. The last report, at this writing, was of seven Waxwings on August 9 in a weeping willow.

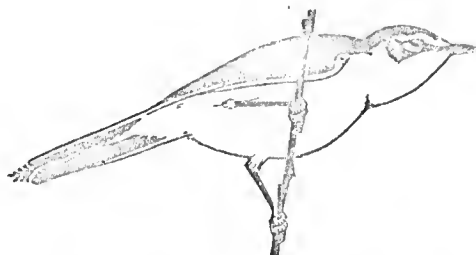
Loons seem to have lingered in the State this summer in an unusual manner. Both Common and Red-throated Loons were seen in the sound near Manteo in early June; Mr. H. H. Brimley reported having seen a Common Loon June 10; Frank Williams and others saw a Common Loon on the City Lake at Rocky Mount June 20, and Cormorants April 22, July 2, 3, and 4; Dr. Pearson writes that, in company with Mr. H. H. Brimley, he saw a Common Loon in Beaufort Inlet July 10.

The Florida Audubon Society is going to have a three-day "Camp Out" at Deer Lake Camp in the Ocala National Forest, October 7 - 9, and hope to have 150 in attendance. This Society has a large and active membership committee, and has three classes of members. They borrowed this "Camp Out" idea from a bird club in New Zealand.

AMERICAN ORNITHOLOGISTS' UNION

The A. O. U. meets in Washington, D. C., the third week of October. Registration will probably be Tuesday morning the eighteenth, and the meeting will close on Friday with a field trip.

All members of the N. C. B. C. who can possibly get to this meeting should attend.



The Chat

BULLETIN OF THE NORTH CAROLINA BIRD CLUB
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JOHN H. GREY, JR., EDITOR
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NOS. 9 & 10

PLANS FOR THE CHRISTMAS CENSUS

The thirty-eighth annual census of birds at Christmas time is to be taken this year. The census is sponsored by Bird Lore, magazine of the National Association of Audubon Societies. The purpose is to gather information which will make it possible to learn something of the relative abundance or scarcity of winter birds. Last year we printed six of these lists from: Southern Pines, Pine Bluff, Niagara, Washington, Chapel Hill, and Raleigh. This year we hope for many more.

The regulations are: (1) Take it as close to Christmas Day as possible, NOT BEFORE December 22 NOR LATER than the 27th. Take it only on one day. The census should cover at least six hours in the field, all day is better. (2) List the birds in the order of the fourth A. O. U. Check-list (1931). The field card which we have attached to this issue will help you - these can be obtained from the Chat at one cent each, plus three cents for postage. It is essential to list the birds in this order, to get them printed in Bird Lore. We are more lenient and will correct your list if you have any trouble. Give notes about anything unusual seen, as is done in the census given below as a guide. (3) Territory covered must not be more than that included in a fifteen-mile radius. The same territory covered each year gives a better basis for comparison. (4) Give time of starting and ending, weather conditions, number of observers, miles traveled and whether by car or on foot, and names and addresses of each participant.

Mail your census immediately. None printed that are received after December 31. Mail one copy to Bird Lore, 1006 Fifth Avenue, New York, N. Y. (Note, their new address). Mail us another copy.

Example: Chapel Hill, N. C., Dec. 26. 7 a. m. to 5 p. m., 2 hours out in middle of day. Clear, calm, temperature 35° to 65°. Same territory covered as during censuses of last four years (6-mile radius including University Lake, Strowd's Lowgrounds, Hogan's Pond, New Hope Swamp, University campus and intermediate points). Four parties in morning on foot (total mileage, 18); observers together in afternoon by car (total mileage 30). Pied-billed Grebe, 2; Great Blue Heron, 2; Mallard, 19; Black Duck, 34; Baldpate, 5; Buffle-head, 4; American Merganser, 9; Turkey Vulture, 20; Black Vulture, 8; Sharp-shinned (?) Hawk, 2; Cooper's Hawk, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 13; Sparrow Hawk, 1; Bob-white, 20; Ring-necked Pheasant, 1; Wild Turkey, 2; Woodcock, 1; Wilson Snipe, 12; Mourning Dove, 18; Great Horned Owl, 2; Barred Owl, 1; Belted Kingfisher, 1; Flicker, 46; Pil-cated Woodpecker, 2; Red-bellied Woodpecker, 37; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 9; Hairy Woodpecker, 4; Downy Woodpecker, 15; Phoebe, 7; Horned Lark, 25 (flock); Blue Jay, 20; Crow, 37; Carolina Chickadee, 47; Tufted Titmouse, 43; White-breasted Nuthatch, 7; Red-breasted Nuthatch, 1; Brown-headed Nuthatch, 3; Brown Creeper, 4; Winter Wren, 12; Carolina Wren, 32; Mockingbird, 4; Brown Thrasher, 2; Hermit Thrush, 29; Bluebird, 50; Golden-crowned Kinglet, 53; Ruby-crowned Kinglet, 5; American Pipit, 3; Starling, 10; Blue-headed (Solitary) Vireo, 1; Myrtle Warbler, 55; Pine Warbler, 2; English Sparrow, 5; Meadowlark, 50; Red-wing, 51; Rusty Blackbird, 15; Cardinal, 28; Purple Finch, 43; Goldfinch, 40; Towhee, 7; Savannah Sparrow, 5; Junco, 425; Field Sparrow, 170; White-throated Sparrow, 250; Fox Sparrow, 15; Swamp Sparrow, 42; Song Sparrow, 250. Total, 68 species, about 2121 individuals. Larger numbers are partly estimates. American Mergansers were all females; large size, sharp contrast of color of head, throat and back, and blue-gray upperparts noted. Failure to find Robin and also Killdeer without precedent in former censuses. The Solitary Vireo is unusual in winter. Eugene Odum, Edmund Taylor, Arnold Breckenridge, Coit Coker, M. S. Breckenridge.

BIRD LIFE ON A SCOTTISH ROYAL SANCTUARY

John Grey, Raleigh

Duddingston Loch is a small lake just outside the city limits of Edinburgh. For a dozen years the Loch has been set aside as a Crown Sanctuary, which is the British equivalent of our Federal Preserves. In these dozen years, the avifauna of the lake has increased a thousandfold, and makes an interesting study in conservation.

One April morning in 1937 Jim Ogilvy, my landlord, took me on a short walk. His interest was to get me toughened up for a real hike later on. My interest was in the birds. I had visited Duddingston Loch several years back, but was not then as interested in birds, and now I wanted to make up for lost time.

We entered the King's Park by the Albert gate and took the lower road known as the King's Drive. Near the gate stands the cottage of Jennie Deans, heroine of Scott's Heart of Midlothian. The park was once a trackless forest in which the king hunted deer. Now it is treeless, with many asphalt tracks for automobiles. Sheep graze over the hillsides, and children scamper over the grass. Our road led us thru the Windy Gowl, which is a passage cut through the rocks, and to the backside of the tall hill known as Arthur's Seat. Standing here beside the little lake one could easily imagine oneself in the highlands, for the city is hid from view by the shoulder of the hill, and the distant landscape is fringed by the Pentland hills.

The first birds we noticed on the Loch were several Mute Swans, just like the ones we see on park lakes in America. Then we saw more birds that looked familiar. Mallard Ducks were busy selecting nesting sites. Coots and Moorhens were building their nests, or already trying out the nests they had built. The Moorhen looks like our Florida Gallinule, a chicken-like marsh bird, deep blue in color, with a scarlet bill and shield on the forehead. In Britain they are to be found wherever there are streams and lakes. With us they are more scarce. Jim and I examined some of the Moorhen nests in the hopes of finding some eggs, but it must have been too early for eggs. The nests were platforms of reeds and grasses, placed on low hummocks amidst the reeds near the bank.

Most of the ducks we could see were feeding on the far side of the lake. Ducks always seem to me to feed on the far side of a lake anyway. As the sun was shining toward us, and reflected in the water, we naturally decided to walk to the back side of the lake where the light would be to our backs.

When we got to the back side of the lake our passage was blocked by a shambly fence and a stout gate. The gate was securely locked, and a large sign warned all trespassers that this was Crown property. I suggested to Jim that we do the way we would have done at home and climb over the fence. Any child could have climbed over. Jim turned that idea down and was all for going back home without seeing the birds. He knew what British law does to those who trespass on government lands.

Then Jim had an idea. He suggested that I go to the village minister in Duddingston and ask where we could get a key to that gate. Jim seemed to think that since I was a person I might have some claim or other upon his good graces. It was Saturday morning and I knew that to interrupt a minister in the midst of his preparation for Sunday was almost as dangerous as taking a chance on being caught crawling over the fence.

The Manse was right next the church, on the shore of the lake. The old church dates back to the twelfth century, and has before it one of the "loupin-on-stones" which they rested the coffin before entering the church. Sir Walter Scott was an elder in the church here, and in the manse yard beside the lake wrote The Heart of Midlothian.

And I was tramping through all this history to ask a man where was a key that would let me look at ducks.

The minister's daughter answered the bell. I tried not to talk like a Yankee in explaining that I was an amateur ornithologist, although disguised as a tramp. She said I would have to talk to father. That was just what I did not want to do. I wished I had climbed the fence instead. She ushered me up the stairs and into the study of the Rev. Mr. Serle, who it seems was the keeper of the key.

Mr. Serle asked a lot of questions. I felt that it was up to me to impress him with the fact that I was not a tramp, but that I really knew the best people. I told him I had just received a letter from Dr. T. Gilbert Pearson, President of the International Committee for Bird Preservation. I am sure that I did not exactly say that Pearson was my best friend, for at that time I had never even seen him. However, Serle misunderstood it that way, and I did not think it worth while to get the matter straight. The interview ended with me in possession of the key and with Dr. William Serle, the minister's son, to act as guide. Jim nearly fainted at our good luck when we got back to that locked gate.

William Serle proved to be a real ornithologist. He had just completed his internship in the Edinburgh Hospital and was leaving the next day for west Africa as a doctor in His Majesty's Service. He explained that some years back duck hunting had been allowed on the Loch, and that all the bird life you were likely to find on the pond would be a pair of Mallards. Now it was not uncommon to see one hundred of these birds wintering there, and twenty-five pair had nested there one summer. On many days they had counted 700 ducks on the lake. This is amazing for the Loch only covers nineteen acres, with eleven acres of marsh at one end, and ten acres of rough meadowland along one side. A total of thirty acres for the sanctuary.

The commonest duck on the sanctuary is the Pochard (pronounced like poke, or maybe poach if you prefer). This duck is akin to our own Redhead, which is considered one of the finest of the ducks by sportsmen. Six pair of Pochard had nested on the refuge in 1936. It was a common sight to find four hundred birds on the lake during a winter day, and at one time there were 1,560 on the pond.

Other ducks we noted were the Tufted Duck, like our Lesser Scaup, only dark on the back as a Ringneck. Golden-eye, much like ours; Goosander, which looks like our American Merganser, and are quite timid, but here on the sanctuary they seemed to realize they were protected and allowed us to come fairly close to them. The only other duck we noted was the Teal, similar to our Green-winged Teal, but lacking the vertical bar in front of the wing, and having a white bar above the wing.

Walking through the meadowland, Serle showed us some of the trees and shrubs they had planted for the song birds. We found many nests of the Song Thrush, much like our darker thrushes, but more

likely to be found near homes. Twenty pair of Song Thrush were nesting on the ten acres of meadowland. There were also the only other thrush they have, Mistle Thrush, which is a large edition of the Song Thrush. We were fortunate to see the Wren, they have only one species, which looks like our House Wren and sings like our Winter Wren. We also found Great Tits and Blue Tits, which are like our chickadees, although they are called titmice. The Blue Tit is about the size of our Carolina Chickadee, but much brighter blue, with a yellow breast and black and white markings about the head. The Great Tit is a large edition of the Blue, with a black stripe down its breast.

The only warbler we saw was the Willow Warbler. It was a most disappointing warbler, looking quite a bit like a female Maryland Yellow-throat. British warblers, which are the true warblers, are not brilliantly colored like our American group which are known as wood warblers.

A familiar bird was the Blackbird. It acted like our Robin, but was black and had a yellow bill. I watched them cock their heads on one side listening for worms below the grass, and then saw them catch hold of a worm and pull him out. I wondered if he was not the inspiration for the rhyme

Birdie with a yellow bill
Hopped upon my windowsill
Cocked his shining eye, and said
Ain't you shamed! You sleepy head.

LATE NESTING DATE FOR YELLOW-BILLED CUCKOO

Eugene P. Odum, University of Illinois

My attention was called to a nest of the Yellow-billed Cuckoo containing young on September 1 in the yard of Ned Hamilton at Chapel Hill. It was located on a horizontal limb of a loblolly pine and consisted of the usual slightly concave platform of twigs, in this case, pine twigs about an eighth of an inch in diameter. When next visited on September 7, the nest was empty, the young apparently having left successfully. As far as available records from this region are concerned the above ranks as a very late nesting record for the species. Brimley lists eggs only as late as July 27 for Raleigh, and I know of no nest reported at Chapel Hill after July. The Yellow-billed Cuckoo is known to be a late nester further north; a hasty survey of the literature shows a number of August dates from various localities and September records for Connecticut and Illinois. However, since the Cuckoo starts nesting earlier in spring here a September date might seem more unusual than further north where nesting may not begin until

late June. On the other hand more broods may be habitually raised here. Information on number of broods of even our common species in the South is very scarce. Since the situation is complicated by unsuccessful attempts and the possibility of birds in their first year nesting later than old birds careful observation with banding or marking of individuals may be necessary to give an accurate picture of the amount of reproduction of a given species. Until we have such information on the Cuckoo we cannot evaluate the above record, and can only suggest several possibilities: (1) purely accidental case; (2) a nesting attempt following repeated failures; (3) a third brood; (4) a belated nesting of a young bird; (5) result of peculiar weather conditions.

LATE NESTING DATE FOR LEAST TERN

J. J. Murray, Lexington, Va.
John Grey, Raleigh

On August 18, 1938, while waiting for the ferry at Oregon Inlet, we found two young Least Terns. The birds were not yet able to fly, but had the feathers partly developed. Our attention was attracted to them by the adults screaming at us while we watched a flock of Piping Plovers. One of the youngsters ran with the flock of plovers and was not observed closely, but the other strayed off into a tidal pool at the head of Pea Island and was caught while swimming. Had he not taken to the water he would have escaped us, as did the other, for he was far more agile than we were. The nests of these terns on Pea Island were destroyed by heavy seas earlier in the summer, but a second batch of eggs were laid and young reared. These young may have been hatched so late because this second attempt to nest may have been broken up as was the first..

NEW BIRD FOR RALEIGH LIST

T. L. Quay, Raleigh

While walking around Lake Raleigh on October 31, 1938, I saw a Double-crested Cormorant. We had a good look at the bird with 8x binoculars and there was no question of its identity. I have seen many of them before. It is strange that this bird has not been observed around Raleigh before this time. Odum recorded them at Chapel Hill in

1935 and 1936. In fact, there is a record for Raleigh made in 1926, and overlooked by C. S. Brimley in compiling his "Birds of Raleigh, N. C." (Elisha Mitchell Journal, November 1930.) Judging by the scant records of cormorants for the middle section of the State one would be inclined to list them as stragglers, but not necessarily rare. It is more probable that they occur much more often than they are recorded.

A NEW WATERFOWL REFUGE

The Biological Survey has established a new refuge for migratory waterfowl. It is known as the Back Bay Refuge, on Back Bay, Virginia. While this refuge is not in North Carolina, it will have a direct bearing on the abundance of ducks and geese in Currituck Sound. The warden of the new refuge is Harry I. Bailey, who has been with the Survey for many years.

The refuge is composed of the property formerly owned by the Princess Ann Gun Club and the Ragged Island Club. This latter property extends down Baby Bay almost to the northern end of Knotts Island: the Island being part in Virginia and part in North Carolina.

Headquarters for the refuge are now at the C. C. C. Camp near Pungo, Va. Later on they may be moved to the Princess Ann Club house, which has been torn down. Part of the house is being used to build suitable quarters for a warden. There is also a warden's shack on the Bay near Back Bay P. O., which is used jointly by State and Federal wardens.

The refuge has plenty of duck food on it this year. On August 25, Bailey invited Grey and J. J. Murray to make a trip over part of the refuge in a new motor boat which was to be used for patrol duty. The duck food was so thick that every fifteen minutes or less the boat had to be stopped while the propeller and shaft were de-grassed.

Ducks are beginning to have a chance along the Atlantic seaboard with the refuges at Back Bay, Lake Mattamuskeet, and Pea Island in N. C., and Bulls Island in South Carolina.

MORE ABOUT THE QUITNSA HERON ROOKERY

In August 1937, George Lay discovered a new heron rookery in Bertie County, near Windsor, at Quitsna. He visited the rookery in company with E. Duke Spruill of Quitsna. At that time the young herons had all left the nest, and the total number of individuals was estimated at ten thousand.

On July 5, 1938, Francis H. Craighill and John Grey visited the rookery and found many of the young still in the nests. Some of them appeared to be only a few days old. Many of the young birds were almost grown and were perched around on the trees and shrubs. The older birds were flying in from the Roanoke River with food for the younger ones. We noticed many adult birds in white plumage feeding young.

Mr. Spruill furnished each of us with a pair of hip boots and joined us in an invasion of the rookery. Only Little Blue Herons were nesting there. Recent rains had flooded the low ground along the stream so that we had to pick our way carefully from hummock to hummock. On entering the rookery, the area covered by the nests appeared much smaller than we had estimated while looking at it from the outside. In fact we estimated that the area used for nesting was 120 ft. by 450 ft., or 54,000 square feet, this being about an acre and a quarter.

Within this small space the nests were quite thick. By actual count there were 100 nests in an area 100 by 100 feet. From this count we estimated the nests for the area at 540. Allowing two young birds per nest, we saw no nest with more than two birds, there would be about 1100 young. Counting as many parents as young we would have 2200, and making some allowance for other adults we estimated a probable total of 3,000 herons for the rookery. This is far short of the 10,000 estimated for the rookery last year. Mr. Spruill said the birds were as numerous this year as last year, and insisted we would raise our estimate of the numbers if we could be there for the evening flight when the old birds returned from the river to roost.

The rookery is situated along a small and sluggish stream. Most of the nests were placed rather low in large alder bushes and other shrubbery. The outer fringe of the small wooded area is composed of medium-sized pines and a few other trees. The property is not used for farming or grazing purposes and therefore the birds will probably not be molested. We heard of no attempt to take the young for food.

EARLE GREENE ELECTED PRESIDENT OF GEORGIA ORNITHOLOGICAL SOCIETY

A newspaper clipping from the Waycross, Georgia, Journal-Herald carries a news story of the semi-annual meeting of the Georgia Ornithological Society. The group met at Fargo in the Okefenokee Wildlife Refuge as guests of Earle Greene. Greene was formerly in charge of the Lake Mattamuskeet Waterfowl Refuge in North Carolina, and wrote the article on Lake Mattamuskeet Birds (Chat I, Nos. 7 and 8).

The meeting extended over two days and was attended by seventy people. The first day and evening were devoted to papers and discussion of bird life, with emphasis on the birds of the refuge. The next morning the party went by boat to the shores of Billy's Lake for a field trip.

Greene was elected President of the Club to succeed Herbert L. Stoddard of Thomasville. The Chat is happy to extend congratulations from the N. C. B. C. to the new President, who is a member of our Club and has contributed much to our knowledge of North Carolina birds.

MUCH SHOOTING OF HAWKS IN THE STATE

Our people still have not learned that hawks are valuable birds if left alive. The newspapers have carried many items and pictures of hunters who have killed large hawks. Richard H. Pough of the National Association of Audubon Societies has sent numerous clippings from State papers to the Department of Conservation and to the Chat calling our attention to the great number of hawks killed this year. In his opinion North Carolina has a dubious honor in being first in hawk killing.

Most of our hawks, contrary to popular belief, are quite beneficial in their feeding habits. John B. May in his Hawks of North America discusses the foods of all our hawks, and lists for the Red-Tailed Hawk 1013 stomachs examined. Only 112 of these birds had poultry or game in their stomachs, and 857 had eaten such mammals as mice, rats, moles and ground squirrels. For Red-shouldered Hawks he lists 444 stomachs examined and only 7 had poultry and game while 287 had mammals.

The Audubon Association has a pamphlet "Exit Hawk - Enter Mouse", in which they argue with good reason that the hawks prevent much damage to crops and trees by killing off many harmful rodents. M. G. Lewis, County Agent of Roanoke, Virginia, carried out some experiments which led him to conclude that in orchards where hawks were not molested there was much less damage from field mice than in orchards where the birds were systematically shot. Others bear the same testimony to the value of hawks.

The hawks which do the damage to game birds and poultry are not the hawks which are usually killed. The two hawks in N. C. which do much damage are the Sharp-shinned and the Cooper's. Both of these hawks are skulking birds, seldom flying any long distance in the open. They dart about in the woods and protect themselves by disappearing behind the trees much as the Ruffed Grouse eludes the hunter. Consequently these birds are not often killed. On the other hand, many of our hawks spend a good deal of time in the open, and the Red-tailed and Red-shouldered are frequently seen soaring over woods and fields. These soaring hawks are the ones most often shot, and the irony is that they are the beneficial hawks.

FIELD NOTES

Pea Island: One Barn Swallow and eight Purple Martins were noted on March 28, 1938. I realize that this is not a new migration record for the State as the swallow was recorded on April 2, 1888; the average date for Raleigh seems to be about April 10 for the Barn Swallow and about April 15 for the Purple Martin. It not infrequently occurs, however, that the spring migration is a little slower along the coast than it is inland. On the day above referred to, I found the Purple Martins fairly common at Elizabeth City while only eight were seen in the vicinity of Pea Island and Rodanthe.

-----Clarence Cottam

Elizabethtown: On September 18, 1938, Mr. T. L. Quay of State College Department of Zoology saw four Wood Ibises soaring around above swampy land about twenty or thirty miles southeast of Elizabethtown, Bladen County.

Winston-Salem: The Red-eyed Towhees are common around here. I found one young bird, in a patch of woods, near the high school (no date). I have seen at least six Migrant Shrike in a park near here.

-----William Anderson

Raleigh: On August 24, I saw an adult Bald Eagle flying over Cameron Park. Its white head stood out clearly in the sunlight. This is my first view of an eagle in Raleigh. Last year I observed one flying over the highway near Biscoe. C. S. Brimley records only two other instances of these birds around Raleigh.

-----William Craven

Fayetteville: I had very little time in the field this year, but report the following bird nests found: Brunswick County - Blue Jay, May 1, four eggs; Cumberland County - Cardinal, April 17, three eggs; Maryland Yellowthroat, May 8, four eggs; Prairie Warbler, May 8, four eggs; Blue Grosbeak, June 7, three eggs; Towhee (Species uncertain), July 17, three eggs. I see by the last Chat that Dr. Pearson wants notes on the Loggerhead Shrike. It is a fairly common breeder here, and seems to be increasing. My notes indicate two broods a year, the first one starting about April 1, and the second one starting about the last of May.

-----Virgil Kelly

Chapel Hill: Worm-eating Warbler observed by John Grey and me on September 12, is later than previous Chapel Hill records, but it has been listed at Raleigh as late as September 20.

-----Eugene P. Odum

Currituck: This summer I made three trips into the Currituck region. On July 6, F. H. Craighill and I drove from Virginia over the causeway to Knott's Island, and crossed the sound by boat to the banks at Wash Woods Lifeguard Station. Just behind this station, on the marsh side, are several shallow pools used by the shore birds. On

August 24, J. J. Murray, Harry Bailey and I drove down the beach to the Wash Woods Station and walked out to the same pools. On August 25 the three of us had a trip by motorboat from the Inland Waterway, past Knott's Island to Back Bay. On this last date we found the duck food so thick in Currituck Bay that we had to stop frequently to pull the grass off the propeller. Pied-billed Grebe, July 6, 2, and August 24, 3 on largest pool at Wash Woods; Great Blue Heron, common August 25, but only 1, July 6; American Egret, August 25, but only 1, July 6; Little Blue Heron, c August 25; Least Bittern, 3, July 6; Canada Goose, E. W. Brumley, a guide, of Knott's Island saw 20 July 1, and felt sure some 200 were still on the bay at that time; Black Duck, 1, July 6; Pufflehead, 1 cripple July 6; Black Vulture, 2, August 25; Marsh Hawk, 1, August 25; Semipalmated Plover, c, August 24; Black-bellied Plover, c, August 24; Willett (Sp. ?), c, August 24; Greater Yellowlegs, August 24, 6, and 2 next day; Lesser Yellowlegs, 2, August 24, but c at Back Bay the same day; Least Sandpiper, numerous, August 24; Semipalmated Sandpiper, c, August 24; Western Sandpiper, c, August 24; Sandpiperling, abundant, August 24; Herring Gull and Ring-billed Gull, none seen, but numerous just across the Virginia line where had been dragging seine on August 24; Common Tern, c, August 24; Least Tern, c on all three dates; Royal Tern, 6, July 6; Black Tern, c, August 25; Yellow-billed Cuckoo, 1, Knott's Island, August 25; Bank Swallow, 1, August 25; Wayne's Marsh Wren, abundant along causeway July 6, but none noted on banks that day, 2 heard singing on banks August 24; White-eyed Vireo, singing August 25, Knott's Island; Redwing, abundant July 6, 20, August 25; Orchard Oriole, 2 males July 6, Knott's Island; Boat tailed Grackle, 1, July 6; Seaside Sparrow, c, on banks July 6. It is hard to account for the absence of Green Heron, and the few herons and egrets on July 6.

-----John Grey, Raleigh

Pea Island: S. A. Walker reports that waterfowl are now concentrating on the Refuge in considerable numbers, particularly Canada Geese. He adds that a few brant have arrived along with a small flock of Snow Geese and three Blue Geese. It is interesting to note that a few Blue Geese have been found at Pea Island during each of the past four or five years.

-----Clarence Cottam, Washington, D. C.

Pea Island: I had the pleasure of driving to Cape Hatteras with S. A. Walker (ante October 20) and we saw some interesting birds, including a dozen Black-backed Gulls, a cock Pheasant, and a strong advance of ducks and geese, and two Duck Hawks. Cowbirds were there as usual, and I believe they can properly be counted as year-round residents on Roanoke Island. The Pheasants seem well naturalized on Pea and Bodie Islands, and I have one record for Roanoke Island. I understand that a game club put them on Bodie Island some years ago, and they have established themselves on the bushy parts of the territory. Walker reports that the Blue-winged Teal and Florida Gallinule raised young on Pea Island this summer. He saw, I think, only one brood of each. Rapid progress is being made on the dike which is to shut out sea water and conserve a summer supply of fresh water on the Pea

Island Refuge. Walker believes that with a reliable supply of water we will have more breeding birds on the refuge.

-----Francis H. Craighill

Raleigh: Lasts: Nighthawk, Sept. 17; Summer Tanager, Sept. 17; Wood Thrush (singing), Sept. 27; White-eyed Vireo (singing), Sept. 29; Osprey, Oct. 23 - this is probably a new late date as Brimley lists October 5 as late in his "Birds of Raleigh". Firsts: Wilson's Snipe Oct. 22; Coot, Oct. 22 - this may be a new first as Brimley lists Oct-28 as early; Lesser Yellowlegs, 1, Oct. 22; Mallard, 3, Oct. 23 - this date may also be early as Brimley lists Nov. 3 as early; Migrant Shrike, Oct. 23; Savannah Sparrow, 3, Oct. 23; Rusty Blackbird, 2, Oct. 31; Slate-colored Junco, 10, Oct. 31; Marsh Hawk, Oct. 31. While Wood Duck are resident in Wake County, they seem not to be common. I saw six of these ducks on Lake Raleigh Oct. 23.

-----T. L. Quay

Arden: (Buncombe County) During the spring and summer I found the following nests: Carolina Wren, March 30, April 21; Robin, April 13, May 12 - young; Phoebe, April 21; Red-eyed Towhee, April 21, young June 1; House Wren, May 12; White-eyed Vireo, May 12; Wood Thrush, May 18, young in nest May 22; Catbird, May 18, with young May 22; Carolina Wren, May 18; Ovenbird, May 18; Red-eyed Vireo, eggs May 23, young May 31; Titmouse, young June 1.

Summer visitors recorded: Whip-poor-will, April 15; Ruby-throated Hummingbird, April 26; Crested Flycatcher, September 5; Least Flycatcher, April 28-September 5; Wood Peewee, April 8-September 28; Catbird, April 25-August; Wood Thrush, March 31-September 26; White-eyed Vireo, May 20-September; Red-eyed Vireo, April 24; Black-and-white Warbler, May 26-October 8; Yellow-throated Warbler, July 12 - October 1; Ovenbird, April 26; Maryland Yellowthroat, May 3; Hooded Warbler, April 28; American Redstart, May 5; Orchard Oriole, June 25; Indigo Bunting, May 4; Grasshopper Sparrow, May 16 - July 12; Chipping Sparrow, April 10; Chestnut-sided Warbler, April 29 - May 10; Scarlet Tanager, April 28 - July 15; Rose-breasted Grosbeak, April 29; Bowicks Wren, April 24 - July 19.

Transients: Magnolia Warbler, April 10 to May 6, and October 5; Blue Grosbeak, May 21.

Winter Visitors: Yellow-bellied Sapsucker, Nov. 25 - May 5; Red-breasted Nuthatch, October 12 - May 20; Brown Creeper, Dec. 1 - April 1; Winter Wren, September 23 - April 18; Hermit Thrush, Dec. 12 - May 26; Golden-crowned Kinglet, December 8 - May; Myrtle Warbler, Jan. 4 - May 10; Purple Finch, Jan. 13; White-throated Sparrow, Nov. 3 - July 1; Fox Sparrow, March 12, July 12, August 12.

I have also seen American Crossbill, New Found Gap, August 29; Tree Sparrow at Arden, November 25, 29 and Dec. 7; Warbling Vireo, April 28 and May 1 and 3; Mountain Solitary Vireo, June 12.

-----Mrs. D. W. Grinnell

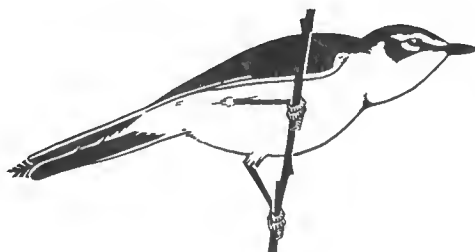
Raleigh. September and October Notes: (1) Last dates of Summer Birds. Green Heron, Sep. 18; Spotted Sandpiper, Sep. 16; Yellowbilled Cuckoo, Sep. 16; Nighthawk, Sep. 13; Swift, Oct. 20; Hummingbird, Oct. 2; Crested Flycatcher, Sep. 24 (W. Craven); Acadian Flycatcher, Sep. 5; Wood Pewee, Sep. 25; Purple Martin, Sep. 28; Bluegray Gnatcatcher, Sep. 15; White-eyed Vireo, Sep. 18; Red-eyed Vireo, Sep. 16; Black and White Warbler, Sep. 21; Parula Warbler, Oct. 17; Redstart, Oct. 13; Catbird, Oct. 17; Summer Tanager, Sep. 18; Indigo Bunting, Oct. 10.

(2) Firsts of Winter Visitors. Pied-billed Grebe, Sep. 5; Mallard, Oct. 23; Black Duck, Sep. 5, next Oct. 23; Bluewinged Teal, Sep. 4; Wilson's Snipe, Oct. 22; Yellow-bellied Sapsucker, Sep. 25; Winter Wren, Oct. 17; Hermit Thrush, Oct. 25; Ruby-crowned Kinglet, Oct. 6; Golden-crowned Kinglet, Oct. 17; Pipit, Oct. 17; Myrtle Warbler, Oct. 10; Towhee, Oct. 13; Junco, Oct. 31; White-throated Sparrow, Oct. 10; Song Sparrow, Oct. 10; Swamp Sparrow, Oct. 10.

(3) Transients and Stragglers. Double-crested Cormorant, Oct. 31; Bald Eagle, Sep. 24 (W. Craven); Florida Gallinule, Oct. 16; Osprey, Sep. 5, Oct. 23; Pectoral Sandpiper, Oct. 17-27; Lesser Yellowlegs, Oct. 22; Semipalmated Sandpiper, Oct. 17; Semi-palmated Plover, Oct. 17, 27; Blueheaded Vireo; Oct. 25; Magnolia Warbler, Sep. 16; Cape May Warbler, Oct. 11-23; Black-throated Blue Warbler, Oct. 10 and 23; Blackpoll Warbler, Oct. 19, 13; Yellow Palm Warbler, Oct. 17; Water Thrush, Aug. 16, Sep. 5; Bobolink, Sep. 10; Graycheeked Thrush, Sep. 16; Bobolink, Sep. 10 (Jesse Primrose).

In all, 59 species were noted in September and 70 in October.

----- John H. Grey
C. H. Bostian
Roxie Collie
T. L. Quay
C. S. Brimley.



The Chat

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Nos. 11 & 12

RECENT ADDITIONS TO THE NORTH CAROLINA CHECK-LIST

John Grey and C. S. Brimley, Raleigh

In April 1937 the North Carolina check-list was brought up-to-date in a paper published in The Chat (Vol. I, No. 2, p. 1). That paper contained data on fifteen species, two hybrid warblers and fifteen sub-species. These forms brought the total number of full species observed within the State to 336, and counting the sub-species the grand total was 378 forms of bird life.

In the period since April 1937, three additional species have been recorded and our attention has been called to the fact that the Long-billed Dowitcher has been given the rank of a full species. This adds four species to our list, for a total of 340 full species. Eight additional subspecies have been recorded, and two - Long-billed Dowitcher and Wayne's Clapper Rail - have been dropped. Grand total 388 forms of bird life.

A. Species not previously recorded:

1. American Flamingo (Phoenicopterus ruber Linnaeus.) Two of these birds were observed by S. A. Walker of Manteo, Manager of the Pea Island Waterfowl Refuge. The birds were on Pea Island beach a few miles south of Oregon Inlet. This record was reported in The Chat (Vol. I, Nos. 9 & 10, p. 61) with the statement that the record had not been accepted by the Biological Survey. Since that date the record has been accepted. This is the only record of Flamingoes north of Florida, except the report by Audubon in 1815 that they were seen on the coast of South Carolina.

2. Audubon's Caracara (Polyborus cheriway auduboni Cassin).

This bird is included in the list upon the following authority: A. C. Bent, Life Histories of North American Birds of Prey, part 2, p. 135, says, "One was observed 'at close range' at Pineycreek, N. C., on February 19, 1933." That a tropical hawk which frequents prairie country should turn up in heavily forested mountains in North Carolina in February was so unlikely that T. Gilbert Pearson tracked down the record. We quote Pearson: "I wrote Bent. He replied that Lincoln prepared that part of his book. I wrote Lincoln. He replied that a Claude J. Smith of Alleghany County had sent in a letter in February 1933 saying, 'First record for N. C., observed at Close range, flying and turning summersaults in the air.' I have seen literally hundreds of them and except in the mating season they have always been seen flying slowly, or sitting stupidly as if waiting for the world to end.....Another thing, I have never found them except in prairie country of south Florida, or in the great cactus plains of Texas and Mexico. It is hard to think of them as occurring in heavily-forested mountains and showing great activity, tumbling about in the air, in February."

3. Valley Quail (Lophortyx californica vallicola Ridgway).

Introduced on Cape Hatteras Island in 1931. A number were released. One seen May 1935 near Avon, another killed near Buxton in April 1936. Reported by E. L. Green, Jr.

4. Long-billed Dowitcher (Limnodromus griseus scolopaceus Say).

Rowan gives this the rank of a full species. (William Rowan "Status of Dowitchers, with Description of New Sub-species", Auk, XLIX, January 1932, pp. 14-35.) Four records of this bird are included in the Birds of North Carolina, p. 127.

B. Sub-species not previously recorded:

1. Inland Dowitcher (Limnodromus griseus hendersoni Rowan).

One taken by Thomas D. Burleigh at Kitty Hawk, August 14, 1934. Burleigh, Auk LIV, October 1937, p. 454.

2. Northern Carolina Chickadee (Penthestes carolinensis extimus

Todd and Sutton.) A new sub-species described by W. E. Clyde Todd and George M. Sutton in Proceedings of the Biological Society of Washington, Vol. 49, July 3, 1936, p. 70. The range of this northern form is listed from western North Carolina to New Jersey and west at least to Missouri.

3. Southern Creeper (Certhia familiaris nigrescens Burleigh).

A new sub-species described by Thomas D. Burleigh (Proc. Biol. Soc. Washington, Vol. 48, May 3, 1935, p. 62) from a specimen taken on Mt. Mitchell, N. C. Other N. C. specimens listed: Mt. Mitchell, 3; Great Smoky Mountains, 4; Asheville, 5 (Bent Creek). This is the form of the creeper whose nest LeMoyne discovered in the Great Smoky Mountains in 1886 (Birds of North Carolina p. 320).

4. Southern Winter Wren (Nannus hiemalis pullus Burleigh) A new sub-species described by Thomas D. Burleigh (Proc. Biol. Soc. Washington, Vol. 48, May 3, 1935, p. 61) from a specimen taken on Mt. Mitchell. Other N. C. specimens listed: Mt. Mitchell, 5; Great Smoky Mountains, 2; Rocky Knob, 1. This is the form of the Winter Wren which Cairns, before 1891, recorded as breeding on Black Mountain.

5. Willow Thrush (Hylocichla fuscescens salicicola Ridgway). A specimen of this western form of the Veery was picked up dead on the streets of Raleigh, September 9, 1937, by G. M. Garron. The specimen was identified by Oberholser, (Chat I, Nos. 9 & 10, p. 64) and is now in the N. C. State Museum collection of skins.

6. Churchill Savannah Sparrow (Passerculus sandwichensis oblitus Peters and Griscom). A new sub-species recently described by James L. Peters and Ludlow Griscom (Bulletin of the Museum of Comparative Zoology, Vol. 80, No. 13, January 1938, Boston). They list a specimen in the Cambridge Museum which was taken in Buncombe County, North Carolina, March 23, 1895, female. It breeds west of Hudson Bay, migrates mainly west of the Alleghanies, (said to be common in the Smokies) and winters along the Gulf.

7. Labrador Savannah Sparrow (Passerculus sandwichensis labradorius Howe). Specimen taken at Clayton, May 4, 1937, and donated to the State Museum by J. S. Holmes, where the skin was identified by H. C. Oberholser.

8. Mississippi Song Sparrow (Melospiza melodia euphonia Wetmore). This newly-described species is to replace Beata, the Mississippi Song Sparrow given in the fourth A. O. U. Check-list, p. 357. Since Beata has not been listed from North Carolina we have added euphonia. In Alexander Wetmore's description, (Smithsonian Miscellaneous Collections, Vol. 95, No. 17, September 26, 1936) he lists specimens taken by him and J. J. Murray near Sturgills, Jefferson, and Warrensville, N. C. (Pg. 3). Murray also took 3 adult males at Blowing Rock in August 1937 (Chat, I, Nos. 9 & 10, p. 68).

C. Sub-species to be dropped:

1. Wayne's Clapper Rail (Rallus longirostris waynei Brewster) H. C. Oberholser lists this rail as breeding north to central eastern South Carolina and places the North Carolina rails under crepitans the Northern Clapper Rail. ("A Revision of the Clapper Rails" Proc. U. S. N. M., Vol. 84, No. 3018, 1937, p. 352).

2. Long-billed Dowitcher raised to status of full species as recorded above.

As we mentioned before, this places the North Carolina check-list at 340 species and a total of 388 forms counting sub-species.

THE 1938 CHRISTMAS CENSUS

The census this year was an improvement over that of 1937. More communities are represented, with more observers, and the communities are more widely scattered over the State. However, we still have not enough information to get any accurate idea of the birds in North Carolina during Christmas week. Raleigh, Southern Pines and Chapel Hill are the only places that took a census both years. New localities are Winston-Salem, Greensboro, Arden in Buncombe County, Brevard, and Rocky Mount. R. H. Witherington, Earle Hall and Dodette Grinnell each worked their territory alone. Many observers postponed their census till the last day allowed by Bird Lore, the 26th, and struggled against a rainy day. During the rest of the period the weather was excellent. Those who take part in the census find it an interesting game to see how many species they can find in one day. We hope many others will join in the game next Christmas.

Winston-Salem: Dec. 23, 8:30 a. m. to 4:30 p. m., 1½ hour out in middle of day. Partly cloudy to cloudy. Temperature 28-60 degrees. Territory 1/2 mile south of Winston-Salem in mixed evergreen and deciduous forest, along creeks and in old fields. 3 miles covered, on foot, and alone. Turkey Vulture, 1; Cooper's Hawk, 1; Sparrow Hawk, 1; Dove, 5; Flicker, 2; Hairy Woodpecker, 1; Downy Woodpecker, 2; Phoebe, 2; Crow, 1; Chickadee, 11; Titmouse, 10; White-breasted Nuthatch, 13; Brown Creeper, 2; Carolina Wren, 2; Mockingbird, 1; Robin, 2; Bluebird, 9; Golden-crowned Kinglet, 4; Shrike, 1; Starling, 75; Myrtle Warbler, 2; English Sparrow, 2; Meadowlark, 20; Cardinal, 10; Goldfinch, 6; Towhee, 8; Junco, 172; Field Sparrow, 70; White-throated Sparrow, 36; Song Sparrow, 26. Total, 32 species, 498 individuals.
-----R. H. Witherington

Greensboro: Dec. 26, 8 a. m. to 1 p. m., completely rained out. Rain, slight wind from northeast, temperature 33 to 37 degrees. The territory covered included cultivated fields, old fields, woodland borders, forests, streams, lowlands and golf course. The weather was so bad that no attempt was made to visit the usual ponds and lakes usually visited. About five miles were covered. Observer alone and on foot. Visibility was low; glasses useless. Bob-white, 18; Woodcock, 1; Mourning Dove, 2; Red-headed Woodpecker, 3; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 2; Downy Woodpecker, 3; Phoebe, 1; Blue Jay, 6; Crow, 7; Chickadee, 15; Tufted Titmouse, 8; White-breasted Nuthatch, 3; Carolina Wren, 4; Mockingbird, 2; Bluebird, 5; Golden-crowned Kinglet, 15; Ruby-crowned Kinglet, 10; Starling, 3; Pine Warbler, 1; English Sparrow, 25; Meadowlark, 25; Cardinal, 4; Goldfinch, 10; Towhee, 1; Junco, 75; Field Sparrow, 30; White-throated Sparrow, 20; Fox Sparrow, 5; Song Sparrow, 37. Total, 30 species, about 372 individuals. Large numbers are partial estimates. It was amusing and interesting to see the Chickadees find shelter under large limbs of trees. Small twigs growing directly beneath the limb furnished a shelter when the bird became uncomfortable from the beating cold rain. They would often rest for ten minutes before resuming their foraging.

-----Earl H. Hall

Brevard: Dec. 24, 8 a. m. to 5 p. m. Cloudy, damp under foot, low heavy fog at start, temperature 45°. Clear and colder by noon. Temperature 38° on return. Territory varied (5-mile radius including Forest Hills, Hunter Farm, French Broad Valley, Sugar Loaf Mountain). Three parties on foot working alternately together and about one mile apart, total mileage 20. Turkey Vulture, 1; Bob-white, 14; Wilson's Snipe, 1; Mourning Dove, 1; Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 18; Crow, 7; Carolina Chickadee, 55; Tufted Titmouse, 34; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 1; Brown Creeper, 2; House Wren, 1; Winter Wren, 1; Carolina Wren, 16; Mockingbird, 2; Catbird, 1; Brown Thrasher, 2; Bluebird, 6; Golden-crowned Kinglet, 7; Starling, 4; Pine Warbler, 10; English Sparrow, 50; Cardinal, 23; Goldfinch, 112; Towhee, 9; Savannah Sparrow, 2; Junco, 650; Chipping Sparrow, 11; Field Sparrow, 50; White-crowned Sparrow, 5; White-throated Sparrow, 56; Song Sparrow, 87. Total 35 species, about 1257 individuals. Larger numbers are partly estimates. Killdeer, Robin, and Meadowlark have been conspicuously absent this winter.

-----Rachael Orr
Oliver Orr
Mark Taylor Orr

Arden, Buncombe County: Dec. 26, 1938, 9 a. m. to 5 p. m., one hour out in middle of day. Rain the greater part of the day, temperature 38° to 40°. Territory covered: 8-mile radius, including Royal Pines, part of Mt. Royal, Biltmore, Skyland, Rosscraggon, Sandy Bottoms on French Broad River, etc. One observer, in the morning on foot; in the afternoon by car. Total mileage in morning, 4; total mileage in afternoon, 20. Bob-white, 8; Pileated Woodpecker, 1; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 4; Hairy Woodpecker, 2; Downy Woodpecker, 12; Phoebe, 2; Blue Jay, 3; Crow, 3; Black-capped Chickadee, 8; Carolina Chickadee, 14; Tufted Titmouse, 18; White-breasted Nuthatch, 16; Red-breasted Nuthatch, 6; Brown Creeper, 4; Winter Wren, 2; Carolina Wren, 8; Hermit Thrush, 1; Blue Bird, 10; Golden-crowned Kinglet, 6; Starling, 12; Myrtle Warbler, 1; English Sparrow, 16; Meadowlark, 2; Cardinal 8; Purple Finch, 1; Towhee, 9; Junco, 52; Tree Sparrow, 4; Field Sparrow, 2; White-throated Sparrow, 16; Fox Sparrow, 1; Song Sparrow, 2. Total, 33 species, about 257 individuals. Day not very favorable. Have seen the Phoebe several times this winter during December, which is rather unusual in my experience in this section. The Hermit Thrush comes close to our house quite often.

-----Dodette Westfeldt Grinnell

Rocky Mount: (City Lake, Noble's Pond, Cokey Swamp, Snake Marsh, Old Town Marsh, Seven Bridges, Bradley's Bridge, Bellamy's Lake, Beech Branch, Swift Creek Swamp) Dec. 26, 7 a. m. to 6 p. m. Cloudy and still in morning; light rain and increasing N. E. wind in afternoon. Temperature 35° at start, 54° maximum. 4 observers in one party. Miles afoot, 7; in boat, 1; in car, 63; total miles, 71. Time 11 hours. Pied-billed Grebe, 3; Great Blue Heron, 2; Mallard, 3; Wood Duck, 149; American Golden Eye, 1; Turkey Vulture, 22; Black Vulture, 19; Sharp-shinned Hawk, 2; Cooper's Hawk, 2; Red-shouldered Hawk, 1;

Marsh Hawk, 6; Sparrow Hawk, 6; Killdeer, 31; Woodcock, 2; Wilson's Snipe, 5; Mourning Dove, 160; Screech Owl, 1; Barred Owl, 1 (heard); Kingfisher, 1; Flicker, 54; Red-bellied Woodpecker, 7; Red-headed Woodpecker, 2; Yellow-bellied Sapsucker, 6; Downy Woodpecker, 11; Phoebe, 2; Horned Lark, 175 (3 flocks); Blue Jay, 39; Crow, 127; Carolina Chickadee, 11; Tufted Titmouse, 3; White-breasted Nuthatch, 2; Winter Wren, 1; Carolina Wren, 20; Mockingbird, 18; Brown Thrasher, 1; Robin, 11,700; Hermit Thrush, 4; Bluebird, 76; Golden-crowned Kinglet, 2; Ruby-crowned Kinglet, 1; Pipit, 230 (3 flocks); Loggerhead Shrike, 10; Starling, 3,600; Myrtle Warbler, 37; English Sparrow, 84; Meadowlark, 243; Redwing, 245 (95% females); Cardinal, 21; Pine Siskin, 25 (2 flocks); Goldfinch, 12; Towhee, 14; Savannah Sparrow, 78; Junco, 205; Field Sparrow, 63; White-throated Sparrow, 96; Fox Sparrow, 8; Swamp Sparrow, 3; Song Sparrow, 46. Total, 58 species; 17,704 individuals. During the last hour, in gathering darkness, part of a remarkable flight of Robins, Starlings and Wood Ducks was witnessed. All were flying eastward down Swift Creek, apparently from feeding ground to roosting place.

-----Frank Williams
 ----· Richmond Corinth
 Randolph Butler
 F. H. Craighill

Southern Pines: Dec. 22, 9:30 a. m. to 4:00 p. m., 45 minutes out in middle of day. Clear, sharp wind, temperature 40°-55°. Three groups covering the western, eastern and southern sections of the town. Radius of half mile per group. Observers on foot. Bob-white, 20; Mourning Dove, 80; Flicker, 1; Yellow-bellied Sapsucker, 3; Downy Woodpecker, 1; Blue Jay, 7; Titmouse, 9; Brown-headed Nuthatch, 2; Mockingbird, 13; Brown Thrasher, 1; Robin, 5; Hermit Thrush, 2; Bluebird, 7; Ruby-crowned Kinglet, 5; Cedar Waxwing, 8; Starling, 1; Myrtle Warbler, 1; Pine Warbler, 1; English Sparrow, 32; Meadowlark, 3; Cardinal, 16; Purple Finch, 14; Goldfinch, 3; Towhee, 2; Slate-colored Junco, 109; Chipping Sparrow, 3; Field Sparrow, 1; White-throated Sparrow, 26; Song Sparrow, 2. Total species, 29; individuals 378.

-----Louise Haynes
 Miss C. I. Hamilton
 Mrs. A. Swan
 Mrs. Florence Robinson
 Mrs. R. Potts
 Mrs. Cookingham

Chapel Hill: Dec. 24, 6:30 a. m. to 6 p. m., 2 hours out at noon. Cloudy to clear, rain in morning; Temperature 50°. Same territory covered as during censuses of last five years (6 mile radius including University Lake, Strowd's Lowgrounds, Hogan's Pond, New Hope Swamp, University campus and intermediate points). 2 to 3 parties in field on foot (18 miles) and by car (30 miles). C. C., J. J., T. O. in field only part of day. Pied-billed Grebe, 1; Great Blue Heron, 2; Mallard, 22; Black Duck, 33; Pintail, 11; Ring-necked Duck, 4; Lesser Scaup, 2; Buffle-head, 3; Ruddy Duck, 1; Hooded Merganser, 2; Turkey Vulture, 3; Sharp-shinned Hawk, 1; Cooper's Hawk, 2; Red-tailed Hawk, 1;

Red-shouldered Hawk, 5; Sparrow Hawk, 3; Bob-white, 35; Killdeer, 20; Woodcock, 1; Wilson's Snipe, 1; Mourning Dove, 75; Barred Owl, 1; Belted Kingfisher, 2; Flicker, 25; Red-bellied Woodpecker, 6; Red-headed Woodpecker, 8; Yellow-bellied Sapsucker, 7; Hairy Woodpecker, 8; Downy Woodpecker, 11; Phoebe, 2; Blue Jay, 23; Crow, 23; Carolina Chickadee, 45; Tufted Titmouse, 19; White-breasted Nuthatch, 18; Brown-headed Nuthatch, 7; Brown Creeper, 2; Winter Wren, 13; Carolina Wren, 42; Mockingbird, 7; Brown Thrasher, 3; Robin, 48; Hermit Thrush, 16; Bluebird, 52; Golden-crowned Kinglet, 80; Ruby-crowned Kinglet, 4; Cedar Waxwing, 40; Starling, 58; Myrtle Warbler, 59; Pine Warbler, 6; English Sparrow, 30; Meadowlark, 31; Red-wing, 50; Rusty Blackbird, 2; Grackle, 3; Cardinal, 25; Purple Finch, 50; Pine Siskin, 5; Goldfinch, 46; Towhee, 37; Savannah Sparrow, 2; Junco, 463; Chipping Sparrow, 5; Field Sparrow, 58; White-throated Sparrow, 365; Fox Sparrow, 75; Swamp Sparrow, 190; Song Sparrow, 300. Total, 68 species, about 2594 individuals. Wild Turkey signs noted, several seen in past week. Chipping Sparrow observed at close range. Siskins observed several times this month. Pileated Woodpecker, Great Horned Owl, and Black Vulture present in region but missed today.

-----Arnold Breckenridge
Eugene Odum
Coit Coker
Joe Jones
Thomas Odum

Raleigh: Dec. 20, 8 a. m. to 4:30 p. m., all day. Clear, calm, temperature 26 to 50 degrees. About five-mile radius, including Lake Raleigh, Lake Johnson, Boneyard Lake, Yates' Pond and Boone's Pond. Two parties in morning, on foot and in car, one in afternoon. Pied-billed Grebe, 4; Great Blue Heron, 3; Mallard, 2; Ringnecked Duck, 61; Lesser Scaup, 2; Ruddy Duck, 2; Hooded Merganser, 3; Turkey Vulture, 16; Black Vulture, 39; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 3; Sparrow Hawk, 7; Killdeer, 40; Mourning Dove, 30; Belted Kingfisher, 1; Flicker, 7; Red-bellied Woodpecker, 1; Red-headed Woodpecker, 4; Yellow-bellied Sapsucker, 1; Downy Woodpecker, 9; Phoebe, 2; Blue Jay, 21; Crow, 150; Carolina Chickadee, 24; Tufted Titmouse, 9; White-breasted Nuthatch, 1; Brown-headed Nuthatch, 6; Brown Creeper, 1; Winter Wren, 1; Carolina Wren, 20; Mockingbird, 11; Brown Thrasher, 1; Robin, 25; Hermit Thrush, 13; Bluebird, 45; Golden-crowned Kinglet, 25; Ruby-crowned Kinglet, 9; Pipit, 55; Loggerhead Shrike, 1; Starling, 120; Blue-headed Vireo, 1; Pine Warbler, 25; English Sparrow, 200; Meadowlark, 40; Redwing, 30; Cardinal, 17; Goldfinch, 13; Towhee, 7; Slate-colored Junco, 80; Field Sparrow, 37; White-throated Sparrow, 150; Fox Sparrow, 3; Swamp Sparrow, 10; Song Sparrow, 260; Total 56 species, about 1629 individuals. A Screech Owl was also picked up dead but not counted. Blue-headed Vireo unusual in winter, only other winter dates, Dec. 15, 1885, and Jan. 3, 1891. (C.H.B., R.C. and M.S.J. morning only).

-----J. H. Grey
D. L. Wray
C. S. Brimley
C. H. Bostian
Roxie Collie
Mary Sue Jackson

(Ed. Note: The following late arriving).

Washington: (Along Pamlico River to Runyon's Creek, north along creek for 1 mile; north across town to cemetery then east to same creek, returning each time by a new route) Dec. 26, 9:30 a. m. to 2 p. m.; 3 p. m. to 5 p. m.; early start retarded by rain in early morning. Cloudy entire day; steady, northeast wind in latter half of day; temp. 36° at start, 47° at return. Alone, on foot. Total mileage, about 7; total hours, 6½. Marsh Hawk, 1; Sparrow Hawk, 1; Killdeer, 1; Herring Gull, 4; Ring-billed Gull, 1; Flicker, 1; Downy Woodpecker, 2; Blue Jay, 3; Carolina Chickadee, 8; Tufted Titmouse, 2; White-breasted Nuthatch, 1; Brown Creeper, 2; Carolina Wren, 4; Mockingbird, 3; Robin, 2; Bluebird, 2; Goldencrowned Kinglet, 4; Ruby-crowned Kinglet, 2; Shrike, 1; Starling, 25; Myrtle Warbler, 9; Palm Warbler, 10; English Sparrow, 60; Meadowlark, 45; Rusty Blackbird, 8; Cardinal, 3; Towhee, 1; Savannah Sparrow, 6; Junco, 5; Chipping Sparrow, 10; Field Sparrow, 30; White-throated Sparrow, 70; Fox Sparrow, 15; Swamp Sparrow, 1; Song Sparrow, 25. Total, 35 species, 368 individuals. Flocks of blackbirds, probably Redwings, but identification not positive. Another check-up of same route, Dec. 27, revealed 44 species under better weather conditions. Tern (Sterna, sp.) about Dec. 20. Gulls much more common than this census shows, usually.

-----Joseph D. Biggs,
Washington Field Museum