THE ORIOLE

A Quarterly Journal of Georgia Ornithology; Official Organ of the Georgia Ornithological Society



Vol. XXV

DECEMBER, 1960

No. 4

THE ORIOLE

Student Out-of-State \$2.00; Regular, \$3.00; Garden Club \$5.00; Life, \$50.00; Patron, \$100.00.

Inquiries concerning back issues of THE ORIOLE or OCCASIONAL PAPERS OF THE G. O. S. should be directed to the Business Manager. All dues should be remitted to the Treasurer of the Society.

Mrs. Mary Lou Cypert, President Frank Fitch, Secretary

Business Manager; Ralph L. Ramsey, 814 Drewry St., N. E., Atlanta 6, Georgia

THE ORIOLE

A Quarterly Journal of Georgia Ornithology; Official Organ of the Georgia Ornithological Society

VOL. XXV

DECEMBER 1960

NO. 4

NOTES ON A BREEDING COLONY OF GRACKLES AND SOME RECENT AVIAN INVADERS IN ATHENS, CLARKE COUNTY, GEORGIA

By Francis L. Rose

The Common Grackle, Quiscalus quiscula, is a relatively recent breeder in the Athens area. Burleigh, in 1938, (The Birds of Athens, Clarke County, Georgia. Occas. Paper No. 1, G.O.S.) listed the various grackles as occasional visitors to Athens, appearing with regularity only during the spring migration. He reported that the Florida Grackle, Quiscalus quiscula aglaeus, appeared from time to time in the summer but no nesting activity was observed. In 1951, Hopkins (Oriole, 18:10.1953) observed a colony of breeding grackles along a small creek near Lake Kirota, a two-acre lake adjacent to The University of Georgia campus. However, nesting activity for the species in Athens was thought to have occured as early as June of 1949, when Johnston (Oriole, 15:34-36.1950) collected a female with an enlarged ovary near Lake Kirota.

In the spring of 1960, a study was made on the grackle colony at Lake Kirota. Visits were made to the nesting area on the 11th., 12th., 13th., 18th., 20th., 25th., of April and on the 1st. and 3rd. of May. Twenty three nests were located but only thirteen were in a position to be readily observed. From the nest counts, the total number of breeding pairs of birds was 23. The 23 nests averaged 14 feet (3-40) above the ground, as compared to an average of 12 feet reported by Hopkins for 15 nests. The number of eggs in the nests averaged 4.15 (1-6) with a standard deviation of 1.68.

Of the 54 eggs laid, 38 or 70 per cent hatched, the remainder being destroyed or unfertilized. From the nests observed, 79.5 per cent fledged at least one young or out of the 54 eggs that were laid, 62. 9 per cent fledged. On May 3rd, all the young had left the nests but several remained near-by.

The grackle represents the fourth known species of bird to invade the Athens area in the past twenty years. In 1946, Odum and Burleigh (Auk, 63:389-401) suggested that the Mountain Blue Headed Vireo, Vireo solitarius alticola, and the House Wren, Troglodytes aedon, might be ready to extend their breeding ranges from the mountains to the piedmont

of Georgia. The earliest record of the Mountain Blue Headed Vireo breeding in Athens was noted by Odum, in 1948. However, in 1946, several pairs were found nesting near Macon, on the Piedmont Wildlife Refuge (Oriole, 13:17-20). The House Wren was first reported breeding in Athens in 1951, when several nests were found by Odum and Johnston (Auk, 68:357-366).

It is interesting to note that two of the invaders are Icterids. The first record of the Cowbird, *Molothrus ater*, breeding in Georgia was made by Denton in 1945, when he found a Cowbird egg in an Indigo Bunting nest at Augusta (Oriole, 11:24-27.1946). This bird was breeding in Athens by 1950, when Johnston collected a female with a well developed egg in its oviduct (Oriole, 15:34-36).

Two of the invaders seem very well entrenched in Athens, with the numbers of breeding birds gradually increasing. Earlier this spring I saw large numbers of grackles nesting along the Oconee River and two pairs of House Wrens were seen nesting at the residence of Mr. Fred Birchmore, in Athens. Francis L. Rose, Dept. of Zoology, University of Georgia, Athens, Georgia.

GENERAL NOTES

SABINE'S GULL; AN ADDITION TO THE GEORGIA LIST.—The north end of Tybee Island fronts toward the entrance to the Savannah River, and is both fluvial and marine, as well as with land vegetation acceptable to many passerine birds. It has a goodly population of water birds all the year, and furnishes a landfall for sea-weary stragglers. In about a mile along this beach, over the past few years, it has furnished evidence of the occurrence of at least six species previously unknown in this state ,and others have been seen but not collected.

On October 12, 1960, a specimen of Sabine's Gull (*Xema sabini*), was taken among a flock of terns and gulls. For some days before the weather had been mild and quiet. This bird was a female. I think it was in the second winter plumage. It did not appear to be storm-beaten, and its stomach contained some fragments of small fishes. There was a small amount of subcutaneous fat.

Sabine's Gull is rare along this coast. It is not mentioned in "South Carolina Bird Life" (Sprunt and Chamberlain, 1949), nor in "Birds of Maryland and the District of Columbia" (N.A. Fauna 62, Stewart and Robbins, 1958). Sprunt's revision of Howell's "Florida Bird Life (1954) lists a single oil-soaked specimen found on Daytona Beach, on November 1, 1952, as the only Florida specimen, and further comments, "This as-

tounding occurrence appears to be the single record for the middle and southern Atlantic region."

The irides were very dark colored, the bill almost black, and the legs and feet bluish-gray.

The length, of the bird in the flesh, was 305 mm: of the flattened wing, 255: of the tarsus, 32: while the chord of the culmen from the tip to the feathers, was 25 mm long. This gull has a forked tail, and the outer rectrices were 96 mm long, and the inner ones 76. IVAN R. TOMKINS, 1231 East 50th St., Savannah, Ga. 18 October, 1960.

WILSON'S PETREL OFF TYBEE ISLAND.—A single Wilson's Petrel, Oceanites oceanicus (Kuhl) was seen by the author on June 5, 1960, off Tybee Island. The bird was flying in its characteristic swallow-like manner about a foot above the surface of the water. The weather was clear. There was little swell and almost no wind. When first seen, the petrel was near one of the buoys marking Tybee Roads channel, and was about 3 to $3\frac{1}{2}$ miles offshore. No large vessels were about at the time, and none had been seen earlier that morning.

Burleigh 1 lists but three records for the occurrence of this species in the State. Rossignol's two specimens in the University of Michigan museum, as mentioned by Eyles 2, may be the only ones from Georgia.

The species is, interestingly enough, probably quite common offshore in summer and early autumn. The paucity of Georgia records apparently reflects rare observations rather than an infrequently present species. Wayne 3 considered the bird in South Carolina "a common summer and early autumn visitant off our coast". The collection of 14 individuals of this species "80 or 90 miles off the coast of Carolina" is described, apparently by Wilson, in Brewer. 4

Further observations off the Georgia coast probably will show Wilson's Petrel to be seasonally quite common. Collection would afford documentation.

REFERENCES

- 1. Burleigh, T.D. Georgia Birds. 746pp. Norman: U. Okla. Press, 1958.
- 2. Eyles, D. Wilson's Petrel in Georgia. Oriole III (4): 35-36, 1938.
- 3. Wayne, A.T. *Birds of South Carolina*. 254pp. Charleston: Contrib. from the Charleston Museum, 1910.
- 4. Brewer, T.M. Wilson's American Ornithology with Notes by Jardine. 742pp. Boston: Otis, Broaders, and Co., 1840. George W. Sciple, M. D. P.O. Box 279, Savannah Beach, Georgia December 5, 1960.

April 20, 1960, while conducting a transect census of birds in a swamp forest south of Baton Rouge, East Baton Rouge Parish, Louisiana, I observed a Swainson's Warbler (Limnothlypis swainsonii) in the act of preening and sunning. Presently I saw the bird scratch its head in the "direct" manner, bringing its left foot forward under the wing. The other type of head scratching is termed "indirect," with the wing drooped somewhat and the foot brought forward over it. The warbler did not remain in view for more than a couple of minutes, and I did not see it scratch again. Nice and Schantz (Auk, 76: 339-342, 1959) have reviewed the subject of head-scratching movements in birds, stating (p. 341) that "striking variety in head scratching has been found in the family Parulidae." They specify that "12 species of 4 genera (Dendroica, Geothlypis, Wilsonia, Setophaga) have been seen scratching over the wing only; 7 species of 5 genera (Helmitheros, Vermivora, Seiurus, Icteria, Wilsonia) under the wing only, while 6 species of 3 genera (Dendroica, Seiurus, Wilsonia) have been watched carrying out both methods." Thus, Limnothlypis may be added, even though tentatively, to the second of these three categories.—ROBERT A. Norris, 427 Eureka Street, San Francisco 14, California. Dec. 1, 1960.

AVOCET AT SEA ISLAND.—A business meeting took me to the Cloister on Sea Island, Georgia, October 28 and 29. I spent ten hours in the field, listing 40 species ranging from brown pelican to one yellow-bellied sapsucker. The beach in front of the hotel was quiet and there were few birds in either direction.

On Saturday, October 29, I walked south along the beach and reached Gould's Inlet at five P.M. Here, on a mud flat, were no less than 500 sanderlings, huddled together as though settled down for the night. A hundred yards away was a mixed flock of at least one thousand herring gulls, ring-billed gulls and common terns.

Standing on the sand well out of the water and quite aloof from the two flocks was a bird with a bill curving upward. As I approached, the sanderlings, gulls and terns dispersed with a loud chorus of angry complaints. The lone bird allowed me to approach within fifteen feet. It was readily recognizable as an avocet (*Recurvirostra americana*) and I studied it for twenty minutes. When I approached within six feet, it flew lazily away to a spot no more than fifty yards off. There it settled and allowed me to approach again. The screaming gulls did not disturb the avocet in the least.

The black and white back pattern was plainly evident, and the size and upcurved bill made it easy to identify. The upper part of the neck was a dull gray, with no trace of the chestnut color from spring. However, the black and white contrast was not as sharp and vivid as shown in my bird books, and this avocet was a rather drably marked bird. I watched it until the light failed. It made no attempt to feed, nor did it move from the spot it had flown to.

THE ORIOLE

Walking back to the hotel, I was able to add two black-bellied plovers and one ruddy turnstone to my list. As far as I can determine, the avocet has been seen on neighboring St. Simon's Island, but never on Sea Island previously.—Louis C. Fink, 1060 Canter Road N. E., Atlanta 5, Georgia.

CATTLE EGRET ON GEORGIA MAINLAND.—On April 22, 1960, Dr. Eugene P. Odum and members of his Ornithology Class observed several Cattle Egrets (*Bubulcus ibis*) feeding in a pasture with cattle located on Georgia Highway 99 approximately one mile south of U.S. Highway 17 in McIntosh County.

On August 30 and September 16, 1960, I observed approximately 25 Cattle Egrets in a pasture with cattle one mile south of Townsend, Georgia, some six miles further inland on Highway 99.

The Cattle Egret was first observed in Georgia on Sapelo Island, (Teal, J.H. The Oriole XXI:33, 1956). As far as I know these are the first recorded observations of the Cattle Egret on the Georgia mainland. Herbert W. Kale II, Department of Zoology, University of Georgia, Athens, Georgia.

SOME ANTICS OF A PIGEON HAWK.—On the outskirts of Columbus is the 1500 acre tract of the W. C. Bradley Company which lies between the River and Hamilton Roads. With the exception of a few woods and lakes, it is devoted to pasture. Entering from the southwest on the morning of October 8th, 1960, we noted several flocks of starlings, English sparrows, and pigeons alternately feeding and circling.

Beneath one of these flocks was a small dark falcon that circled with the pigeons, adjusting his speed to theirs, flying with them but at all times just a foot or two beneath them. They settled over a rise and when we again came upon them a pigeon Hawk (*Falco columbarius*) and a Sparrow Hawk were perched in a dead tree nearby.

The Sparrow Hawk flew and was immediately chased and overtaken by the other hawk three times in mid-air over a distance of about 150 yards. At each nudge the Sparrow Hawk would veer away sharply but would again be overtaken until the Pigeon Hawk abandoned the chase and resumed his perch in the tree from which the flight began. The attitude of the Piegon Hawk seemed to be one of playfulness. At no time did he appear to extend himself. No feathers were seen to be shed and no

vocal sound was heard. Sue Chambliss and L. A. Wells, Columbus, Georgia, Dec. 20, 1960.

NOTES ON A SUCCESSFUL BLUEBIRD NEST.—Opportunity for careful observations of a Bluebird nest in my yard provided information which may be of permanent interest. April 10, 1960. I put the birdhouse up. Within 15 minutes three Bluebirds inspected it inside and out.

May 29. A pair of Bluebirds selected the house. The male started taking in twigs and straw, but also removed some materials. The following day the nest construction was continued by the male while the female sat on the nearby eaves trough to watch. At noon on each day the work stepped and the birds left the yard.

June 6. The nest appeared to be completed, and 6 to 8 Bluebirds swarmed around the house, some even went inside.

June 7. First egg was laid. For the next three days the female was seen in the house and looking out the door.

June 10. The male took food to the female, feeding her at the door as she incubated.

June 17. The female left the nest for not more than 10-12 minutes at a time. The male was not seen around the house more than once or twice a day during incubation.

June 18. The young have hatched; 12-13 days of incubation were thus required. Both parents feed the young. From about 9 A.M. until Noon the feeding is very frequent, but in the afternoons the young are fed less often. Insects of many kinds are taken to the nestlings, being gathered by the parents from trees and bushes as well as from the ground.

When an adult arrives with food it goes inside the house, feeds the young, then puts its head out the door for a short interval before flying away. Immediately the other parent flies up, but never does a collision occur. Both birds remove waste materials from the nest, almost at every feeding.

June 30. First heard the chirping of the nestlings.

July 4. Young put heads out the door.

July 6. Young left the nest, and no birds seen around the house. At dusk two Barred Owls were in the yard, and the parent Bluebirds were greatly excited. But the young were not seen. The young were in the nest 18 days. Burdette L. Bowman, 2980 Habersham Way, N.W., Atlanta 5, Georgia. July 15, 1960)

ANHINGA NOTES.—On October 22, 1960 a female Water Turkey (*Anhinga anhinga*) was observed in company with four tame Muscovee ducks

on an open farm pond near Osierfield, Irwin County, Georgia. I have had the habit of feeding bread to the ducks on this pond from a dock over the water and in the scramble for bread crumbs hundreds of small bream are attracted. Apparently the Anhinga was attracted to these small fish which always stir up the water nearby. At the time of the first observation the bird swam off rapidly with only its neck and head above the surface of the water. After swimming out into the pond for approxmiatley thirty yards the bird took to the air and soared at about three to five hundred feet for over thirty minutes.

The Anhinga has been noted several times since this first observation but has not taken to the air during the last few times. This morning, October 13, the bird jumped from the bank near the dock and disappeared under the surface of the water. She reappeared approximately fifty yards out in the pond after staying under the water for 70 seconds. The pond is clear of most obstructions so observations of her movements were easily made. On three subsequent dives the bird remained under water for 30 seconds, one minute and 45 seconds, and once for several seconds over two minutes. The length of time under water had no relation to the distances which she covered. Apparently the bird did much wandering around beneath the surface of the water. At one time the Anhinga passed within three feet of the dock and could easily be seen swimming approximately twelve inches beneath the surface. During these observations the bird caught one small bream and swam with the fish crosswise in her mandibles for several seconds before swallowing it. When I left the pond she was sitting on a small stump forty yards from the dock, preening her feathers.

My previous experience with this species has been in rather extensive cypress swamps and at much greater distances. MILTON HOPKINS, JR. Fitzgerald, Georgia, Oct. 31, 1960.

FROM THE FIELD

John F. Brannen III of Savannah reports a Sooty Tern approximately 35 miles from that city near Stilson. The bird was picked up alive on Sept. 12, 1960 after a hurricane had passed. W. A. and Roberta Wells of Columbus report a pigeon hawk record first on October 8. The bird was last seen on November 15. Other interesting species noted by the Wells are as follows: Herring Gulls in flocks of 35 on Lake Oliver and much larger flocks were noted on Lake Harding, twenty-four Black Terns on September 24, Philadelphia Vireo on October 13, a July 3 record for two Black and White Warblers, three Orange-crowned Warblers in October,

Ovenbird on July 28, Horned Grebe on November 11 and Nov. 15, Ringbilled Gull on three occasions in November and a Bonaparte's Gull on Oct. 16 and 20, Rose-breasted Grosbeak from Oct. 3 thru 20 and over ten additional species of warblers indicating a good amount of field work in that region.

Milton Hopkins Jr. noted the American Merganser on Nov. 12, a pair of Ruddy Ducks on Nov. 17, Horned Grebe on Nov. 26, and the Hooded Merganser in groups of 5 to 12 throughout December. All of these birds were on farm ponds near Osierfield, Georgia. He also note a single Pigeon Hawk within the city limits of Nashville, Georgia on Nov. 6th.

NEWS AND COMMENTS

MINUTES OF THE FORTY-THIRD SEMI-ANNUAL MEETING OF THE GEORGIA ORNITHOLOGICAL SOCIETY

The 43rd semi-annual meeting of the G.O.S. was held at Herty Hall, Georgia Southern College, Statesboro, Georgia on October 14, 15, 16, 1960. Registration was handled by Mr. Tully Pennington and Dr. Sara Nelson. An informal meeting was held Friday night at Herty Hall.

Field trips were held at 7:00 a.m. on Saturday and on Sunday mornings, leaving from Bryants Motel.

The business meeting was opened at 2:00 p.m. on Saturday by President Mary Lou Cypert. Minutes as taken by Alma Cooke were approved as read. Katherine Weaver gave a treasurers report, which was approved as read.

President Cypert called for reports of the Regional Vice-Presidents. Those present made short reports.

President Cypert called for a report from the committee on Hawks and Owls. As Mrs. Oliver was not present Mrs. Cypert read a letter from Fulton Lovell, Director, Georgia Game and Fish Commission, in reply to the committee. As further unfinished business, President Cypert stated that the Executive Board recommended that the membership join the Georgia Sportsmen's Federation. Discussion followed and a motion was made and carried to join.

President Cypert opened a discussion of the proposed Newsletter. This would be called Oriole Chirps. Deadlines were set as December 1, and suggestion made to send material to Mrs. Louise Nunnally. Mr. Milton Hopkins, Editor of Oriole, was asked to discuss *The Oriole*, which he did briefly.

The president stated that Ralph Ramsey was in charge of literature,

stationery, etc. She also stated that 10 cents should be added for anything that had to be mailed.

THE ORIOLE

Mrs. Hedvig Cater read a report of a careful field observation which she and Alma Cooke had made near Macon. They believed it to be a Ruff, and it was suggested that it be placed on the Hypothetical List.

President Cypert announced the Spring Meeting will be in Athens at the University of Georgia, in the new Science Center and the fall meeting at Calloway Gardens.

As new business, Harold Peters told of work being done by Dave Johnston in the field of Atomic Energy use. He told of the upcoming meeting of Audubon Society, and some work being done by this organization. A suggestion was made to send Mrs. Oliver a note of appreciation for her work in behalf of hawks and owls.

The meeting adjourned until the banquet, which was held in the Dining Hall, Georgia Southern College. After the banquet, members were entertained by an interesting slide-illustrated talk by Ivan Tompkins and Mr. and Mrs. Harold Peters on their trip to Mexico.

Frank Fitch, Jr. Secretary

RECENT LITERATURE

The Wonders I See.—by John K. Terres. 1960, J. B. Lippincott Co., Philadelphia and New York, 256 pp. \$5.00.

John Terres is at the present time editor of *Audubon Magazine*, a charter member of the Wildlife Society and associate member of many other natural-history societies.

This book represents a collection of highlights from his journal and recollections of over forty years of field experiences. It is arranged in an annual cycle fashion with several wildlife observation experiences of the author being recorded for each of the months of the year in short stories.

Most of the accounts concern ordinary happenings in the wild that, however, have extraordinary meanings when interpreted by a trained naturalist. For instance the account beginning on P. 238 and entitled "Where Do Birds Sleep at Night" was an interesting story. Many of us have some idea as to the whereabouts of birds at night but how many of us have watched different species go to rest at the end of the day? Mr. Terres has done this many times.

A few of the sections such as the account on P. 214, "McAtee, Food Analyst of the Birds" departs from the wildlife happenings to tell a short story of the work of W. L. McAtee, a former government biologist. The different sections deal with trees, birds, animals, insects, and many other forms of wildlife.

The book has 15 drawings by Walter Ferguson, a selected list of useful references, and an index.

In the closing chapter Mr. Terres discusses in brief the ecological and social relationships of birds and animals and the age old law of the "survival of the fittest". In quoting one of his fitting remarks, he says: "There is no cruelty in nature. Cruelty is only in mankind, whose torment of other creatures, including his own kind, is directed by an intelligence which recognizes his own behavior as cruel."

This book will interest both the naturalist and the layman and might serve to encourage the former to minutely record some of his "red letter" days in the field.

Pocket List of Georgia Birds.-by Ivan R. Tomkins. 1960, Georgia Ornithological Society, 814 Drewry St. N. E., Atlanta 6, Georgia 57 pp.

Within the confines of a 4x6 inch format Mr. Tomkins has listed 342 species and subspecies of Georgia birds on 57 pages. He has included information in brief concerning the bird's relative abundance and statewide distribution. Each page contains a listing of about six species and the page facing it has been left blank for notes that one might wish to enter regarding a particular species. The breeding status of most of the birds is also indicated.

The checklist is printed on good paper and well bound. It will stand many a trip into the field and in my opinion is far superior to the single card type of field list in that several trips notes can be located under one cover. In species or subspecies cases where occurence is doubtful or unusual Mr. Tomkins has indicated as to whether the record is based on collection or sight observation. Considering the many uses and the price of \$.50 it is a good buy and Georgia birders as well as those of neighboring states could put several copies to good use. Milton Hopkins, Jr.

AUTHOR-SPECIES INDEX TO THE ORIOLE VOLUME: XXI-XXV, 1956-1960

BELL, GLENN W. Barn Swallows again nesting in North Georgia, XXIV, 25 Wood Ibis in North Georgia, XXIV, 25-56

Mockingbird invades North Georgia, XXIV, 26

BLACK, GLADYS B. A Western Tanager at Warner Robins, Georgia XXI,

— Unusual feeding habits of the Purple Finch, XXII, 18-19.

BOWMAN, BURDETTE L. Notes on a successful Bluebird nest, XXV, 48.

BOYD, EMMA F. First record of the Solitary Vireo nesting at Atlanta, XXIII, 43-44.

BURLEIGH, THOMAS D. Geographic variation in the Catbird, XXIV, 29-32. BUSH, FRANCIS M. and KALE, Herbert W. The Saw-whet Owl at Wat-

kinsville, Georgia, XXIII, 44. CATER, HEDVIG S. Midwinter observations from the Warner Robins Area,

Wintering Horned Larks in Houston County, XXIII, 33-34.

Baltimore Orioles at Warner Robins, XXIII, 34-35.

Notes from the Macon-Warner Robins area, XXV, 6-8.

CATER, MR. AND MRS. TOM J. JR. and JOHNSTON, DAVID W. Lapland Longspurs at Warner Robins, XXIV, 26-27.
COLLUM, CHARLES E. Spring notes from Atlanta, XXIII, 34.

—An account of a goose near Atlanta, XXIV, 15.

COLLUM, CHARLES E. and KALE, HERBERT W. II American Avocet at Milledgeville, Georgia, XXIII, 44-45.

COOKE, M. ALMA Fox Sparrows at Macon, XXV, 9.

See Snow, Marene W.

1960

COOLIDGE, HERMAN W. Unusual behavior of a Chuck-Wills-Widow, XXIII, 45-56.

CROSS, WILLIAM H. A survey of Boat-tailed Grackle nests on Sapelo Island, Georgia, XXI, 9.

CYPERT, EUGENE. Large winter population of Sandhill Cranes on Okefenokee National Wildlife Refuge, XXII, 21-22.

—An observation of the Limpkin near Albany, XXII, 28-29.

-Snow Goose in the Okefenokee Swamp, XXII, 40.

-The relation of water level to populations of Common Egrets in the Okefenokee Swamp, XXIII, 9.

Kirtland's Warbler on St. Simon's Island, XXIV, 38-39.

CYPERT, EUGENE and HEBARD, FREDERICK V. Cattle Egret observed at Okefenokee, XXV, 23-24.
DENTON, J. FRED. Occurrence of the Whip-Poor-Will in Lincoln County,

Georgia, XXI, 33-34.

The Robin in summer in East-Central Georgia, XXI, 34-35.

The Ruddy Turnstone and Black-Bellied Plover at Clark Hill Reservoir in Georgia, XXIII, 22-23.

Summer birds of the Lake Conasauga-Grassy Mountain area in Georgia,

XXIII, 26-31. The occurrence of the Tennessee and Blackburnian Warblers in Richmond County, XXIII, 32.

The Evening Grosbeak at Thomson, McDuffie County, Georgia, XXIII,

-Lapland Longspurs again wintering at Augusta, XXIII, 35-36.

-Another Record of the White-winged Scoter at Augusta, XXIII, 37.

A further note on the breeding of the Cowbird in Richmond County,

Recent fluctuations in the numbers of birds breeding in the McKinney's Pond Heronry, XXIII, 41-43.

The Evening Grosbeak at Augusta, Georgia, XXV, 8.

DEVINEY, EZDA. Unusual nesting site of the Red-bellied Woodpecker, XXII, 29.

DORSEY, GEORGE A. Wood Ibis seen in the Atlanta region, XXI, 31-32. Partial albino Indigo Bunting at Rome, XXI, 32.

Red-necked Grebe at Rome, XXIII, 22. -Yellow-headed Blackbird at Rome, XXIII, 45.

DUPRE, W. A. Osprey catches a Wood Duck, XXI, 11.

FINK, LOUIS C. Unusual ducks from Atlanta, XXIII, 44.

Large flock of Redheads at Atlanta, XXV, 4.

-1959-1960 Winter reecords in Georgia of the Evening Grosbeak, XXV,

-Avocet at Sea Island, XXV, 46.

FITCH, FRANK W. JR. Songbird kill from the big freeze, XXIII, 3.

```
Evening Grosbeaks at Rock Eagle, XXIII, 4.
GARDNER, BLANCHE. The Bewick Wren Breeding in North Georgia, XXI,
GRIFFIN, WILLIAM W. Unexpected birds killed at Atlanta ceilometers, XXI, 21-22.
    Isaac Flood Arnow, XXII, 13-16.
GRIFFIN, WILLIAM W. and McLEAN, ANNETTE. A Whooping Crane
    from Macon, XXII, 30.
GROSMANN, MRS. LOIS HAFFORD, Lawrence's Warbler at Waycross,
HAINES, T. P. Black Gallinule at Macon in winter, XXI, 20.
    -Observations on a pair of Red-headed Woodpeckers, XXV, 35.
HAM, PHILIP M. Wintering Baltimore Oriole at Rome, Georgia, XXI, 8.
HAMILTON, MRS. R. E. Dickcissels Nesting in Murray County, XXI, 30-31.
    -Unusual nest of the Green Heron at Dalton, XXIV, 15-16.
HAMILTON, ANNE AND R. E. Checklist of birds of the Dalton, Georgia
area with occurrence extremes, XXV, 13-23.
HARRIS, LUCIEN JR. Sight record of a Limpkin near Atlanta, XXI, 35.
HEBARD, FREDERICK. V. Okefenokee birdlife after the fires of 1954 and
     1955, XXII, 1-2.
    See Cypert, Eugene.
HIGHT, GORDON L. JR. Evening Grosbeaks in Floyd County, Georgia,
     XXI, 46.
HOPKINS, MILTON N. JR. The status of the Brewer Blackbird in the
  Fitzgerald, Georgia region, XXI, 16-18.

A note concerning a hawk feeding with vultures, XXI, 20.
    -Land usage and birds, XXIII, 1-2.
    Buff-breasted Sandpiper in Irwin County, XXIII, 3-4.

Notes on nesting Grackles, XXIII, 4-5.

Life history notes concerning the Ground Dove, XXIII, 5-6.
     Notes on habitat choices of transient Marsh Wrens, XXIII, 47-48.
     Notes from the Fitzgerald Region, XXIII, 48.
     Review by, XXIV, 48-44.

Board-winged Hawk nesting in Irwin County, XXV, 25-26.
     -Review by, XXV, 28
    Review by, XXV, 40-42.

Anhinga notes, XXV, 48-49.
    -Reviews by, XXV, 52.
 JOHNSON, DAVID W. Observations from Macon and vicinity, XXI, 7-8.
    Review by, XXI, 12.
Review by, XXI, 24.
    -Average date of arrival of spring migrants at Macon, Georgia, XXI,
     -Kites in the Macon area, XXII, 16-18.
-Review by, XXII, 24.
     Reviews by XXII, 31-32.
     -Bird mortality in Georgia, 1957. XXII, 33-39.
     Reviews by, XXII, 42.
Reviews by, XXIII, 11-12.
     -A Specimen of the Bald Eagle from Screven County, XXIII, 22.
     -Review by, XXIII, 52.
     The McKinney's Pond heronry in 1959, XXIV, 27-28
-See Cater, Mr. and Mrs. Tom J. Jr.
     -Review by, XXIV, 28
     -Late summer observations from Rabun County, Georgia, XXIV, 32-36
```

A Horned Grebe at Lincolnton, XXII, 41. Early nesting of the Mockingbird at Athens, XXIII, 10. Pomarine Jaegers near Sapelo Island, XXIV, 25. See Bush, Francis M. See Collum, Charles E. Cattle Egret on Georgia mainland, XXV, 47. KALE, HERBERT W. II. and TEAL, JOHN M. Royal tern nesting on Little Egg Island, XXIII, 36-37.
McATEE, W. L. Eugene Edmund Murphey, XXIII, 13-21.
McLEAN, ANNETTE. See Griffin, William W. McKAY, HATTIE E. Painted Bunting on the Piedmont of Georgia, XXI, 31. MOORE, ROY. Pine Siskins in Waycross, Georgia, XXIII, 5. NICHOLS, EDWARD G. Brown-headed Nuthatch in Habersham County, XXIV, 39. -House Wrens nesting in Habersham County, XXV, 36. NORRIS, ROBERT A. Introduction of exotic game birds in Georgia, XXI, Are male Pine Warblers significantly heavier than females?, XXI, 18-19. On the appraisal of fat condition in birds, XXII, 2-9. The Blue Jay as an imitator of hawks, XXII, 19-20. — Method of head scratching in the Swainsons Warbler, XXV, 46. NUNNALLY, LOUISE. New Birds added to Floyd County list, XXIV, 38. ODUM, EUGENE P. Mass invasion of Evening Grosbeaks at Athens, XXV, -A fourteen year old Blue Jay at Athens, XXV, 5-6. -See Robert, Henry C. PARKS, RICHARD A. Nashville and Mourning Warblers at Atlanta, XXI Philadelphia Vireo and Yellow-bellied Flycatcher at Atlanta, XXI, 46-47. Little Blue Heron rookery in Monroe County, Georgia, XXII, 20-21. - Seasonal notes from Atlanta, XXIII, 46-47. Brown-headed Cowbird breeding at Atlanta, XXIII, 48-49. PETERS, HAROLD S. Chimney Swift mortality in Atlanta, XXIII, 7-8. ROBERT, HENRY C., TEAL, JOHN M., and ODUM, EUGENE P. Summer birds of Sapelo Island, Georgia: A preliminary list, XXI, 37-45. RODDY, MARGARET, See Snow, Marene W. ROSE, FRANCIS L. Notes on a breeding colony of Gracklers and some recent avian invaders in Athens, Clarke County, Georgia, XXV, 43-44. SCIPLE, GEORGE W. Wilson's Petrel off Tybee Isand, XXV, 45. SHAUGHNESSY, WINSLOW M. Belligerency in a grebe, XXV, 8-9.
SNOW, MARENE W. Evening Grosbeaks in the Atlanta area, XXI, 19.

Louisiana Heron and White Ibis in the Atlanta area, XXV, 34. SNOW, MARENE W., COOKE, M. ALMA, and RODDY, MARGARET. White-rumped Sandpiper at Atlanta, XXII, 29.
SNYDER, L. L. "Collect the bird", XXIV, 21-25.
STEVENSON, HENRY M., Additions to the summer birds of Lookout Mountain XXII, 25-28. TEAL, JOHN M. The Cattle Egret in Georgia, XXI, 33.

—Further notes on the Cattle Egret in Georgia, XXIII, 8 Additions to the breeding birds of Sapelo Island, XXIII, 8. Birds of Sapelo Island and vicinity, XXIV, 1-14. Birds of Sapelo Island and vicinity, XXIV, 17-20. See Kale, Herbert W. II. ——See Robert, Henry C. TOMKINS, IVAN R. Bird notes from Chatham County, Georgia, XXI, 9-11. Blue Jay regurgitating food for the young, XXI, 31. -An Avocet in Long County, Georgia, XXI, 32.
-Robin nesting in Savannah, XXII, 40.

-A Georgia Specimen of the White-winged Scoter, XXIV, 27.

-A second Georgia specimen of Wilson's Phalarope, XXIV, 37-38.

——Anna Stowell Bassett, XXV, 1-2.

-A migration wave of Spotted Sandpipers, XXV, 36. -Sabine's Gull; An addition to the Georgia list, XXV, 44.

WALKINSHAW, LAWRENCE H. My second Okefenokee visit, 1960, XXV,

WEAVER, KATHERINE. Wintering Baltimore Oriole at Milledgeville, XXIII, 7.

WELLS, L. A. Mississippi Kites breeding in Muscogee County, Georgia XXIV, 36-37.

-Cowbirds breeding in Muscogee County, Georgia, XXV, 26.

--- Migration note on Chestnut-sided Warblers in Muscogee County, XXV,

Some antics of a Pigeon Hawk, XXV, 47-48.

WERNER, RAY C. Notes on a nesting Tufted Titmouse, XXIII, 32. WESTON, FRANCIS M. Review by, XXIII, 39-40.

WEST, ADELE H. The birds of Chickamauga National Military Park at Fort Oglethorpe, Georgia, XXI, 13-16.

WHITEMAN, GRACE M. Some nesting records from the West Point, Georgia area, XXV, 3-4.

WITTER, S. C. The Sandhill Crane at Kingsland, Georgia, XXI, 3 Seasonal notes from Kingsland, XXIII, 3.

Anhinga, XXI, 8,11,39; XXII, 1; XXIII, 41-43; XXIV, 2, 28; XXV, 48-49.

Avocet, American XXI, 32; XXII, 9, 15 XXIII, 44; XXV, 46.

Baldpate, XXI, 8; XXII, 41; XXIII, 49; XXIV, 7; XV, 15

Bittern, American, XXII, 10; XX-III, 2,; XXIV, 6,; XXV, 14 Least, XXI, 8,40,; XXIII, 50; XXIV, 14; XXV, 14

Blackbird, Brewer, XXI, 16-18 Red-winged. See Red-wing Rusty, XXV, 22 Yellow-headed, XXIII, 45

Bluebird, Eastern, XXI, 43; XXII, 44; XXIII, 3; XXIV, 5; XXV,

Bobolink, XXI, 8; XXII, 35; XXIV, 14; XXV, 21

Bobwite, XXI, 14,40; XXII, 44; XXIV, 3; XXV, 16

Bufflehead, XXII, 9,10; XXIV, 7,16; XXV, 15

Bunting, Indigo, XXI, 1,28,32; XXII, 9, 35; XXIII, 31; XXIV, 14; XXV, 22 Painted, XXI, 31, 38, 43; XX-III, 10; XXIV, 19

Brant, American, XXI, 9

Buzzard, See Vulture

Canvas-back, XXII, 41; XXIV, 7; XXV, 9; XXV, 15

Cardinal, XXI, 38, 43; XXII, 1, 10, 35, 44; XXIV, 6; XXV, 22

Catbird, XXI, 28; XXII, 10, 44; XXIII, 29; XXIV, 5, 29-32, XXV. 19

Chachalaca, XXI, 3, 38, 40; XXIV,

Chat, Yellow-breasted, XXI, 28, 43; XXII, 10,35; XXIII, 31; XXIV, 19, 35; XXV, 21

Chickadee, Carolina, XXI, 39, 42; XXII, 44; XXIII, 29; XXIV, 5; XXV, 18

Chuck-will's-widow, XXI, 14, 15, 41; XXII, 26; XXIII, 45-46; XXIV, 18; XXV, 17

Coot, XXI, 44; XXII, 42, 44; XXIII, 2; XXIV, 8; XXV, 16

Cormorant, Double-crested, XXII, 41; XXIV, 6

Cowbird, Brown-headed, XXI, 45; XXII, 27; XXIII, 37, 38, 48, 49; XXIV, 11; XXV, 22, 26, 44

Crane, Sandhill, XXI, 7, 11, 32, 46; XXII 21, 22, 24, 40, 41, 42; XXIII, 24; XXIV, 44, XXV, 10, 24, 25 Whooping, XXII, 30

Creeper, Brown, XXV, 18

Crossbill, American, XXII, 15 Common, XXII, 44; XXIII, 28; XXIV, 5; XXV, 18

Crow, American, XXII, 42 Common, XXII, 44; XXIII, 28; XXIV, 5; XXV, 18 Fish, XXI, 28, 42; XXIII, 36; XXIV, 5

1960

Cuckoo, Black-billed, XXII, 34; XXIII, 28; XXIV, 13; XXV, 17 Yellow-billed, XXI, 28, 41; XXII, 4, 5, 34; XXIII, 28; XX-IV, 18; XXV, 17

Curassow, Central American, XXI,

Curlew, Hudsonian, XXI, 44 Long-billed, XXIV, 12

Dickcissel, XXI, 15, 22, 30; XXII, 35; XXV, 22

Dove, Ground, XXI, 8, 41; XXII, 32; XXIII, 5, 6; XXIV, 4 Mourning, XXI, 14, 41; XXII, 34, 44; XXIV, 4; XXV, 10, 17

Dowitcher, XXI, 44; XXII, 42; XXIII, 38; XXIV, 37, 38; XXV, 7, 10 Long-billed, XXI, 10 Short-billed, XXIV, 12

Duck, Black, XXI, 22; XXII, 41; XXIV, 6, 7 Scaup, XXII, 41; XXIV, 7 Greater Scaup, XXI, 1, 9; Lesser Scaup, XXII, 44; XXIII, 24; XXV, 15 Ring-necked, XXII, 10, 41, 44; XXIV, 7; XXV, 15 Ruddy, XXII, 36, 41; XXIV, 7; XXV, 15,50 Wood, XXI, 11; XXII, 1, 26, 44; XXIII, 1; XXIV, 12; XXV,

15 Dunlin, XXIV, 9

Eagle, Bald, XXI, 22, 40, 44; XXII, 42; XXIII, 22; XXIV, 3; XXV,

Egret, American, XXI, 8; XXII, 1 Common, XXI, 39, XXIII, 9, 41, 43; XXIV, 2, 27, 28; XXV, 6. 14 Cattle, XXI, 33, 38; XXIII, 8; XXIV, 14; XXV, 23, 24, 47. Snowy, XXI, 8, 33, 39; XXIII, 38; XXIV, 28

Falcon, Peregrine. See Hawk, Duck

Finch, Purple, XXI, 14; XXII, 18, 19; XXIII, 10; XXIV, 14; XXV, 10, 22, 37

Flicker, Yellow-shafted, XXI, 39;

XXII, 34, 44; XXIII, 28; XXIV, 10; XXV, 17, 24, 35

57

Flycatcher, Acadian, XXI, 28, 42; XXII, 34; XXIV, 18; XXV, 17 Alder, XXI, 14, 21 Crested, XXI, 28, 42; XXIII, 28; XXIV, 18; XXV, 18 Least, XXI, 34; XXIII, 46 Olive-sided, XXIII, 46, 50 Scissor-tailed, XXI, 38, 45; XXIV, 19 Traill's, XXII, 34 Yellow-bellied, XXI, 46; XXII, 34

Fowl, Guinea, XXI, 2

Gadwall, XXIII, 44; XXIV, 7; XXV, 15 Gallinule, Common, XXI, 20, 41; XXII, 34; XXIII, 2, 24; XXIV, 4; XXV, 16, 26 Purple, XXI, 35, 40; XXIV, 17; XXV, 16, 37

Gannet, XXIV, 6

Gnatcatcher, Blue-gray, XXI, 14, 28, 43; XXIV, 18; XXV, 19, 27 Godwit, Marbled, XXI, 44; XXIV,

Goldeneye, American, XXIII, 44

Common, XXIII, 10; XXV, 9, 15 Goldfinch, American, XXI, 14; XXII, 44; XXIV, 11; XXV, 22

Goose, Blue, XXI, 11; XXII, 9; XXIII, 50; XXIV, 12, 44; XXV, Canada, XXII, 9, 44; XXIV, 12; XXV, 9, 14 Snow, XXII, 40; XXV, 9, 10 White-fronted, XXIV, 15; XX-V, 15

Grackle, Boat-tailed, XXI, 9, 43; XXIV, 6. Purple, XXII, 1, 44; XXIII, 3, 4, 5; XXIV, 11, 33; XXV, 22, 43, 44.

Grebe, Holboells, XXII, 15 Horned, XXII, 10, 41; XXIV, 6; XXV, 10, 50 Pied-billed, XXI, 44; XXII, 34, 44; XXIII, 2, 48; XXIV, 6, 16; XXV, 10

Red-necked, XXIII, 22 Grosbeak, Blue, XXI, 14, 15, 28, 30; XXII, 27, 35; XXV, 22
Evening, XXI, 7, 8, 19, 46; XXIII, 4, 10, 33; XXIV, 14; XXIII, 4, 10, 33; XXIV, 14; XXV, 4, 5, 6, 7, 8, 9, 10, 22, 29, 33, 37

Rose-breasted, XXII, 35; XX-III, 31; XXIV, 16; XXV, 22, 50 Grouse, Ruffed, XXI, 14; XXIII, 27; XXIV, 36

Gull, Bonaparte's, XXIV, 10; XXV, Herring, XXI, 11, 45; XXII, 42; XXIII, 2, 22; XXIV, 10; XXV, 6, 17, 50 Laughing, XXI, 45; XXIV, 17 Ring-billed, XXI, 11, 45; XXII, 42, 44; XXIII, 22; XXÍV, 10; XXV, 9, 17, 50 Sabine's, XXV, 44.

Hawk, Broad-winged, XXI, 28; XXII, 19, 20; XXIII, 27, 49; XXV, 16, 25, 26 Cooper's, XXI, 40; XXII, 19, 44; XXIV, 3; XXV, 16 Duck, XXI, 14; XXII, 44; XX-Fuertes Red-tailed, XXII, 15 Krider, XXII, 9, 15 Marsh, XXI, 15; XXII, 44; XXIV, 8; XXV, 16 Pigeon, XXII, 32; XXIV, 8; XXV, 47, 48, 50. Pigeon, Western, XXII, 15 Red-shouldered, XXII, 1, 19, 20, 44; XXIV, 12, 37; XXV, 16 Red-tailed, XXI, 20, 40; XXII, 19, 44; XXIV, 3; XXV, 16 Sharp-shinned, XXIV, 8; XXV, Sparrow, XXII, 44; XXIV, 8;

XXV, 16, 24, 48 Heron, Black-crowned Night, XXI, 40; XXIV, 14; XXV, 14 Great Blue, XXI, 39; XXII, 44; XXIV, 2; XXV, 14 Green, XXI, 28, 40; XXII, 1, 25, 26; XXIII, 41, 43; XXIV, 15, 16, 28; XXV, 14 Little Blue, XXI, 40; XXII, 20, 21; XXIII, 41, 42, 43; XXIV, 2, 28; XXV, 14, 34 Louisiana, XXI, 39; XXIII, 8; XXIV, 2; XXV, 34 Yellow-crowned Night, XXI, 40; XXIV, 14; XXV, 14

Hummingbird, Ruby-throated, XXI, 28, 42; XXII, 6, 7; XXIII, 28; XXIV, 18, 34; XXV, 17

Ibis, Glossy, XXIV, 19 White, XXI, 44; XXII, 42; XXIII, 8; XXIV, 17, 28; XXV, Wood, XXI, 8, 31, 32, 44; XX- IV. 17, 25

Jaeger, Parasitic, XXI, 10; XXIV, Pomarine, XXIV, 9, 25

Jay, Blue, XXI, 18, 31, 39; XXII, 19, 20, 44; XXIII, 28; XXIV, 5, 35; XXV, 5, 6

Slate-colored, XXI, 15; XXII, 4, 44; XXIII, 3; XXIV, 14, 33; XXV, 23 Carolina, See Junco, Slatecolored

Killdeer, XXII, 26; XXIII, 22, 34; XXÍV, 8; XXV, 3, 6, 16, 27

Kingbird, Eastern, XXI, 28, 42; XXII, 1, 26, 41; XXIV, 18; XXV, 18 Gray, XXI, 39 Western, XXII, 41; XXIII, 50; XXIV, 19

Kingfisher, Belted, XXI, 45; XXII, 44; XXIV, 10; XXV, 17

Kinglet, Golden-crowned, XXII, 44; XXV, 19 Ruby-crowned, XXII, 34, 44; XXIV, 11; XXV, 19

Kite, Mississippi, XXI, 7; XXII; 16, 17; XXIV, 28, 36, 37 Swallow-tailed, XXII, 18, 24; XXV, 37

Knot, XXI, 44; XXIV, 12

Lark, Horned, XXI, 35; XXII, 4 24, 26; XXIII, 10, 33, 35; XXV,

Limpkin, XXI, 35; XXII, 28, 29 Longspur, Lapland, XXII, 4; XX-III, 10, 35, 36; XXIV, 26, 27

Loon, Common, XXII, 41; XXIII, 38, 48; XXIV, 6; XXV, 10, 14

Mallard, XXI, 8; XXII, 41, 44; XXIV, 6; XXV, 15

Man-o'-War Bird, XXI, 47

Martin, Purple, XXI, 42; XXIV, 18; XXV, 6, 18

Meadowlark, Eastern, XXII, 44; XXIV, 11; XXV, 22

Merganser, Common, XXV, 15; XXV, 50 Hooded, XXII, 42; XXIV, 7; XXV, 6, 9, 15, 50 Red-breasted, XXII, 42; XXIV, 7, 8; XXV, 15

Mockingbird, XXI, 14, 42; XXII, 44; XXIII, 10; XXIV, 5, 26; XXV. 19

Nighthawk, Common, XXI, 15, 28; 41; XXII, 34; XXIV, 18, 33; XXV, 17

Nonpareil. See Painted Bunting Nuthatch, Brown-headed, XXI, 42: XXII, 24, 25, 44; XXIV, 5, 39; XXV, 3, 18 Red-breasted, XXII, 24; XXV, White-breasted, XXI, 14; XX-II, 25; XXIII, 29; XXIV, 33;

XXV, 18, 27 Old-squaw, XXIII, 44

1960

Oriole, Baltimore, XXI, 8; XXII, 10, 35; XXIII, 3, 7, 34, 35; XXIV, 14, 19, 28; XXV, 9, 10,

Orchard, XXI, 28, 43; XXV, 22 Osprey, XXI, 11, 15, 40; XXIV, 3; XXV, 16

Ovenbird, XXI, 28; XXII, 4, 5, 35; XXIII, 31; XXIV, 33; XXV, 21,

Owl, Barn, XXI, 41; XXIII, 2; XXIV, 4; XXV, 17 Barred, XXII, 26, 44; XXIV, 16; XXV, 17 Horned, XXI, 41; XXII 44; XXIV. 4, 35; XXV, 17 Saw-whet, XXIII, 44 Screech, XXI 41; XXIV, 4, 33; XXV, 17 Florida, XXII, 15 Short-eared, XXIV, 13

Oyster catcher, American, XXI, 41; XXIII, 36; XXIV, 4

Partridge, Chukar, XXI, 2 Hungarian, XXI, 2

Pelican, Brown, XXI, 44; XXIV, 2 White, XXIV, 19

Petrel, Wilson's, XXV, 45

Pewee, Wood, XXI, 28, 42; XXII, 27; XXIII, 28; XXIV, 18, 33, XXV, 18

Phalarope, Northern, XXIII, 38; XXIV, 12 Wilson's, XXIV, 37, 38

Pheasant, Ring-necked, XXI, 2 Phoebe, Eastern, XXII, 44; XXIV, 10; XXV, 10, 18

Pintail, XXII, 41; XXIV, 7; XXV, 15

Pipit, Sprague's, XXV, 7 Water, XXI, 15; XXIII, 36; XXIV, 11; XXV, 6, 19

Plover, Black-bellied, XXI, 44; XXIII, 22, 23; XXIV, 8 Golden, XXI, 11; XXIV, 16; XXV, 10 Mountain, XXIV, 19 Piping, XXI, 44; XXIV, 8 Ringed, See Plover, Semipal-Semipalmated, XXI, 44; XXII; 36; XXIII, 34, 38; XXIV, 8, 38; XXV, 16 Upland, See Sandpiper, Bartramian Wilson's, XXI, 41; XXIV, 17

Quail, See Bobwhite Migratory, XXI, 2

Rail, Black, XXII, 37 Clapper, XXI, 39, 40; XXII, 36; XXIV, 3 King, XXI, 40; XXIV, 3; XXV, 16, 27 Sora. See Sora Virginia, XXII, 34; XXIV, 8; XXV, 16 Yellow, XXV, 16

Raven, XXIV, 35, 36

Redhead, XXII, 41; XXIII, 24; XXIV, 7; XXV, 4, 15

Redstart, American, XXI, 14, 28, 45; XXII, 4, 35; XXIV, 13; XXV, 21

Red-wing, XXI, 22, 43; XXII, 1, 44; XXIV, 6; XXV, 22

Robin, American, XXI, 14, 34, 35; XXII, 40, 44; XXIII, 3, 29; XXIV, 10, 35; XXV, 19

Sanderling, XXI, 44; XXIV, 9, 38

Sandpiper, Buff-breasted, XXIII, Least, XXI, 44; XXIII, 22; XXIV, 9, 17; XXV, 37 Pectoral, XXIII, 34; XXIV, 12; XXV, 10, 16 Semipalmated, XXIV, 9, 38; XXV, 7, 17 Solitary, XXI, 28; XXIII, 1, 34; XXIV, 12; XXV, 16, 37 Spotted, XXI, 22, 28, 35, 44, 45; XXIII, 1, 34; XXIV, 9; XXV, 16, 36 Stilt, XXIII, 38; XXIV, 37 Western, XXI, 44; XXIV, 9 White-rumped, XXII, 29; XX-III, 34; XXIV, 12 Sapsucker, Yellow-bellied, XXII,

34, 44; XXIV, 10; XXV, 17 Scoter, American, XXII, 15 Surf, XXI, 10; XXII, 15 White-winged, XXIII, 37; XX-IV, 27 Shoveler, XXII, 44; XXIII, 38; XXIV, 7; XXV, 10, 15

Shrike, Loggerhead, XXI, 43; XX-II, 44; XXIV, 5; XXV, 19 Skimmer, NIII, 41; XXIII,

36; XXV, 4 Siskin, Pine, XXI, 8, 15; XXIII, 5, 10; XXV, 22, 27

Snipe, Wilson's, XXI, 15; XXIV, 9, 38; XXV, 16

Sora, XXI, 22; XXII, 34; XXIV, 8; XXV, 16

Sparrow, Bachman's. See Sparrow, Pine-woods Chipping, XXI, 45; XXII, 32, 44; XXIV, 14; XXV, 23 Clay-colored, XXII, 35 English, XXI, 43; XXII, 44; XXIV, 5; XXV, 21 Field, XXII, 44; XXIV, 11; XXV, 23 Fox, XXV, 9, 10, 23, 27 Grasshopper, XXI, 8, 30; XXII, 4, 35; XXIII, 24; XXIV, 11; XXV, 23 Henslow's, XXII, 15; XXIV, 11 House. See Sparrow, English Ipswich, XXIV, 11 Lark, XXI, 14; XXII, 15; XXIV, 14 Lincoln's, XXI, 15, 22; XXIV, Pine-woods, XXI, 15, 44; XXII, 35; XXIV, 6, 44; XXV, 23 Savannah, XXII, 4, 35, 44; XXIV, 11; XXV, 23 Seaside, XXI, 39, 44; XXIV, 6 Sharp-tailed, XXII, 35; XXIV, Song, XXII, 10, 44; XXIV, 12; XXV, 23

Swamp, XXII, 10, 44; XXIV, 12; XXV, 23

Vesper, XXIII, 24; XXIV, 11;

White-crowned, XXIV, 14, 44;

White-throated, XXI, 35; XXII,

10, 35, 44; XXIII, 3; XXIV, 12; XXV, 23

Starling, XXI, 15, 43; XXII, 44;

Tree, XXII, 4

XXV, 23, 27

XXV, 23

XXIII, 8; XXIV, 5; XXV, 19 Stilt, Black-necked, XXIV, 17 Swallow, Barn, XXI, 8, 45; XXII, 26, 27; XXIV, 13, 25, 44; XXV, 7, 18 Bank, XXI, 14; XXV, 18 Cliff, XXI, 14; XXIV, 19; XXV, 18 Rough-winged, XXI, 28, 42; XXIV, 18; XXV, 6, 18 Tree, XXI, 14; XXII, 44; XXIV, 10; XXV, 7, 18

Swan, Whistling, XXII, 9

Swift, Chimney, XXI, 8, 28, 41; XXIII, 7, 8, 28; XXIV, 18, 33; XXV, 10, 17

Tanager, Scarlet, XXI, 15; XXII, 35; XXIV, 14, 35; XXV, 22 Summer, XXI, 25, 28, 43; XXII, 6, 7, 35; XXIV, 19, 35; XXV, 22 Western, XXI, 25, 26

Teal, Blue-winged, XXI, 8; XXIV, 7; XXV, 15 Green-winged, XXIV, 7

Tern, Black, XXI, 45; XXIII, 2, 38; XXIV, 12, 44; XXV, 10, 17, 50 Cabot's, XXI, 11, 45; XXIV, 17 Caspian, XXIV, 4 Common, XXI, 45; XXIII, 38; XXIV, 10 Forster's, XXI, 45; XXII, 44; XXIV, 10 Gull-billed, XXI, 22, 41; XXIV, 17 Least, XXI, 41; XXIV, 17 Royal, XXI, 41, 45; XXIII, 36, 37; XXIV, 4 Sandwich. See Tern, Cabot's Sooty, XXV, 50

Thrasher, Brown, XXI, 42; XXII, 34, 44; XXIII, 29; XXIV, 5, 33; XXV, 19

Thrush, Gray-cheeked, XXI, 14; XXII, 34; XXV, 19 Hermit, XXII, 44; XXIV, 40; XXV, 19 Swainson's, XXII, 34; XXIV, 13; XXV, 19 Wood, XXI, 28; XXII, 34, 44; XXIII, 2, 29; XXIV, 10, 33, 40; XXV, 19

Tinamou, XXI, 3

Titmouse, Tufted, XXI, 39; XXII, 44; XXIII, 29; XXV, 18

Towhee, Eastern, XXI, 14, 44; XXII, 44; XXIII, 31; XXIV, 33; XXV, 23 Turkey, Occllated, XXI, 3 Wild, XXI, 40; XXII, 26; XX-IV, 3

Turnstone, Ruddy, XXI, 44; XXIII, 22, 23; XXIV, 8

Veery, XXI, 15; XXII, 34; XXV, 19

Vireo, Blue-headed, XXII, 34; 44; XXIII, 30, 43, 44; XXIV, 13, 33; XXV, 19, 43 Philadelphia, XXI, 21, 46; XXII, 34; XXV, 50 Red-eyed, XXI, 28, 43; XXII, 34; XXIII, 30; XXIV, 18, 33; XXV, 20 Solitary, See Vireo, Blueheaded Warbling, XXI, 14 White-eyed, XXI, 28, 38, 43; XXII, 34; XXIV, 5; XXV, 19 Yellow-throated, XXI, 28, 43; XXII, 34; XXIII, 30; XXIV, 18; XXV, 19

Vulture, Black, XXI, 40; XXII, 44; XXIV, 3; XXV, 15 Turkey, XXI, 20, 40; XXII, 44; XXIII, 27; XXIV, 3; XXV, 15 22

Warbler, Bachman's, XXII, 15 Bay-breasted, XXI, 14; XXII, 35; XXV, 21 55; AAV, 21 Black and White, XXXI, 20, 46; XXII, 34, 44; XXIII, 10, 30; XXIV, 13, 33; XXV, 37, 50 Blackburnian, XXII, 35; XXIII, 30, 32; XXV, 21, 26 Black-poll, XXII, 35; XXV, 21 Black-throated Blue, XXI, 14; XXII, 35; XXIII, 30; XXIV, 13, 33; XXV, 20 Black-throated Green, XXII, 35; XXIII, 30; XXIV, 13, 33; XXV, 20 Blue-winged, XXII, 34; XXIV, 13; XXV, 20 Brewster's, XXIII, 38, 46 Cairn's Black-throated Blue, XXI, 15 Canada, XXI, 14; XXII, 35; XXIV, 28, 33; XXV, 21 Cape May, XXI, 8; XXIV, 13; XXV, 20 Cerulean, XXI, 14; XXII, 4, 6, 7, 27, 35; XXV, 20, 37 Chestnut-sided, XXI, 15; XXII, 4, 35; XXIII, 30; XXÍV, 33; XXV, 21, 34, 35

Connecticut, XXII, 4, 6; XXV, Golden-winged, XXII, 4, 34; XXIII, 30; XXIV, 13; XXV, 20 Hooded, XXI, 28, 45; XXII, 4, 35; XXIII, 31, 38, 49; XXIV, 13, 33; XXV, 21 Kentucky, XXI, 28; XXII, 4, 35; XXV, 21 Kirtland's, XXII, 15; XXIV, 38, 39 Lawrence's, XXII, 40 Magnolia, XXII, 34; XXIV, 13; XXV, 20 Mourning, XXI, 20 Myrtle, XXI, 35; XXII, 44; XXIV, 11; XXV, 20 Nashville, XXI, 20, 21; XXII, 34, 41; XXV, 20 Orange-crowned, XXI, 15; XXII, 34; XXIV, 13; XXV, 20, Palm, XXII, 4, 35, 44; XXIV, 11; XXV, 21 Parula, XXI, 15, 43; XXII, 1, 34; XXIV, 18; XXV, 20 Pine, XXI, 14, 18, 19, 43; XXII, 35, 44; XXIV, 5; XXV, 21 Prairie, XXI, 28, 43; XXII, 35; XXIV, 18; XXV, 21 Prothonotary, XXI, 28; XXII, 1, 34; XXIII, 1; XXIV, 13; XXV, 20 Swainson's, XXII, 34; XXIII, 24; XXV, 47 Z4, XXV, 41 Tennessee, XXI, 15; XXII, 34; XXIII, 32; XXV, 20 Wilson's, XXI, 22; XXII, 35, 41; XXIII, 46; XXV, 21 Worm-eating, XXI, 14; XXII, 4, 34; XXIV, 33; XXV, 20 Yellow, XXI, 28; XXII, 34; XXIV, 13; XXV, 20, 37 Yellow-throated, XXI, 43; XXII, 4, 35; XXIV, 18; XXV,

Water-thrush, Louisiana, XXI, 45; XXIV, 13; XXV, 21 Northern, XXII, 35; XXIV, 13; XXV, 21

Water-turkey. See Anhinga

Waxwing, Cedar, XXII, 18; XXIV, 11; XXV, 19

Whimbrel, XXIV, 12

Whip-poor-will, XXI, 14, 33, 34; XXII, 34; XXIV, 35; XXV, 17 Widgeon, American. See Baldpate Willet, Eastern, XXI, 41; XXIII, 36; XXIV, 17 Western, XXIV, 9

Woodcock, American, XXII, 32; XXIV, 39, 40, 9; XXV, 16

Woodpecker, Downy, XXI, 42; XXII, 44; XXIII, 28; XXIV, 4, 33; XXV, 17 Hairy, XXI, 42; XXII, 44; XXIII, 28; XXIV, 4; XXV, 17 Pileated, XXI, 42; XXII, 1, 44; XXIII, 28; XXIV, 4, 37; XXV, 17 Red-bellied, XXI, 42; XXII, 1, 29, 44; XXIV, 4; XXV, 17 Red-cockaded, XXI, 16; XXII, 44; XXIV, 5; XXV, 7, 17 Red-headed, XXI, 42; XXII, 44; XXIV, 4; XXV, 17, 35 Wren, Bewick's, XXI, 7; XXV, 18
Carolina, XXI, 38, 42; XXII,
44; XXIV, 5; XXV, 18
House, XXII, 34; XXIV, 10,
44; XXV, 18, 36, 43
XXV, 18, 36, 43
Long-billed Marsh, XXI, 15,
39, 42; XXII, 34; XXIII, 10,
47; XXIV, 5; XXV, 19
Short-billed Marsh, XXII, 34;
XXIII, 34, 47; XXIV, 10; XXV,
19

Winter, XXII, 44; XXV, 18 Yellow-legs, Greater, XXI, 44; XXII, 44; XXIV, 9; XXV, 8, 16 Lesser, XXII, 29; XXIV, 12; XXV, 16

Yellow-throat, XXI, 43; XXII, 6, 35; XXIV, 5; XXV, 21