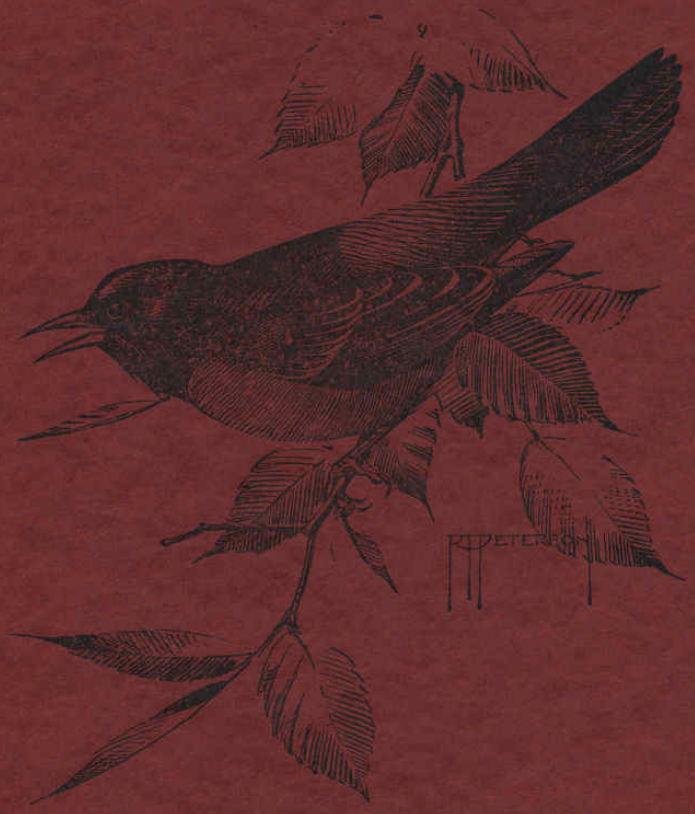
THE ORIOLE

A QUARTERLY JOURNAL OF GEORGIA ORNITHOLOGY



OFFICIAL ORGAN OF
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VOL. II DECEMBER, 1937 No. IV

MARSH HENS OF THE GEORGIA COAST

By Ivan R. Tompkins.

The Clapper Rail is a game bird of importance along the coast of this state. It has a value in healthy sport to the hunter; it means dollars each year to hardware clerks, keepers of boats, dealers in sporting supplies, and indirectly touches the lives of thousands of others. Breeding in the vast salt marshes, the species is not destructive to crops; nor does it seem to touch human life in any way that makes it undesirable. Because of its marvelous resiliency through large clutches of eggs and frequent broods, it seems that reasonable control should allow a perpetual and adequate supply.

Yet no one has taken the trouble to study the Clapper Rail to any great extent, and the exact limitations of habitat and many other important details of its life history are understood imperfectly if it all. The writer, feeling the impossibility of dealing adequately with the subject, offers a few notes for whatever value they may have. And these notes, dealing mostly with habitat and food, are the meager observations gathered during some years spent largely in the salt marsh area along the lower Savannah River.

The "marsh hen" of the coastal marshes is one subspecies or other of the Clapper Rail, **Rallus longirostrus** of the current A. A. U. Check-list. The local breeding form is Wayne's Clapper Rail (**Rallus l. waynei**); it is quite probable that there is a considerable influx of migrants from more northern parts of the coast in autumn, some of which at least are supposed to be the Northern Clapper Rail (**Rallus l. crepitans**). These two forms are quite indistinguishable, except by a competent authority, which complicates studies greatly. Only by a careful determination of many specimens will the true state of things be known, and an understanding of the distribution and migration of the different forms is very important.

In the freshwater marshes a little farther inland there is another very similar rail—larger, buffier, darker on the back, and more plainly barred. This is the King Rail (**Rallus elegans elegans**), and while the Clapper Rail group is confined to the salt marshes of the coast, this species breeds in suitable freshwater marshes over much of the eastern half of the United States. This species is not so generally hunted as the Clapper Rail, for its domain is not subject to regular overflow like the salt marshes, which several times each fall are flooded by high spring tides driving these sulking dwellers of the thick grasses out within reach of gunners. With this advantage it might be expected that the King Rail would increase much faster than its troubled relative, but the controls and reactions of nature are not nearly so simple as that, and no unusual increase has been reported to my knowledge. In spite of the enormous numbers of Clapper Rails that are

killed along the coastal marshes each fall, every suitable marsh still holds some of these birds when nesting time comes around again.

These two rails appear to differ only in size and color, and why they breed only in the sharply defined habitats peculiar to each remains a mystery. Along the Savannah River the dividing line between the two species seems to lie about twenty-four thousand feet east of the city of Savannah, measured along the center of the channel.[1] I have heard numbers of rails on the west end of Elba Island; those seen were the gray Clapper which apparently breeds there. Almost directly across the river, on the eastern end of Barnwell Island No. 3, a breeding King Rail was collected some years ago, and in the spring of 1936, a little over a mile to the westward on Barnwell Island Nos. 1 and 2, we had a nesting pair of King Rails nearby for some time. Other pairs bred not far away. Reference is made only to the condition along the river banks, for away from the river water influence the tendency may be either toward a fresh or a salt water habitat, which might cause an apparent overlapping of ranges. The character of the river has changed somewhat of late years, yet I am quite certain this point represents with fair accuracy the dividing point in the breeding range of the two species.

[1] Since the above paragraph was written, I have seen a King Rail some eight thousand feet farther down the river. The bird was giving the explosive "kick" note which has been associated with territory defense in the male of both species. After walking around in plain sight a few minutes, a Clapper Rail walked out in the open too. The King Rail ran at the other, which flew some distance out into the marsh. Though this indicates an overlapping of range, still it need not affect the conclusions drawn to any extent.

Now habitat may be considered the environment suited to the species. No habitat is ever simple. It is always made up of a number of things; but sometimes a single element is somewhat narrower in its range than the others; perhaps a kind of food, the right kind of shelter, or maybe suitable nesting places. When the nature of a habitat is well understood it is possible to improve and extend it through suitable methods. Of course the condition often exists in which a species does not fill the available habitat owing to lack of numbers, which in turn may be connected with some weakness or depletion from some other cause. With that phase we have nothing to do here.

Where two such closely related species almost meet in range, it should be easy to determine the limiting factor or factors, for it is certain some things will be required by both species and will extend widely through the ranges of both. These elements may be at once cancelled from the search when known. In the case of these two rails it seems that a tabulation of the foods taken might explain the break in the range since most of the other requirements appear identical and widely available.

During the hunting season of 1936 Mr. Bill Roberts of Isle of Hope, Georgia, sent me a number of Clapper Rail stomachs, and Mr. E. Burnham Chamberlain of the Charleston Museum delivered some stomachs furnished by hunters from his locality. In all fifty-eight were examined. It must be remembered that most of these birds had been shot after their feeding grounds had been covered by water for two or three hours, thus in many of the stomachs the softer foods had been digested.

Ten of the stomachs were empty; twenty-even contained crab remains; an equal number, whole or part shells of the Periwinkle (**Littorina irrorata**); six showed some traces of vegetable material; and three contained insects.

Littorina is the common Periwinkle and is usually found climbing the grass stems in the salt marshes. It was one of the foods of the Indians, and was sometimes used to decorate their pottery. It may be found in many of the midden heaps of the coastal islands along with the shells of oysters, clams, and mussels. It may be recognized readily, having a not-too-deeply spiral shell with many rows of dots spiraling around the outside with solidly colored inner turns. Although a strong shell, it is probably crushed in the rail stomach by the grinding of two together much as one crushes two pecans in the hand. Where only a single one had been swallowed it remained entire, but two or more showed varying degrees of breakage.

The crab remains were examined by Mr. G. Robert Lunz, Jr., Curator of Crustacea of the Charleston Museum, and most of those identified proved to be from the group of Xanthid crabs—the so-called "mud crabs" found around oysterbeds; a few bits of small specimens of **Callinectes**, the Blue Crab; and only very few fragments of the fiddler crabs that might have been expected to predominate. There were also a few very small gastropods, perhaps the young of **Littorina**, but, not another one of the small shellfish that abound in this area was found. None of the stomachs examined contained sand.

It is quite plain that the limiting factor for which we are seeking, if traceable to food, will not be an occasional item but rather one commonly found. Although the examination did not represent even a fair cross-section nor was the summer food studied at all, it still must be noticed that there were but two items of food at all common—the Xanthid crabs and the Periwinkles.

In winter as in summer the Clapper Rails range over much of the salt marsh meadows, where it is doubtful that the Xanthid crabs are plentiful. But **Littorina** is common all over the salt meadows, the creek banks, and even the edges of the dunes. Again, we naturally think it necessary that a bird's gizzard contain sand or another grinding medium, especially if it is a vegetable feeder. It seems in this case that the fragments of Periwinkle and perhaps the bits of chitinous crab shell must serve as a grinding material instead of sand. And this must be a matter of choice rather than necessity, for sand is widely available.

Before the stomachs were examined I had tried to correlate the range of the King and Clapper Rails with the ranges of some of our Fiddler Crabs. The above was purely theorizing and has been shown by experimentation to be probably erroneous. It is a common belief that the "marsh hen" lives on "fiddlers", meaning any or all of our five common species of the genera **Uca** and **Sesarma**. These small crustaceans are very abundant in marshy localities, but consideration of each species separately did not bring any species or any combintaion of species to cover the range of the Clapper Rail with any accuracy, and one species of fiddler ranges well up into the area occupied by the King Rail as well.

The only conclusion to be drawn is the somewhat tenuous theory that **Littorina** occupies a range that is nearly equivalent to that of the Clapper Rail; that it is commonly eaten in winter time; and perhaps furnishes a chosen kind of grinding material needed as a mechanical aid to digestion.

Nowadays, one of the first things needed by a scientific student is to find a line of research that has a practical value. In these days of ascending interest in game management, someone may well make a reputation by the careful study of this economically important bird of the salt marshes of our state—the Clapper Rail.

THE BIRDS OF ATHENS, CLARKE COUNTY, GEORGIA

By Thos. D. Burleigh

[**Editor's Note.**—This annotated list which had been completed through the **Falconiformes** in the last issue of The Oriole will be published during January in its entirety as an occasional paper of the Georgia Ornithological Society. The editors feel that the work would be more valuable to the bird students of the state if published as a whole rather than in a large number of installments. Orders for the pamphlet may be placed with Miss Berma Jarrard, Treasurer of the Georgia Ornithological Society, 54 Briarcliff Circle, Atlanta, Georgia immediately. The edition will be limited to three hundred copies which will sell for fifty cents each. All Georgia bird students should have at least one or two copies of this list in his library.]

THE YELLOWTHROATS OF GEORGIA

By Thos. D. Burleigh.

Georgia has many interesting birds, but none, from the taxonomic standpoint, are more worthy of serious consideration on the part of the bird student than the yellowthroats, genus **Geothlypis**. More plastic than most birds, they are capable of adapting themselves to the environment in which they occur, and have developed geographic races easily recognizable when the bird is in the hand. Further study will undoubtedly reveal facts concerning the distribution of the yellowthroats as yet merely surmised, so the following brief summary can be considered as very largely a basis for future field work.

At the present time there are four recognized races of **Geothlypis trichas** in the eastern United States. One of these, the Northern Yellowthroat, **Geothlypis trichas brachidactyla**, does not breed south of northern New Jersey and occurs in Georgia only as a spring and fall transient, and possibly as an uncommon winter resident. Based on actual specimens taken there are no records for this northern race in the State earlier in the spring than February 28 (Savannah, 1929), nor later in the fall than October 15 (Savannah, 1929), but there is insufficent material on hand to warrant any definite conclusions. Other extreme dates indicate a rather protracted migration, specimens having been taken at Savannah as late in the spring as May 9 (1909), and at Kirkwood as early in the fall as September 15 (1903). The only other locality where this bird has been recorded is Athens, specimens having been collected there at infrequent intervals in March and April and again in October.

The Florida Yellowthroat, **Geothlypis trichas ignota**, does not breed farther north on the Atlantic coast than northern Florida, and at the present time has never been recorded in Georgia. There is a possibility that the breeding birds of the Okefenokee Swamp may prove to be this race, but until specimens are taken this remains open to question.

Of the two races that can be found in the State during the summer months the Maryland Yellowthroat, **Geothlypis trichas trichas**, has the most limited range, being confined at this season of the year to the extreme northern counties. Breeding males have been taken at Young Harris, Blairsville, Rome, and Atlanta. Its presence in Fulton County, where it probably reaches the southern limit of its breeding range in the southeast,

can be accounted for by the proximity of the foothalls of the Southern Appalachians that influence so markedly the bird life of this northwestern corner of the State. Practically nothing is known concerning the status of this yellowthroat as a transient, the few available records being from Athens, where several birds were taken in late March.

The recently described Athens Yellowthroat, **Geothlypis trichas typhicola**, is by far the most abundant of the yellowthroats occurring in the State, and in fact is one of the most characteristic birds of Georgia. Except for the limited area occupied by the Maryland Yellowthroat in can be found throughout the State, and, while less numerous during the winter months, is to a large extent resident at least as far north as Athens. In severe winters it is perceptibly scarcer in the northern half of the State, but even with snow on the ground and the temperature well below freezing an occasional bird can be seen in the thickets and stretches of underbrush. All winter records based on actual specimens taken have without exception been found to refer to this race alone.

The identification of subspecies is, to the amateur bird student, a perplexing problem, and it must be admitted that where some races are concerned this attitude is justified. With the yellowthroats, however, the characters separating the four eastern forms are readily discernible, and should cause no confusion or uncertainty in the mind of anyone attempting the recognition of a bird taken in the field. Avoiding technical nomenclature as far as possible the following comparisons are here given to aid those interested in identifying for themselves the yellowthroats found in the eastern United States.

The Northern Yellowthroat, **Geothlypis trichas brachidactyla**, is readily separated from the Maryland Yellowthroat, **Geothlypis trichas trichas**, by its larger size, especially noticeable where the bill, wing, and tail are concerned, and by the more extensive yellow of the under parts. From the Athens Yellowthroat, **Geothlypis trichas typhicola**, it can be recognized by its larger bill and olive green rather than brownish upper parts, and from the Florida Yellowthroat, **Geothlypis trichas ignota**, by its olive green rather than brown upper parts and shorter tail.

The olive green upper parts of the Maryland Yellowthroat will separate it at once from both **typhicola** and **ignota**, its less extensively yellow under parts and smaller size being equally diagnostic.

The Athens Yellowthroat bears a superficial resemblance to **ignota**, but can be readily separated from this Florida race by its distinctly smaller bill, and less brownish uppper parts and flanks.

The Florida Yellowthroat, as indicated above, is by actual measurements, the largest of the four races, with distinctly brown upper parts and extensively yellow under parts.

Table of Comparative Measurements of the Four Eastern Races of Geothlypis trichas.

	trichas [1]	brachi-dactyla [1]	typhicola [2]	ignota [3]
Wing	52.9	55.1	55	55.1
Tail	49.3	49.2	54	55.6
Exposed culmen	10.5	11.4	10.5	11.7

[1] From Ridgway, Bull. U. S. Nat. Mus. No. 50, pt. 2, pp. 662, 664.
[2] 10 adult males from Athens, Georgia.
[3] 10 adult males from Tarpon Springs, Florida.

NOTES AND NEWS

GEORGIA ORNITHOLOGICAL SOCIETY

Second Semi-annual Meeting

Armstrong Junior College—Savannah, Ga.

October 9 and 10, 1937

Members of the Savannah Audubon Society (oldest organized bird study group in the State) were hosts to the second semi-annual convention of the Georgia Ornithological Society on October 9 and 10, 1937. The sessions, including the banquet, were held at Armstrong Junior College. Dr. R. J. H. DeLoach, Second Vice President, presided at the business meeting at 4:30 P. M. Mrs. V. H. Bassett, Chairman of the local committee, cordially welcomed the visitors. Mrs. James Connor Oliver, President of the Atlanta Bird Club, responded for the guests. Reports of officers and committees revealed diligence in extending membership, many articles written for The Oriole and other publications, influence upon legislation, contacts with national organizations, and other activities.

The nominating committee, consisting of Mr. Lucien Harris, Jr. of Atlanta; Mrs. Sam Anderson of Milledgeville; and Mr. J. R. Cain of Savannah, recommended the re-election of all officers in service, substituting Mr. Earle R. Greene as co-editor of The Oriole in place of Mr. Norman Giles, Jr. who is now studying at Harvard University. These officers are:

First Vice President—Dr. Wallace Rogers, Atlanta

Second Vice President—Dr. R. J. H. DeLoach, Statesboro

Regional Vice Presidents—Miss Mabel Rogers, Milledgeville
Mr. Lucien Harris, Jr., Atlanta
Mr. Earle R. Greene, Fargo
Dr. Eugene E. Murphey, Augusta
Mrs. M. E. Judd, Dalton
Mr. Ivan Tomkins, Savannah

Executive Secretary—Mrs. Hugh H. Harris, Emory University

Treasurer—Miss Berma Jarrard, Atlanta

Historian and Librarian—Miss Anne Pfieffer, Milledgeville

Editors of The Oriole—Messrs. Earle R. Greene and Don Eyles

The Society reached a new peak when Dr. E. E. Murphey was chosen toastmaster for the dinner. His delightful badinage and clever witticisms added zest and enthusiasm as he toasted the celebrities present including, Mr. Thos. D. Burleigh of the Biological Survey, loyal supporter and pioneer in bird study in Georgia; Mr. Don Eyles who made some interesting observations at Oysterbed Island last summer; Mr. Alexander Sprunt, Jr. of the National Association of Audubon Societies; Dr. R. J. H. DeLoach of South Georgia State Teachers College; Mr. Lucien Harris, Jr. of the Georgia Naturalists' Society; Mr. Ivan Tomkins; and others.

Following the dinner Mr. Sprunt addressed the assemblage on the problem of sanctuaries, making a stirring appeal for maintaining in their wild state our marshes, forests, and wildernesses which are necessary for preserving bird life. His earnestness and sincerity plus his first-hand knowledge of needs and conditions quite converted his audience.

Sunday morning found everyone up bright and early in anticipation of the field trip to Oysterbed Island led by Mr. Ivan Tomkins. Some thirty-five persons embarked in boats for Fort Pulaski and then by trucks and boat again for the island. Flocks of shore birds resting on a sand bar were observed upon approaching and to those accustomed to hunting inland the variety of new forms identified through the day brought many a thrill. Over forty species were observed including the Surf Scoter, Marbled Godwit, Hudsonian Curlew, and other characteristic coastal birds.—**Mrs. Hugh H. Harris, Executive Secretary.**

Annual Convention of the National Association of Audubon Societies.—The 33rd annual convention of the Audubon Societies began in earnest Monday morning, October 22, Mr. Baker presiding. Mr. Kermit Roosevelt, president, was absent owing to illness. Mr. Robert Allen gave an illustrated report on Texas sanctuaries—some of which are leased for only fifty years. He warned that Texas was threatened with wild life extinction as a result of what he called "a rash of oil wells." We regretted to hear that Dr. T. Gilbert Pearson was ill in the hospital, but Mrs. Pearson read his interesting report on Mexico. The first commission on bird protection in Mexico met in Mexico City last August. The treaty under consideration is expected to be ratified by the Mexican senate this fall, and will protect 147 border birds, some in danger of extinction.

Mr. Victor Cahalane of the National Park Service amplified on the status of the Big Bend National Park, which embraces 100,000 acres of the wildest country in Texas. At noon Monday all delegates from affiliated clubs were guests of the Association. Monday afternoon Mr. McAtee of the Biological Survey summarized present and prospective activities in wild life conservation. Professor Nichols of the University of Arizona and James Tanner, Audubon Research Fellows, gave reports on the year's work.

Eighty-six ardent souls braved the rain to take the field trip to Cape May—one couple was left but took a taxi and caught up with the party—they were rewarded by seeing 116 species of birds. The day trip to Montauk Point was attended by ninety-four people and observed ninety-four species including 1,000 gannets and 800 or more shearwaters. Tuesday afternoon was given over to Florida pictures in color and reports by four Florida wardens. Tuesday night closed the session with a banquet attended by five hundred people. This was held at Essex House, and Dr. Arthur A. Allen entertained by showing sound motion pictures of birds taken in the Fuertes Sanctuary at Ithaca. Dr. Allen was introduced as the only man to head the only department of ornithology in the world.

At the business meeting Tuesday morning Dr. Robert Cushman Murphy was elected President of the National Association to succeed Mr. Kermit Roosevelt. Dr. Murphy is Associate Curator of Oceanic Birds, American Museum of Natural History. Five directors were elected for terms expiring in 1940, and nine new members to the advisory board were named including Mr. Earle R. Greene of Georgia.—**Mrs. J. Connor Oliver, President, Atlanta Bird Club.**

The Charleston Museum has available a Seasonal List of South Carolina Birds, revised to November, 1936. This is a twenty-one page leaflet which may easily be taken apart and interleaved with blank sheets, making a very good permanent field book. It is known as Leaflet No. 8, and costs ten cents. This booklet should be in the hands of every Georgia bird student.

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THE A. O. U. IN CHARLESTON

Nine Georgians, members of the G. O. S., attended the annual convention of the American Ornithologists' Union held in Charleston, November 15 to 19. These representatives were indeed fortunate to be able to mingle with leading ornithologists from all parts of the United States and Canada in the delightful atmosphere of this historic city.

Papers illustrated with slides or films setting forth the latest discoveries or advancement in the study of birds constituted the "meat" of the program. Outstanding among these was **The Great Discovery of 1937,** a reel of moving pictures in color showing the Glossy Ibis so recently discovered nesting in great numbers on the west shore of Lake Okeechobee, in Florida, by Mr. Samuel A. Grimes, a representative of the National Association of Audubon Societies. **The Wilderness of Night Filming** by Howard Cleaves showing the behavior of ducks under water was something new in the technique of bird photography. His pictures were made at Silver Springs, Florida. There were excellent contributions in the recording and study of bird songs showing marked improvement in this field. **A Season with Camera and Microphone** was a grand finale. These pictures were by Dr. Arthur A. Allen, of Cornell University. His pictures are not mere photos but possess personality. They were made at the Louis Aggasiz Memorial Sanctuary, Ithaca, N. Y. Dr. Robert Cushman Murphy, newly elected president of the National Association of Audubon Societies, made quite a hit with his paper in addition to being awarded the Brewster Medal upon his **Birds of the Ocean.**

The field trip to Bull's Island was wonderful. About two hundred persons were transferred by car and boat to this lovely place where bird life is abundant. The first excitement was an Arkansas Kingbird, a new bird for the life list of many. But those oysters baked in the shell were the climax! By the time all had enjoyed so many lovely affairs together they were like old friends. On no account should one close this brief review without mention of the dinner program by the Society for the Preservation of Spirituals. Really, the guests caught by their enthusiasm almost joined the performers in the shouting from their seats. One cannot say enough for the delightful hospitality and charming friendliness of the Charlestonians. It is hoped that another nine years may not pass before the A. O. U. meets with them again.

The Birds of South Carolina by Arthur T. Wayne, was published in 1910. We understand that his widow still has a few copies for sale. When these are gone, there will be no more available. Mrs. Wayne lives at Mount Pleasant, South Carolina.