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NOTES ON THE BIRDS OF THE LOWER SUWANEE RIVER.

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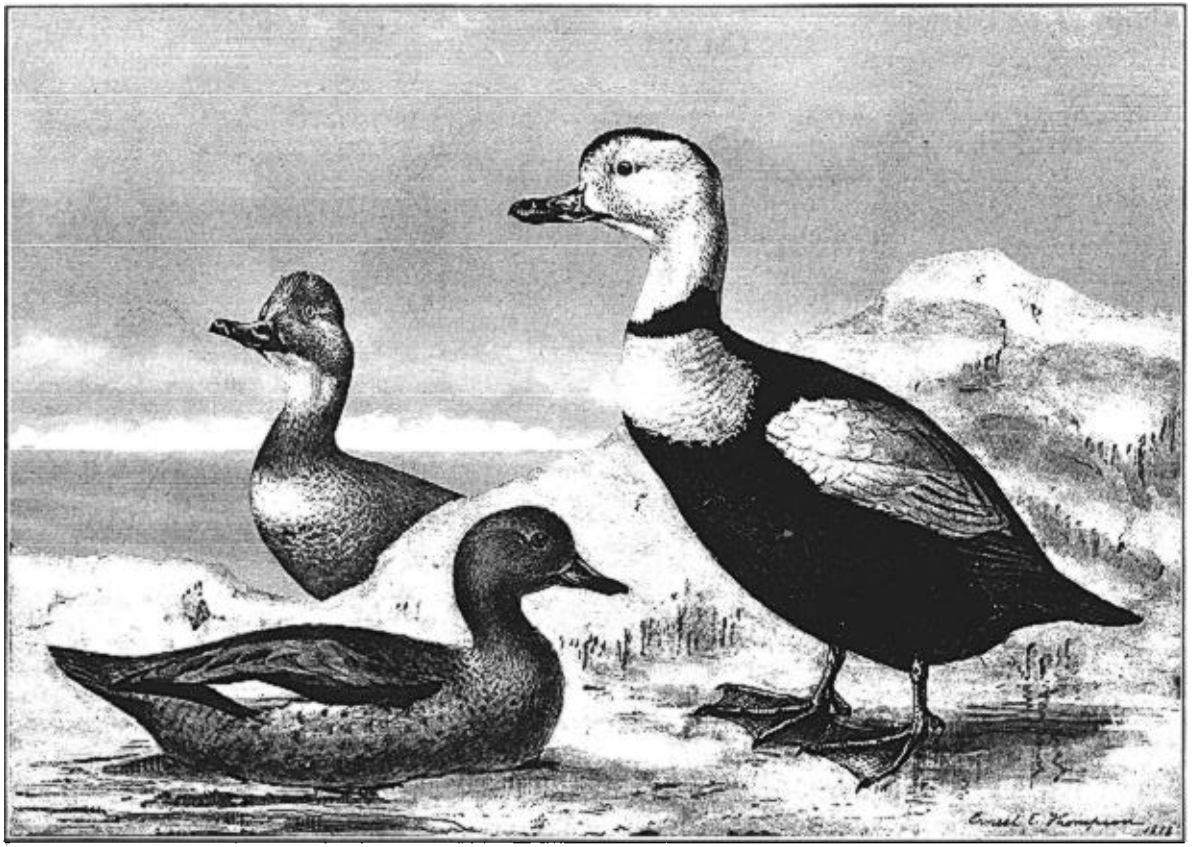
MARCH 11, 1890, accompanied by Dr. C. Slover Allen of New York City, Mr. Chapman left Branford on the Suwanee River bound for the Gulf, a distance, by way of the river, of 120 miles. March 19 Mr. Brewster joined the party; the mouth of the river was reached March 26, and the trip concluded April 1.

In so hurried a journey through a densely wooded region anything like thorough investigation was, of course, out of the question. Previous experiences in Florida, however, had made us familiar with the habits of many of the birds observed, while the size of our party, there being two hunters in addition to ourselves, permitted us to gain through our joint efforts a fair idea of the general character of the avifauna at this season.

Mr. Du Bose, one of the hunters alluded to, deserves as assistant more than passing mention. Rarely have we met a plain backwoodsman who had given such close and intelligent attention to the habits of the birds and beasts among which his life was passed. Conservative in his statements, on no occasion could we question his evident accuracy, and in several instances we were astonished at the extent of his original knowledge. We say this concerning Mr. Du Bose not only as evidence of



CAMPTOLAIMUS LABRADORIUS (GMEL.). LABRADOR DUCK.

his value in the field, but also to call attention to an inborn love of nature, and especially of bird life, in a man to whom at the age of forty, the word 'ornithology' possessed no meaning. Mr. Du Bose was with us until March 23.

Our means of transport proving eminently successful deserves some description. It was originally a 'flat' or scow thirty feet in length and eight feet in width. A cabin, seventeen feet in length and divided by partitions into kitchen, berth-room and specimen-room, was placed on this foundation somewhat astern.

The specimen-room was provided with numerous shelves, as indeed was every available corner, for use in drying specimens and storing the supplies incident to collecting. The bow was protected by an awning, and, serving as dining or work room, proved also an admirable observation post where, while under way, one might prepare specimens and still maintain a constant outlook on the river ahead, or on either shore. A three-mile current and the use of oars by the men, gave sufficient speed for our purpose, while the three canoes floating astern, afforded a more rapid and easy means of reaching a desired point whenever occasion demanded.

It is not our purpose to give in detail the results of our explorations. Beyond ascertaining that the river apparently constitutes one of the highways of migration for Bachman's Warbler (*cf.* Brewster, Auk, VIII, 1891, p. 149), hitherto unknown from the mainland of Florida, we did not discover any facts of startling importance. It is our object, therefore, to present as briefly as possible the characteristic features of the bird life of the region —an unwritten chapter in the history of the Florida fauna.

The river averaged from fifty to one hundred yards in width during the greater part of the voyage and in fact until we had approached to within a few miles of the Gulf. The whole country was heavily and continuously wooded; the total frontage of the clearings on either shore from Branford to the marshes of the Gulf would not exceed a mile in length. The higher, drier banks supported a heavy 'hummock' growth composed largely of live and water oaks, bay, magnolia, red birch, red maple, sweet gum, and a rather dense undergrowth. Occasionally higher pine-grown bluffs intervened, or, where the shores were lower, great forests of cypresses outlined their delicate, lace-like foliage of softest green against the sky. Frequently, through the action of

the current, the banks were higher than the ground immediately adjoining them and the 'hummock' growth of the shores was flanked by extensive cypress swamps or sloughs running more or less parallel to the river's course.

For the first two weeks we collected largely in localities of this nature. Here, in the lower growth, Cardinals, Tufted Tits, and Carolina Wrens were abundant, and with them were associated Brown Thrashers and Red-eyed Towhees. The first three species were preëminently the song birds of the region, and their combined voices at daybreak and in the late afternoon rang out in a chorus which formed a vocal background for all other bird music. It was rather surprising to meet here also large flocks of Goldfinches. The most common Woodpeckers were the Pileated and Red-bellied; the former was slightly more numerous than the latter, and it was not unusual to see eight or ten individuals in one day. The long rolling call of this species is well known to resemble the call of the Highhole, although louder, less rapid, and more prolonged, and the similarity in their notes was further noticed when on one occasion two birds on coming together gave utterance to the *whicker* calls so characteristic of *Colaptes*.

Troops of exceedingly tame and noisy Blue Jays roved through these woods, producing such a variety of strange, odd calls and cries that, when surrounded by them and the object of their curiosity, one could readily imagine oneself in an aviary. But our interest centred in the loose flocks of passing migrants, which, travelling ever northward, found in these wooded shores a natural pathway for migration. At least one half of each flock was composed of Parula Warblers; Yellow-rumped and Yellow-throated Warblers and Ruby-crowned Kinglets were about one third as numerous, while Blue-gray Gnatcatchers, Black-and-white Creepers, Bachman's Warblers, Red-eyed and Solitary Vireos, Orange-crowned Warblers and Yellow-throated Vireos were represented in about the order named. As migrants these birds differed decidedly from somewhat similarly composed groups found at the north in the month of May. They travelled very rapidly and usually, even during strong winds, remained in the tops of the higher trees. For these reasons it was by no means an easy task to identify, collect, and at the same time keep pace with them.

Where pine-clad bluffs reached the river the character of the bird life changed with the vegetation. In the palmetto scrub were Yellowthroats (*Geothlypis*) and White-eyed Towhees, or where turkey oaks formed the undergrowth, sweet-voiced Pine-woods Sparrows, Palm, and Yellow Palm Warblers were common, while Red-cockaded Woodpeckers, Loggerhead Shrikes, Pine Warblers, and Bluebirds were generally distributed throughout the pines.

Early on the morning of March 21, while hunting in the pines we heard in the distance the vigorous squawking of young Herons. Following the direction whence the sound proceeded we found, half a mile from the river, a rookery of Ward's Herons situated in a series of shallow, grassy ponds which extended over a considerable area. Stunted cypress trees, growing singly or in groups, were scattered around the shores of these ponds or were well out in the water. Most of the water-surrounded trees held nests, large structures of sticks, some placed in the tops of the trees, others on their lateral branches. Usually there was only one nest in a tree but in several instances we noticed two or three. As a rule we found three or four young Herons in each nest, most of them well grown and fully feathered. A few young birds were already on the wing. Those in the nests stood erect on the framework of twigs, or, in some cases, on the neighboring branches, but as soon as they saw us and suspected danger they sought concealment, squatting low in the nest and remaining perfectly still as long as we were near them. After we had retired a few hundred yards, they arose again and began calling for food, making a peculiar, loud, hollow, croaking sound. Swinging from the branches near the edge of a nest holding three nearly grown young, was a bird in the last stages of decay, which had died at about the age of one week.

On the river bird life was not abundant. This was not due to man's presence—we saw less than a dozen cabins from Branford to Fort Fannin which, with Oldtown landing, is the only settlement on the river's banks—but rather to the unusual depth of the water near the banks which descended so abruptly as to leave few shoals where water birds could find feeding grounds. Thus Coots (*Fulica*) and Scaup Ducks (*Aythya affinis*), generally so numerous on the larger and more shallow Florida rivers, were here so nearly wanting that we observed only a single individual of each species.

Throughout the day two or three Water Turkeys were usually in sight, always keeping a safe distance from us, either by short flights, or, when the limit of their wanderings was apparently reached, by soaring high in the air and returning to the vicinity of their starting point. Wary Kingfishers darted out from the shore and with rattling call flew on ahead, or, by wide detours, made their escape up the river. Occasional Herons,—Ward's, Green, and Little Blue, the last most common,—started from their posts, winged their way low over the water and passed out of sight around some protecting bend, only to repeat this as we approached them again.

Flocks of fifty to one hundred Black Vultures and Turkey Buzzards were sometimes seen perched in silence on the bare limbs of a dead and leafless tree, or feasting on dead cows or hogs which were stranded on snags near the river's banks. There is little good feeling lost between these two species. They apparently do not roost together, and quarrel continually when feeding, the greater weight of *Catharista* generally turning the tide of battle in its favor.

The screaming of Red-shouldered Hawks was constantly in our ears and the birds could be seen circling high over the forests. Graceful, swift, and sure of flight, the few Swallow-tailed Kites observed claimed our attention as long as they remained in sight. On firm wing leisurely they passed over the tree-tops, making sudden downward dashes at some unfortunate lizard sunning himself in fancied security below. But the birds which more than any other species gave life and character to the river were the Wood Ducks, and their sharp, whistling call gave frequent notice of their presence as, surprised by our appearance, they sought safety in rapid flight. They were common along the entire course of the river to within two or three miles of its mouth as well as throughout all the connecting creeks. On the creeks they were as a rule found in pairs, but on the river it was not unusual to see small flocks containing from three to ten individuals. A bird killed March 14 had an egg in the oviduct ready for the shell, from which we inferred that the nesting season was at hand. On several occasions when they discovered us from a long distance they swam ashore and ran off into the woods. At nightfall these Ducks left the river and roosted in the small ponds or cypress sloughs of the forest.

A regular flight of Little Blue Herons, with a few Louisiana Herons, began about half an hour before, and continued until a short time after, sunset. The birds flew down the stream in flocks of from five or six to fifty or seventy-five individuals each, moving in compact bodies and usually about on a level with the tops of the trees. We found the objective point of this flight to be a small treeless island covered with marsh grass, near the mouth of the river. Here on the evening of March 30, we saw fully five hundred of these birds come in and pitch down into the grass. There were also a few large Egrets among them. There was nothing to distinguish this island from apparently similar ones near by, but it was evident from the signs we found there that the birds had made it their roosting place for a long time.

Flocks of from twenty to one hundred and fifty White Ibises were not infrequently observed during the earlier part of the voyage. The birds appeared after the flight of Herons had ceased and followed the course of the river either north or south evidently *en route* to a rookery. This species was less common on the lower river, indeed we observed only one flock of about thirty birds which, at eight o'clock on the evening of March 30, passed low over our canoes with a sudden rush of wings, their snowy plumage glistening in the moonlight. A few seconds later apparently the same flock passed us retracing its course.

The nights on the river were more quiet than we had expected to find them. When moored beneath overhanging oaks, where in the early morning and late afternoon the choking bark of the always abundant gray squirrels could be heard, we frequently detected in the evening the fine, high, squeaky note of flying squirrels. On the lower river at times a sudden chorus of frogs abruptly broke the stillness and as abruptly ceased, but without the Barred Owls there would have been little to interest us during the night. These Owls although abundant along the whole course of the river, were less numerous towards its mouth than in the heavily timbered bottoms above. We heard them every night and rarely failed to see one or two by daylight when we were in the woods. They hooted most freely from a short time after sunset until about eight o'clock in the evening, after which hour they were not often heard until near morning, except during moonlight nights when they hooted at all hours. It was by no means uncommon to hear them during the daytime, and on

the brightest days occasionally they might be heard at noon. They invariably responded to an imitation of their calls, and after a short time would come into the trees directly over our boat, on several occasions descending to within fifteen or twenty feet of us, where in the light of the cabin we must have been plainly visible to them. This familiarity gave us an excellent opportunity to study their calls and actions. The customary call of *whŏŏ-whŏŏ-whŏŏ*, *whŏ-whŏŏ*, *tŏ-whōō-ah*, was varied both as to relative position and length of syllables, by the same individuals, and was apparently the cry of question and response; but when two birds, perhaps rival males, came together, there ensued a striking medley of sonorous *wha-whas* mingled with rolling *whōō-ahs*, the whole bearing an odd resemblance to deep-voiced, mirthless laughter. A singular concerted performance was frequently heard and was always indulged in by two birds, one of which gave utterance to about ten rapid hoots all on the same note and ending with a *whōō-ah*, while the other, in a slightly higher tone, at once joined in and, calling half as fast, uttered about five hoots and a *whŏŏ-ah*, both performers concluding together. On one occasion we were fairly startled by a note new to us, a single, prolonged, weird, gasping shriek, emphasized at its conclusion like a cry of distress. We rarely heard this call; probably a high degree of excitement was required to produce it. One night we threw the light of a jack-lamp full upon a bird as, perched above us, he gave the customary *whŏŏ-whŏŏ* call. He sat in the usual crouching position and did not move perceptibly while uttering the sound.

As we approached the mouth of the river, and while still some fifteen miles from the Gulf, there occurred a marked change in the character of the shores. The high hummock-grown banks and pine-bluffs were now left behind us and in their place appeared comparatively dwarfed forests composed largely of cypresses and bays with a mixture of cabbage palms, red maples and sweet gums. At more or less frequent intervals there were open savannas of varying extent. The banks were low, and at high tide scarcely observable, the water passing over them and flooding the cypress swamps beyond. The bird life of the river was affected by this change in the nature of the region and also by our proximity to the Gulf. Swallow-tailed Kites were no longer observed and Wood Ducks became comparatively rare.

Fish Hawks, before uncommon, were now numerous. Cormorants were occasionally seen. Where narrow marshes bordered the shores, Red-winged Blackbirds were common, and several Boat-tailed Grackles were observed. Each evening flocks of White-bellied Swallows with a few Bank Swallows were observed flying down the river, probably to a roost in the marshes below.

While the forests were now less easily penetrated by foot, the constantly increasing number of small inflowing creeks afforded us a far more delightful means of exploring their recesses. No experience on the Suwanee will be recalled with more pleasure than our journeys up these mysterious little branches. In our light canoes we could follow their course for miles and each turn seemed to bring us nearer to the heart of nature. Rarely was there evidence that man had preceded us. The larger trees interlocked their branches above us forming a leafy dome beneath which the light was dim and subdued even at midday. Paddling silently through these shaded aisles we felt in perfect harmony with our surroundings. Occasional alligators, unalarmed by our noiseless approach, slid clumsily into the water almost at our bows; rows of turtles tumbled off their favorite logs with a splash into the water; rarely a snake glided from the banks. Where bushes hung low over the stream Prothonotary Warblers could be seen, their yellow heads gleaming like gold among the foliage or showing in strong contrast against the dark water. This species and the Yellow-throated Warbler, both because of the later date and of the difference in the vegetation, were more numerous than we had before found them. But we did not meet here the large mixed flocks of migratory Warblers so common further up the river. The two birds just mentioned and Parula Warblers in reduced numbers were the characteristic species.

So far as birds are concerned, however, these creeks will ever be associated in our minds with Yellow-crowned Night Herons. This Heron was found sparingly along the entire course of the river, but was common only in these small inflowing streams. Where the arching trees secluded the light we were almost certain to find them. They never congregated in colonies but it was by no means uncommon to start two or three pairs within a distance of as many hundred yards when the conditions were particularly favorable. Their nests were easily discovered, for they were almost

invariably placed in conspicuous positions near the ends of long horizontal branches directly over the water. Several that we examined were empty. A bird was sitting on one of them and the ovaries of specimens killed at this time indicated that most of them would have begun laying in a week or ten days. As a rule these birds were not shy, with a little caution one could always approach within gunshot, and indeed on several occasions we floated by individuals without disturbing them. One evening, as the light was failing fast, three birds allowed us to pass within a few yards of them as they sat perched on dead branches over the water. At each movement on our part they would raise and lower the long occipital plumes with a quick nervous motion.

The shores of the Gulf, both at the East and West Passes of the river, were a great disappointment to us, for we had hoped to find shore birds abundant there. Two or three miles from the mouth of the river the forest growth ceases and is succeeded by a vast expanse of grass-grown marshes which, broken only by occasional groups of cabbage palms, extend to the Gulf. Here there was no beach nor surf, the tall grasses growing out into the water even at low tide. This is probably due to the protection afforded by the great stretch of shoal water which thirty miles from the shore reaches a depth of only nine fathoms.

As we found it, the water was fresh at the mouth of the river, and as far out in the Gulf as we went, a distance of about one hundred yards; under the influence of inflowing tides and westerly winds it may at times be salt. This fact would cause an absence of both the fluviatile and marine life which serves as food for shore and sea birds, and in connection with the character of the coast may account for the remarkable scarcity of bird life. During our three visits to the Gulf, from our headquarters farther up the river, we saw or heard one Willet, one Greater Yellowlegs, two Brown Pelicans and about a dozen Florida Cormorants. Not a single Gull or Tern was observed.

The marshes, however, in part redeemed what was an otherwise apparently deserted region. In them we found a few Long-billed Marsh Wrens,—the one specimen obtained was *C. palustris*, — several Short-billed Marsh Wrens, and a number of Swamp Sparrows. One Sea-side Finch was observed, but not secured, and we are in doubt, therefore, as to whether it was *maritimus* or *peninsulæ*. The most common and characteristic birds, however, were the Clapper Rails (*Rallus scottii*).

The marshes and small islands at the mouth of the river were covered with a tall grass each blade of which ended in a very sharp point or spine. Beneath the upright grass there was a mat of dead grass representing probably the growth of previous years. This formed a dense mass a foot or more in thickness and raised fifteen or twenty inches above the ground. Beneath this mat the Rails had their runways from which it was almost impossible to dislodge them. At intervals of fifteen or twenty minutes one would call out when another would answer, and then still another, until the call was taken up by dozens of birds in succession. We did not observe that these outcries were at all stimulated or excited by any sudden noise, such as the report of a gun, as in the case with the Carolina Rail. After a vain attempt to flush these birds by wading in the marshes, we were obliged to resort to firing the islands in order to obtain specimens. By lighting the grass at different points simultaneously we managed to start several fires of such extent that they swept nearly the entire island over which they raged. The Rails, as a rule, kept about one hundred yards ahead of the fire, showing themselves now and then along the edges of the water and occasionally taking short flights. They were very shy, however, and seemed to fear us quite as much as they did the fire, for in several cases they turned back the moment they discovered us. Some of them escaped by long flights across the channels between the islands. One bird flew directly out over the river and alighting in deep water swam easily and swiftly like a Duck. Many birds eluded us without showing themselves, keeping in the dense green grass just back from the water's edge where the tide made everything too wet for the fire to take effect.

We conclude this sketch of the avifauna of the region with brief notes on the migration, technical remarks on several species, and a nominal list of all the birds observed.

THE MIGRATION ON THE SUWANEE.

During our stay on the river the migration of birds was marked with unusual distinctness for the interior of Florida. A cold wave on March 16-17 had an evident effect in checking the northward movement which was apparently well under way before we started The presence in Florida as winter residents of many spe-

cies which also as transients pass through the State on their return from the tropics, renders it impossible to ascertain with accuracy the date of their first appearance as migrants. We give here, therefore, only a list of those species which probably do not winter in the region, arranged according to the date of their arrival. After reaching the mouth of the river on March 26, our opportunities for observing the migration were less favorable.

March 12. *Helminthophila bachmani.*
" 12. *Antrostomus carolinensis.*
" 14. *Vireo flavifrons.*
" 20. *V. olivaceus.*
" 20. *Tyrannus tyrannus.*
" 21. *Seiurus noveboracensis notabilis.*
" 22. *Protonotaria citrea.*
" 22. *Helinaia swainsoni.*
" 22. *Setophaga ruticilla.*
" 22. *Chætura pelagica.*
" 23. *Myiarchus crinitus.*
" 26. *Clivicola riparia.*
" 30. *Sylvania mitrata.*
" 31. *Piranga rubra.*

TECHNICAL REMARKS.

Ardea wardi. WARD'S HERON.—We are not prepared on the present occasion to discuss the relationships of this Heron. As a slight contribution to a final study of the group to which it belongs, we merely give the measurements in inches, of the two breeding birds procured, with the statement that they apparently agree in coloration with two specimens from Tarpon Springs. The measurements of a young bird evidently about ready to leave the nest are also given.

		Wing	*Tarsus*	*Exposed culmen*
Am. Mus. No.	49,599, ♂ ad.	19.50	8.25	6.30
" " "	49,598, ♂ ad.	19.75	8.00	6.10
" " "	49,597, ♂ juv.	15.50	7.00	4.90

Rallus scottii. SCOTT'S RAIL.—Although the nine specimens which we collected differ very considerably *inter se* in respect to the width and color of the light edging of the dorsal feathers and secondaries, and still more decidedly in the general coloring of the under parts, there is not a bird among them which cannot be closely matched by one or more of the eight examples of *scottii* taken at Tarpon Springs by Mr. Scott, with which we have compared them. In short, the Suwanee birds are evidently all true *scottii*. The remarkable variations of coloring which

occur in this form have been so fully described by Mr. Scott* that it is unnecessary to particularize them here, but we must express our dissent from Mr Sennett's† opinion that *scottii* is specifically distinct from both *crepitans* and *saturatus* and that the latter is most closely allied to *crepitans*. It is true that our material is much less extensive than was Mr. Sennett's but nevertheless it is sufficient to furnish good grounds for believing that these three forms intergrade and that *saturatus* is much nearer to *scottii* than it is to *crepitans*. The extreme dark phase of *scottii* is certainly very unlike typical *crepitans*, but in a large series of the latter from St. Mary's, Georgia, we find several birds taken late in March (and hence not long before the beginning of the breeding season) which incline sufficiently towards the grayer examples of *scottii* to suggest the probability of complete intergradation at points where the two forms meet.

Of *saturatus* we have only a single representative but this, according to Mr. Sennett (who has compared the three), is in every way similar to Mr. Henshaw's types (which are now in the British Museum). It differs very decidedly from the grayer specimens of *scottii*, less markedly but still quite appreciably from the blacker ones, and only *very* slightly from the brownest examples of that form. Indeed several of the latter resemble it much more closely than they resemble the gray extremes of their own subspecies. As the black, gray, and brown phases are all represented among breeding birds taken by us in one day and in the same marshes it follows that these phases cannot be regarded as seasonal or connected respectively in any way with different conditions of environment, but that they must express either age or individual variation. If, as seems not improbable, *saturatus* proves to vary to a similar degree and along corresponding lines, it will certainly be a matter of much difficulty to distinguish it from *scottii*. As the matter stands, however, we do not as yet know much about *saturatus*.

Meleagris gallopavo. WILD TURKEY.—On the evening of March 15, a flock of six Wild Turkeys flew across the river about one hundred yards ahead of us. These were the only ones observed and not more than four others were heard. It is probable they are more common further back from the river.

Campephilus principalis. IVORY-BILLED WOODPECKER.—An adult male was shot March 24, in a cypress swamp on the river's banks, about twenty miles from the Gulf. This and an individual heard March 29, further down the river, were the only birds of this species encountered, and information we received from a resident of the region, who was evidently reliable, led us to believe that the bird is rare.

Note on Conurus carolinensis.—Through lack of definite information it has generally been supposed that Paroquets are still found in the cypress swamps of the lower Suwanee. The inhabitant above quoted,

*Auk, VI, April, 1889, pp. 154-155.

†Ibid., pp. 161-166.

who has lived in the region for over twenty years, told us he had seen none of these birds for eight or nine years.

Spinus pinus. PINE SISKIN.—March 26 Mr. Brewster heard and saw a single individual of this species. Mr. Chapman has heard the species on several occasions at Gainesville, Florida, during previous winters, and these records are supported by his capture there of a male specimen on February 15, 1890.

This species has been recorded from the State but once before. (*Cf.* Maynard, Birds Eastern North America, p. 92.)

Helinaia swainsonii. SWAINSON'S WARBLER.—Two males were taken in a large, gloomy cypress swamp on March 22. These birds, the only ones observed, were silent.

Troglodytes hiemalis. WINTER WREN.—Two birds of this species were observed and one was secured. This is apparently the most southern point from which it has been recorded in the Atlantic States.

Regulus satrapa. GOLDEN-CROWNED KINGLET.—One example was taken March 14 and one noted March 21. Mr. Brewster has observed a few individuals of this species at Tallahassee in March, but Mr. Chapman has not met with it at Gainesville.

LIST OF BIRDS OBSERVED ON THE SUWANEE RIVER BETWEEN BRANFORD AND THE GULF FROM MARCH 11 to APRIL 1, 1890.

(*The asterisk indicates that specimens were secured.*)

*1. Podilymbus podiceps.
*2. Anhinga anhinga.
*3. Phalacrocorax dilophus floridanus.
4. Pelecanus fuscus.
5. Anas (fulvigula?).
6. " americana.
7. Spatula clypeata.
*8. Aix sponsa.
9. Aythya affinis.
*10. Guara alba.
*11. Ardea wardi.
*12. " egretta.
13. " candidissima.
*14. " tricolor ruficollis.
*15. " cœrulea.
*16. " virescens.
17. Nycticorax nycticorax nævius.
*18. Nycticorax violaceus.
19. Grus mexicana.
*20. Rallus scottii.
21. Rallus virginianus.
*22. Fulica americana.
*23. Gallinago delicata.
24. Totanus melanoleucus.
25. " solitarius.
26. Symphemia semipalmata.
27. Actitis macularia.
28. Meleagris gallopavo.
29. Zenaidura macroura.
*30. Columbigallina passerina.
*31. Cathartes aura.
*32. Catharista atrata.
33. Elanoides forficatus.
34. Accipiter velox.
35. Buteo borealis.
36. Buteo lineatus.
37. Haliæetus leucocephalus.
38. Pandion haliaëtus carolinensis.
*39. Syrnium nebulosum alleni.
40. Ceryle alcyon.
*41. Campephilus principalis.

*42. Dryobates villosus audubonii.
43. Dryobates pubescens.
44. " borealis.
*45. Sphyrapicus varius.
*46. Ceophœlus pileatus.
*47. Melanerpes erythrocephalus.
*48. Melanerpes carolinus.
*49. Colaptes auratus.
50. Antrostomus carolinensis.
51. Chætura pelegica.
*52. Trochilus colubris.
*53. Tyrannus tyrannus.
54. Myiarchus crinitus.
55. Sayornis phœbe.
56. Cyanocitta cristata florincola.
57. Corvus americanus (floridanus?).
58. Molothrus ater.
*59. Agelaius phœniceus.
60. Sturnella magna (mexicana?).
*61. Scolecophagus carolinus.
*62. Quiscalus quiscula aglæus.
63. Quiscalus major.
*64. Spinus tristis.
65. " pinus.
66. Ammodramus maritimus (peninsulæ?).
*67. Peucæa æstivalis.
*68. Melospiza georgiana.
*69. Pipilo erythrophthalmus.
70. " " alleni.
*71. Cardinalis cardinalis.
72. Piranga rubra.
73. Progne subis.
74. Tachycineta bicolor.
75. Clivicola riparia.
76. Ampelis cedrorum.
77. Lanius ludovicianus.
*78. Vireo olivaceus.
*79. " flavifrons.
*80. " solitarius.
*81. " noveboracensis.
*82. Mniotilta varia.
*83. Protonotaria citrea.
*84. Helinaia swainsonii.
*85. Helminthophila bachmani.
*86. " celata.
*87. Compsothlypis americana.
*88. Dendroica coronata.
*89. " dominica.
*90. " vigorsii.
*91. " palmarum.
92. " palmarum hypochrysea.
*93. Dendroica discolor.
*94. Seiurus aurocapillus.
*95. " noveboracensis notabilis.
*96. Seiurus motacilla.
*97. Geothlypis trichas.
98. Sylvania mitrata.
99. Setophaga ruticilla.
100. Mimus polyglottos.
101. Galeoscoptes carolinensis.
102. Harporhynchus rufus.
*103. Thryothorus ludovicianus.
*104. Troglodytes hiemalis.
*105. Cistothorus stellaris.
*106. " palustris.
107. Sitta carolinensis (atkinsi?).
108. Sitta pusilla.
*109. Parus bicolor.
*110. " carolinensis.
*111. Regulus satrapa.
*112. " calendula.
*113. Polioptila cærulea.
114. Turdus aonalaschkæ pallasii.
115. Merula migratoria.
*116. Sialia sialis.