CONCERNING CERTAIN SUPPOSED INSTANCES OF THE OCCURRENCE OF THE CINNAMON TEAL IN FLORIDA AND SOUTH CAROLINA.

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IT is by no means easy to distinguish females and young males of the Red-breasted or Cinnamon Teal (Querquedula cyanoptera) from those of the Blue-winged Teal (Querquedula discors), even when accurately named skins of both species are available for comparison. Without the aid of such material no ornithologist, however experienced, should attempt to positively determine any but fully adult male birds unless his specimens were obtained in regions where the species to which he is inclined to refer them is known or likely to occur and the other bird is almost certainly not to be found. The impression - rather generally entertained it would seem — that the Cinnamon Teal is always red-breasted is wholly without foundation, for as a rule — if not invariably — only males in full nuptial plumage are thus characterized. On the other hand Blue-winged Teal of both sexes and of various ages are often conspicuously tinged on the breast, belly and flanks, with reddish brown or rusty. This appears to be merely a superficial stain perhaps derived from contact with mineral matter held in solution in water or in semi-liquid mud. It is too nearly indelible, however, to be removed by vigorous and repeated washing, and it probably persists until the plumage is changed at the next regular moult. It is by no means peculiar to Blue-winged Teal, for it may be noted in occasional specimens of most of the ducks which, in autumn and winter, frequent the fresh and brackish waters of our South Atlantic States. I am not aware that it ever occurs in the Red-breasted Teal, but that it may do so occasionally is not improbable. Females and males of the species last named are said to differ from those of the Blue-winged Teal in having coarser and more pronounced dark markings on the under parts. There may be a tendency to dissimilarity of this kind, but I have not found that it is either pronounced or constant. A better character in my opinion is that afforded by the bill, which is almost invariably

longer and narrower in *cyanoptera* than in *discors*. I have seen one or two birds, however, which, after the most careful study, I have been unable to satisfactorily determine by the tests just mentioned or by any others known to me.

In view of these inherent difficulties and popular misconceptions it is perhaps not to be wondered at that reddish-stained specimens of the Blue-winged Teal, such as I have just described, should be sometimes mistaken for Cinnamon Teal, even by ornithologists of good standing and large field experience. That several important published records of the supposed occurrence of Q. cyanoptera in our South Atlantic States were either certainly or probably based on erroneous identifications of this kind I shall now proceed to show.

The earliest of these records is by Dr. J. A. Allen who, writing in 1869,¹ says: "This species [Q. cyanoptera] was found by Mr. Maynard in great numbers in the savannas of the upper part of Indian River, but unfortunately the specimens he obtained were lost."

Mr. Maynard told me, not long after this experience happened, that his birds were identified in the field and that he referred them to cyanoptera merely because of the fact (which he supposed at the time to be conclusive) that their under parts were tinged with reddish. When Mr. Cory and I were shooting in these same 'savannas' in February, 1889, we found no Red-breasted Teal, but wintering Blue-wings were met with in numbers and several of the specimens we killed had rusty-red bellies and breasts. These and other considerations have long since led me to believe that the birds originally recorded by Dr. Allen were probably all Bluewinged Teal. In his 'Birds of Eastern North America' Mr. Maynard mentions the Red-breasted Teal only in the Appendix where (on page 520) he merely says: "Occurs west; accidental in Lou. and Fla," In the second edition of this work he includes the species in the main body of the text (on page 121), but with only the brief statement that it "is occasionally found in the Gulf States, even as far east as Indian River, Florida." He now writes me (under date of February 23, 1907) as follows:

¹ J. A. Allen, On the Mammals and Winter Birds of East Florida, Bull. Mus. Comp. Zoöl., II, No. 3, Oct., 1869, 363.

"During my first trip to Florida in 1868-69.... I found two species of Teal very abundant about the head of Indian River (on the east side) in pools in the marshes. My note book says that these were Nettion carolinensis and Querquedula cyanoptera.... Two or three [of the latter] were shot along the shore. These specimens were never skinned but were plucked and eaten as we were in need of provisions at the time. The birds taken, either young males or females, were strongly reddish in tinging on the tips of the feathers of the under parts. Until my second visit to the same place in the early 70's I did not find out that this tinging was due to a stain caused by iron-impregnated water of some pools which I had not seen on my first trip, but which the birds appeared to frequent. You know that many ducks become stained in this manner, but that was probably not known to me in my younger ornithological days, although I have seen it hundreds of times since.

"The reason why I include the Red-breasted Teal among the birds of Florida is on account of notes given me by Mr. Chas. Naumann of whom you know, who lived at Dummitt's for some years. He always insisted that he had taken adult males [of Q. cyanoptera] here.... I am sure now, however, that I never saw the Red-breasted Teal in Florida."

In 1889 Mr. W. E. D. Scott published the following note: "Under date of November 12, 1888, Mr. J. W. Atkins of Key West writes me: 'Did I give you the record of a Cinnamon Teal taken here on November 1, 1887? I have the skin in my collection, and on October 24 (this year) I examined another of the species in the possession of a boy, who had just shot it in a pond near the town,"¹¹ *i. e.*, Key West. If, as we are left to infer, this youthful gunner plucked and ate his bird, he probably committed no very serious act of vandalism, for the Teal which Mr. Atkins preserved and which is now in my collection,² is nothing more nor less than a

¹ Auk, VI, 1889, 160.

² I received this bird, with a number of others taken in Florida, directly from Mr. Scott. It still bears the original label on which is inscribed, in Mr. Atkins's unmistakable handwriting. "Anas cyanoptera, Key West, Fla. Nov. 1/88. J. W. Atkins." It will be observed that this date is just a year later than the one mentioned by Mr. Atkins in his letter to Mr. Scott. Nevertheless it is practically certain that the specimen is the same as that to which Mr. Atkins referred in this letter where, no doubt, the date of its capture was correctly given.

perfectly typical female of *Querquedula discors*, having the under parts colored with the rusty stain already described.

Mr. Arthur T. Wayne has been similarly misled by the presence of much rusty red (and also, as he writes me, by the somewhat exceptionally coarse markings) on the under parts of an adult female Teal which he shot at Mount Pleasant, South Carolina, on April 12, 1904. After having reported¹ this bird as an example of Q. cyanoptera he very kindly sent it to me for examination. Like the specimen taken by Mr. Atkins at Key West it is, without question, a Blue-winged Teal.

Still another eastern record of Q. cyanoptera remains to be considered. It is that by Mr. Samuel N. Rhoads² of "a fine specimen of a male Cinnamon Teal, still in the flesh," which he examined in Krider's gun store in Philadelphia. It was killed by Mr. Charles S. Hebard in Lake Iamonia, Florida, on or about February 18, 1893. Mr. Hebard, writing to Mr. Rhoads about the capture of this bird, says: "When I got to where it fell I was struck by its beauty and decided to have it mounted." This would indicate that it was not either a female or an immature male. Moreover Mr. Rhoads, in a letter to me dated December 8, 1905, asserts that his "remembrance is that" the specimen "was in nuptial or fully adult male plumage." If this were really so he could not have made any mistake with respect to its identification. It is notoriously unsafe, however, to trust implicitly to human memory in matters of this kind. On the whole the evidence given by Mr. Rhoads does not seem quite conclusive, although it certainly warrants the assumption that the bird killed by Mr. Hebard was probably a Cinnamon Teal. If the specimen is still in existence it should be reëxamined and reported on by some competent ornithologist, for the record relating to it is apparently the only one remaining which affords anything like definite grounds for believing that the Cinnamon Teal has ever occurred in our South Atlantic States.

¹ Auk, XXII, 1905, 396. ² Auk, X, 1893, 362, 363.