

# STATUS OF THE BARROW'S GOLDENEYE IN NORTH CAROLINA

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According to the American Ornithologists' Union (1957), the Barrow's Goldeneye (*Bucephala islandica*) winters "on the Atlantic coast from the Gulf of St. Laurence south to New York (Long Island), rarely to South Carolina." The exact basis for this statement is uncertain, however, for Sprunt and Chamberlain (1949) list no records of the bird from South Carolina. In North Carolina, on the other hand, the Barrow's Goldeneye has been the subject of controversy and confusion since the 1890s. Reports of specimens were published and then later retracted; an apparently authentic specimen was collected and then lost; the existence of an additional record was disregarded; and previously retracted errors have been perpetuated in the modern literature. In light of this situation, a close scrutiny of all records is needed to define clearly the status of Barrow's Goldeneye in North Carolina.

## SOURCE OF THE CONTROVERSY

A total of five North Carolina records of the Barrow's Goldeneye, all based on collected specimens, have been reported in the literature. The major source of confusion over the authenticity of these records is due to the difficulty in positively distinguishing the Barrow's Goldeneye from the Common Goldeneye (*Bucephala clangula*). In the field, conclusive identification is difficult; but there are three essential marks in the adult males which separate the two species. Although both birds have a prominent white patch between the bill and the eye, Roberts (1955) states that this area is triangular or crescentic in the Barrow's but circular or oval in the Common (Figure 1). Furthermore, the head of the Barrow's is a deep, rich purple, in contrast to the greenish-black head of the Common Goldeneye. Although both birds have a long, white wing patch, this area is divided by a transverse black bar in the Barrow's Goldeneye; and, as pointed out by Kortright (1942), the Common Goldeneye appears more extensively white in the field due to the prominent white scapulars and the paucity of black edgings on the sides. In spite of these differences, three of the five specimens reported from North Carolina were incorrectly identified at the time of their initial publication; and Pearson, Brimley, and Brimley (1919) were forced to retract these three erroneous records.

## OBSERVATIONS

The first published report of a Barrow's Goldeneye from North Carolina came when Brimley (1893) claimed that a specimen had been obtained at New Bern:

*"Glaucionetta islandica* — Among the specimens which were purchased by the State to exhibit at Chicago was a Goldeneye, mounted at New Bern in 1892 and said to have been taken near that place."

This record was subsequently quoted by Smithwick (1897); but Pearson, Brimley, and Brimley (1919) later published a retraction of the report, stating that the bird had been incorrectly identified—it was actually a Common Goldeneye. In spite of this retraction, Brimley's (1893) New Bern record was erroneously included by Hasbrouck (1944) in his study of the winter distribution of Barrow's Goldeneye on the Atlantic seaboard.

In the same initial paper, Brimley (1893) reported a second specimen, taken by John S. Cairns near Weaverville, Buncombe County:

"... I received a letter from Mr. Cairns in which he said he had shot a Duck he thought was *islandica*."

This specimen was collected on 17 February 1893 and is now housed in the Museum of Comparative Zoology at Harvard University, Cambridge, Massachusetts. However, this bird also proved to be a Common Goldeneye (formerly called American Golden-eye), for Pearson, Brimley, and Brimley (1919) stated:

"The specimen taken by Cairns in February, 1893 . . . is in the collection of William Brewster, who informs us that it is a male *americana* assuming the adult plumage."

It is important to note, however, that Cairns said in his letter to Brimley that he "*thought*" the bird might be a Barrow's Goldeneye, not that it *was* a Barrow's Goldeneye [italics mine]. In fact, the specimen was correctly identified as an Common Goldeneye by Cairns before he sent it to Brewster. This fact is of importance in light of Cairns' later claims regarding his May 1893 specimen of Barrow's Goldeneye, for Stone (1920) sharply criticized Pearson and the Brimleys for including the species on Cairns' authority in the 1919 edition of *Birds of North Carolina*:

"*Clangula islandica* entered on the basis of a specimen reported by Cairns although another specimen obtained and identified by the same collector proved to be *C. c. americana*."

In Cairns' defense, it should be emphasized that he *did not* identify the February 1893 specimen as a Barrow's Goldeneye. In spite of the retraction by Pearson, Brimley, and Brimley (1919), Hasbrouck (1944) also accepted this erroneous record as valid.

The third and most controversial report of the bird from North Carolina came when Cairns (1894) stated:

"Barrow's Goldeneye — Although this bird is said to be rarely, if ever found south of New York state, a male I took the past spring is unquestionably of this variety."

The precise date of the record was published as 6 May 1893 by Smithwick (1897) and Bent (1925), while Pearson, Brimley, and Brimley (1919) listed this as the only valid sighting from North Carolina:

"The one record, therefore, is that of a male which Cairns reported that he took in Buncombe County on May 6, 1893. This specimen has not been located."

To date, the location of this specimen has never been discovered; and the validity of the record rests entirely on Cairns' integrity and ability. In this regard, Allen (1895) speaks of Cairns as a "thoroughly trustworthy observer," and W.K. Boyd (1897) also spoke of Cairns' reliability:

"But the . . . greatest thing that can be said of Mr. Cairns is that he was authentic. . . . He never made a statement unless he had a specimen to support his assertion—never entered into a discussion without convincing evidence that he was right."

Cairns' strict standards combined with his claim that the bird was "*unquestionably*" [italics mine] a Barrow's Goldeneye lend considerable weight to the validity of this record. As mentioned previously, however, the decision to include the bird on the state list on the basis of this May 1893 record was criticized by Stone (1920), who claimed that Cairns' allegedly erroneous identification of the February 1893 specimen made this later record highly questionable. Stone's criticism apparently prompted Pearson, Brimley, and Brimley (1942) to drop the bird from the state list altogether, for the second edition of *Birds of North Carolina* stated:

"It does not seem to occur in the State, for, although it has been reported on several occasions, all the specimens that we have been able to trace have proved to be American Golden-eyes."

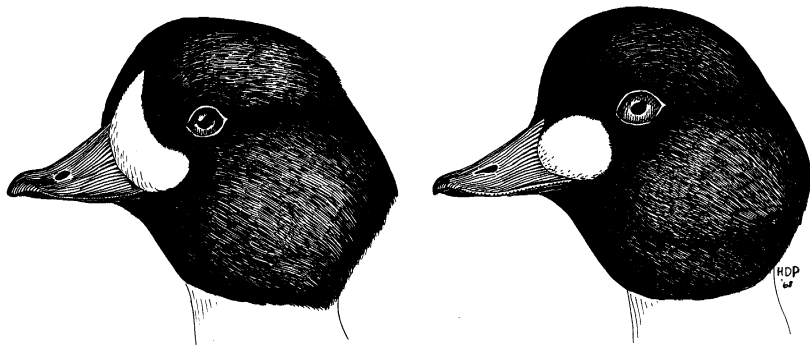


Figure 1. Adult male Common and Barrow's Goldeneyes can be identified in the field by the color of the dark head and by the shape of the white cheek patch. The Barrow's Goldeneye (left) has a deep, rich purple head and triangular or crescentic cheek patch. The Common Goldeneye (right) has a greenish-black head and rounded cheek patch. (Drawings by H. Douglas Pratt)

I have spent a considerable amount of time attempting to locate Cairns' May 1893 Barrow's Goldeneye specimen, but no results have been forthcoming. I have received reports from the following institutions indicating that the specimen is not in their collections: United States National Museum (Richard C. Banks, pers. com.); Field Museum of Natural History, Chicago (E.R. Blake, pers. com.); New York State Museum (R.S. Palmer, pers. com.); Museum of Comparative Zoology (R.A. Paynter Jr., pers. com.); American Museum of Natural History (Dean Amadon, pers. com.); Carnegie Museum (K.C. Parkes, pers. com.); and the Philadelphia Academy of Natural Sciences (James Bond, pers. com.). Furthermore, I have examined the collections at UNC-Chapel Hill and Duke University, and there is no evidence for the receipt of the specimen at either institution. I strongly suspect that this specimen may have been lost or destroyed around the time of Cairns' death in 1895. My biographical studies of Cairns have revealed that a large number of his bird skins were lost in transit to Harvard, a considerable number were destroyed in a fire at Weaverville, and others were allowed to deteriorate in unopened packing crates at several institutions. It is possible, although far from certain, that the bird was lost in one of these incidents. Thus, although this record has never been repudiated, confirmatory evidence of its authenticity remains lacking.

The fourth report of a Barrow's Goldeneye in North Carolina was published by Smithwick (1897) who stated that:

"A specimen was received at the State Museum which was determined to be *C. islandica* in the early part of February, 1897."

However, Pearson, Brimley, and Brimley (1919) later retracted this claim, stating that the bird had been subsequently identified as a Common Goldeneye.

The fifth and final record of the Barrow's Goldeneye from North Carolina was apparently first published by Hasbrouck (1944) who stated that a specimen taken in the state on 7 February 1895 was in the collection of the Field Museum of Natural History in Chicago. Subsequently, Hellmayr and Conover (1948) also mentioned this specimen, giving the same information as Hasbrouck. Emmet R. Blake (pers. com.) informs me that the bird is listed as Accession No. 18,628 of the Field Museum of Natural History; and he reports that the origin of the bird is unknown, except that it was acquired by the Museum in 1905 as part of the Charles B. Cory Collection. Blake has examined the specimen and confirms that it is a typical adult male *Bucephala islandica*, taken in

"North Carolina" on 7 February 1895, but the specific locality and the name of the collector are unknown. The file ledger listing the Cory Collection of some 20,000 specimens might have this vital information; but to date, the list has not been examined, and the specimen, although authentic, lacks complete supporting data.

## DISCUSSION

Of the five North Carolina reports of Barrow's Goldeneye, only two merit further discussion, namely the specimen at the Chicago Field Museum and Cairns' May 1893 record. Unfortunately, the report of the CBC Records Committee (1968) does not cover the unique situation presented by these two records.

The Records Committee (1968) states that an extant specimen is valid evidence for inclusion of a species on the state list; but the requirements for supporting data are unclear. In my opinion, this absence of supporting data (precise locality and identity of the collector) materially lessens the value of the Chicago Field Museum specimen to the point that it cannot be accepted as confirmatory evidence of the bird's occurrence in North Carolina. There are numerous incidents of incorrectly labeled birds finding their way into museum collections, especially during the 1800s; and the possibility that this bird was taken outside that state cannot be ruled out with certainty. If future examination of the Cory Collection ledgers should happen to reveal this information, however, the specimen could be considered as a valid basis for the inclusion of the species on the state list.

The significance of Cairns' May 1893 record is likewise unclear. Obviously a lost specimen does not have the same significance as an extant specimen, yet it seems to carry more weight than a sight record. On the other hand, Cairns was apparently the only ornithologist to examine the bird in question; and the record, therefore, might best be considered comparable to a sight record. In either case, this May 1893 record is not sufficient evidence to admit the bird to the North Carolina state list, in spite of Cairns' integrity and competence.

On the other hand, the existence of these two reports cannot be completely disregarded, as was done by Pearson, Brimley, and Brimley (1942). On the basis of these two records, therefore, I propose that the Barrow's Goldeneye be admitted to the hypothetical list for the state of North Carolina until such time as additional pertinent information is presented, either to substantiate or reject the validity of the reports. The inclusion of the species on the hypothetical list is in keeping with the recommendations of the Records Committee (1968).

## SUMMARY

The Barrow's Goldeneye has been reported in North Carolina on five occasions, but three of these records have been proved erroneous. A re-evaluation of the two unrepudiated records of the Barrow's Goldeneye indicates that the bird should be admitted to the hypothetical list for the state.

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