

## AUDUBON'S SHEARWATER IN THE UNITED STATES.

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BIRD collectors and students spend much time in securing specimens and making observations in the field which may or may not be used as a basis for published information. Specimens though properly preserved may deteriorate or be destroyed by accident, notes properly published and distributed may be buried in publications which in later years are seldom consulted, or the dates and places may become so changed in copying that the original records become almost unrecognizable. What is the fate of specimens and records after the lapse of years? The object of this paper, therefore, is not so much to trace the development of our knowledge of Audubon's Shearwater or to give an exhaustive discussion of its distribution, as to summarize the present knowledge of its occurrence on the Atlantic Coast as an illustration of the disposition of specimens and records in general.

About 100 years ago Audubon started for Europe to arrange for the publication of the drawings for his great work on the 'Birds of America.' On May 17, 1826, he sailed from New Orleans on the cotton Schooner 'Delos,' Capt. Joseph E. Hatch, bound for Liverpool, where he arrived July 21. Of the 65 days of the voyage more than half were spent off the coast of Florida. In his Ornithological Biography (III, p. 621) he writes, "On the 26th of June, 1826, while becalmed on the Gulf of Mexico off the western shore of Florida, I observed the birds of this species [Dusky Shearwaters] of which some had been seen daily since we left the mouth of the Mississippi and had become very numerous. The mate of the vessel killed 4 at one shot and at my request brought them on board." These birds were carefully examined and preserved. Measurements and sketches were made, full notes recorded, and the specimens were distributed as follows: "One of them I sent to the Academy of Natural Sciences, Philadelphia, by Capt. John R. Butler, of the *Thalia*, then bound from Havannah to Minorca, two others were presented to my excellent friend Dr. Traill on my

<sup>1</sup> Presented at the 44th Stated Meeting, at Ottawa, Canada, Oct. 14, 1926. Revised to July 1, 1930, by the inclusion of several additional records.

first becoming acquainted with him at Liverpool." The disposition of the fourth was not stated. These observations made in 1826 were not published until 9 years later when he also recorded that he had seen the same species off Sandy Hook, probably en route on one of his other trips to or from Europe. Audubon referred to the bird as the Dusky Shearwater (*Puffinus obscurus*), a species which had been described from the Pacific about 40 years before, and four years later he summarized his information in regard to its distribution, as follows: "Abundant during summer in the Gulf of Mexico, and off the coast eastward to Georgia. Some wander as far as Long Island." (Synopsis, p. 339, 1839).

In the same year that Audubon published his final statement, the French ornithologist Lesson described a Shearwater from the shores of the Antilles (*Ad ripas Antillarum*) under the name *Puffinus lherminieri* from a specimen in the Rochefort Museum (Museum Rupifortensis—Rev. Zool., April 1839, p. 102). The name, the museum, and the type locality all indicate that the collector of the bird was L'herminier, a young zoologist of the island of Guadeloupe, who had recently arrived in France to prosecute his studies. Ferdinand J. L'Herminier, in whose honor the Shearwater was named, was born in Basse Terre, Guadeloupe, June 20, 1802, and died at Pointe à Petre, a few miles distant from his birthplace, Dec. 11, 1866. He was a brilliant bird anatomist, now remembered chiefly on account of two important papers on the sternum of birds, one of which he published at the early age of 25 ('Sur l'appareil sternal des Oiseaux,' Mem. Soc. Linn., Paris, VI, 1827). It is Lesson's name *l'herminieri*, revived by Riley, that the species now bears in most systematic papers.

In the time intervening between Audubon's observation and the publication of his account of the Shearwater, Ferdinand Deppe, a German botanical collector, who accompanied Dr. C. J. W. Schiede to Mexico, secured a specimen at Cape Florida at the mouth of Biscayne Bay on the east coast of Florida. This bird, now known to belong to the same species as that described by Audubon and Lesson, was preserved and found its way into the Berlin Museum where more than 40 years later it was examined by Dr. Otto Finsch, who says (Proc. Zool. Soc., 1872, p. 112): "I have examined a fine specimen in the Berlin Museum collected by Mr.

Deppe at Cape Florida (mentioned by Bonaparte as *P. floridanus*, Consp. II, p. 204)." Finsch realized that the bird in question from the Atlantic Ocean was distinct from *P. obscurus* of the Pacific Ocean, and was familiar with Lesson's name, but had not been able to consult his description. He, therefore, renamed the former *Puffinus auduboni*, and this is the basis of the present English name Audubon's Shearwater.

Other early references that should be mentioned are the statements of Giraud in 1844 that "this is another of those stragglers that occasionally visit the coast of Long Island," (Birds of Long Island, p. 370) and Coues & Prentiss' record of a bird 'detected' in the District of Columbia, which was probably a specimen secured in September, 1842. Dr. Coues in monographing the group in 1864 says "The species of *Puffinus* spoken of in a paper published by Dr. D. W. Prentiss and myself in the Annual Smithsonian Report for 1861 (p. 418), as having occurred at Washington, D. C., and doubtfully referred to as the *obscurus*, has since been definitely ascertained to be this species." (Proc. Acad. Nat. Sci., Phila., 1864, p 138).

Thus, half a century after Audubon had obtained his first specimens, we have records of 5 specimens taken off the coast of Florida, and statements that the species had been detected in the District of Columbia, that it had been seen as far north as Sandy Hook and that it was casual off Long Island. It had been recorded under at least four names: *Puffinus obscurus*, *P. floridanus*, *P. lherminieri*, and *P. auduboni*. Had Audubon trusted to his own intuition and been half as keen to distinguish its characters as he was in naming such birds as Cuvier's Kinglet, Roscoe's Yellowthroat, Rathbone's Warbler, etc., he would undoubtedly have described the bird as a new species, which it was, in fact.

The second period of the history of this Shearwater in the United States covering the last 50 years or more is characterized by definite records of specimens, no new names, but the revival in 1902 of Lesson's long-forgotten name *lherminieri*. The records range from Florida north to Long Island and include various dates, most of them between the middle of July and the end of August. Briefly they are as follows:

1884, Nov. 27, a bird probably of this species was seen by Dr.

H. M. Smith on the Potomac River near Fort Foote, Md. It was seen close enough to be recognized as a Shearwater, but the species was not determined (M. T. Cooke, Proc. Biol. Soc., Wash., 1929, p. 17).

1887, August 1, a specimen reported from Bellport, L. I., by Wm. Dutcher and preserved in the Dutcher collection. ('Auk,' 1888, p. 173).

1893, August 26-27, a specimen observed on Long Island, east of Sullivan's Island, S. C., by Arthur T. Wayne ('Auk,' 1894, p. 85).

1893, Sept. 1, a specimen collected by Capt. C. H. Crumb on Cobbs Island, Va., and reported by Dr. W. C. Rives ('Auk,' 1901, p. 189).

1900, early October, several seen at Virginia Beach, Va., by William Palmer (Rives, 'Auk,' 1901, p. 189).

1908, August 1, two specimens found on Fort Macon Beach near Beaufort, N. C., after the hurricane of July 30-31, and reported by B. McGlone ('Auk,' 1908, p. 472).

1909, August 9, a specimen picked up on the beach south of Coronado, Fla., by R. J. Longstreet ('Auk,' 1926, p. 378).

1910, July 28, a specimen in possession of Stephen C. Bruner, reported from Beaufort, N. C., by the owner (Brimley, 'Birds North Carolina,' 1919, p. 43).

1911, August 10, Sullivan Island, S. C., a specimen reported by Wayne and recorded in Bent's 'Life Histories N. Am. Birds' (Part III, p. 76).

1913, July 13, a bird seen by Francis Harper two or three miles off Shackleford Banks, N. C., between Cape Lookout and Beaufort. "There had been a strong 'blow' from the south and southwest for two or three days previously" (Harper, in epist., Oct. 26, 1926).

1916, a bird collected at Fort Worth Inlet by J. J. Ryman, but which cannot now be found in the Ryman collection of the Florida State Museum (information from A. H. Howell and Dr. T. Van Hyning).

1924, July 25, "more than a hundred" seen feeding on sardines and more than a dozen taken near Cape Lookout, N. C., by Russell J. Coles ('Auk,' 1925, p. 123).

1925, July 26, a specimen from Bogue Banks, N. C., in the U. S. National Museum, collected by Coker and Hildebrand.

1925, August 9, a specimen found south of Daytona Beach, Fla., by R. J. Longstreet ('Auk,' 1926, p. 378).

1926, August 2, a specimen in the collection of the Academy of Natural Sciences, Philadelphia, caught at Cape May, N. J., reported by Witmer Stone ('Auk,' 1926, p. 536).

1926, August 2, fourteen specimens "putrid and stripped of flesh" found by E. von S. Dingle on the beach of the Isle of Palms near Charleston, S. C., four days after a tropical hurricane ('Auk,' 1927, p. 93).

1928, August, four specimens: "One living and one dead, found on the ocean beach south of Daytona Beach, Aug. 3, 1928, and one dead bird picked up in the same region on Aug. 5 and Aug. 13" by R. J. Longstreet ('Auk,' 1930, p. 95).

1929, August 23, "another dead Shearwater of this species was found on the beach." (R. J. Longstreet, *Ibid.*, p. 95.)

Having presented briefly the data relating to the occurrence of the bird in the United States, let us examine a little more critically the evidence based on names, records, and specimens, which has accumulated during the last century.

*Names:* The nomenclature is fortunately rather simple, only four names apparently having thus far been used for this bird, three of which were proposed for it.

*Puffinus obscurus*, by which it was originally known, belongs properly to a Shearwater described from the Pacific Ocean.

*P. floridanus*, a manuscript name applied to a bird taken at Cape Florida, was based on a specimen in the Berlin Museum.

*P. therminieri*, applied to a bird from the 'shores of the Antilles' (probably Guadeloupe), was based on a specimen seen by Lesson in the Rochefort Museum some 90 years ago.

*P. auduboni* is merely a new name for the birds referred to by Audubon and other authors as *P. obscurus*.

*Specimens:* The types of *P. floridanus* and *P. therminieri*, are probably in the museums of Berlin and Rochefort, respectively. Of the four specimens collected by Audubon, one he tells us was sent to the Philadelphia Academy, but if it ever reached its destination it cannot now be found. Two others reported as having been given to Dr. Traill may be in the Liverpool Museum, and the fate of the fourth specimen is unknown. In other words, all of

the four Audubon specimens seem to have been lost. The only other early specimen, that 'detected' in the District of Columbia, apparently the one reported to the National Institute of Science in 1845, has likewise disappeared and may be considered lost.

Of the specimens recorded in recent years four were sight records and others were not in condition to save. The Long Island specimen of 1887 may be in the Dutcher collection in the American Museum of Natural History; the New Jersey specimen of 1926 is in the Academy of Natural Sciences, Philadelphia; the Virginia specimen from Cobbs Island was in Dr. W. C. Rives' collection; the North Carolina specimen from Bogue Banks is in the National Museum; the Bruner specimen from the same State is in the collection of S. G. Bruner, and there may be others extant; while one or more of the specimens from South Carolina are in the collection of Arthur T. Wayne. The Florida specimens from the vicinity of Daytona apparently were not preserved; and the specimen from Fort Worth Inlet was in the collection of J. H. Ryman, later acquired by the University of Florida at Gainesville, but cannot now be found. Thus, of 7 specimens collected in the first half century and 18 recent occurrences, less than half the number and possibly less than a dozen specimens are still extant and more or less accessible. Only three of the large public museums apparently have any of these skins and only one or two each. In other words, the tangible evidence in the form of specimens which furnish the basis of published records has disappeared in most of the cases and future students who may wish to re-examine the question must rely entirely on the accuracy of the published records for data on distribution and migration.

*Records:* Audubon not only made detailed notes of the birds on the spot, but according to Townsend "sketched them in the flesh, and recorded his notes on the spot, and with such care and detail that in many cases one can find nowhere else such a complete description of habits." Compare this statement with that of Dr. Coues written with all the assurance of a young man of 22: "Audubon's description of this species is sufficiently pertinent, but the plate he gives is *unusually poor, and by no means true to nature.* The outline of the bill is exceedingly faulty; the line of demarcation of the dark and light colors along the side of the head and neck is

by no means accurate, and the lower tail coverts are represented as entirely white. The exact insertion of the right tibia of the individual figured has always been to me, anatomically speaking, a puzzle." (Proc. Acad. Nat. Sci. Phila., 1864, p. 138.)

In Bent's 'Life Histories of North American Petrels and Pelicans' (Bull. 121, U. S. Nat. Museum) is a very careful summary prepared by Dr. Charles W. Townsend, of the present knowledge of the habits and distribution of the bird accompanied by some of the more important records. On page 76, lines 11-14, appears the statement "Wayne (1894) found a specimen of the Audubon shearwater washed up dead on the coast of South Carolina after the great cyclone of August 26-27, 1894. As a matter of fact, this bird was not found on the date mentioned but after the great cyclone of August, 1893, as will be evident upon turning to the bibliography and referring to the article in 'The Auk,' in which Mr. Wayne mentions some of the birds found after the storm. This record appeared in 'The Auk' for Jan., 1894, p. 85, and refers to the cyclone of the previous August. Again, near the bottom of the same page, is the record of a specimen taken at Bellport, L. I., August 1, 1897. This is the bird recorded by Dutcher in 'The Auk' for 1888, p. 173, which was captured in 1887, ten years earlier than the date alleged. The error, however, should not be credited to Bent's 'Life Histories,' but to Braislin's 'Birds of Long Island,' from which it was apparently copied and where it was first given as 1897 instead of 1887.

The records for New Jersey have fared even worse than that for New York. The early statements of Audubon and others were given due credence at different times by Coues, Baird, Brewer and Ridgway, and by the A. O. U. Committee which prepared the first edition of the 'Checklist' in 1886, and the second edition of 1895. With the appearance of the third edition in 1910 the reference to New Jersey was omitted and only inferentially included in the statement of range as 'North casually from Florida to Long Island.'

The record for the District of Columbia, which Coues at first referred doubtfully to *obscurus* but later, in 1864, asserted positively belonged to this species, was transferred in 1921 to the hypothetical list and referred to *P. griseus stricklandi* ('Birds of the Washington Region,' Proc. Biol. Soc., Vol. 34, p. 13, 1921). The basis for this

disposition of the record is not apparent since the specimen having been lost was not re-examined, while Coues, one of the last to examine it, asserted positively in monographing the group in 1864, that it represented *P. obscurus*, now known as *P. herminieri*. More recently in 1929 it was restored to the list under the proper name *herminieri* (Ibid, 1929, p. 17). Virginia records apparently have only one specimen extant as their basis. North and South Carolina records are well fortified by specimens, but of several Florida specimens one is in Berlin and another presumably in Gainesville cannot be found. The other birds reported do not seem to have been preserved.

*Summary:* Audubon's Shearwater, smallest of the white-breasted species that occur on our Atlantic coast, was picked up off the coast of Florida by Audubon on his voyage to Europe and by Deppe on his voyage to Mexico. Audubon failed to recognize his bird as a distinct species and his specimens are now probably lost. Deppe's specimen found its way to Berlin, was duly recognized as a new species, but the description apparently was never published. Later, a specimen from the island of Guadeloupe carried to France and deposited in the Rochefort Museum was described and named, but, because the description was published in a place where it could not be readily found, was overlooked and the species was renamed in Audubon's honor.

This West Indian bird now has as its scientific name the name of a distinguished zoologist of Guadeloupe and as its popular designation the name of one of America's greatest bird students, a native of Haiti. Carried westward and northward by storms, it occurs frequently along the Atlantic coast from Florida to Long Island and probably regularly as far north as Cape Hatteras. In all probability nearly every hurricane or severe West Indian storm which strikes the coast in late summer or early autumn brings some individuals to our shores, and records would be frequent if competent observers were on hand to identify the specimens. Of nearly 25 records less than a dozen are based on specimens now generally accessible. Some of these records have, in consequence, been discarded and others are almost unrecognizable. The record for New Jersey which was accepted by Audubon, Coues, Baird, Brewer and Ridgway and the early Committee on Nomenclature of



the A. O. U. was discarded in 1910 because no specimen was available and the District of Columbia record for a time seemed in danger of sharing the same fate. The early records for southern Florida have been overlooked or so completely forgotten that a statement appeared in 'The Auk' for July, 1926, p. 378, that two birds reported from that coast constituted two of the three known records, whereas, in fact there were at least two other earlier ones for that State. Finally the record for Long Island has been repeatedly misquoted in such a way as to make it appear that it was published 10 years before the bird was collected.

*1939 Biltmore St., Washington, D. C.*