

## Evidence for the Collection of a Reddish Egret (*Egretta rufescens*) in Nova Scotia During the 19<sup>th</sup> Century and its Association with the McCulloch Collection of Birds

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Based on several lines of evidence, a specimen of an adult white-morph Reddish Egret (*Egretta rufescens*) now on display in the Macdonald Museum of the Annapolis Valley Historical Society in Middleton, Nova Scotia, probably originated from the 19<sup>th</sup>-century Nova Scotian bird collections of Thomas McCulloch senior (1776–1843) and his son Thomas (1809–1865), likely between 1838 and 1865. The only other records of this species in Canada are sightings in Nova Scotia in 1965 and 1966. This may therefore be the first specimen evidence of the species in Nova Scotia and Canada. Historical evidence links the specimen with the McCulloch collection of birds, part of which has survived at Dalhousie University.

Key Words: Reddish Egret, *Egretta rufescens*, Annapolis Valley Historical Society Macdonald Museum, Thomas McCulloch senior, Thomas McCulloch junior, McCulloch collection of birds, Nova Scotia.

The least abundant of North American herons, the Reddish Egret (*Egretta rufescens*) occurs mainly in saltwater habitats of southern Florida, the coast of the Gulf of Mexico, Baja California, other parts of Mexico, part of the West Indies, and parts of northern South America (Dunn and Alderfer 2011, page 116). It ranges north sparsely as a vagrant to southern New England, but it has not been recorded in Maine or New Brunswick (Lowther and Paul 2002; Maine Bird Checklist 2007\*; New Brunswick Rare Birds Committee 2011\*; Derek Lovitch, personal communication, 25 July 2012). There have been two sight records in Nova Scotia (the only ones in Canada) by competent observers, the first a dark-morph adult at Clam Bay, Halifax County, September 5 and 6, 1965, and the second a white-morph bird (typical of West Indian populations) at Canso, Guysborough County, in November 1966 (Tufts 1986, pages 63–64; McLaren 2012, pages 80–81). Neither was accepted by Godfrey, (1986), who carefully followed reports from Nova Scotia.

In June 2012, while visiting the Macdonald Museum of the Annapolis Valley Historical Society in Middleton, N.S., during a search for information on 19<sup>th</sup>-century bird collections in Nova Scotia, I found a specimen of a white-morph adult Reddish Egret on display (Figure 1) with common Nova Scotian species. Somewhat worn and dirty, and showing some signs that bill and legs had been retouched, it is an adult in breeding plumage.

According to a label in the cases, the bird specimens in the Macdonald Museum were transferred there from the Nova Scotia Museum (now the Nova Scotia Museum of Natural History) in Halifax. All are apparently

of 19<sup>th</sup>-century provenance, although the three cases and diorama views are of more recent vintage, dating from after the opening of the Macdonald Museum in 1982, probably from the 1990s, when the specimens came to Middleton (Andrew Hebda and Sherry Griffin, personal communications; Fred Scott, personal communication, 23 August 2012). The other specimens are of species found commonly in Nova Scotia, making the Reddish Egret unique and of unusual interest because of its rarity.

What is the evidence that it came from Nova Scotia and by whom and when might it have been collected?

### *History of collections*

Andrew Hebda, zoologist at the Nova Scotia Museum of Natural History, remembers seeing the specimens in the Macdonald Museum in 1996 in 19<sup>th</sup>-century cases. Moreover, Hebda recalls the original cases (which have not been located) being similar to cases still in the Nova Scotia Museum of Natural History that came from the collections of Thomas McCulloch (1776–1843) and his son Thomas (1809–1865).

The elder Thomas McCulloch came to the New World as a Free Church minister late in 1803. He settled in Pictou, Nova Scotia, taking on a role as one of the preeminent educators and religious controversialists in 19<sup>th</sup>-century Nova Scotia (W. McCulloch 1920; Buggey and Davies 1988; Whitelaw 1985). A school that he established in 1806 to train Free Church ministers had evolved by 1818 into Pictou Academy. McCulloch's educational philosophy has been called "liberal," indicating that he envisioned a broad education, including physical and natural sciences in addi-

tion to languages, humanities and religion, as a prerequisite to a moral and socially responsible life (Harvey 1943; Wood 1987). In this, birds played an important role.

By 1821, the educational program at Pictou Academy included natural history field trips, which provided specimens for a museum. McCulloch's first collections appear to have been of insects, some of which he sent to his Scottish alma mater, Glasgow University, and to British scientific societies. He maintained an active correspondence with collectors and naturalists in Scotland and northern England, exchanging specimens for collecting equipment and preserving materials (Whytock 1999), and about 1824 he began a collection of Nova Scotian birds that was housed in an expanded museum in the Academy.

By the early 1830s, the senior McCulloch, aided by his son Thomas, who had learned taxidermy, had become famous for his bird collection, which was regarded then as one of the best in private hands in the New World. Audubon, returning from a summer on the north shore of the Gulf of St. Lawrence ("Labrador") in 1833, made a point of visiting the McCullochs in Pictou and carried away some specimens with him (Audubon 1897, pages 435–444; W. McCulloch 1920, page 148; Lewis 1933, pages 164–165). The Audubon connection was maintained, especially by the younger Thomas, who corresponded with and sent specimens to Audubon until the latter's death in 1851. But the collection in Pictou was valuable, and McCulloch senior was straining to find funds to maintain his struggling school. Thomas junior took much of the collection to Britain and sold it there in 1835, mainly to Edward Stanley, 13th Earl of Derby, whose collections established the Derby Museum in Liverpool (now World Museum Liverpool). A few recognizable specimens from the first McCulloch collection still exist in Liverpool (Whytock 1999, pages 45–47).

#### *The surviving McCulloch collection*

When Thomas McCulloch senior was appointed first President of Dalhousie College (now University) in 1838, he began a new bird collection, aided again by his son Thomas. William McCulloch (1811–1895), another son, reported that in 1841 both Thomas McCullochs were hard at work collecting for a new museum (W. McCulloch 1920), and about 1842 the elder McCulloch went on a collecting expedition to Sable Island (no documentary evidence apart from a family letter has been found of this). When he died in early September 1843, he had just finished a collecting expedition to western Nova Scotia.

The development of the second McCulloch collection becomes unclear after 1843 because the younger Thomas McCulloch, who never married, seems to have left no papers. Nonetheless, he continued to collect, and at the time of his death in 1865 had an even more substantial bird collection, mainly of Nova Scotian ori-

gin but including some European specimens (primarily from Scotland) acquired by his father. It was probably housed in Dalhousie College, where from 1863 until his death Thomas junior was Professor of Natural Philosophy. According to the terms of his will, in 1865 it became the property of his brother William, a Presbyterian clergyman in Truro, Nova Scotia. In 1884, William McCulloch offered the McCulloch collection to Dalhousie College, to which it was formally transferred in 1887. There the collection remains, housed since 1971 in the McCulloch Museum of the Biology Department in the Dalhousie University Life Sciences Centre.

Thomas McCulloch senior had hoped to make his last collection the basis of a provincial museum in Halifax. When this did not happen and the collection came into the hands of the more reclusive Thomas junior, it was lost to public view and was probably unknown or unavailable to late 19-century Nova Scotian naturalists. Its quality was manifest after it returned to public view in 1887, especially in the 20th century, when it became clear that it contained treasures such as specimens of a Labrador Duck (*Camptorhynchus labradorius*) and Eskimo Curlews (*Numenius borealis*) (Lloyd 1920; Hahn 1963).

Archival sources reveal that the present-day McCulloch collection in Dalhousie University is only part of the original, supplemented by post-McCulloch specimens. For example, there are no passerine specimens whatsoever: they were probably lost before the collection was taken out of storage and rehabilitated in the 1920s and again in the 1950s. Some specimens from earlier collections apparently remained in Pictou Academy, a few are now housed in the McCulloch House Museum in Pictou, and some may have been acquired by Pictonians for their household collections. At some stage, likely before 1899, when Harry Piers became director and written accessioning began, McCulloch specimens made their way undocumented into the collections of the Provincial Museum of Nova Scotia (now the Nova Scotia Museum of Natural History), where a few remain, and where the specimens in the Macdonald Museum of the Annapolis Valley Historical Society originated.

There is a botanical clue that links the collection date of the specimen in Middleton with the second McCulloch collection. The bases on which the Reddish Egret and other specimens in Middleton are mounted are surrounded by carpets of the mosses *Hypnum imponens* and *Dicranum scoparium*. Bare spaces have been covered by the later addition (probably in the 1920s) of another species, *Rhytidiadelphus triquetrus*, not seen in any other collection. The oldest specimens in the Dalhousie McCulloch collection—the ones showing the least evidence of change during restoration in 1924—also have *Hypnum imponens*, with some *Dicranum*, surrounding their bases. The birds in



FIGURE 1. White-morph Reddish Egret (*Egretta rufescens*) (centre) in display case, Macdonald Museum of the Annapolis Valley Historical Society, Middleton, Nova Scotia, 23 June 2012. Photo: Eric Mills.

earlier cases from the McCullochs, dating from before 1838, originating in Pictou Academy and salvaged from the New Glasgow, Nova Scotia, high school for the Nova Scotia Museum of Natural History, have bases covered with different mosses, especially *Pleurozium schreberi* and *Thuidium delicatulum*, probably species easily available to the young Thomas McCulloch junior (who was the taxidermist of the collections) around his Pictou home (information on mosses from Anne Mills) (see also Morris 2010, pages 212-217 on the uses of mosses and other materials in case preparation by

taxidermists). Thus the moss cover links the Reddish Egret in Middleton with the McCulloch collection in Halifax.

### Discussion

This is a complex and circumstantial story, but it is consistent with the origin of the specimen of the Reddish Egret in Middleton being one of the McCulloch collections from a Nova Scotian location. Both McCullochs traded specimens, but the only obvious ones in the largest surviving fragment, the McCulloch

collection in Dalhousie University, are Old World game birds (Black Grouse (*Tetrao tetrix*), Red Grouse (*Lagopus lagopus scotica*), Capercaillie (*Tetrao urogallus*), etc.). Thomas McCulloch junior may have traded specimens with Audubon, but there are no other specimens from the southeastern United States among those surviving today. It seems most likely that the specimen came from the large collection maintained and expanded by Thomas McCulloch junior before his death in 1865, in which case it dates from the period 1838 to 1865.

Although the Reddish Egret specimen might have come from portions of the original collection that remained in Pictou in 1835 (when most of the collection was sold in Britain), this is unlikely. A Reddish Egret specimen would have been very valuable, so it seems unlikely that the impecunious Thomas McCulloch senior would have held it back from the collection that was sold in 1835. Thus it was probably collected after that year, but certainly before 1865.

It is not known for certain why the McCulloch collections do not figure in 19th-century accounts of the birds of Nova Scotia, such as the list published by the British Army officers Blakiston and Bland (1857), in the more substantial catalogues published three decades later by Chamberlain (1887) and Downs (1888), in Macoun's turn-of-the-20th-century *Catalogue of Canadian Birds* (1900). In none of these is there any mention of Reddish Egret. Nor is there a specimen documented in the extensive collections of the Halifax taxidermist Thomas Egan (1842–1914), who was closely associated with Downs (Regan 1908, pages 126–130). Egan prepared a very large collection of mounted birds for the Paris International Exhibition of 1867; photographs of many of these cases, in the Nova Scotia Museum of Natural History, do not include a Reddish Egret.

The second McCulloch collection seems to have remained invisible, because it became a pawn in Halifax politics of the 1840s surrounding the founding of a provincial museum. Had the two Thomas McCullochs, disappointed then in their attempt to found a provincial museum based on their second bird collection, not kept their collection to themselves, there would be contemporary accounts of the Reddish Egret now housed in Middleton. Although it may be impossible to prove definitively that the Reddish Egret in Middleton was collected in Nova Scotia by a McCulloch, the weight of evidence suggests that it was, and associates it with the second McCulloch collection.

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