A Possible Nineteenth-Century Murre from Milwaukee

Through painstaking ornithological detective work and historical research, the author presents a strong case that a long-overlooked specimen at the University of Milwaukee is Wisconsin's first and only record of Thick-billed Murre.

by John Idzikowski

I have been curious for many years about a mounted specimen of an alcid in the collection of the University of Wisconsin-Milwaukee's Department of Biological Sciences. The bird was originally identified as a "Black Guillemot" (Cepphus grylle), but was subsequently relabeled in the 1960s as a "Common Murre" (Uria aalge), probably because its thin bill seemed to fit the latter species (Figure 1). The label reads "supposedly taken in Milwaukee before 1900 by F. J. Zimmerman" (Figure 2). Confirming the bird's origin and identification is of interest, because no guillemots or murres are currently accepted for Wisconsin's official state checklist.

The UW-Milwaukee collection consists of an array of mostly mounted specimens, many of which came from the old teaching collection at the Downer State Teachers’ College (later incorporated into UWM), which contained many pre-1900 specimens. At Downer, basic Wisconsin bird knowledge was considered an integral part of a teacher's science education, and a primer to Milwaukee birds was published by the College. Other specimens in the Downer collection include mounts by Thure and Ludwig Kumlien, with original labels in their own hand. The Kumliens collected birds for museums and the eastern market in natural history specimens and documented southern Wisconsin bird life from their farm in Milton, mostly in the latter half of the nineteenth century. A single excellent mount of a male Passenger Pigeon (Ectopistes migratorius) is in the collection, as well. Some subsequent acquisitions include several nineteenth century parlor cases of mounted birds, a collection of mounted eagles, and specimens purchased from biological supply houses through the 1950s. As a result of migratory bird protection laws, donations from personal collections increased into the 1960s.

We know very little about F. J. Zimmerman, the collector of the mounted
alcid, other than that he contributed a number of bird and mammal specimens to this collection.

Sam Robbins learned of the alcid specimen while researching collections around the state for *Wisconsin Birdlife*, but decided not to include it in the book because the identification had no regional precedent and the original collector’s label was missing. But, I felt there were two reasons that this bird probably was collected in Milwaukee—first, the specimen’s base fits the style of Zimmerman’s other mounts, and, second, the curator’s modification to the label matches the relabelling of other specimens from the same period that were apparently also used for teaching purposes. I also tentatively agreed with the corrected identification of Common Murre.

**IDENTIFYING THE MYSTERY ALCID**

I didn’t seriously pursue documenting the origin of the bird until 1999.
Figure 2. The specimen’s current label, added in the early 1900s by the curator of the collection at the Downer State Teacher’s College, replaces the original and now lost label from Zimmerman. Photo by John Idzikowski.

During that time, I would occasionally spend a few hours at the Milwaukee Public Library or the UW-Milwaukee Library trying to find some thread to substantiate this specimen for Wisconsin. One might suppose that Ludwig Kumlien and Ned Hollister, still active in southern Wisconsin around 1900, should have been aware of this bird, but this was before telephones and electricity. My original look at A. W. Schorger’s 1951 update of Kumlien and Hollister’s *The Birds of Wisconsin* revealed no mention of murres. Nor do Kumlien and Hollister mention Zimmermann among their acknowledged southern Wisconsin contacts in their original work (1903), but there were many small collectors in that pre-field guide era.

One cold winter night, I visited the old storage floors of the central Milwaukee Public Library, where after a long wait a disgruntled librarian handed me a nearly lost copy of the original 1903 volume of the *Bulletin of the Wisconsin Natural History Society*, in which *The Birds of Wisconsin* was originally published; it was virtually crumbling because of its acid paper and almost a century of city air exposure. A look at their original species list produced nothing of interest regarding my search, but then I arrived at their “Hypotheticals” page. Here, I immediately saw a species description that I had never seen in Schorger’s revision, one that had been eliminated for the 1951 update:

*Cephus sp.? GUILLLEMOT.*

We are confident that some species of guillemot occurs on Lake Superior in winter, and possibly also on northern Lake Michigan. There is no positive evidence of a specimen ever having been taken in Wisconsin waters, however. While on Lake Superior we made diligent inquiry among people who had reasons for knowing, and several spoke of a small white “duck,” seen in winter. One man in particular was very positive in regard to a duck “big as a teal and speckled in rings all over” that frequented Whitefish Bay in winter. This inelegant description fits the winter plumage of either *C. grylle* or *C. mandtii* very well [both are now lumped together as Black Guillemot]. Dr. S. Kneeland, Jr., of Boston, makes mention, in his list (1) of the Birds
of Keweenaw Point, Lake Superior, of the reports of a nearly white merganser or "sawbill" in that vicinity in winter. He did not think it likely that it could be _Mergus albus_ [presumably Smew, _Mergus albellus_], and as no specimens were procured he was inclined to think, "the bird was same white plumaged duck." We think it probable that these birds will prove to be some guillemot, in winter plumage. The occurrence of several other species of _Alcidae_ on Lake Superior, as noted in some Michigan lists needs verification.


While this paragraph provided no substantiation for my specimen, it was of interest because it revealed the opinion of Kumlien and Hollister about the possibility of undocumented alcids appearing in Wisconsin. It may also have served as a reference that influenced the original identification of the bird as a Black Guillemot. This paragraph—and a mention in A. C. Bent (1919) that both _C. grylle_ and _C. mandtii_ were occasionally reported on Lake Ontario in winter—kept me interested in the search. I thought that the main thread might be found by looking in the Kumlien papers at the Wisconsin State Historical Society in Madison for some letter or reference to F. J. Zimmerman and this specimen. But if there was such a reference and they knew about the specimen, why wouldn't Kumlien and Hollister have included it in the original 1903 list?

As the Internet developed, I spent more time searching ornithological web sites for other Midwestern states. I noticed that there were more than a handful of records of Thick-billed Murre (_Uria lomvia_, known in the early 1900s as Brunnich's Murre) from around the Midwest, but I found no records of Common Murre anywhere in the region. Looking again to Bent (1919), I found this description of the winter range of Thick-billed Murres:

Winter Range—Occasionally common on the Great Lakes, straggling to northern Ohio (many taken 1896), Indiana (December, 1896), and central Iowa (two specimens)....

It was frustrating trying to place a Common Murre into this documented vagrancy of Thick-bills. I had felt originally that the small bill of the UW-Milwaukee specimen suggested that the bird was a Common Murre, but did not at that time realize that murre bills do not reach adult size for possibly a year or more (as in other alcids), even though diagnostic, species-specific bill characteristics are already present (Harrison 1983). In 1997, I printed out digital photographs of the specimen and showed them to interested ornithologists. No one then from Wisconsin questioned the identification as Common.

But a closer look at this specimen showed that the plumage pattern on the head did not seem right for Common Murre. With the growth of the Internet, quick communication and examination of photographic evidence by experts around the world was now possible. A few years later, I e-mailed a few Wisconsin ornithologists with broad identification experience; they all identified the bird as a first-year Thick-billed after careful examination and research. I then loaded the photos to a personal web site album and posted some measurement data to the Identification Frontiers listserv, which consists of a group of 870 field ornithologists from around the world. I
quickly received responses of Thick-billed Murre from seven respondents.

One Belgian expert, Gunter Desmet, spent hours examining specimens in Europe and doing literature searches. He initially felt that this specimen could have been an Atlantic form of Common Murre, but he agreed with Thick-billed after examination of more detailed bill evidence. The head of this bird should show much more white behind the eye for a Common (Figure 3). And the bill on a Common Murre is longer and upturned slightly, whereas the Thick-billed has a decurved culmen (Figure 4).
Says DeSmet (pers. comm):

If these measurements are metric, the mounted murre cannot possibly be a Common Murre. The bill length is way too short for Common Murre, and is a very good indication of a first-year Thick-billed Murre. It is a lot shorter than all published measurements for adult Thick-billed Murre in Europe, and I have never personally seen a first-winter Common Murre in Europe with such a short bill measurement. It is difficult to find a first-winter Common Murre (*Uria aalge albionis/aalge*) in Belgium with a bill shorter than 41 millimeters.

A MIDWESTERN "WRECK" OF THICK-BILLED MURRE

As I spent more time searching Midwestern state records, I found many references to the inland occurrence of Thick-billed Murres in the late fall of 1896. From Peterjohn (2001):

The famous flight of Thick-billed Murres followed an early December storm off New England in 1896. This storm scattered murres along the Atlantic Coast south to South Carolina and inland as far as Iowa.

Peterjohn goes on to detail 10 records along the Lake Erie shoreline in Ohio from this fallout, and concludes, “Given these numbers reported by only a few observers, the magnitude of this inland movement must have been substantial.”

And, recently, from a personal communication with John Pogacnik, who paraphrased the literature from Ohio:
It's probably more than a coincidence that the date of the [UW-Milwaukee] specimen ("before 1900") may coincide with one of the largest Thick-billed Murre flights ever recorded on the Great Lakes. Hundreds of birds were reported from the eastern Great Lakes. In Ohio, the first birds showed up at Fairport Harbor (Lake County) on December 18 [1896]. By the end of the month, murres had been recorded from the following counties, all of which adjoin Lake Erie: Lorain, 4 birds; Erie, 3 birds; Lake, 2 birds; and Ashtabula, 1 bird. Birds were also recorded in Michigan and several were shot at Presque Isle, Pennsylvania.

And this, from *The Birds of Michigan* (McPeek 1994):

Sight records from the 1896 and 1907 invasions indicate that literally "hundreds" of Thick-billed Murres arrived in the eastern Great Lakes, with scores of specimens taken in surrounding states. All of the birds collected were emaciated and had empty stomachs, pointing to an inability for these vagrants to find appropriate feeding conditions on the Great Lakes.

Fleming (1907) actually encountered many of these birds and tried to rehabilitate them by forced feeding, but they would not keep the food in their stomachs and they all died.

A survey of 15 states and two Canadian provinces yielded 22 accepted Thick-billed Murre reports; of these, 15 are from December of 1896 (Robert Domagalski, pers. comm.). A records review document from the Maryland-District of Columbia Records Committee lists a total of 18 Thick-billed Murre records that they have reviewed up until the present; of these, five specimens now reside in the collection of the Smithsonian National Museum of Natural History and all are from the period of December 14–28, 1896. The westernmost extent of this flight—or "wreck," as it is called in the alcid literature—was two specimens from Iowa dated December 16, 1896, and January 1897 (Black 1992). There are no such references to these wrecks or any vagrancy into the Great Lakes for Common Murre, a species that is seemingly confined to the Atlantic Ocean.

As Fleming (1907) states:

Of the Common Murre I have been unable to find a single record; and even the old records, previous to the period we are dealing with, from the New England Coast, I am informed, refer really to *Uria lomvia* [Thick-billed Murre].

There are numerous historical references to the year 1896 as being an unusually bad one for storms; 1896 is now considered a major past El Niño year with a notable weather-related failure of the wheat crop in India. It may also have been one of the worst years for tornadoes in the recorded weather history of North America. There were at least 40 killer tornadoes, including the only one ever to cause more than 100 deaths in two separate cities. On November 5, 1896, one of the heaviest of the Great Lakes "heavy gales" for the 1800s was recorded. After that gale, snow and high winds hit the Northern Plains and the Upper Mississippi Valley with a Thanksgiving Day blizzard across North Dakota. The storm was followed by a severe cold wave in the Upper Midwest. The temperature at Pockgama Dam, Michigan, plunged to 45 degrees below zero.

But the single event of interest to us may be the "violent northeast gale and snow" on December 14–16, 1896, which brought over 5 inches of snow to Boston (and who knows how much
rain) as the temperature hovered in the low 30s on violent winds, probably around a major low pressure system to the north. This storm flow might coincide with the normal yearly population high of adult and young-of-the-year murres wintering at sea.

Fleming’s 1907 analysis of these wrecks from 1890 through 1905 suggests that weather may have been responsible for these events. Bent (1919) summarizes as follows in his Thick-billed Murre account:

The erratic wanderings of this species in winter have furnished material for a large number of interesting records, along the Atlantic coast, and strangely enough well into the interior, chiefly in the vicinity of the Great Lakes as far west as Michigan and Indiana. Rather than attempt to give these records or even outline the unusual migration, I would refer the reader to an excellent paper read by Mr. J. H. Fleming, of Toronto, at the International Ornithological Congress in 1905. The conclusion to be drawn from a study of these wanderings, for a period of 15 years from 1890 to 1905, over a wide inland area far remote from the normal haunts of this maritime species, is that its winter feeding grounds in the southern portions of Hudson Bay became so thoroughly blocked with drift ice, and frozen over, that the birds were forced to migrate in search of food and many of them perished in a fruitless effort to find it.

From 1890 to 1905, it can be seen that these wrecks did not occur every year, but seemed to follow a two- or three-year clumped pattern; 1896 may have coincided with very severe weather and a high population of juveniles. The vast majority of the birds comprising the wreck were juveniles in most of these recorded events, suggesting a very high population of young for those years, or perhaps the wrecks occurred along with the later movement to wintering grounds by juveniles. Such wrecks were documented until 1953 (Gaston 1988), but not in the number seen before 1910, perhaps signifying a decrease in the murre population. The extreme cold before December 1, 1896, mentioned above, could have iced over Hudson Bay where the wintering population was significant. One can also see that a huge low pressure system over the northeastern states, such as occurred December 14–16, could cause a fallout on the western Great Lakes in the strong counterclockwise flow on the backside of the low as these birds were migrating or wandering in search of food.

Gaston (1988) has carefully reviewed these wrecks in light of recent knowledge gained from research on Thick-billed Murres. He concludes that the wrecks of this species were caused by a decline in their food supply, as no other species is involved in these wrecks as would be expected should weather alone be responsible. Large numbers of immature birds are normally found in the St. Lawrence River and nearby Atlantic at the time that these inland invasions occurred. A main component of their diet is capelin (Mallotus villosus), a fish which is known to exhibit population fluctuations. As birds wandered west into the Great Lakes searching for food before the St. Lawrence froze, a strong gale with a northeast flow as recorded in 1896 could have pushed these birds west during their wanderings.

The mapped fallout of the winter of 1896–97 (Figure 5), lacking the two records from Iowa, can easily be seen to have included southern Wisconsin, with nine specimens collected within
300 miles of Milwaukee. There must have been many dozens of wrecked birds for this many to be documented in this pre-birding era, when the human population was far smaller than today. There was another record from Greenville, Michigan, in 1907 (and in 1950, as well), suggesting that this species could have wandered to Wisconsin in other years with the documented wrecks of 1890 up until its pre-1900 collection.

PIECING TOGETHER THE EVIDENCE

We will never know the actual year of collection of this bird in Milwaukee, but the possible coincidence with the 1896 “flight” or others is compelling. There are other mounts from F.J. Zimmerman in the UWM collection, all from the same period, including 1896. I have been unable to find any link to this apparent collector/taxidermist outside of this connection to the State Teacher’s College; perhaps he was a local collector who sold to the college.

It is evident that a single typewriter was used by the caretaker/curator of what was then a small collection. Various specimens from different collectors have additional labels in the same larger type that are attached to enhance the information about the specimen, as one might expect for a teaching or display collection. I felt that this bird probably was collected in Milwau-
kee, as other mounts from the same collector had similar bases and a single curator labeled the bird in a specific style along with many others from the same period for teaching purposes. The doubt expressed by the label's rewriter, probably a biology instructor, of the original provenance is to be expected, as there was no precedent for this bird in Wisconsin at that time. What references were available in that pre-field guide era to aid a generalist in biology to identify a juvenile murre? There was no known or notable ornithologist associated with this college at that time, and the existing primer used there to teach about birds consists of a booklet that highlights fewer than 100 conspicuous species that one could see on a May bird walk.

It is interesting to note the original identification of the UWM mount as Black Guillemot. Two vagrant records of that species were known from Canada before 1900—from 1892 and 1895 (Fleming 1907)—and there were probably many records of Brunnich's (Thick-billed) Murre in the literature available at that time. But, as one can easily see in our modern field guides, this bird has nowhere near as much white as a basic-plumaged Black Guillemot should have. So, why did Kumljen and Hollister hold out for Black Guillemot based on the report of a "white duck" (which could have been a description of a Long-tailed Duck) when they must have known by 1903 of the occurrence of Thick-billed Murres in the western Great Lakes? Perhaps, at least, they knew that a basic-plumaged Black Guillemot does show a greater amount of white than a Thick-billed Murre. This illustrates the limited resources available in those times for proper identification.

I feel there is sufficient evidence to accept this bird as Wisconsin's first and only specimen of Thick-billed Murre. Iowa's two records have been accepted on past accounts, although the specimens are missing. There is precedent in the Wisconsin record for species accepted with less evidence than this. The misidentification of the original specimen and the subsequent alteration of its label may have kept this bird away from the attention of the Midwest natural history community (as it did in the 1980s for Sam Robbins), which was probably well aware of the 1896 "flight." As well, the then-developing Milwaukee Public Museum would not necessarily have had any contact with the numerous collector/taxidermists of that era, nor would have Kumljen and Hollister, residing some 60 miles away.

Based upon this evidence, I hope that this bird can be added to the historical record and to the State list; it would have been approximately species number 327 to be substantiated for Wisconsin if Kumljen and Hollister had recognized it before their 1903 publication (Idzikowski 1989). I urge everyone to be watchful for other such "lost" specimens of this species and others that may be present in small or obscure collections or mislabeled in museum drawers.

[Editor's Note: At press time, it was learned that the WSO Records Committee has accepted the Milwaukee Thick-billed Murre for the official Wisconsin state checklist, based on the information in this article.]

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**LITERATURE CITED**


John Idzikowski
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Randy Hoffman is a natural areas management specialist with the Bureau of Endangered Resources, Wisconsin Department of Natural Resources. A past president of the Wisconsin Society for Ornithology, he was the first person in Wisconsin to record sightings of more than 300 species of birds in one calendar year. He lives in Waunakee.

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