

A Barnacle Goose in LaSalle County

with a discussion on provenance of North American and Illinois records

by Michael L. P. Retter

Editor's Note: Richardson's [Cackling] Goose to which the author refers in this article is known to Illinois birders as the "Richardson's" race of the Cackling Goose.

On 1 November 2006 Doug Stotz noticed a large concentration of geese on a borrow pit at the intersection of I-39 and IL-71 in western LaSalle County. Further scrutiny revealed the composition of the flock: 850 Richardson's [Cackling] Geese (*Branta h. hutchinsii*), one immature Ross's Goose (*Chen rossii*), and one adult Barnacle Goose (*Branta leucopsis*). Doug made a phone call and had the bird's location promptly posted to IBET, the Illinois birding listserve.

The LaSalle County bird was automatically assumed by many to be an escapee, but I had always been skeptical that all such records should be summarily discounted. I have often wondered why Eurasian Wigeon and other species are readily accepted as wild while Barnacle Geese are not. The next day I chased the bird unsuccessfully. Another attempt the following dawn with Matthew Winks proved fruitful. Not only did we find the Barnacle Goose, but we also discovered a bird that appeared to be a Barnacle X Richardson's Goose hybrid. I was able to get photos of the Barnacle but not the hybrid. Frustratingly, as the overall numbers of geese at the location decreased, the hybrid was never seen again; however, the Barnacle Goose was seen and photographed well by dozens of birders through 7 November 2006. Was the goose a real vagrant or an escapee? We will probably never know for certain, but there are good reasons to consider wild provenance for this bird. I shall outline them below after first providing some background information.

Barnacle Geese are notorious within North American birding circles. They are long-distance migrants that breed in Greenland, so the species is a perfect candidate for natural vagrancy. Unfortunately, they have also been popular with waterfowl collectors. As the New York Records Committee put very succinctly, "The dilemma for any committee is how to know whether a specific individual represents an [escapee] or a genuine vagrant" (<http://www.nybirds.org/NYSARC/Reports/NYSARC2000.html>).



*Barnacle Goose, LaSalle County.
6 November 2006.*

Photo by Peter S. Weber.

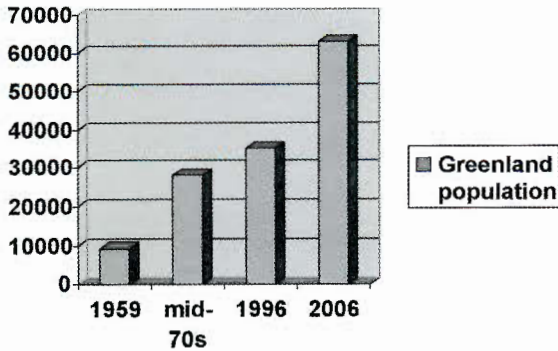
Breeding and Migration Status

The Barnacle Goose is a European high Arctic breeder. Three main populations exist. The one breeding in eastern Greenland (from which one might speculate the Illinois bird originated) winters in western Scotland and Ireland. Another breeding on Svalbard (north of Norway) winters on the east coast of Scotland. The most westerly population breeds on Russia's Novaya Zemlya islands and winters in the Netherlands. Since 1975, some former Novaya Zemlya/Netherlands birds started to establish a fourth breeding population in the Baltic Sea.

Richardson's Goose (*Branta h. hutchinsii*) breeds in north-central Arctic Canada from the Northwest Territories across Nunavut and Baffin Island to western Greenland. The breeding population in Greenland is relatively new (Fox et al. 1996; Banks et al. 2004) and has much expanded since 1996. Data from banded Richardson's Geese collected by the Canadian Wildlife Service (<http://www.ofo.ca/cackling/>) indicate that Illinois is directly within the migratory path and wintering range of individuals that breed on Baffin Island (only 200 miles from and the probable origin of the new Greenland population): they primarily use the Mississippi Flyway. Birds that breed further west (such as on Southampton Island and in mainland Nunavut) almost exclusively use the Central (Great Plains) Flyway. Thus, it would seem that most of the Richardson's Geese we see in Illinois breed in the easternmost reaches of the Canadian Arctic and Greenland.

Both Barnacle and Richardson's Geese are experiencing population surges, colonizing new areas in which to breed every year. The Greenland population of Barnacle Goose was estimated at 9,000 birds in 1959, 28,000 in the mid-70s, 33,000 in 2002, and 63,000 by 2006 (Mlodinow & O'Brien 1996, http://www.wwt.org.uk/Research/Monitoring/greenlandbarnacle_latest.asp). The population experienced a sevenfold increase in less than fifty years and doubled in only the last eight. Given the current melting of the Greenland ice sheet, the breed-

ing ranges of Barnacle and Richardson's Geese may well overlap in the not-too-distant future. Illinois birders will probably remember the impact that a burgeoning population can have on vagrancy. Illinois's second record of Ross's Goose was in 1980 (Bohlen 1989). Now they are readily found by the dozen across downstate Illinois.



Hybrids

A thorough comparison of positively identified online photos to sketches of the LaSalle Co. hybrid confirmed that it was indeed a *B. leucopsis* X *hutchinsii* hybrid. We are therefore left with two likely possibilities: either the Barnacle escaped and followed the Richardson's north to breed with one of them and returned south, or it came with them as a genuine vagrant from Greenland. Either way, natural hybridization is not unlikely, as these two taxa are closely related. Barnacle Goose's close relationship with *B. hutchinsii* was one of the reasons Canada Goose sensu lato was split in 2004. Richardson's Goose and Barnacle Goose are more closely related to each other than either is to Canada Goose (*B. canadensis*) sensu stricto (Banks et al. 2004).

The LaSalle Co. hybrid is not the first observed of this combination, either. A mated pair comprising a Barnacle and a Richardson's accompanied by two hybrid offspring was present in Connecticut from 22 Nov 1984 through 10 Jan 1985. Like the Illinois birds, they were believed to have migrated at least 2,000 miles together (Szantyr 1985). A 1985 report from the New York Records Committee describes another record of an adult with two hybrid immatures 11-15 March 1985. It also notes that there are 12 prior records of Barnacle Goose in New York. Though it would seem that records committees have been accepting birds for years, most had refrained until recently (<http://www.nybirds.org/NYSARC/Reports/NYSARC1985-86.html>).

Patterns of Occurrence

Widespread invasions of Barnacle Goose occurred across the East in winters 2001-02 and 03-04. Dinsmore and Silcock (2004) noted that, "As [Cackling and Canada Goose] populations also increase, several 'vagrant' taxa – Barnacle Goose, Pink-footed Goose, and Greenland Greater White-fronted Goose – have also been detected

more frequently. The proliferation of Barnacle Goose records in the East continued this spring, with reports from Quebec (two), Massachusetts, New York, and Maryland." As I type this in October 2007, two more have just been noted in New Hampshire and Massachusetts.

I have tried to compile the official status of Barnacle Goose in eastern North America. Attempting to locate this information on poorly-kept Web pages was not easy, and there are undoubtedly some errors. Due to our new understanding of the pattern with which these birds appear, a sea change is occurring with regards to how Barnacle Goose records are treated. New Jersey, Tennessee, New Hampshire, Massachusetts, New York, Virginia, North Carolina, Oklahoma, Newfoundland, Ontario, Maine*, Maryland*, and Connecticut* all have accepted records. Asterisks denote an "origin uncertain" or other similar category on the state list. States not included either have no accepted records or no information available.

The Massachusetts Committee accepted six records between 2001 and 2004, all of them between December and April; they concluded that "While captive origin is always a possibility for reports of this species, these reports seem to fit into a pattern of sightings that suggest[s] that vagrancy was the likely explanation" (<http://massbird.org/MARC/MARCreport8.htm>).

Connecticut also started accepting records, and its Committee's comments are worth noting.

[T]he "old school" common logic was to be better safe than sorry and reject this easily identified bird, nearly out of hand, simply because the committee could not be sure that any individual was truly wild. Why then are we accepting this individual to the official state list?

The evidence: The bird appeared wild, was unbanded[,] and had all its toes intact.

The bird occurred at the proper time for its species to be migrating ... The goose was in the company of ... birds that had been neck-banded ... in or near Greenland ...

[The number] of Barnacle Geese in captivity has probably been declining through the past decade, a consequence of economic and legislative factors.

When the bird has been properly identified and the preponderance of the evidence seems to indicate a wild origin and there is little or no evidence to the contrary, we believe it is responsible to accept the record under our voting category, Accept – Origin Uncertain. Species accepted under this category are fully accepted onto the state list and enjoy the same status as any other bona fide vagrant. We believe that the disclaimer simply reflects the truth in a situation that is essentially unknowable."

(http://www.ctbirding.org/eleventh_arcc_report.htm)

An immature from 3-29 Nov 2001 in New Brunswick was, "unanimously accepted... The fact that this bird was a wary immature accompanying Canada Goose migrants from the north increased the possibility of its wild origin" (<http://homepage.mac.com/marystp/BRCreports/NBBRC2004.html>).

The best supporting evidence for wild origin of many records comes in the form of wild, banded Barnacle Geese shot in North America. One of a pair of Barnacle Geese shot in Newfoundland in the fall of 1981 was banded on the breeding grounds on Spitsbergen [Svalbard] in 1977. Profoundly more interesting to Illinois birders is the record of a juvenile bird banded on the wintering grounds in western Scotland in 2004 (and thus, a Greenland breeder). It was shot in Ontario in fall 2005. (<http://www.refugenet.org/birding/marSBC06.html#TOC02>) This bird was following the same migration route that many of Illinois's Richardson's Geese follow every fall. There are also historic records of Barnacle Geese being shot in North Carolina, Maryland, and New Jersey from before and during the turn of the 20th century.

Illinois Records

late Oct 1998	Winnebago Co.
1-7 Nov 2006	LaSalle Co.
7 Nov 2003	Cook Co.
8 Dec 1968 (a pair)	DuPage Co.
22 Dec 1961	Williamson Co.
30 Dec 1987-Feb 1988	Vermilion Co.
31 Dec 1988	Lake Co.
winter 1988-1989	Cook Co. (same as previous bird?)
3 Jan 1981	Union Co.
1-30 Jan 1983	Winnebago Co.
7 April 1986	St. Clair Co.
3 May 1981	Madison Co.

Of over 130 records in North America, all but four occur between late September and early May. Most occur from late October into mid-March. (Mlodinow & O'Brien 1996). All of the Illinois records I located fit into the October-May window, though the May record may be suspect. However, consider the occurrence of wild Snow, Ross's, and Richardson's Geese routinely found on Spring Bird Counts. As for the others, this pattern of temporal occurrence surely supports a wild origin for some if not all. The pattern seems little different than that of other accepted vagrant waterfowl in this region, like Eurasian Wigeon and Brant. It's worth noting that the 1983 Winnebago Co. bird arrived with a flock of Richardson's Geese, just like the La Salle Co. bird. Similar data on the other birds was not available since *B. hutchinsii* was not split from *B. canadensis* until 2004.

More on the LaSalle Co. Bird

Weather conditions also seem to have been favorable for the occurrence of a genuine vagrant in LaSalle County. A series of slow-moving, back-to-back low pressure systems over southeastern Canada created persistent easterly winds over upper Quebec and Baffin Island for most of 18-25 October. On 29 October a particularly strong and windy system again passed over southern Quebec, producing strong easterly winds to its north. Finally, another low passed over Wisconsin on 31 Oct, sending winds whipping around counterclockwise from Hudson Bay, and the associated cold front passed through northern Illinois. The LaSalle Co. bird was found the next day.

It was scrutinized and photographed by dozens of people over its weeklong stay, and never was a band or missing toe noted.

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It is my hope that the information presented here will convince people to take another look at Midwestern Barnacle Goose records. Most records certainly seem to fit a pattern of natural vagrancy, but we simply cannot know the true origin of most birds. Perhaps the best answer is to employ a system such as Connecticut's, an "Origin Uncertain" category for state lists. This tool allows committees to accept that we simply cannot know the origin of many birds conclusively, while at the same acknowledging that there is also no evidence against wild provenance.

Thanks to Michael Andersen, Steve Bailey, Dan Kassebaum, Matt Hafner, Matthew Hale, Jim Hengeveld, Dave Johnson, Michael Miller, Doug Stotz, and Craig Taylor for their assistance with this article.

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