

The New Goose

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The Checklist Committee of the American Ornithologists Union (AOU) gave birders the gift of a new species this past July with the publication of the 45th Supplement to the AOU Checklist of North American Birds. The Cackling Goose, *Branta hutchinsii*, split from Canada Goose, *Branta canadensis*, becomes the most recent new species added to the Utah checklist. However, this is a perfect case of “be careful for what you wish,” because serious identification issues have been brought to the fore by this split. Canada Goose, a species that until now has received little attention from birders in the field, will now require much more scrutiny. Adding the new species, Cackling Goose, to your Utah state list will not be a trivial task.

The Background: Canada/Cackling Goose Taxonomy

The Canada Goose complex has been usually divided into subspecies along lines of size and color, with larger birds nesting mostly in the south and smaller birds mostly in the north. Lighter colored birds are generally found in the east, and darker ones in the west (although the Great Basin subspecies *B. c. moffitti*, is pale) Over the past seventy years, various Ornithologists have proposed a number of different ways of classifying the races of Canada Goose, with as many as twelve and as few as eight subspecies and one, two, three, or even four different species. Some have even divided various populations finely, into more than eighty morphological groups. Perhaps thankfully, these fine divisions are not well supported.

After the recent split, the AOU recognizes two species and eleven subspecies (and one additional, presumably extinct, subspecies), although the Checklist Committee has hinted that they may not be through with this complex. These eleven subspecies have been traditionally grouped into two or three groups according to size. The three-group system recognizes a group of large-sized subspecies, Canada Goose, a group of intermediate-sized subspecies, Lesser Canada Goose, and a group of small-sized subspecies, Tundra Goose. The two-group system recognizes a large form, Canada Goose, and a small form, Tundra Goose. Recent analysis of mitochondrial DNA tends to support the two-group system, and thus the basis for the recent split, though the name of Cackling Goose was given to the small species.

Even though it was not split into three species, in order to fully appreciate the problems now facing the field birder with identification of the two new species, it is instructive to take a look at the split from the perspective of the three-group system. Here’s how the subspecies are placed under the three-group system:

Canada Goose: This includes the subspecies *B. c. canadensis* (Atlantic), *B. c. interior* (Interior), *B. c. maxima* (Giant), *B. c. moffitti* (Moffit’s or Great Basin or Western), *B. c. fulva* (Vancouver) and *B. c. occidentalis* (Dusky).

Lesser Canada Goose: This includes the subspecies *B. c. parvipes* and *B. c. taverneri*.

Tundra Goose: This includes the subspecies *B. c. hutchinsii* (Richardson's), *B. c. asiatica* (Bering – probably extinct), *B. c. leucopareia* (Aleutian), and *B. c. minima* (Cackling).

In the recent split into two species, this is how they fall out:

Cackling Goose (*Branta hutchinsii*): This includes the subspecies *hutchinsii*, *asiatica*, *leucopareia*, *taverneri*, and *minima*.

Canada Goose (*Branta canadensis*): This includes the subspecies *canadensis*, *interior*, *maxima*, *moffitti*, *parvipes*, *fulva*, and *occidentalis*.

The problem for the field birder quickly becomes apparent by reviewing the lists of subspecies under these two systems. Even though the split includes a large species (Canada Goose) and a small species (Cackling Goose), the intermediate forms (from the Lesser Canada Goose) were split between both species, with the subspecies *taverneri* going to Cackling Goose and *parvipes* going to Canada Goose. Thus, there is a complete overlap in the middle in size between these two new species, because *taverneri* and *parvipes* are both essentially equal in size. Identifying Cackling and Canada Goose by size alone will only work at the extremes of both species.

Utah Records for Various Subspecies of Canada and Cackling Goose

Whether or not this identification conundrum will present a problem for Utah birders depends upon which subspecies occur here. This is not very well understood, because few birders even attempt to note the subspecies of such a common species, coupled with the difficulty of identifying the different subspecies in the field, that results in relatively few records identified to subspecies. The difficulty of identifying subspecies causes problems even with museum specimens, with some individual specimens being identified as different subspecies by different researchers. In spite of these problems, records from museum specimens do give a picture of what subspecies are known to have occurred in the state.

The only subspecies of Canada Goose known to breed in Utah is the Great Basin Canada Goose (*B. c. moffitti*). During the late spring through summer, this is the only subspecies likely to be seen in Utah. Specimens for various other subspecies collected in Utah also exist, including specimens of subspecies that are now part of Cackling Goose. However, all of the other subspecies occur only as migrants or wintering birds. In fact, all of the specimens of subspecies other than *moffitti* were taken in the months of October, November, December and January. This may be coincidental with the hunting season, as hunters provide the largest number of specimens.

Other than *moffitti*, subspecies of the large forms, Canada Goose, that have been collected in Utah include *maxima*, known from a specimen taken in 1939 at Otter Creek Reservoir, and *parvipes*, known from three specimens, two of which were taken December 19, 1963 at Coalville and the other taken at Fool Creek Reservoir (Millard County near Oak City) on January 4, 1964. Of the subspecies that are now part of Cackling Goose, there is a specimen of *minima* from Clear Lake, Millard Co., November 8, 1962; three specimens of *hutchinsii*,

one from the Bear River Gun Club in 1907; one from Hensel Valley (Box Elder County) November 7, 1951, and one from Deseret (Millard County) December 13, 1953; three specimens of *leucopareia* from Bear River Marshes (Box Elder County), November 25, 1933 and October 23, 1941. The *hutchinsii* taken at Deseret (Millard County) December 13, 1953 may be *taverneri*; there has been some disagreement as to the identity of this specimen.

There are a number of sight records reported without details for some of these subspecies, including *minima* and *hutchinsii*, which suggests that the occurrence of these subspecies is more common than the few specimens suggests. However, since no detailed study of the subspecies of Canada Goose in Utah has been done, much remains unknown. It is entirely possible that other subspecies occur, beyond those that have been documented.

Identification of Canada and Cackling Goose

Because this split is so recent, there isn't much in the way of literature about how to tell these two species apart. Therefore, the only information available that may be helpful is that which exists for how to identify the various subspecies. As previously mentioned, this information is itself often confusing, incomplete, and can lead to disagreements even with specimens in hand, let alone those in the field. A good review of the identification of the subspecies of Canada goose (written before the split) can be found on Angus Wilson's website at <http://www.oceanwanderers.com/CAGO.Subspecies.html>. Clearly, there is much work to be done on this identification problem. Hopefully, more will be available in the coming months.

There are several field marks which can be used to separate the subspecies, and by extension, Canada Goose and Cackling Goose. Clearly the most important is size. Luckily, geese are mostly social creatures, so that birders in the field will often be able to compare the sizes of different individuals. Extreme caution should be used in trying to judge the size of lone individuals. The size range in these subspecies is very large, from the largest *maxima*, with weights averaging at about 15 lbs., and some individuals weighing more than 20 lbs., to the smallest *minima*, with weights sometimes less than 3 lbs (about the size of a Mallard). There is considerable overlap in size between the various subspecies and even in the two new species. Besides size, there are a number of other features that can be used to help determine subspecies, although none of them show any consistent differences between all Cackling Goose subspecies and all Canada Goose subspecies. These field marks include overall color (whether it is pale or dark, especially the breast color), length of the neck, bill size, and the presence or absence of a white collar below the black neck. A few subspecies show a dark break or "chinstrap" separating the white cheek patches. Again, these features can help identify the subspecies, and thus, whether the bird is Cackling or Canada, but are not consistent for all the subspecies within each species.

A summary of the potentially useful identifying characteristics of each of the subspecies of Canada and Cackling Goose is presented in Table 1.

Here's a subspecies by subspecies review of the field marks that can be used to recognize each:

Canada Goose *Branta canadensis*

B. c. canadensis This is a large goose, averaging about 7.5 to 9 lbs., lightish in color, long neck, sometimes showing a whitish collar, a strong contrast between the breast and the black of the neck. This is the common subspecies of eastern North America; there are no records for Utah.

B. c. interior Similar in size to *canadensis*, about 7.5 to 9.5 lbs.; somewhat browner and darker, contrasting less with black of neck; long neck, and seldom with a white collar. Breeds mostly in eastern and central Canada, winters in the east and Midwest; no Utah records.

B. c. maxima This is a very large goose, about 14 to 15 lbs.; rather pale overall, especially on the underparts; white on cheeks extends somewhat farther up on sides of head than in *canadensis*. The neck is very long, it rarely has a white collar, and the bill is very large. This subspecies is found mostly along the Mississippi Flyway. There is one record for Utah.

B. c. moffitti This subspecies is only slightly smaller than *maxima*, about 8 to 14 lbs.; and is similar in general coloration; may have white markings on forehead and, in intermountain birds, a dark chinstrap. It is long-necked, and often has a whitish collar. This is the common subspecies of the west, and the only subspecies that nests in Utah.

B. c. parvipes This is a medium-sized goose, about 5 to 6 lbs.; the same size as the largest subspecies of Cackling Goose, or about the same size as a Snow Goose. It is similar in overall shape and color to *moffitti*, with a pale to dusky breast. Breeds in Alaska and winters in Washington and Oregon; there are several fall and winter records for Utah.

B. c. occidentalis This subspecies is medium to large, about 8 to 10 lbs.; generally dark overall; underparts chestnut to dark chocolate brown; seldom with a partial white neck collar. Breeds in Alaska and winters in Washington and Oregon; there are no Utah records.

B. c. fulva Similar but slightly larger than *occidentalis* about 6 to 13 lbs, has a relatively small bill. Breeds in western Canada, winters in Washington and Oregon; there are no Utah records.

Cackling Goose *Branta hutchinsii*

B. c. hutchinsii This subspecies is small in size, about 3 to 7 lbs., and light colored, with pale breast; bill appears stubby; white on cheeks usually continuous across chin; short neck; seldom has a white collar as in *leucopareia* and *minima*. Breeds widely on the arctic tundra; winters mostly in Texas and Mexico. There are several Utah records, all from late fall.

B. c. taverneri Similar in size to *parvipes* of Canada Goose, about 4.5 to 6 lbs.; similar in coloration to *leucopareia*, but lighter (though a bit darker than *parvipes*) and usually without

a neck ring. Breeds in Alaska, winters in Washington and Oregon. There may be a single record for Utah, but the identification of the specimen is unclear.

B. c. minima This is the smallest of the subspecies, about 3 to 4 lbs.; with small bill and short neck, appearing somewhat long-legged; highly variable in color but typically overall quite dark; a few show white collar; no dark chinstrap; also has a distinctive, cackling call. Breeds mostly in western Alaska and winters in central California, also in Oregon and Washington. There is at least one fall record for Utah.

B. c. leucopareia This subspecies is larger than *minima*, about 4.5 to 5.5 lbs.; with paler breast (but still one of the darker subspecies); usually complete and thick white collar at the base of the neck; neck and bill short, nearly always with black chinstrap. Breeds on the Aleutian Islands, winters mostly in California; there are several Utah fall records.

Summary

The recent split of the Canada Goose complex into two species, Canada Goose, *Branta canadensis*, and Cackling Goose, *Branta hutchinsii*, presents both an opportunity and a challenge for Utah birders. While most of the Canada Geese in Utah, including the entire breeding population, belong to a single subspecies (*B. c. moffitti*) that remains in Canada Goose, there are a number of records, represented by specimens, of at least three subspecies that are now in Cackling Goose. The opportunity for birders is that it would certainly be possible to see a Cackling Goose in Utah, especially in fall and winter. The challenge lies in correctly identifying this new species. The only consistent difference between these two species is size, with Cackling Goose averaging smaller than Canada Goose. However, both species consist of a number of subspecies, some of which overlap in size, so that some Cackling Geese could actually be larger than some Canada Geese. While there are a number of other morphological characteristics that can be helpful to identify the various subspecies of this complex, none of them can be used by themselves to separate Cackling and Canada Goose, and the correct identification of subspecies in the field remains difficult and uncertain.

Because size can only be used reliably in the field when there are other birds with which to compare, Utah birders will face an additional difficulty in correctly identifying a Cackling Goose. The common subspecies of Canada Goose in Utah (*B. c. moffitti*) is one of the largest of the subspecies, therefore most other subspecies of Canada Goose will look small in comparison, and some may appear less than half the size of *B. c. moffitti*, and yet not be Cackling Goose. It is probably not possible to safely identify either Canada or Cackling Goose for the subspecies in the size-overlap zone. These two species can probably only be safely identified in the field at the extremes. The smallest of the Canada Geese subspecies and the largest of the Cackling Geese subspecies are about the size of a Snow Goose, or about half the size of the Canada Goose that is commonly found in Utah. To be certain of a Cackling Goose, a birder would have to see a bird only one-quarter to about one-third the size of the common form of Canada Goose, or roughly from the size of a Mallard to the size of a Ross's Goose.

In addition to the size of the bird, birders should note other features that may be useful to identify the subspecies of the bird, such as the paleness or darkness of the plumage (especially the breast and underparts), bill size, neck length, presence or absence of a collar at the base of the neck and the presence or absence of a dark chinstrap. Noting this information can supplement an identification based upon size, and may help determine the exact subspecies. Noting the exact subspecies could prove useful in the future, as the AOU Checklist Committee has hinted that it may not be done with this species complex.

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