NEW NESTING SITE OF GREAT BLACK-BACKED GULL ON LAKE CHAMPLAIN, NEW YORK

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ABSTRACT -- Confirmed breeding of Great Black-backed Gull (*Larus marinus*) occurred in Clinton County, in northeastern New York, in June 1996. A single, young gull, attended by an adult, was seen twice on Garden Island, Lake Champlain. This is only the fifth inland location for confirmed breeding of this species in New York and the third location on Lake Champlain. No other water birds were nesting on the island; this circumstance is compared with Great Black-backed Gull nesting habits in other parts of New York State and is put into historical perspective of the species' past nesting habits in its original geographic range. Also, Great Black-backed Gull's historically wary behavior relative to humans is described and compared to the present.

INTRODUCTION

A modest breeding range extension of Great Black-backed Gull *(Larus marinus*) occurred in June 1996 with the sighting of a single, young gull on Garden Island in Lake Champlain. This is a new nesting record for Clinton County, NY and only the fifth inland location for confirmed breeding in New York, based on records in *The Atlas of Breeding Birds in New York State* (Meade 1988). See Table 1. Also, it is only the third location for Great Black-backed Gull breeding within the Lake Champlain basin (two in New York and one in Vermont). Garden Island is a tiny island (75 by 35 yards), 0.4 mile south of Valcour Island and 1.3 miles east of the mainland; both are in the town of Peru.

OBSERVATIONS OF YOUNG AND ADULTS

Evidence for breeding was first acquired accidentally; I was boating past Garden Island at noon on 16 June and observed (without binoculars, at a distance of about 50 yards) an adult Great Black-backed Gull attending a downy, young gull. They were only a few feet apart, on a rock outcrop on the north edge of the island. On 28 June I returned for another survey and found one half-grown, young gull standing on a rock outcrop on the eastern edge of the island. An adult Great Black-backed Gull was standing on a rock promontory at the south end of the island. The distance between the two was about 25 yards. From my boat, I examined both birds at a distance of about 35 yards with 10 x 50 binoculars. I confirmed the identification of the adult by its flesh-colored legs. The young gull also had flesh-colored legs, a large bill, and its plumage

(feathers, not down) was light gray, with dark spots on the head and neck. These two sightings of the same (presumably) young gull were the only ones I made. I boated around the island on subsequent dates (1, 3, 22, 26, and 30 July and 2 August) and saw no young gull. However, the entire edge of the island is composed of slabs of broken limestone, creating many crevices and caves in which the young gull could have been resting, out of my sight.

Table 1. The five inland nesting sites of the Great Black-backed Gull in New York State.

	Location	County	First Nesting	Reference
1	Four Brothers Island, Lake Champlain (Successful breeding, continuous to present)	Essex	1975	Meade 1988
2	Eagles Wing Islands, St. Lawrence River (1 nest, 2 eggs; did not hatch)	Jefferson	1980-83 (Atlas)	Meade 1988
3	Little Galloo Island, Lake Ontario (3 of 4 nests probably successful; others successful in 1984, 1985)	Jefferson	1981	Bloekpoll & Weseloh 1982
4	Long Island, Oneida Lake (1 nest, unsuccessful)	Oswego	1983	DeBenedictis 1983
5	Garden Island, Lake Champlain (1 nest, 1 young; no nests in 1997 or in 1998)	Clinton	1996	This article

An adult Great Black-backed Gull was seen on 1 July, floating on the water about 25 yards from the south tip of the island; this bird may have been attending to the young gull, which was not visible to me. Adult Great Black-backed Gulls were seen on subsequent dates in July and August; these occurrences were probably not related to the presence of a young gull.

On 6 August, a ground inspection of the island was done to look for a gull nest. Only one nest was found, near the edge of a rock outcrop on the northwest tip of the island. The nest was in low vegetation, but there was a view outward to the water. Its placement protected it from the prevailing south wind. The nest location was about 15 yards from the rock ledge upon which I first saw the downy, young gull. The nest was a slight depression in the ground, about one foot in diameter. The nesting material consisted of about ten fragments of aquatic plant stems of the round bulrush type. There were some small (0.5 inch)

fragments of eggshell, light olive-brown in color. The number was consistent with only one egg having been hatched. The only other object was a flat fish bone.

GARDEN ISLAND NATURAL HISTORY

Garden Island is a slab of limestone, whose flat top is about 20 feet above the lake surface. There were six small basswood trees and one white cedar tree, all less than 25 feet in height. The ground was mostly covered by thistle, plus some stinging nettle, milkweed, ragweed, and a few giant mullein plants. There were a few, small patches of grassy vegetation. In addition, there were a few shrubs of honeysuckle and red osier dogwood, both in fruit. Another feature, felt underfoot, were numerous ant hills. Transportation to the island was supplied by Anthony Tyrell, NY State Department of Environmental Conservation.

There was no indication that other water birds were nesting on the island, except the sighting, on several occasions, of Spotted Sandpipers flying about the periphery of the island. Six male American Goldfinches were seen, and this species may have been nesting there; the thistle was in flower and forming fruit, with abundant down. A few Barn Swallows flew about and seemed to disappear into caves along the periphery of the island; there may have been nests present, but would not have been easily observable. Several Cedar Waxwings were seen, apparently attracted by the fruiting shrubs. Other species seen on or near the island during boating surveys were small numbers of Double-crested Cormorants, Ring-billed Gulls, and Common Crows.

GREAT BLACK-BACKED GULL IN THE LAKE CHAMPLAIN BASIN

The discovery of this breeding by Great Black-backed Gull is the first known use of Garden Island by any gulls in many years. Mark Gretch and I surveyed the island in 1986 and found no evidence of gulls nesting there (Gretch 1987). Although I have not systematically looked for such nesting since then, none has come to my attention. I have often sailed close to the island each year and would have noticed gull breeding activity. Gretch (1987) cited a 1925 visit to Garden Island by Lewis Fifield, during which 34 active Herring Gull nests were counted. Since that time the island ceased being a gull nesting site; when and why this occurred is not known.

Garden Island is about 13 miles north of Four Brothers Islands, one of only two previously known Great Black-backed Gull nesting locations on Lake Champlain. This species has nested on Four Brothers Islands (which are in New York waters) since 1975, and the number of pairs nesting in recent years has been estimated at six to ten (Richard MacDonald, personal communication) and Peterson (1995). In Vermont waters, Young Island, about 10 miles northeast of Garden Island, has had nesting Great Black-backed Gulls since about 1984. In recent years there have been several pairs nesting there (Richard LaValley,

personal communication). The only other nearby Great Black-backed Gull nesting area is in Quebec, on St. Lawrence River islands extending northeastward from Montreal (Pierre Bannon, personal communication). This area begins 70 miles north of Garden Island.

GREAT BLACK-BACKED GULL IN THE COMMUNITY OF WATER BIRDS

Of interest is the fact that this solitary nesting by Great Black-backed Gull appears to be unusual, at least relative to the nesting habits of the species on Long Island and other places. Meade (1988) summarized reports on Long Island nesting and concluded that Great Black-backed Gull usually nests near or among Herring Gulls. Of 23 colonies, 22 had nests of both species and only one colony contained only Great Black-backed Gull nests. Also, Great Black-backed Gull was nesting in large colonies of its own species (6948 pairs in these 23 colonies (Peterson and others 1985)). Bent (1921) cites observers in Nova Scotia who reported large colonies, some with 600 to 800 adults, on islands in lakes near the seacoast.

On the other hand, Bent (1921) studied Great Black-backed Gull along the coasts of Labrador in the early 1900s and frequently found single pairs nesting on each of many "low rocky islands". Apparently, Great Black-backed Gull can adjust its nesting habits to the available habitats and to the population pressures exerted by numbers of its own species and those of other colonial water birds.

On Four Brothers Islands, there are large numbers of Herring Gulls, Ring-billed Gulls, and Double-crested Cormorants nesting, as well as other colonial nesting water birds (Peterson 1995). The same is true of Young Island (Richard LaValley, personal communication). The Garden Island breeding indicates that Great Black-backed Gull does not require the presence of an established water bird colony in order to colonize a new nesting island.

Perhaps the variation in Great Black-backed Gull's nesting habits and habitats has been influenced by its varying relationships to humans, resulting in degrees of wariness. In Labrador, Bent (1921) found Great Black-backed Gull to be "exceedingly shy and would never come within gunshot unless outwitted by strategy, which was no easy task". Persecution by humans probably had had an effect on the behavior of these birds; egg collectors raided the nesting islands to obtain eider duck eggs. Bent also stated that young gulls "are considered to be very good eating and are often kept in confinement by the residents of Labrador and fattened for the table". Brewster (1883) unsuccessfully attempted to collect Great Black-backed Gull specimens with a gun among the islands of the Gulf of St. Lawrence and commented that "it is by far the wariest bird".

I have not seen this great degree of wariness. Presumably, Great Black-backed Gull has habituated to the human presence, as long as it is not persecuted. Forbush and May (1939) concur.

PATTERN OF BREEDING RANGE EXTENSIONS

Although this breeding range extension of Great Black-backed Gull is a modest one, in distance and young produced, it may portend greater increases for the Lake Champlain population. The Plattsburgh Christmas Bird Count (PCBC) has documented a great increase in wintering Great Black-backed Gull in recent years. The first PCBC occurred in 1969 and recorded three. In the 1970s, counts had fewer than ten, some with none. In the 1980s, they were present on every count, with numbers between 12 and 32. In the 1990s, numbers ranged from 27 to 235; four counts had almost 100 or more. Although there are no systematic records for summering Great Black-backed Gulls, active birders agree that there has been a definite increase.

This pattern is similar to the sequence of population increases that occurred in other areas of New York State, culminating in breeding. First there was an increase in the winter, then in the summer, then a nesting attempt.

Peakall (1967) summarized available information on the buildup of winter and summer populations in various parts of the state from 1920 to 1966. His objective was to alert birders to watch for breeding of Great Black-backed Gull away from the Atlantic coast, where breeding populations were already well established. His article was written prior to any inland breeding in New York State, but after nesting had occurred in Canada on Lake Huron, Lake Ontario, and on the St. Lawrence River.

Peakall (1967) cited CBC records that indicated increases in the New York City and Long Island areas, as well as in the Great Lakes and Hudson River regions. Summer increases apparently followed. The first breeding record for the state was on Long Island in 1942. Increased breeding was slow at first, with 50 pairs in 1958. By 1966 there were 320 to 480 pairs just on Gardiners Island (Peakall 1967). It appears that Peakall's intimation was correct.

Both the Ring-billed Gull and Double-crested Cormorant have invaded Lake Champlain in recent decades and now have huge breeding populations. Relative to the population dynamics of all these species of various predatory levels is the statement made by Richard H. Pough (1951), (referring to the Atlantic Coast increases in Herring Gull and Double-crested Cormorant populations), "In this case it seems likely that the presence of the highly predatory black-back will tend to keep down the populations of the herring gulls and cormorants." Applying this idea to Lake Champlain, efforts should be made to protect potential nesting sites of Great Black-backed Gull. Preferred places appear to be small, isolated islands (Meade 1988). Lake Champlain contains 71 islands of less than 1000 acres (Gretch 1987), and some of these should be declared bird nesting sanctuaries. Even if Great Black-backed Gull does not ever exert measurable control over the other abundant water birds on the lake, it is a magnificent addition to the avifauna of the region. An increase in its breeding population

would make it an appropriate constituent of the community of birds dependent upon the natural resources of Lake Champlain.

1997 BREEDING SEASON OBSERVATIONS

In order to ascertain whether Great Black-backed Gulls would nest again on Garden Island in 1997, I made observations from the mainland and from a boat. Early in the season I used a 60X telescope, looking from the mainland. Two viewpoints were used: one that scanned the north and west sides of the island (at 1.4 miles) and one that scanned the south and east sides (at 2.3 miles). Starting at the beginning of May and continuing through July, I scanned the island and surrounding waters at about weekly intervals. During this period I saw no evidence of nesting by Great Black-backed Gull; in fact I saw none on or near the island.

However, on two separate days at the beginning of May there was a Canada Goose apparently sitting on a nest on the same northwest outcrop on which Great Black-backed Gull had nested the previous year. Another goose floated in the water nearby. On 20 May, four cormorants were sitting on the same northwest outcrop; excrement whitewash on the face of the outcrop indicated that they had been there before. No geese were then visible and the cormorants soon left. After about ten minutes two Canada Geese came into view from the other side of the island, accompanied by two small, downy goslings. A crow that had been sitting on a dead tree swooped down toward the goslings and one goose charged the crow, which then left the island. The other goose went to the northwest outcrop and settled down on the nest site. No further activity of the geese and goslings ensued for 30 minutes and the observations were ended.

I speculate that early nesting by the Canada Geese on the very same spot on which Great Black-backed Gull had nested in 1996 may have preempted nesting on Garden Island by the same Great Black-backed Gull pair in 1997. Back calculating the hatching, incubation, and nest building schedules of the two species indicates that the Canada Geese started their breeding activities in early April, 1997, whereas the Great Black-backed Gull pair did not start their breeding activities until early May in 1996. This presumes that the Great Black-backed Gull pair, if still present and attempting to nest on Garden Island, maintained the same breeding timetable in 1997 that they had followed in 1996.

On 27 May, observation of the island through the telescope failed to detect the geese or any other birds nesting; the same was true of observations made into August.

Observations of Garden Island from a boat commenced on June 10, using 7 x 35 binoculars at a distance of about 35 yards. There was no evidence of nesting birds, except that the goose down of the northwest outcrop nest could be seen blowing in the wind. During June, July, and August, observations were made

several times a week, but no indication of nesting by Great Black-backed Gull or other water birds was seen.

1998 BREEDING SEASON OBSERVATIONS

Approximately the same system of surveillance of Garden Island done in 1997 was repeated in 1998, from 22 April through 5 August. In April and May, weekly observations were made from the mainland with a 60X telescope. From 27 May through June and July, several observations per week were made from either the mainland (telescope) or from a sailboat (7 x 35 binoculars).

None of these observations detected any definite nesting activity by Great Black-backed Gull or other gull species (Herring Gull or Ring-billed Gull), by Canada Goose, or by Double-crested Cormorant. All of these species were seen occasionally on the island. On 26 May, 2 Canada Geese were seen grazing on the island, the only sighting.

The final information for the 1998 season was obtained during a land visit to Garden Island on 5 August. No nests of any kind were seen, although the island was thoroughly searched. The only species seen were 1 Spotted Sandpiper, 1 Song Sparrow, and 2 pair of American Goldfinches.

Thus, after an initial successful nesting by Great Black-backed Gull on Garden Island in 1996, the next 2 years did not produce a continuation of breeding.

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DEDICATION

With this article I wish to pay homage to Richard H. Pough for writing his Audubon Land Bird and Water Bird Guides. For me, these books were always a reliable source of interesting information about the ecology and behavior of birds; they satisfied my curiosity about what I was seeing in the field.

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