

A ground-nesting Bald Eagle in Ontario

Daniel J. Riley



Figure 1. Bald Eagle ground-nest. James Island, Ontario. 4 July 2019. Photo: *Daniel J. Riley*

The Observation

During the first week of July 2019, Kyle Davis and I, of Natural Resource Solutions Inc. (NRSI), were conducting nest surveys of Double-crested Cormorants (*Phalacrocorax auritus*). This was the third and final week in a series of surveys which spanned Lake Huron from Georgian Bay to the North Channel and waters along the Bruce Peninsula. Over the course of the past two days, we had been surveying islands with cormorant

colonies along the Bruce Peninsula and south of Manitoulin Island.

On the morning of 4 July 2019, we had launched out of the South Baymouth marina, Manitoulin Island, in clear conditions with calm waters. Despite being the start of July, the air was still a crisp 15°C as we set out to begin our day's work. Anyone familiar with the waters around the Bruce Peninsula and Manitoulin will know that they are often a clear turquoise, allowing you to see rocks

and the lake's topography deep beneath the surface. This was the case that morning and the stillness of the water extended the visibility. The spring and summer high water levels meant that many of the islands we planned to visit were partially or entirely submerged, and the clarity of the water found us throttling back for rocks 10 to 15 feet below the surface.

At 10:20, we arrived at our third survey point of the morning, the small, rocky and shrub covered James Island, located south of Fitzwilliam Island and north of Yeo Island in Manitoulin District. These islands form part of a chain of Niagara Escarpment islands that are primarily composed of limestone and dolomite (Henson *et al.* 2010). The shorelines of islands in this part of Lake Huron are characterized by cobble beaches and shelving bedrock (Henson *et al.* 2010). These beaches provided excellent locations to land our vessel and disembark. As we approached a small peninsula, we noticed a large stick nest perched within the limestone rubble, (Figure 1). Initially, I assumed it to be the nest of a Great Blue Heron (*Ardea herodias*), as we had observed a few ground-nests of this species in the preceding weeks.

We landed the boat down the shore from the nest, so as to avoid disturbing any adults or young that may be on the nest. We approached the nest which appeared to be vacant upon first inspection. The nest was flattened in appearance and constructed of small to medium sized branches and sticks. As we got closer, I was surprised to see a Bald Eagle (*Haliaeetus leucocephalus*) chick perched just down slope of the nest, (Figures 1 and 2). The

chick appeared to be between seven and eight weeks old based on size, feather development and mobility (Bortolotti 1984). It had most likely left the nest when it heard our boat approaching. Neither of the parents were in sight and were presumably out hunting or alternatively, keeping an eye on us from a distance.

Not wanting to disturb the chick, we quickly took a few photos and continued our search for cormorant nests. Upon returning to the boat, I texted with a few colleagues and fellow birders inquiring whether Bald Eagle ground-nesting was a known or regularly occurring phenomenon. Most agreed that it was not a commonly known behaviour, particularly in the given habitat and location in Ontario. Notably, two islands with suitable nesting trees were located in relatively close proximity to James Island. Fitzwilliam Island, 3.3 kilometres from the nest, and Yeo Island, 3.8 kilometres from the nest, are both forested islands with an abundance of potentially suitable nesting trees for Bald Eagles. During our time surveying cormorant colonies, we observed an additional five active Bald Eagle nests on islands in Lake Huron, all of these were located in trees.

Bald Eagle Ground-Nests

Bald Eagles are found in diverse habitats across North America, ranging from northern Alaska to the deserts of the American southwest and east through the boreal forest and Rocky Mountains, all the way to the Atlantic coast (Buehler 2000). Suitable breeding habitat typically consists of areas of mature and old-growth forest near to a waterbody or watercourse,



Figure 2. Bald Eagle chick on ground-nest. James Island, Ontario. 4 July 2019. Photo: Daniel J. Riley

which provide foraging habitat (Buehler 2000). The nest is usually built in the one of the largest trees in the area, on an exposed branch capable of supporting the massive nest which can weigh as much as 2 metric tons (Herrick 1932). In Ontario, Eastern White Pine (*Pinus strobus*) is often the tree species of choice although other large conifers and deciduous trees, including aspen species (*Populus* sp.) are regularly used (OMNR 1987).

With their extensive breeding range, Bald Eagles sometimes need to be creative in their selection of nest sites. In the treeless portions of their range, such as Alaska, northern Canada, Arizona and coastal islands off California, ground-nests are used with greater regularity. These nests are generally positioned on ridges, cliff sides or sea stacks allowing for

easy access from the air but limited accessibility for terrestrial predators (Sherrod *et al.* 1976). Observation records of Bald Eagles constructing ground-nests in other regions exist, but they are few and far between.

In 1991, a Bald Eagle ground-nest was documented on an island in Minnesota (Hines and Lipke 1991). In Florida, Curnutt and Robertson (1994) found three ground-nests on mangrove keys in Florida Bay. More recently, in the summer of 2004, Chris Martin observed the first known Bald Eagle ground-nest from Ontario, in Quetico Provincial Park, Rainy River District (Martin 2005). The nest was located on a small treeless rocky island in Pickerel Lake and was occupied by a juvenile eagle. Much like my observation from Lake Huron, the nest was

located in an area where seemingly suitable nesting trees abound. In 2010, on Vivian Island in the Strait of Georgia, British Columbia, Burton (2010) observed a Bald Eagle incubating an egg on a ground-nest.

In April 2013, a ground-nesting Bald Eagle was documented on Little Cobb Island, a barrier island located in Northampton County, Virginia (Watts *et al.* 2015); this nest contained two chicks, both approximately 35 days old and being cared for by an adult. Two months later, in June, Ruth Boettcher discovered a second ground-nest in Virginia, this time on Cedar Island, Accomack County, another of Virginia's Barrier Islands (Watts *et al.* 2015). Observations of ground-nests have since increased on

other Virginia Barrier Islands, with two more nests found in 2018 and another in March 2019, all on separate islands (Santora 2019). Bryan Watts, of the April 2013 observation, speculates that an increase in the Bald Eagle population in recent years may be causing eagles to resort to riskier nesting locations (Santora 2019). Perhaps a similar trend in Ontario's Bald Eagle population will result in more observations of eagles nesting in unusual places.

Conclusion

Although I can only hypothesize as to why a pair of Bald Eagles would choose to nest on the ground among limestone cobble, it is fascinating to learn that this is not an isolated observation of this behaviour. This observation represents the second documented Bald Eagle ground-nest in Ontario. Interestingly, the nest is quite similar in position to a number of ground-nests recently documented on Virginia's Barrier Islands. The ground-nests have a number of traits in common, they are located on islands in large waterbodies, which are primarily rocky and have an absence of terrestrial predators. These commonalities offer a small amount of clarity as to why these sites are being selected; however, they do not entirely explain the behaviour. Regardless of the reasoning behind it, the ground-nest represents a unique and memorable sighting for this observer.

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