Notes

Ground Nesting of Bald Eagles near Yellowknife, Northwest Territories

From 1968 to 1973, we conducted an annual survey of breeding birds on the West Mirage Islands (62°16′ N, 114°29′ W), Great Slave Lake, Northwest Territories. During this period, we observed the construction and use of a ground nest by a pair of Bald Eagles (*Haliaeetus leucocephalus*). The West Mirage Islands consist of a discrete complex of approximately 100 rocky islets and islands in Great Slave Lake about 13 miles SSW of Yellowknife, N.W.T. A detailed description of the avifauna and habitats found on these islands was recently published by Weller et al. (1969).

Ground Nesting

During a visit to the islands in early July 1970, Bald Eagles were frequently observed near a frail nest-structure located near the top of a dead 30-foot spruce tree on a 1½-acre island. Remnants of an old nest, apparently blown down during the previous winter, were scattered below the tree. The reconstructed nest in the tree contained new nesting material but no eggs.

While searching for duck nests on adjacent islands on 3 July 1970, we found an eagle's nest platform on the ground of a 1-acre island about 300 yards from the tree nest. The ground nest was



FIGURE 1. Ground nest constructed by Bald Eagles on West Mirage Islands, N.W.T. Note the extensive area of the nest and its proximity to water.

located about 60 yards from a small grove of trees on a low, flat, rocky peninsula. The nest was constructed about 5 feet above and 15 feet from water (Figure 1). The nest, built largely of driftwood up to 2 inches in diameter, had dimensions of 4 feet by 6 feet. About three-fourths of the nest was lined with a thick mat of dead grass and moss. No eggs were laid in this nest during 1970.

On 23 June 1971, two Bald Eagles were observed on the island with the tree nest. This nest had been completely rebuilt and contained two eaglets estimated to be 2 weeks old. By 13 August, the young were nearly grown but unable to fly. The ground nest found in 1970 on the adjacent island showed no evidence of use by eagles in 1971.

When the islands were visited on 22 July 1972, the tree nest had blown down again. A new nest,

18 inches in diameter, was constructed in the same tree but contained no eggs or young, however, two eaglets about 5-6 weeks of age were observed in the ground nest on the adjacent island (Figure 2). The ground nest had been enlarged and now measured 5 feet by 8 feet. An adult eagle was sighted near the nesting islands.

On 5 July 1973, two adult Bald Eagles were again observed near the nesting islands. In the ground nest, two eaglets approximately 4 weeks old were found. Ice during the spring breakup, or water during a recent storm, had eroded away about one-fourth of the ground nest. Litter from a winter camp was found on the adjacent island below the tree nest. The spruce bough supporting the nest and considerable nesting material had been used for firewood.



FIGURE 2. Two 5- to 6-week-old Bald Eagles observed in ground nest on West Mirage Islnads, N.W.T. Note the nearby tree and higher rocks in the background.

Nesting History

While this is the first known ground nest of Bald Eagles on the West Mirage Islands, eagles have a long history of nesting on the islands. The late William L. McDonald, a geological consultant and amateur ornithologist, first recorded a Bald Eagle nest in the same 30-foot spruce tree on the West Mirage Islands in 1929. McDonald observed the eagles' occupancy of this nest site over the years. He also noted occasional destruction of the nest, young, and adults by local fishermen, who considered the eagles detrimental to the fishing industry. McDonald's observations established that Bald Eagles had a nesting tradition on the West Mirage Islands spanning several decades.

Based on the initial survey of the West Mirage Islands (Weller et al. 1969), Bald Eagles were considered rare breeding birds or summer residents. Eagles were not observed on the islands in 1968, but the old tree nest and several feathers were found. In July 1969, we observed a pair of eagles carrying nesting material to the tree nest. One bird had typical adult plumage, but the other had several dark feathers on its head indicating that this individual may not have attained maturity. These birds did not lay eggs on the islands in 1969.

Discussion

Bald Eagles typically nest in tall trees near large lakes and along the shore of Great Slave Lake in the Yellowknife region. Godfrey (1966, p. 97) stated that this species generally nests near the top of trees and only rarely on cliff ledges.

Few specific references to ground-nesting eagles exist in the literature. Bent (1937, p. 335) concluded that Bald Eagles may nest on rocky cliffs or pinnacles of rock in treeless areas. He cited Gianini (1917, p. 400), who found several nests on cliffs and buttes along the coast or near rivers of the Alaska Peninsula. Bent (1937) also referred to Preble's observations of cliff-nesting Bald Eagles along lake-shores in northern Canada. In general, published accounts emphasize the fact that Bald Eagle nests on the ground usually are situated on rocky promontories where suitable trees are unavailable for nesting.

The ground nest of Bald Eagles on the West Mirage Islands is unique in that it was situated on a low rocky peninsula only a few feet above water. The nest site was not located on the highest point of land on the island and was near trees. Perhaps the frequent destruction of the tree nest contributed to the construction of a more secure nesting site.

The tenacity of the Bald Eagles for a specific nesting site is also of considerable interest. Eagles have attempted to nest in the same tree for more than four decades. Although the ground nest was used as an alternate nesting site, the eagles have persisted in reconstructing the tree nest. But there are many trees that appear suitable for nesting on other islands of the West Mirage complex and along the shore of Great Slave Lake. We could only speculate on the mechanisms of habitat selection and lineal relationship of the eagles nesting on the islands.

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Range Extension of the Ring-necked Duck, Aythya collaris, into Labrador

Interest in the waterfowl productivity of Labrador-Ungava was renewed in 1970 largely because of the Churchill Falls (Labrador) Corporation's hydro-electric power development in western Labrador. The reservoir (3,400 square miles) being created by the project will flood a large proportion of western Labrador's marsh and bog complexes. Co-operative studies by the Canadian



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