

UNUSUAL OBSERVATIONS OF NESTING BALD EAGLES IN SOUTH FLORIDA

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Bald Eagles (*Haliaeetus leucocephalus*) rarely nest on the ground and almost all such records are from areas where no suitable nest trees exist (Bent 1937, USNM Bull. 167:323-325, 335-336). Although they sometimes lay a second clutch after losing the first (Bent 1937, 325), renesting after loss of young must be most unusual in Bald Eagles as we found no record of it in the literature. In a study of Bald Eagles in Everglades National Park we observed one instance each of nesting on the ground and of probable renesting after loss of young. Both observations were made on islands in Florida Bay, Monroe County, Florida, where about 25 pairs of Bald Eagles nest, most nests being placed in mangroves (*Avicennia germinans*, *Rhizophora mangle*) 2 to 8 m above ground level.

On 19 March 1974 we noted from an airplane that the active eagle nest on Barnes Key, extreme southern Florida Bay, had collapsed and that the young bird, then about 10 weeks old, was on the ground at the foot of the nest tree. This eaglet fledged from the ground and we saw it flying or perched on several dates to 9 May 1974. A pair of Bald Eagles is known to have occupied the Barnes Key territory every season from 1959-60 through 1977-78 and eagles nested there at least as early as 1924 (Holt and Sutton 1926, Ann. Carnegie Mus. 16:428-429). The nest, about 3m high in a dead *Avicennia*, had been built in the 1966-67 season and was in its eighth year of regular use when it fell.

In 1974-75 the Barnes Key eagles nested on the ground at the base of their former nest tree. Our observations from aerial surveys were: 8 and 20 January, adult on the ground in incubating posture; 12 February, two downy young; 27 February, two partly feathered young; 19 March, two young almost fully feathered; and, 25 April, two young that flew strongly. We visited the nest on 27 March when the young were six to seven weeks old. The site was about 75 m from the shore in open vegetation that consisted of a dense mat of saltwort (*Batis maritima*) with widely scattered *Avicennia*. The nest (Fig. 1) was a pad of dead sticks and dry turtle grass (*Thalassia testudinum*) about 2.5 m in diameter and 10 to 15 cm deep partly enclosing the base of the former nest tree. It appeared that the eagles had added little or no new material to the remnants of the fallen nest. The following season, 1975-76, a pair of adult eagles frequented Barnes Key but did not nest. In 1976-77 eagles raised two young in a new nest in a dead *Avicennia* about 150 m from the location of the ground nest.

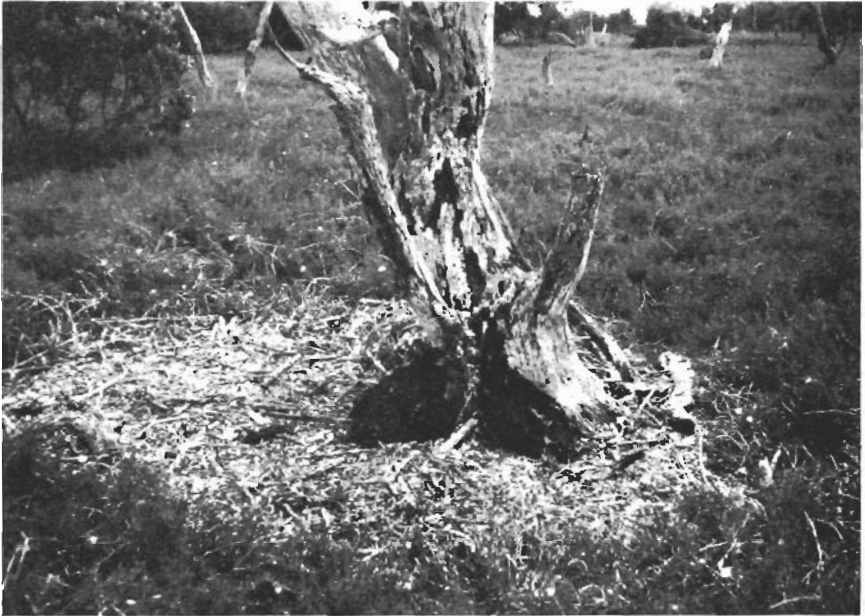


Fig. 1. Two eaglets six to seven weeks old on a ground nest, Barnes Key, Florida Bay, Everglades National Park, 27 March 1975. The dead snag shown, a black mangrove killed by the 1935 "Labor Day" hurricane, had held the nest of the previous year.

The Barnes Key incident shows that Bald Eagles may nest on the ground even where sites in trees are available nearby. Although this is the only instance of ground-nesting in some 425 nest records in Florida Bay from 1959 to date, the local environment of eagles would appear to favor ground-nesting, or at least does not select strongly against it. Most of the islands in the Bay have no predators of concern to eagles and frequent hurricane devastation has left only low trees. About 60% of the nests in Florida Bay are in derelict snags of large *Avicennia* killed by the 1935 hurricane and these sites are prone to collapse in high winds or as the weight of the nest increases. Eaglets as young as three to four weeks often survive collapse of these low nests and are reared on the ground. In 1973-74 and 1974-75 we recorded four such occurrences in addition to those on Barnes Key and, in all, 9 young eagles out of a total Florida Bay production of 33 fledged from the ground in the two seasons. Given the instability of many of the nest sites in trees and the fact that a number of pairs are experienced at rearing young on the ground, ground-nesting might be expected to occur more frequently in the Florida Bay population. It may become more common as the presently preferred sites in long-dead *Avicennia* snags become scarcer.

Renesting after the apparent loss of small young was noted in 1974-75 at a nest about 250 m off the north shore of Florida Bay near Flamingo. The nest site was an islet of live *Rhizophora* about 10 m in greatest diameter on a tidal mudflat with the nest placed on top of the mangrove clump about 8 m above the water. During aerial surveys we saw an adult on the nest in incubating posture on 22 November and 27 December, but on 8, 20 and 27 January both adults were perched beside the empty nest. Then, on 12 February, an adult was on the nest apparently incubating, and on 27 February we saw two eggs in the nest. Two young from this attempt hatched around 20 March and fledged about 15 June. Because we saw no eggs nor young from the presumed first attempt and because Bald Eagles at times exhibit long periods of persistent mock-incubating on empty nests, our observations do not show conclusively that two nesting attempts occurred. In February, 1975, however, we examined half a dozen color slides of the nest taken during the first week of January by a Park visitor. The photographer had evidently taken advantage of a high tide to approach the site in a small boat and climbed an adjacent mangrove to obtain pictures of the nest bowl. Several of the photographs included details that could pertain only to this nest site and several showed two young eagles in white down that we estimated were a week to 10 days old. We do not know whether the young were lost because of disturbance by the photographer or as a result of some other accident. It seems reasonably clear, however, that two young hatched in the nest in late December, that these hatchlings disappeared when they were less than two weeks old, and that the female laid a second set of two eggs about five weeks later from which two young ultimately were reared.

We thank R. E. Miele and A. H. Lussier for the expert piloting on aerial surveys that made these observations possible.

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