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## PURSUIT AND CAPTURE OF A RING-BILLED GULL BY BALD EAGLES

ANDREW W. KRATTER<sup>1</sup> AND MARY K. HART<sup>2</sup> <sup>1</sup>Florida Museum of Natural History, P.O. Box 117800, University of Florida Gainesville, Florida 3261; email: kratter@flmnh.ufl.edu

<sup>2</sup>Department of Fisheries and Aquatic Sciences, University of Florida Gainesville, Florida, 32611

Bald Eagles (*Haliaeetus leucocephalus*) are opportunistic hunters that employ a number of techniques to capture a wide variety of prey (Bent 1937, Brown and Amadon 1968, Sherrod et al. 1976, McEwan and Hirth 1980). These eagles are known to occasionally pursue prey, including flying birds, in pairs or larger groups (McIlhenny 1932, Sherrod et al. 1976, Folk 1992). Here we report three Bald Eagles giving a prolonged chase of a Ringbilled Gull (*Larus delawarensis*), which resulted in the gull's capture by one of the eagles.

At approximately 1500 on 12 December 1998, we were kayaking east across Newnan's Lake in eastern Alachua County, Florida, when we noticed a group of approximately 50 Ring-billed Gulls sitting on the water near the center of the lake. As we approached to approximately 100 m, the gulls lifted off when an adult Bald Eagle flew toward them at a height of about 75 m. The eagle immediately started to chase a first-winter individual. The chase was linear at first, but the gull evaded the faster flying eagle with sharp turns. Over the next three minutes, the eagle continued to chase the gull with rather slow stoops from heights of 25-100 m followed by short, fast linear pursuits. None of the stoops or pursuits was close to being successful. The other gulls had scattered at least 500 m away while the chase continued.

The pursuing eagle was then joined by another adult eagle, and both used slow stoops from above, followed by short linear pursuits. The gull continued to evade the two eagles over the next minute but had less recovery time between stoops. The two eagles were then joined by a third adult eagle. With three birds in pursuit, the gull was having a more difficult time evading the pursuits, because the eagles were often simultaneously stooping from above and chasing from behind. The gull changed directions several times to evade capture. The chase by the three eagles of the gull continued for 10 minutes westwards across the lake, then one eagle approached the gull from behind and the gull made an upward evasive maneuver. Another eagle, which had been circling approximately 50 m above, made a short (<10 m) downward stoop and captured the gull in its talons. This eagle then flew fast and straight to the edge of the lake and out of view, presumably to consume the prey. The other two eagles did not pursue the eagle with the prey.

At no time did the gull attempt to avoid capture by landing on the surface of the water. None of the eagles ever attempted to chase any other gull during the approximately 20 min of observation. Obviously, an eagle has an advantage over gulls if the prey is either on the water, when eagles can stoop from above (e.g., Bent 1937 and see below), or in linear chases, where eagles are faster fliers. The only means of escape for the gull is for it to use its greater agility to avoid capture until the eagle tires of the chase. When more than one eagle joins the chase, the gull's advantage of agility and endurance diminishes. The gull appeared healthy, as it flew normally and was not noticeably lacking in agility or speed.

Flocks of gulls, composed mostly of Ring-billed and Bonaparte's (*L. philadelphia*), but often including some Laughing (*L. atricilla*) or Herring (*L. argentatus*) gulls, have been increasing in size in recent years at Newnan's Lake (R. Rowan pers. comm.). Bald Eagles are also common and increasing at Newnan's Lake (pers. obs.).

Fully-grown gulls appear to be only an occasional item in the diet of the Bald Eagle (see summaries in Bent 1937, Stalmaster 1987, and Gerrard and Bortolotti 1988). Southern populations of the eagle subsist largely on fish (Bent 1937), although birds may also make up a large proportion of the prey (McIlhenny 1932, Folk 1992). In north Florida, McEwan and Hirth (1980) found that fish comprised 70% of dietary biomass at 16 Bald Eagle nests. They found only one gull (a Ring-billed) among 788 identified prey remains. In that study, the most common bird by far was the American Coot (Fulica americana), which comprised an estimated 19% of the biomass in the diet, eight times more than any other bird species. In central Florida, a Bald Eagle took a first-year Ringbilled Gull over-summering at Zellwood Farms in central Florida (H. Robinson in Pranty 2000). Northern populations of Bald Eagles may prey upon gulls to a greater extent. At eagle nests in Alaska, Murie (1940) found that Glaucous-winged Gulls (L. glaucescens) were commonly taken, although the age of the gulls was not given. In Washington, breeding eagles commonly took Glaucous-winged Gull chicks, but older gulls capable of flight were not taken (Hayward et al. 1977). In Maine, an adult eagle stooped and captured an adult Ring-billed Gull just as it was rising from a flock resting at a tidal pool (D. B. McNair *in litt.*). Adult Bald Eagles apparently have greater success at attacking flying prey than young eagles, which rely to a greater extent on injured prey or carrion (Sherrod et al. 1976). All three eagles giving chase in our observation were adults.

Pairs or larger groups of Bald Eagles have been noted to pursue and capture rabbits (Edwards 1969), geese (McIlhenny 1932), auklets (Sherrod et al. 1976), and egrets (Folk 1992). Although many of these groups may have been opportunistic rather than cooperative aggregates of individuals, Folk (1992) reported four instances of a pair of nesting Bald Eagles pursuing and capturing Cattle Egrets (*Bubulcus ibis*) in cooperative tandem hunts, with one eagle chasing and one eagle stooping. Although the behavior of eagles observed by us was similar, it is more likely that these three eagles were acting opportunistically, as several minutes elapsed before the other eagles joined the chase. Cooperative hunting is generally rare within the order Falconiformes, being notably developed only in Harris's Hawk *Parabuteo unicinctus* (Mader 1975, Ellis et al. 1993) and Eleonora's Falcon *Falco eleonora* (Walter 1979).

In our observation, three Bald Eagles pursued an immature Ring-billed Gull until one of the eagles captured the gull. Such hunting tactics suggest that Bald Eagles may opportunistically employ group hunting, especially when they choose relatively agile prey, such as gulls. Bald Eagles are not known to hunt in groups for prey such as fish and coots, which are frequent in their diet in the southeastern United States (i.e., McEwan and Hirth 1980).

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