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## Osprey, *Pandion haliaetus*, Depredates Common Eider, *Somateria mollissima*, Duckling

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To our knowledge, we present the first published account of a successful attack on a Common Eider (*Somateria mollissima*) duckling by an Osprey. Ospreys were sighted periodically during 940 hours of Common Eider observations in June-August, 2001 on Grand Manan Island, New Brunswick. One duckling (<1 week old) was observed depredated by an Osprey. Vulnerability of ducklings to predation may promote such opportunistic behaviour. The rarity of observations of such incidents suggests depredation on ducklings by Osprey is uncommon.

**Key Words:** Common Eider, *Somateria mollissima*, Osprey, *Pandion haliaetus*, predation, Grand Manan Island, New Brunswick.

The diet of Ospreys (*Pandion haliaetus*) consists almost exclusively of live fish (Poole et al. 2002). Coastal populations may switch prey species depending on the pattern and timing of fish migration (Greene et al. 1983). Ospreys are known to feed occasionally on rodents, birds, reptiles, amphibians, and invertebrates (see Wiley and Lohrer 1973 for literature review). Birds reported include grebes, gulls, ducks, including a 2-week old Wood Duck (*Aix sponsa*; Wiley and Lohrer 1973), and passerines (Chubbs and Trimmer 1998).

From 7 June to 3 August 2001, a study of Common Eiders (*Somateria mollissima*) was conducted on Grand Manan Island located 35 km from the New Brunswick south shore. It is the largest (25 km long, 11 km wide) of 17 other islands in the archipelago. A total of 940 hours of observations were made at eight 1 km<sup>2</sup> sites, typically between 06:00 and 21:00 h. Duckling numbers and ages were recorded at 20-minute intervals using scan sampling (Altman 1974). Predatory attacks were recorded as they occurred. Eider broods occupied the intertidal zone which was covered with brown

fucoid algae (*Ascophyllum nodosum* and *Fucus vesiculosus*) with some rock, sand or mud. A mixed forest of Balsam Fir (*Abies balsama*), spruce (*Picea* sp.) and alder (*Alnus* sp.), as well as shrubs (*Rubus* sp.) and various grasses (Graminae) were usually present within 10-50 m of the high tideline. A vertical tidal range of up to 8.4 m can be expected in this area. Approximately 3370 Common Eider pairs (Ronconi and Wong 2002) and 15 other Anatidae species breed in the archipelago (Dalzell 1991).

On 4 July 2001, an Osprey of unknown breeding status captured and carried off a 0-7 day-old eider duckling approximately 100 m offshore. The researcher (V. V.) was situated near the waterfowl sanctuary of Castalia Marsh (44°42'N, 66°48'W). Just prior to the attack, an eider crèche of 25 adult females and 62 ducklings was observed in the area dabbling for invertebrates. Duckling ages and counts (number) in this group were 0-7 days old (18), 8-13 days old (38), and 14-21 days old (6). At 20:00, the crèche stopped foraging and became alert when an Osprey flew nearby before leav-

ing the site. It returned at 20:03, swooped down, took an eider duckling without any defensive behaviour by the hens, and flew out of sight. The presence of the duckling in the raptor's talons was verified using a Bushnell *Spacemaster* 45-60 × 200 spotting scope. Ospreys were not observed at Castalia for the remainder of the evening. Ospreys were recorded at Castalia and at five other sites during visits both before and after the attack. Only lone Ospreys were seen at any given time, and no nests were present within any of the study sites. Bald Eagles (*Haliaeetus leucocephalus*) also took three ducklings at Castalia and two ducklings at another site approximately 10 km away.

One of the reasons suggested to explain Ospreys taking non-fish prey is reduced visibility caused by turbid water (Chubbs and Trimper 1998). Machmer and Ydenberg (1990) found that capture rate by Ospreys decreased greatly when winds were above 25.2 km/h. On the evening of the attack, moderate winds (~13 km/h), medium-sized waves and clear skies probably did not contribute to poor fishing conditions, although incoming tide and floating algae could have made fish less detectable.

Ospreys may take easily-captured (usually weak or captive) birds when available (Dement'ev and Gladkov 1951). Eider ducklings <3 weeks old have poorly developed diving skills (Hamilton 2001). This makes them vulnerable to predation, especially in the first 10 days of life, with reported mortalities exceeding 90% from gull attacks (Mawhinney and Diamond 1999). Because Ospreys cannot dive deeper than one meter into water (Prevost 1982), they forage in shallow-water environments (Poole et al. 2002). Shallow-water areas are often near brood-rearing habitat of eiders (McAloney 1973).

In spite of many hours of observation of eider crèches in waters surrounding Grand Manan Island, we observed only one instance of duckling depredation by an Osprey. Ducklings less than one week old, which are vulnerable to predation, were observed during five out of eight observation periods (63%) and during 32 out of 309 scans (10%) at Castalia. Therefore, it seems unlikely that this Osprey was a "specialist"; i.e., fed more frequently on ducklings than the average rate for the species. Predation on eider ducklings by Ospreys is evidently a rare event everywhere.

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