

## Record of a Redhead, *Aythya americana*, Laying Eggs in a Northern Harrier, *Circus cyaneus*, Nest

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An active Northern Harrier, *Circus cyaneus*, nest containing Redhead, *Aythya americana*, eggs, found in an Alberta wetland, apparently represents the first record of a Redhead parasitizing a harrier.

Key Words: Northern Harrier, *Circus cyaneus*, Redhead, *Aythya americana*, parasitism, nest, parasitic egg-laying.

Redheads, *Aythya americana*, often lay eggs in nests of other species with which they share nesting habitats (Friedmann 1932). Weller (1959) lists 12 species in the families Anatidae and Ardeidae that Redheads were known to parasitize. However, no Accipitridae are listed even though Northern Harriers, *Circus cyaneus*, and Redheads share nesting habitats (Bent 1937; Bellrose 1980). In addition, I was unable to find any report of eggs of another species in a Northern Harrier nest.

On 29 May 1983, I flushed a female Northern Harrier from a nest containing five harrier eggs and two Redhead eggs (Harrison 1984). The nest was located in the center of a 2 ha wetland, 11 km north and 1 km east of Viking, Alberta (53°11'N, 111°52'W). The nest was composed of dead cattails, *Typha latifolia*, built 20 cm above the water, and lined with wetland grasses.

I candled (Weller 1956) the eggs and determined that the Redhead eggs were incubated 7 and 11 days, and the five harrier eggs ranged in age between 8 and 14 days of incubation. Assuming a usual two day egg-laying interval for harriers with incubation usually starting after the second egg (Palmer 1988), I determined that at least one harrier egg was present in the nest before a Redhead egg was laid there.

On 9 June, I returned and flushed the female harrier from her nest, still containing the two Redhead eggs, now candled at 18 and 22 days, and the five harrier eggs. On 15 June, I returned, again flushing the female harrier off her nest, now containing one Redhead egg, aged at 23 days, and four harrier eggs that were also near hatching. I found no remains of the missing Redhead egg or harrier egg. I returned on 1 July, four days after heavy rains, and found two harrier eggs floating near the empty and flooded nest.

I could not determine the fate of the missing eggs and any could have been taken by predators or the harriers, or they could have hatched and shells removed by the harriers (Palmer 1988). If either of the Redhead eggs hatched, the precocial ducklings could have left

the nest and survived. However, harrier chicks are altricial and if any hatched they would have been at the nest and probably drowned when it flooded.

The lack of other reports of Redhead eggs in harrier nests may be the result of the behavior rarely occurring, cases being missed because harriers remove parasitic eggs, or both. Northern Harriers do tolerate other non-raptor species nesting near their nests (Palmer 1988) and are probably vulnerable to parasitism by Redheads. However, the behavior to parasitize harriers may be rare in Redheads if the reproductive gains are low compared to the risk of being killed by a harrier returning to the nest. Harriers aggressively defend their nests against avian and mammalian predators (Palmer 1988), but their reaction to ducks at their nests is unknown.

Some cases of parasitism may be missed if harriers remove parasitic eggs from their nests. I found Redhead eggs missing from the nest and Laine (1928) similarly noted that eleven of twelve prairie chicken (species unknown) eggs that a Northern Harrier had presumably adopted disappeared. However, in both cases the eggs could have disappeared for reasons other than being removed by the harriers. Also, the harrier did incubate the eggs for some time in both cases indicating that harriers will accept eggs of another species in some situations.

The overall impact of Redhead parasitism of Northern Harrier nests on the productivity of either species is unknown, but it is probably minor.

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