

WAS 1969 A YEAR OF LOCAL ABUNDANCE OF NESTING NORTHERN HARRIERS IN THE BATTLEFORD AREA?

Spencer G. Sealy

Winnipeg, MB R3T 2N2

Spencer.Sealy@umanitoba.ca

Long-term observations and banding have revealed that nesting densities of Northern Harriers (*Circus cyaneus*) may vary from year to year. In long-term studies of breeding harriers in Wisconsin¹ and New Brunswick², the number of breeding pairs depended heavily on the abundance of voles. Anecdotal evidence suggests that this has been the case in Saskatchewan. Harriers settle and nest in an area in one or more years, and become scarce the following and in ensuing years if the density of prey declines. Observations in southern Saskatchewan suggested that breeding harriers were particularly abundant in 1960 and 1969, which is supported by my observations in the Battleford area. From 1959-62, I located 21 harrier nests south and southwest of Battleford³, and when I next visited the area during the breeding season, between 30 June and 11 July 1969, harriers were exceptionally abundant, and 17 nests were located within the approximate area searched several years previously (Table 1). In addition to visits

TABLE 1. Nests and young of the Northern Harrier recorded near Battleford, Saskatchewan, 1959-62 and 1969.

YEAR	NUMBER OF NESTS (NUMBER OF YOUNG)
1959	5 (14) ^a
1960	7 (19)
1961	5 (16)
1962	4 (0) ^b
1969	17 (69) ^c

^a1959-62: Number of nests (nestlings fledged).³

^bNests depredated.

^c1969: Number of nests (pre-fledged nestlings: one nest with three young, 10 with four, four with five, one with six). Of the two nests that contained eggs when discovered, one clutch consisted of four eggs on 4 July but was depredated by 8 July, whereas the fifth egg was laid in the other nest between 1 and 5 July. This nest contained four nestlings when I inspected it again on 25 August. Was this a case of replacement laying, which was documented infrequently in New Brunswick?⁴

of a few days in late summer every year in the 1970s, my next visit during the breeding season was over several days in late June 1980, but no harriers were observed anywhere on the landscape in those years. Harriers were not observed during visits of a few days between April and late October every year through 2024, which possibly also reflects the general decline in numbers of Northern Harriers that others have noted since the 1970s.⁵⁻⁷ Were Northern Harriers locally abundant in the Battleford area in 1969?

This question cannot be answered directly because I was not present in the Battleford area during breeding seasons of the years leading up to 1969 and beyond. Other ornithologists who monitored birds in other areas over many years, however, commented that 1969 was noteworthy for the abundance of rodents and breeding harriers in southern Saskatchewan.⁵⁻⁹ Results of annual banding of nestlings, however, provides stronger evidence that harriers were unusually abundant in 1969. Of a total of 279 nestling harriers banded in the Saskatoon area over many years, 134 were banded at 28 nests in 1969.⁵ Houston commented that, "It is of interest that Northern Harriers... were also more abundant in 1960 and 1969, with 177 of my 400 bandings (42 percent) of this 'mouse-driven' hawk... restricted to those 2 years."⁸ High vole numbers in 1969 were also suggested by widespread nesting of two other rodent-specialists—Long-eared Owl (*Asio otus*) and Short-eared Owl (*A. flammeus*)—in south-central Saskatchewan.^{8,9} Because vole numbers were not monitored anywhere in Saskatchewan in those years, however, a link cannot be made between numbers of breeding harriers and densities of the prey.

As I did not have my banding equipment in 1969, I sought bands from Stuart Houston for whom I had banded harriers and other raptors as a sub-permittee in the early 1960s, before receiving my banding permit in 1962.

Houston responded to this unexpected request for bands on 4 July 1969, stating: "... I couldn't turn down an opportunity [to band harriers] like this! I have banded 77 Marsh Hawks in 15 nests and have three more to go, so should make about 100 [in 1969]. [As it turned out, he banded 134 nestlings.] Fantastic, especially since they are doing so poorly in Wisconsin and had a poor year last year here – I banded not a single one in 1968."

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1. Hamerstrom F, Hamerstrom FN, Burke CJ (1985) Effect of voles on mating systems in a central Wisconsin population of harriers. *Wilson Bulletin* 97:332-346.
2. Simmons R, MacWhirter B, Barnard P, Hansen GL (1986) The influence of microtines on polygyny, productivity, age, and provisioning of breeding Northern Harriers: a five-year study. *Canadian Journal of Zoology* 64:2447-2456.
3. Sealy SG (1967) Notes on the breeding biology of the Marsh Hawk in Alberta and Saskatchewan. *Blue Jay* 25:63-69.
4. Simmons R (1984) Do Northern Harriers lay replacement clutches? *Raptor Research* 18:103-106.
5. Weibe K (2002) Northern Harrier. Pages 114-115 in *Birds of the Saskatoon area*. (Leighton A, Hay J, Houston CS, Roy JF, Shadick S, editors). Nature Saskatchewan Special Publication, number 23.
6. Wapple RD, Renaud WE (2008) Birds of the Rosetown-Biggar District. Nature Saskatchewan Special Publication, number 27.
7. Beckie PL (2019) Northern Harrier. Pages 189-190 in *Birds of Saskatchewan* (Smith A, Houston CS, Roy JF, editors). Nature Saskatchewan, Regina.
8. Houston CS (1997) Banding of *Asio* owls in south-central Saskatchewan. Pages 237-242 in *Biology and conservation of owls of the Northern Hemisphere* (Duncan JR, Johnson DH, Nicholls TH, editors). *General Technical Report NC-190*, USDA Forest Service, St. Paul, MN.
9. Stoffel MJ (2019) Long-eared Owl. Pages 355-357 in *Birds of Saskatchewan* (Smith AR, Houston CS, Roy JF, editors). Nature Saskatchewan, Regina.