## UNUSUAL NESTING RECORD OF RED-TAILED HAWK IN SOUTHERN ALBERTA

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The use of cliffs by Red-tailed Hawks (Buteo jamaicensis) for nesting sites has been recorded previously in the literature, but in Canada, there have been few documented observations. In Washington, Red - tailed Hawks have been observed to use potholes in cliffs (Decker and Bowles, 1930). Cliff-nesting has also been recorded in California by Dixon and Bond (1933) and by Jaeger (1947). Saunders (1914) described nesting sites in Montana as "occasionally in large firs but more often on rocky ledges or faces of steep cliffs." A recent observation of cliff-nesting was reported in Ontario by Andrle (1969). From a preliminary survey of the literature, it appears that the most common occurrence of cliff-nesting in this species takes place in arid areas chararterized by a paucity of trees.

Records of large clutch size are few. Bent (1937) says that more than four eggs in a nest is unusual. One of the few observations was that of Beekman (as reported by Peyton, 1918) in Kern County, California where he found a nest containing two newly hatched young, two pipped eggs, and two eggs far advanced in incubation.

In 1971, a nest occupied by a pair of Red-tailed Hawks was found on a steep west-facing clay cliff in a coulee which empties into the Rosebud River about six miles south of Drumheller. Alberta. The general terrain can best be described as diverse. The land above the river valley and coulees is under intensive agricultural use. Along the river valley, balsam poplar (Populus balsamifera) and willows (Salix sp.) predominate. In the drier areas, native grassland and sagebrush (Artemisia cana) are dominant. In the coulee where the nest was found, white spruce (Picea glauca) and aspen (Populus tremuloides) flank the east-facing slope. The west-facing slope was bare



Fig. 1 Looking down on Red-tailed Hawk nest, June 5, 1971.

except for scattered areas of grasses and sage.

The nest was on a narrow clay ledge 60 feet up on an 80-foot high cliff It was approximately two feet in diameter, one foot in height, and was composed of aspen twigs lined with coarse grasses. On May 2, 1971 the nest contained three eggs. A further visit was paid to the nest on June 5 at which time four downy young, a heavily incubated egg, two Richardson ground squirrels (Citellus richardsonii) and one meadow vole (Microtus pennsylvanicus) were in the nest (see Fig. 1). During each of these visits, both adults soared overhead screaming their annoyance. A final visit to the nest was made on June 27 at which time the nest was empty. One of the adult birds still protested as the nest was approached.

Upon examination of the dates involved and the size of the young on June 5, we concluded that none of the young survived. A possible explanation for this could be the exceptionally heavy June rains. Support for this hypothesis is the fact that the nest was well exposed in the direction of the prevailing winds. The food supply

was abundant, as previously mentioned, and as evidenced by our observations at four Ferruginous Hawk (Buteo regalis) nests in the same general area. We feel that this eliminates starvation as a factor. Predation seems unlikely due to the inaccessibility of the nesting site.

In summary, this observation is interesting because of the fact that it is a cliff-nesting record, the clutch size is unusually large and there is a scarcity of reports of this occurrence, especially in western Canada. In six years of observation in southern Alberta, this is our only record.

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## A PROBABLE PINNATED GROUSE NEAR MORTLACH

## by Frank Brazier, Regina

"This species is not now believed to Thus comment Nero and Lein when annotating the Greater Prairie Chicken or Pinnated Grouse (Tympanuchus cupido) in S.N.H.S. Special Publication No. 7 "Birds of Moose Mountain, Saskatchewan".

On Sunday, December 19, 1971 at 4:00 p.m. I was driving west on Alternate No. 1 Highway between Caron and Mortlach. It was an overcast day but rather bright. The rolling topography thereabouts is due to the sand dunes which, though clothed now in prairie grasses, forbs and shrubs (ah! the scent of Wolf Willow in the spring!) and with dense aspen groves

in the hollows, are invisible but real enough under the vegetation. Because this is grouse country and the Sharptailed Grouse is tolerably common, I took no particular notice when I saw a single grouse flying towards me from the southwest. It cut across the road just ahead of me, flying quite low-at eye level or a little higher-and disappeared northeasterly over a bushcrowned low hill.

As the bird crossed the road ahead of me, it was briefly silhouetted against the sky. I saw that it was very dark, short-tailed, peak-headed, and the head area bore two long (three inches, I judged) stiff appendages. As I cut its line of flight moments after it passed,