

**RESEARCH PLANNING CONFERENCE
ON PEREGRINES AND OTHER BIRDS OF PREY
CORNELL UNIVERSITY, ITHACA, NEW YORK,
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The following is a report on the conference attended from November 7-9, 1969, at Cornell University where research on birds of prey was discussed. Particular attention was noted on the effects which pesticides and industrial pollutants are having on this group of birds. The major concern was with the Peregrine Falcon (*Falco peregrinus*) whose worldwide decline has been so marked in recent years. November 7 was spent in presentation of papers and discussion on topics concerning this species. On November 8 papers and discussions were concerned with other species, including Bald Eagles (*Haliaeetus leucocephalus*), Prairie Falcons (*Falco mexicanus*), Merlins (*Falco columbarius*), Marsh Hawks (*Circus cyaneus*), Cooper's Hawks (*Accipiter cooperi*), and Red-shouldered Hawks (*Buteo lineatus*). This was followed by a general discussion on raptors and research problems involved with them. On November 9, a short meeting was held to continue the discussion on future raptor research, and also to discuss the role of Raptor Research Foundation Inc. The following are summaries of papers and discussions presented at this conference. [Editor's note: For various reasons our original plans for a report did not materialize. We are thankful to Keith Hodson, Richard Fyfe, and the Canadian Wildlife Service for making this account available to us. One or more parts will complete the report in succeeding issues.]

Session of November 7, 1969

Peregrine Falcons - Breeding Populations

Richard Fyfe (Northwest Territories, Yukon Territory, Alberta, Queen Charlotte Islands). Three populations of Peregrine Falcons in the Northwest Territories were under con-

sideration, (1) in the central barrens, (2) in the District of Mackenzie, and (3) along the arctic coast.

In 1966 an initial survey of Peregrine Falcons in the central barrens was conducted by Ernie Kuyt (Canadian Wildlife Service). This survey was followed up in 1968 by Kuyt and Fyfe. Of twelve territories checked in 1968 six were found occupied. Five of the six were visited and three were found to be active with 3 young, 2 young and 1 addled egg, and 3 unhatched eggs respectively. The area was checked again in 1969 and of 11 territories checked (one by aircraft only) five were found to be occupied; of these again only three were active with 1 young and 1 addled egg, 1 young and 2 addled eggs, and 3 eggs in the nests. The manner of decline appears similar to that noted elsewhere, *i.e.*, birds with a history of long occupancy at a particular eyrie would be unsuccessful one year, then perhaps only a lone bird would be present the following year, and finally no birds would be present at all.

Areas in the Mackenzie District were first surveyed separately in 1966 by J. Enderson and K. Hodson and a total of 14 occupied nests were found. In 1969 this population was rechecked by Hodson and of 13 eyries visited only 10 were occupied and 6 eyries were successful in producing young. Fifteen young were produced for an average of 1.5 young per occupied eyrie. One of these young was found dead at one nest for unexplainable reasons.

Because of reports of a good Peregrine Falcon population along the arctic coast, this area was checked in 1968 and 1969. In 1968, 5 occupied eyries were found, 4 of which were active in producing 10 young. In 1969, 9 eyries were found which included the 5 previously known eyries. Three of these eyries, including one found in 1968, were apparently unsuccessful in their nesting attempts. The remaining 6 eyries produced 18 young, however, at one eyrie all three young were dead and at another 2 of the 4 young were dead, for no explainable reasons. These birds were between 1 and 3 weeks of age. Two addled eggs with embryos ready to hatch were also found.

In 1967 and again in 1969, 9 eyries were checked in the Yukon Territory by John Campbell. Reproductive success was the same on both years and no decline is indicated.

In general, available data since 1966 and particularly from the past two years, indicate that a decline of Peregrine Falcon populations in at least some areas of the Canadian arctic may be occurring. A 50% decline in the central barrens and a 29%

decline in the District of Mackenzie in the number of occupied eyries since 1966, as well as the unexplained deaths of 6 young Peregrines is noted. However, a common widespread cause such as weather factors affecting Peregrines over a wide area in 1969 should not be overlooked as a possible factor. Table 1 summarizes reproductive data of Peregrines in the arctic coast area, District of Mackenzie, and the Yukon Territory.

A widespread survey throughout the southern prairies and over much of the Peace River country of Alberta and British Columbia yielded 3 Peregrine eyries in 1969, 2 of which had been found in 1968. Two other sites located in 1966 were not checked. All three eyries located in 1969 had full reproductive success and hatched 4 young each. Eleven young were known to survive at least to fledgling stage.

Much controversy has been voiced over the estimated number of Peregrine Falcon eyries in the Queen Charlotte Islands, and estimates have ranged to as high as 100 nests. The best figure available from an extensive 1966 survey (Davies and

Table 1. Arctic Canada Peregrine Nests

Arctic Coast			Mackenzie District			Yukon Territory		
1968			1968			1968		
1969	1968	1969	1969	1969	1969	1969	1969	1969
a b c	a b c	a b c	a b c	a b c	a b c	a b c	a b c	a b c
A 2 - 4	2 - 4	1	2 - 4	8 2 - 1	2 - 3			
B 1 - 3	1 - -	2	2 - 2	9 2 - 3	1 (2)1			
C 2 - 2	2 - 4	3	2 - 3	10 2 - 2	1 1 1			
D 2 - -	2 (2)1	4	2 - 2	11 2 - -	1 - 2			
E 2 (2)1	2 - (3)	5	2 - -	12 2 - 1	2 - 3			
F	1 - -	6	2 - -	1 2 - 3	1 ? ?			
G	2 -2(2)	7	2 - -	2 2 1 2	2 (1)3			
H	2 - -	8	- - -	3 2(1)	2 2 - 1			
I	? - 4	9	2 - 3	4 1 ? ?	2 ? ?			
		10	- - -					
		11	- - -					
		12	1 - 1					
		13	1*- -					
		14	† † †					

N-nest; a-adults present; b-eggs in nest; c-young in nest;
 ()-addled eggs or dead young; **-all occupied;
 *-male; †-not checked.

Blood) seems to be, in that year, 53 possible and 42 probable sites. In 1967, 46 sites were located, 23 with strong behaviour and/or young or eggs, 10 with lone adults, 9 with pairs present but apparently unsuccessful, 3 with pairs present but with no indication of nesting, and 1 with an adult male and immature female, also with no evidence of nesting. Probably the best qualitative data available for the Queen Charlotte Islands is from Langara Island where a total of 16 sites are known. The most known active eyries in any one year were 12 (F. Beebe) in the early 1960's. In 1968 only 5 eyries were occupied and in 1969 there were 6 occupied eyries, including 2 with immature females that made no nesting attempts.

Pesticide levels in some eggs collected in Canada are given in Table 4 (see Part 2).

Daniel Berger (Ungava, Quebec). Areas in Ungava were surveyed for Peregrine Falcons in 1967 by Daniel Berger and J. Weaver, and 14 active sites were located. The following list summarizes the findings at these eyries: No. 1—3 eggs, 1 sub-adult, eyrie later deserted; No. 2—4 young; No. 3—2 eggs (1 addled), sub-adult female; No. 4—2 eggs, 2 young; No. 5—1 young, 1 broken egg? No. 6—4 young; No. 7—2 young; No. 8—1 young, 2 cracked eggs; No. 9—1 young; No. 10—2 young; No. 11—empty scrape, sub-adult female; No. 12—2 young, 1 egg; No. 13—1 young; No. 14—3 young.

James Weaver (Ungava, Quebec). No data available for 1968, except D. Berger eyrie No. 14 occupied. Two eyries check in 1969, D. Berger No. 1 had 3 eggs which were eaten two weeks after the nest was first checked, D. Berger No. 14 had 3 eggs all of which hatched.

John Lejeune [presented by Hodson] (Ungava, Quebec). In 1969, 7 eyries of 8 found in 1968 were unoccupied, 1 had a pair present but apparently no nesting attempt was made. This area experienced a very cold, late spring, and at nesting time vegetation appeared to be approximately 3 weeks behind 1968, much snow was still present in many crevices and ravines, and ice was found on one eyrie ledge (July 3). Adverse weather conditions were therefore postulated as most probable cause of nesting failure.

(This report will be continued.)