

SURVEY OF RAPTORIAL BIRDS ALONG THE PROPOSED TRANS-ALASKA PIPELINE SYSTEM

by

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Introduction.—This report summarizes our findings resulting from a survey (15 July to August, 1970) of cliff nesting raptors along the proposed oil pipeline route. The survey, under the auspices of the Bureau of Sport Fisheries and Wildlife, was to be primarily concerned with the density and status of Peregrine Falcons along the route. Because of the magnitude of such an undertaking, and in light of the function of the project, we confined the majority of our efforts to within one to two miles of the proposed pipeline right-of-way. The southern half of the route was surveyed by automobile while the northern half was covered by helicopter.

The Route.—The proposed Trans-Alaska Pipeline System (TAPS) bisects on a North/South axis the State of Alaska. The southern half of the route closely parallels the existing highway system. Its general route is: Valdez—Copper Center—Fielding Lake—Delta Junction—Fairbanks—Livengood.

The northern half of the route is: Livengood—Yukon River—South Fork Koyukuk River—along Middle Fork Koyukuk River—along Dietrich River—Atigun Pass—along Atigun River—along Sagavanirktok River—Prudhoe Bay.

Results.—*Valdez to Copper Center.* Many miles of suitable looking cliff occur in this section; notably from Keystone Canyon to Tiekel. The lack of previous observation of Peregrines in this region, and our not finding them, suggests that they indeed do not breed in the canyon. The habitat may be too enclosed to be suitable to Peregrines. The lateness of the snow about the cliffs may also hinder their breeding. Golden Eagles with one chick were nesting along this section.

Though not along the pipeline, the Copper River was checked by fixed-wing aircraft. This habitat appeared perfect for Peregrines, though we were unable to find a single sign of cliff nesting raptors from Gulkana to the bay.

Copper Center to Fielding Lake. The dirt banks along the Copper River in this region are marginal habitat for Peregrines. We were unable to find any. Along this section of route is a Golden Eagle nest and a long-established Gyrfalcon eyrie (though not in use this year).

Fielding Lake to Delta Junction. This habitat once again appears suitable for Peregrines. We found none. A Peregrine was observed in flight from our aircraft on the Delta River, however. None of the cliffs in the canyon mouths have been known to harbor Peregrines and we saw no indication of their presence.

Delta Junction to Fairbanks. The proposed route in this region crosses or passes several areas occupied by Peregrines. One of the traditional eyries was vacant this year. Apart from this site our survey revealed in this section one breeding pair with two eyasses, one non-breeding pair, and one cliff with signs of recent occupancy but no nesting success.

Fairbanks to South Bank of the Yukon River. This habitat is unsuitable for Peregrines except where creeks occasionally cut dirt banks or cliff faces on bluffs (most of these are marginal). Two pair of Golden Eagles were nesting in this section, each with one chick.

Yukon River. The proposed line crosses the river near high dirt banks on the river's north side. No Peregrines occupy these cut banks. Two active eyries were found several miles either side of the crossing. Both contained at least one eyass.

Yukon River to Coldfoot Camp. Most of the habitat in this region appears unsuitable for Peregrines. Gyrfalcons may nest on some of the rock pinnacles, but none were found. More likely, this is a wintering area for Gyrs. No nesting raptors were found though two old Eagle nests had recently been used by either Ravens or Gyrs.

Coldfoot to Atigun Pass. This section of the route runs along the Middle Fork of the Koyukuk River and the Dietrich River. It appears suitable for Peregrines though there is a conspicuous lack of riverside bluffs (which could explain their absence). Most cliffs are situated on mountain sides. There is also a decided lack of suitable hunting habitat adjacent to the river. Many Eagles occupy this region and their presence may affect in some way the suitability of the region

for Peregrines. It should be mentioned that most of the Eagle nests in this region were between 3000 and 3300 feet elevation, while the river bed and pipeline route is near or below the 1400 foot level. There was evidence of several recently-used Raven nests that may have harbored Gyrfalcons but another year's observation in June or early July would be needed to determine the precise status of Gyrfalcons. Two Eagle nests with one and two nests with two chicks each were located near the pipeline.

Findings in this area tend to suggest that much of the South Slope of the Brooks Range may be vacant of Peregrines. It is my understanding that the Alaska Department of Fish and Game plans on surveying most of the area in the near future. Their findings will either confirm or negate this projection. It is, however, becoming apparent that there are in Alaska large areas of suitable and even ideal habitat that is not and probably has not recently been utilized by Peregrines. Reason for this remains open to speculation.

Atigun Pass to Galbraith Lake. Once again Golden Eagles are the prime species. One nest with one chick was found at 4600 feet. A probable Gyrfalcon eyrie was found on the Atigun River.

Galbraith Lake to Franklin Bluffs. In this region the route runs through a deep canyon along the Atigun River to the Sagavanirktok River. Good habitat for both Falcons and Eagles is present, though river bluff cliffs are very limited in number. The last Peregrine Falcon habitat gives out at Franklin Bluffs. Few Rough-legged Hawks were nesting this year, probably due to a low in the microtine cycle. Many adult Rough-legs were seen but only two nests fledged one young each, and one fledged three. A pair of Peregrines was seen in the middle part of the river but the eyrie was not located. An adult Gyrfalcon, and what appeared to be a nesting site was found north of Sagwon. Two fledged Gyrs were seen at Galbraith near a probable nesting site. Two active Golden Eagle nests were found, north of Galbraith. On the lower Sagavanirktok a Gyrfalcon eyrie with at least two young on the wing was located. Also, two pair of Peregrines were present. One eyrie contained two eyasses and one contained three.

Conclusions.—The following conclusions were submitted to the Bureau summing up our findings and impressions gained this summer:

1. All nests and eyries found this summer are far enough from the proposed pipeline route that they won't be physic-

ally damaged or disturbed by the actual mechanics of pipeline construction.

2. During the construction we anticipate many *Buteo*, *Accipiter*, and owl nests to be found and some actually destroyed as trees are removed. This should present no real problem to the species involved as nesting habitat is in seemingly unlimited supply peripheral to the route.

3. The only active historically-known Peregrine eyrie or cliff that could harbor Peregrines, less than one mile from the proposed pipeline route, is on a tributary to the Tanana River. Construction of the access road may come closer to suitable cliffs although this was not indicated on the proposal given to us.

4. Along the Dietrich River many old Eagle nests were found in the mouth of canyons within one mile of the route. However, the nests in actual use were located rather far back on the mountain faces or in adjoining canyons. We are tempted to suggest that human activity may have caused such a shift in nest site placement or utilization.

5. There is one major problem that concerns us—the ready accessibility to nesting sites of such species as Peregrines and Gyrfalcons that will be provided by the construction of the access highway. This is especially criticized in light of the domestic demand for these two species, their present numerical status, and the threat of the ever-decreasing numbers of Peregrines caused by pesticides. Once the road is in one can foresee that other access roads will be built to villages, etc., adjacent to the pipeline or even rather distant from it. This will further open up falcon habitat to easy accessibility or exploitation. We cannot urge strongly enough that there be some control for limited access and human use of the road to the North Slope. (See also: White, C.M. and J.H. Streater, *The Oil Pipeline and Peregrines in Alaska*, p. 241 in *The North American Peregrine Survey*, 1970, T.J. Cade and R. Fyfe. *Canadian Field-Nat.*, 84(3):231-245.)