

RECENT DATA ON SUMMER BIRDS OF THE UPPER YUKON RIVER, ALASKA, AND ADJACENT PART OF THE YUKON TERRITORY, CANADA

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FROM 10 June through 3 August 1966, we surveyed the Peregrine Falcon (*Falco peregrinus*) population along the upper Yukon River to gather data on pesticide residues in this population. Some of the results of the Peregrine study have been published (Cade, White, and Haugh, 1968). During our study several points regarding the general avifauna of the region became evident, as follows. Although considerable biological work has been done along the Yukon, such as that done by various University of Alaska summer field parties, and much is known about the river, little recent published information on birds is available in the literature for use as background material for further studies. Furthermore, judging from the literature available and from our recent observations, it is evident that some bird populations are apparently historically stable, that is, they show the same relative numbers today as they did in earlier investigations (i.e. Dall and Bannister, 1869; Bishop, 1900; Osgood, 1909; Blackwelder, 1919; Cade, (field notes 1951); and Gabrielson and Lincoln, 1959). Other populations show marked fluctuations in numbers, that is, they are abundant in some years, absent in others, or show vacillating trends in population numbers. Still other populations or species are newly invading the region and/or are becoming established as breeders. Additionally, during our work, several observations of lesser known species were made. This report presents information on some of the above mentioned points in addition to giving an annotated list of our observations and data on species not previously recorded for interior Alaska.

Through the courtesy of Tom J. Cade we were allowed use of his field notes taken on the Yukon from 11 July to 25 August 1951. We also traveled with Tom Cade, James Enderson, and Stanley Temple and made further observations on the Yukon from 30 May to 11 June and from 16 to 20 July 1968, with the principal purpose of obtaining additional data on peregrines. This report is composed of data extracted from field notes for 117 days of observations on a precise stretch of river.

The term "Upper Yukon", as used in this report, is that portion of the river extending from Circle, Alaska, to the mouth of the Fortymile River, Y.T., Canada, a distance of approximately 200 river miles. The upper Yukon follows a valley course through mountainous terrain, usually cutting cliffs where it flows close to steep-sided mountains and/or bisects these mountains. Where the river does not closely approach the mountains, there are frequent spruce covered flats and areas of muskeg extending inland from the river a few miles until the floodplain, in turn, abutts the base of the mountains.

Several moderately large rivers join the Yukon at various points, namely, the Seventymile, Tatonduk (Sheep Creek of some reports), Nation, Kandik (Charley Creek of some reports) and Charley River. For several miles around the mouth of the Charley River the terrain is broad, flat, and devoid of relief. One section of high, rugged cliffs terminating at the river's edge, sometimes referred to as the Woodchopper Volcanics, is nearly 4 miles in length and rises 1500 feet above the level of the river. At Circle the terrain has essentially lost its relief and the river traverses the Yukon Flats, a region characterized by numerous lakes, acid muskeg bogs, erratically meandering sloughs and rivers, and spruce, willow, and cottonwood covered flats. Although this report is essentially confined to that region upriver from Circle, we did on one occasion travel about 12 miles downriver from Circle and some observations from this area are noted in the report.

Those species known to have bred or suspected of breeding during our survey (as evidenced by the physiological state of adult, such as the presence of a brood patch; behavioral actions of the adult, such as food gathering, etc.; or the presence of birds of the year) are marked by an asterisk in the following annotated list.

ANNOTATED SPECIES ACCOUNT

Gavia immer — COMMON LOON. Several were seen, or heard calling in 1966 as follows: 12 June, near Kathul Mt.; 1 July, mouth of Nation River; 3 July, mouth of Kandik River (several); and 9 July, heard calling at Circle.

Gavia arctica — ARCTIC LOON. Less frequently seen than *Gavia immer*. On 19 June 1966, one was seen and heard calling at Eagle and on 23 June two were seen near the Nation River. The few records may reflect the lack of our observations of inland ponds, rather than actual numerical status.

Gavia stellata — RED-THROATED LOON. We did not observe it in 1966, but saw one bird that may have been this species in 1968. Cade saw it on two occasions in 1951.

Podiceps grisegena — RED-NECKED GREBE. Our only record is the remains of one found in a peregrine falcon aerie in 1966. Cade recorded one in 1951.

Podiceps auritus — HORNED GREBE.* Our only records for 1966 are the remains of three individuals found in a peregrine aerie and a mummified downy young found in Beck's cabin near the Kandik River. Cade recorded at least two in 1951. They are doubtless common in sloughs adjacent to the river.

Olor sp. — WHISTLING OR TRUMPTER SWAN. On 14 June 1966, a fully adult swan was seen

taking off from the river in front of the village of Eagle.

Branta canadensis — CANADA GOOSE.* Although Canada Geese place their nests on cliffs and bluffs and are associated with bluffs in many parts of Alaska, e.g., the Colville River, this is not the case on the Yukon River as suggested by Kessel *et al.* (1966). On the Yukon, the geese use or nest on pond edges, islands and river banks. Observations on the river are scattered but not uncommon. A few observations on the occurrence of this goose are noted below. On 10 July 1966, about 10 separate pairs were seen in a 10-mile stretch of river downriver from Circle and also a flock of 15 were seen near Circle. On 13 June, a pair with seven young less than a week in age was seen a few miles downriver from Montauk Mt. On the Nation River on 1 July 1966, we saw a pair with 6 young which had the black tips of the primary feathers unsheathed for about 2 inches. Cade saw a flock of about 60 on 23 August 1951, about 20 miles upriver from Circle and on 24 August, two flocks, one of about 25 and one of about 35, were seen at Circle.

Branta nigricans — BLACK BRANT. Two were seen on the river upriver from Eagle on 15 June 1966. Niel Argy, U.S.F.W.S., Fairbanks, informed us that accumulating records indicate that they occur regularly along the

Yukon but apparently there is no trend for increasing numbers. (See Cade (1955) for previous records and discussion of inland migration routes.

Anser albifrons — WHITE-FRONTED GOOSE. Not seen in 1966 when observations started on 10 June; but in 1968, between 31 May and 8 June, they were moderately common. None was seen by Cade in 1951.

Anas platyrhynchos — MALLARD.* Seen regularly along the entire river but not common in 1966. Cade saw a flock of 37 and a flock of 35 on 14 August 1951, near the Kandik River.

Anas acuta — PINTAIL.* Observed regularly along the river. Small flocks of males, usually between 7 and 15 per flock, were seen during the last two weeks of June, 1966. In contrast to the mallard, they were common enough to be taken frequently as prey by Peregrine Falcons in 1951 and 1966. Interestingly, Osgood (1909) records the Mallard as fairly common on the river and the Pintail as uncommon.

Anas strepera — GADWALL To add to the growing list of observations (see Kessel and Springer, 1966) one was seen on the river 17 July 1968, in the vicinity of the Wood-chopper Volcanics.

Anas carolinensis — GREEN-WINGED TEAL.* Although this species was recorded as scarce in the interior in the early 1900's and none was seen along the river by Osgood (1909) and only three were seen by Bishop (1900) at Circle, we noted the species at several localities in 1966. The species also was counted 7 times as prey items in peregrine aeries in 1951, 9 times in 1966 and 5 times in 1968.

Anas discors — BLUE-WINGED TEAL. Kessel and Springer (1966) note the increasing abundance of this species in the Yukon River region. None was recorded by Bishop (1900) nor Osgood (1909) although it was found "sparingly" at Fort Yukon in 1865-66 by Dall and Bannister (1869). In 1966, only 3 adults were seen near the U.S.-Canada boundary on 21 July. By contrast there were a dozen or so observations scattered along the river between the Fortymile River and Circle during the first week of June, 1968.

Spatula clypeata — SHOVELER.* We observed Shovelers on three occasions all in the general region of Eagle in 1966. On 20 July, a group of three males molting into the eclipse plumage was seen.

Mareca americana — AMERICAN WIDGEON.* On 12 June a flock of about 15 was seen near Charley River, and a flock of 15-25 was seen on 28 June, 1968 near Eagle. Additionally, we observed single birds or pairs along the entire stretch of river at various dates.

Aythya collaris — RING-NECKED DUCK.* This species may also be increasing in interior Alaska (Kessel and Springer, 1966). A female with a brood of at least three one-fourth grown young, was seen in a slough of the river on 28 July 1966, downriver from Takoma Bluff. The female flopped around the slough for several minutes as we approached and then as we proceeded to follow her closely, she slowly swam down the river. During her initial performance the young promptly hid making it difficult to obtain an accurate count of them. This record adds to the few breeding records mentioned by Kessel and Springer (1966).

Aythya marila — GREATER SCAUP.* Individuals were seen at scattered localities with a flock of about 10 mixed males and females observed on 28 June 1966 near the Tatonduk River.

Aythya spp.* — Several individuals, either Greater Scaup *A. marila* or Lesser Scalp *A. affinis*, were seen at scattered localities. One bird seen on 17 July, with a flock of scaup, had a conspicuous red-colored head but conditions were too dark and overcast and the bird was seen too briefly to preclude positive identification, although it might have been a Redhead (*A. americana*). Scaup were fairly common

Bucephala albeola — BUFFLEHEAD. A male and two females flew past the boat on 12 June 1966, near the mouth of the Charley River.

Bucephala spp. — GOLDENEYES.* We had scattered observations in 1966 along the river. The majority of individuals were thought to be Common Goldeneye *B. clangula* rather than Barrow's Goldeneye *B. islandica*. One female, in a slough of the river, acted as though she had a brood of chicks nearby on 5 July near the Woodchopper Volcanics, and a second female was seen with a brood of at least 6 young near Circle on 10 July 1966.

Clangula hyemalis — OLDSQUAW A lone female, with a flock of seven Surf Scoters, was seen near the mouth of the Seventymile River on 28 June 1966.

Histrionicus histrionicus — HARLEQUIN DUCK. Cade found the remains of one in a peregrine aerie on the Yukon in 1951. It has been recorded on tributaries of the Yukon, that lie between Eagle and Circle, and possibly it occurs on the Yukon proper. We did not see it in 1966 nor in 1968.

Melanitta deglandi — WHITE-WINGED SCOTER. Decidedly less common than Surf Scoters. Only three, a male and two females, were seen together on the river near the mouth of the Kandik River on 17 July 1966.

Melanitta perspicillata — SURF SCOTER.* A fairly common species on the river. Pairs were occasionally seen but mixed flocks of males and females and large flocks composed entirely of males were more commonly observed. On 6 July 1966, a flock of 86 males was seen as it made two passes over Circle. On 18 July 1968, a flock of 12-15, all but one being males was seen below Takoma Bluff. Cade saw a flock of 40-50 on 30 July, and a flock of 43, all juvenile birds, on 14 August 1951. Osgood (1909) also noted flocks composed largely of males. Bishop (1900) lists it as abundant unriver from Circle.

Mergus spp. — MERGANSERS. All mergansers seen were probably Red-breasted Merganser *M. serrator* but positive identification was not made on all individuals. Our only record for 1966 was a pair seen briefly as they flew up the Tatonduk River from near its mouth. Blackwelder (1919) cites the species as common on the Yukon. Several were seen near the mouth of the Nation River in 1968. Cade observed it on two occasions in 1951.

Accipiter gentilis — GOSHAWK. Not seen by us in 1966 and 1968, but one immature was seen by Cade on 4 August 1951. The paucity of observations during the breeding season is somewhat surprising considering the habitat of the region.

Accipiter striatus — SHARP-SHINNED HAWK.* We saw this hawk on four occasions in 1966. On 16 June one was seen near Eagle Creek. It remained in the area for a length of time, apparently hunting, and it may have nested nearby. On 18 August 1951, Cade saw an immature perched beside a merlin on a fish rack.

Buteo jamaicensis and "harlani" — RED-TAILED HAWK.* Two pairs with nests and one lone adult were seen in 1966. The members of both pairs had the mottled "harlani" tails. In 1968 some eight individuals were

seen, two of which had brick-red tails. No nesting activities were observed in 1968. The Indians at Eagle make a definite connection between rabbit population cycles and hawk cycles for they told us (1966) that the rabbit cycle was down and we probably would not see any hawks. The relationship between rabbit cycles is seemingly born out by observations in 1951 when prey species were more abundant and Cade noted *Buteos* on eight occasions and on at least two occasions several were seen. Cade recorded four nests between the Fortymile and Circle. Further, we saw no owls in 1966 and 1968, and Cade noted several (see under *Bubo*). Of the hawks seen in 1951, only one had a "red-tail". On 14 July 1966, a nest about 10 miles above Circle contained two downy young. The nest was on an island in a 60 foot cottonwood (*Populus balsamifera*) about 10 feet from the top. One young weighed 653 grams. It was completely covered with a sooty-gray down except for the primary feathers which were about 45 mm out of the sheaths and tail feathers which were about 30 mm out of the sheaths. Inasmuch as the downy young and early nesting plumages are not well described (Friedmann 1950) it may be of interest to note that each young possessed a perfect, well-defined "triangle" of pure white down on the back of the head measuring about 34 mm at the base and 45 mm from base to apex. In other *Buteos* the white spot on the back of the head has been defined as an irregular circle. When fully feathered the young were generally blackish with some white mottling on the venter.

A total of 15 maggots, the largest measuring 10 mm long, was taken from the ears of one of the young. They were identified as *Protocalliphora* spp. by Kenneth J. Capelle, Bear River Wildlife Refuge entomologist. Food remains in the nest consisted of a red squirrel (*Tamisciurus hudsonicus*), several microtines, Bohemian Waxwing (*Bombicilla garrula*), an unidentified anatid, Gray Jay (*Perisoreus canadensis*) and Common Snipe (*Capella gallinago*). The two young found in one nest on 19 July 1951, were well feathered on their lower breasts and backs. Food remains in 1951 consisted of *Microtus* spp., two Spruce Grouse (*Canachites canadensis*), and some unidentified passerines.

Frank Warren of Circle told us that in 1965, three of these hawks were on Birch Creek near the bridge near Circle. One was shot as it was in the process of killing a

Canada Goose (*Branta canadensis*) gosling near the edge of the creek. This hawk was black and had a mottled tail

Aquila chrysaetos — GOLDEN EAGLE. In 1966, none was seen on the river but one was seen on the Taylor Highway about midway between Eagle and Tok as it hovered in the air much after the fashion of a *Buteo*. In 1968, however, five single birds were seen. In addition, two individuals were seen perching together in a tree midway between Eagle and Calico Bluff. The latter sighting may have involved a mated pair. On 23 August 1951, Cade saw a brown-headed eagle, either this species or an immature Bald Eagle (*Haliaeetus leucocephalus*), being attacked by a raptor, possibly a Peregrine Falcon.

Haliaeetus leucocephalus — BALD EAGLE. Two Bald Eagles, one adult and one immature, were seen on 8 June 1968, below Kathul Mt. None was seen in 1966 although we were told that a pair had long nested about two miles up the Charley River from its mouth. Because of low water conditions, we were unable to investigate this report. This nest, however, might have been that of an Osprey (*Pandion haliaëtus*) as that species has reportedly bred on the Kandik River (Williams, 1925).

Circus cyaneus — MARSH HAWK. In 1966, some six observations were made between 13 June and 30 July from Circle to about 10 miles above Eagle. In contrast, none was seen in 1968. Cade saw them on five occasions between Eagle and Circle in 1951. (Bishop (1900) mentions a few. It appears to be of sporadic occurrence and may be more common downriver from Circle on the Flats (see Blackwelder, 1919).

Falco peregrinus — PEREGRINE FALCON.* Data on this species have been summarized (Cade, *et al.*, 1968). A few items are of interest. Bishop (1900) reported that it was distributed along the river from Fort Davidson to Circle at an interval of about one pair per 10 miles. Cade found the average distance between pairs in 1951 to be 9.3 miles while in 1966, for 172 miles there were 17 pairs for an average distance of 10.5 miles. In 1968, along the same 172 mile stretch there were also pairs or single birds at 17 breeding stations or individual cliffs. These data would indicate a rather strict historical stability in the numbers of pairs along the river. Charlie Stevens, a chief at one time in

the Indian village at Eagle, told us that the Indian name for the Peregrine is Khé-trund (our phonetics) which literally means shoulder. This name arises from the fact that they believe that Peregrines strike their prey with the shoulder of the wing (actually wrist) as it is bent back in the Peregrine's stoop. Willie Junabee, also of Eagle Village, told of an occasion when the natives watched a Peregrine in front of the village stoop repeatedly at a crane until the latter was forced into the river. The Indians were of the impression that the Peregrine directed its stoops at the head of the crane. Another observation of interest is that of Circle resident Carl Dasch who while goose hunting in late August in front of his cabin watched a Peregrine stoop at and hit a wooden goose decoy with such force that it knocked the head off of the decoy and momentarily dazed the falcon.

Falco columbarius — MERLIN. We failed to see this bird in 1966. In 1968, one and possibly a second was seen the first week in June. Cade recorded it on nine occasions in 1951. His earliest record was on 19 July, but all other records were in August. Two or three were frequently seen together and appeared to be sibling groups.

Falco sparverius — AMERICAN KESTREL.* Single individuals were seen on four occasions in 1966 between 21 June and 17 July and nine times in June, 1968. Only two were females. Some of the birds were associated with cliffs and may have used them for nesting. Bishop (1900) saw this species only as far up the river as Fort Selkirk with one possible sighting at Circle. Osgood (1909) does not mention it and none was seen by Cade in 1951 on the Yukon River. Cade (pers. comm.) recalls seeing only the rare individual throughout most of Alaska in the early 1950's and White observed only two pairs in the Fairbanks area in 1962 and 1963. The species may be generally increasing its range throughout Alaska as noted by Campbell (1968).

Canachites canadensis — SPRUCE GROUSE. The remains of an individual found near a Peregrine aerie is our only record for 1966. Cade saw them, usually immature birds, on several occasions in 1951.

Bonasa umbellus — RUFFED GROUSE.* Our only record is of a female with at least four $\frac{3}{4}$ grown young 21 miles upriver from Circle on 28 July 1966. On 24 July 1951, Cade

saw a female with nine "well grown" young, in the Yukon Territory. This was his only record for this bird.

Grus canadensis — SANDHILL CRANE. On several occasions we heard and saw cranes near Circle in July and August, 1966, and also the first week of June, 1968.

Pluvialis dominica — GOLDEN PLOVER. A flock of nine birds, believed to be this species, was seen on 14 August 1951, by Cade near the Kandik River.

Capella gallinago — COMMON SNIPE.* Common and widespread in 1966 and 1968. Interestingly, winnowing had ceased by 5 July and no winnowing birds were heard until 17 July 1966, at which time they were again heard occasionally until at least 3 August. In contrast, Dall and Bannister (1968:291) reported it as "rare on the Yukon".

Actitis macularia — SPOTTED SANDPIPER.* The species is ubiquitous along the river. The first downy young were seen on 4 July 1966. On 17 July, near Coal Creek, broods of recently-hatched downy young and nearly fully-feathered young were seen only a few yards apart. This disparity in the ages of broods was conspicuous on several occasions. It would be instructive to determine whether this disparity results from asynchronous nesting or attempts at reneesting by some pairs.

Tringa solitaria — SOLITARY SANDPIPER.* We have only one record of several individuals in the vicinity of the Woodchopper Volcanics on 5 July 1966. The absence of records reflects our lack of work in the muskeg and pond areas away from the river. They were found in peregrine aeries at scattered locations.

Totanus flaviceps — LESSER YELLOWLEGS.* We saw it only at Circle and in the vicinity of the Woodchopper Volcanics. It was, however, found as a prey item in several peregrine aeries scattered along the river. In one aerie the legs of one were markedly longer and thicker than the others found and might have been from a greater yellowlegs (*T. melanoleucus*), although the latter would have been out of its known range.

Erolia melanotos — PECTORAL SANDPIPER. One completely intact mummified specimen was found hidden, possibly by the falcon, near a Peregrine perch above an aerie on 5 July 1966.

"PEEP" SANDPIPERS. Several small *Erolia* or *Ereunetes* sandpipers were seen in a flock

flying down the river on 12 June 1966. These may have been Least Sandpipers (*Erolia minutilla*) as this species has been reported from Circle in June (Osgood, 1909) or Semipalmated Sandpipers (*Ereunetes pusillus*) as Cade found the remains of two in Peregrine aeries on the Yukon in 1951.

Limosa haemastica — HUDSONIAN GODWIT. Kessel and Springer (1966) have recently commented on the increase of the species in interior Alaska. One was observed flying and heard calling near Circle on 11 July 1966. Our attention was drawn to the bird by the actions of the flying swallows. Presumably the godwit momentarily had a somewhat falconine appearance to the flying swallows, for they joined into a tight wheeling flock and followed, below and in the general course of the godwit, precisely as swallows do near their nesting colony at the appearance of a flying Peregrine (see below under swallows).

Lobipes lobatus — NORTHERN PHALAROPE.* Our only records are of three individuals found as prey remains in Peregrine aeries. The lack of records may reflect our lack of frequent visits to lakes away from the river. However, none was recorded by Cade on the lakes in 1951. Yocom (1964) lists it as a common breeder on the Yukon Flats.

Larus argentatus — HERRING GULL.* Common on the river in 1966. Observed every few miles with often three or four seen sitting together. The broad flattened region surrounding the mouth of the Charley River is especially frequented by this bird. Interestingly, only nine individuals were counted between Eagle and Circle in mid-July 1968. Cade found it to be common in 1951. On 14 August 1951, in the region of the Kandik River, he saw 21 adults and 27 birds of the year in the days travel. Some of these were associated with flocks of Mallards. *Larus canus* — MEW GULL. Less common than the Herring Gull along the stretch of river from Castle Rock to Circle. Near Circle it was seen more frequently. Most of our records are of individual birds, but at Circle on 6 July 1966, a group of seven was seen. Yocom (1964) lists it as common in the Yukon Flats.

Larus philadelphia — BONAPARTE'S GULL.* Although none was seen by us in 1966 or 1968, they were frequently taken by Peregrines, presumably from around lakes and away from the river.

Rissa brevirostris — RED-LEGGED KITTIWAKE. On 4 July 1966, four miles downriver from the mouth of the Kandik River, a small gull with bright red legs and feet passed the boat about 75 feet away as it flew upriver. The solid black wingtips, with a lack of "mirrors", the red legs, small size (our first thought was of a Mew Gull) and unremarkable bill—not red—left no doubt but that it was a kittiwake. We were moving downriver as it passed us and an effort to turn the heavily laden boat upstream and pursue and collect the gull proved futile, although we were able to follow and observe it for some distance. There is but one other inland record of this species (AOU Checklist, 1957; Godfrey, 1966). The record is of an individual found dead near Fortymile, Yukon Territory, Canada. It is conceivable that the Yukon bird reached the Fortymile by following the Yukon River in a manner similar to the bird of our observation.

Xema sabini — SABINE'S GULL. This is a gull principally of coastal and insular regions and is a rare migrant to interior Canada (Godfrey, 1966). The first specimen record for interior Alaska was recently reported by Kessel and Springer (1966). On 22 June 1966, a pair of intact wings, from an adult, attached to the pectoral girdle was found in a Peregrine aerie on the river in Yukon Territory, Canada, at Castle Rock. The condition of the wings indicated that the gull had not been dead for more than 2-3 months and was probably killed during spring migration by the falcons which seemingly do not arrive on the Yukon River prior to early or mid-April.

Sterna paradisaea — ARCTIC TERN.* Our records all come from near Circle. A pair was seen on 10 June 1966, 10 miles unriver from Circle and a lone bird at Circle on 13 July 1966. Remains of one was found in a Peregrine aerie a few miles from Circle. Apparently it is more common on the Yukon Flats where the terrain is more open (Yocom, 1964).

Bubo virginianus — GREAT HORNED OWL. We failed to see or hear this species in 1966 or 1968. However, they were, like *Buteo*, numerous in 1951. Cade saw or heard them on 14 occasions or on about 31% of the days spent on the river. Squirrels, perhaps a major prey item, were also vastly more common in 1951 than in 1966. The high squirrel population was apparently a function of a good spruce cone crop as addi-

tionally indicated by the numbers of cross-bills in 1951 also (see below).

Asio flammeus — SHORT-EARED OWL. Only one was seen in 1966 and that was not on the river, but on the Taylor Highway several miles from Eagle.

Aegolius funereus — BOREAL OWL. Our only record is the remains of an individual found in a Peregrine aerie near the Nation River in 1966.

Selasphorus rufus — RUFOUS HUMMINGBIRD. An adult male was seen feeding in fireweed near the confluence of Coal Creek and the Yukon River on 28 July 1966. Unidentified hummingbirds, presumably of this species, were seen by us near Eagle on 16 June and about 26 miles upriver from Circle on 5 July 1966. Antone Merly, of Eagle, told us of several hummingbirds he had seen in Eagle during the "past few years" and Frank Warren, of Circle, told us of one caught by the bill in the screen door of his house (in August 1965 according to the records of Brina Kessel). This species, although reported as occurring only in southeast Alaska (Gabrielson and Lincoln, 1959), apparently occurs sparsely in interior Alaska with fair regularity (Brina Kessel, pers. comm.). The species is probably increasing along the Yukon River and careful observations might reveal that it breeds there as indicated by our various summer records.

Megaceryle alcyon — BELTED KINGFISHER. We failed to note it on the river in 1966 and 1968, but Cade saw one in 1951 about one mile from the river along a stream. This locality was near the Fortymile River. Interestingly, Bishop (1909) never say it more than about 40 miles below Dawson. Osgood (1909) saw one at Eagle. Blackwelder (1919), aside from finding it on the Flats did not find it on the Yukon downriver from the White River. The kingfisher would seem to be a "natural" for the Yukon River because of the habitat, especially with the dirt banks for nesting holes. Perhaps the dirt banks are too ephemeral and unstable to suit kingfisher requirements or the water too turbid for effective fishing conditions.

Colaptes auratus — YELLOW-SHAFTED FLICKER.* We observed individuals near the Nation River and on three occasions near Circle. However, a total of 11 was found in Peregrine aeries indicating its greater abundance. Since flickers are receiving considerable study regarding the species and hybridiza-

tion problems, it would seem valuable to report a flicker of the "red-shafted" type seen on the Taylor Highway, 18 June 1966, between Tok and Eagle, Alaska. This lies far outside the range of the "red-shafted" type as shown by Short (1965). (See also Yocom, 1964, for a record of the "red-shafted" type near Fort Yukon).

Dendrocopos sp.* Only one seen briefly, thought to be a Hairy Woodpecker *D. villosus*, at the mouth of the Charley River, but tail feathers of a *D. villosus* were found in three Peregrine aeries.

Picoides tridactylus — NORTHERN THREE-TOED WOODPECKER. None was seen by us in 1966 or 1968, but Cade observed it on six occasions in 1951.

Sayornis saya — SAY'S PHOEBE.* Seen regularly along the river in areas of bluffs. Interestingly, Bishop (1900) reported seeing many until they reached Charley Creek (Kandik River) but did not observe the bird between there and Circle. Osgood (1909), however, lists it as common on the Yukon without giving further data except to say it was noted at Circle.

Empidonax flaviventris — YELLOW-BELLIED FLYCATCHER.* On 28 July 1966, an individual weighing 10.3 gm., with an ossified skull, brood patch, light fat, and ovarian follicles 1.5 x 1.5 mm was taken from a mistnet in thick willows near the confluence of Coal Creek and the Yukon River. That same day, Haugh saw another very yellow-breasted flycatcher thought to be of this species. On 24 June 1966, an intact freshly killed specimen was found near a Peregrine aerie in the vicinity of Eagle. Although it has been heretofore unknown in Alaska, these records taken together tend to indicate limited breeding of this flycatcher in interior Alaska. The current range map of the species' distribution in Canada (Godfrey, 1966; 254) shows that it extends west to the region of Fort Norman, N.W.T., thence south through the extreme southeastern tip of the Yukon Territory. If indeed the specimen taken was breeding, as indicated by its condition, and not a post-breeding wanderer, it would be of interest to re-examine the species distribution in Canada for possible clues as to the route the species followed through Canada into Alaska. The specimen was identified by Ned K. Johnson and is deposited in the Biological Collections, University of Alaska.

Empidonax traillii — TRAILL'S FLYCATCHER.* Common along the river bank. Singing birds were heard about every 100 yards on a four-mile walk from Eagle Village to Eagle on 25 June 1966. All birds calling were seemingly of the "Fitz-bew" type except for several near Eagle which tended to be a "Way-be-oh" or "Phe-be-o".

Empidonax hammondi — HAMMOND'S FLYCATCHER.* We saw it in 1966 only at a few places; principally near the Woodchopper Region and about 21 miles upriver from Circle. All individuals seen or mistnetted were associated with conifer forested hill-sides. Bishop (1900) found it equally common with *E. traillii* and in the same habitat until he reached Charley Creek (Kandik River) after which he did not see it again. Our extensive mistnetting along the willows and river banks in the habitat of *E. traillii* failed to turn up any individuals of *E. hammondi*.

Contopus sordidulus — WESTERN WOOD PEWEE. We failed to see, hear, or mistnet this species. Cade recorded it several times in 1951 and collected one individual which he called a pewee.

Nuttallornis borealis — OLIVE-SIDED FLYCATCHER. We saw the species on only one occasion in 1966, but Cade saw it on five occasions in 1951.

Hirundinidae — SWALLOWS.* At Eagle four species, the Tree (*Iridoprocne bicolor*), Cliff (*Petrochelidon pyrrhonota*), Violet-green (*Tachycineta thalassina*) and Bank (*Riparia riparia*) swallows were found sympatrically in 1966. *Riparia* is by far the most numerous at Eagle, with several colonies, one of which has greater than 500 individuals. There were about 20 pairs of *Tachycineta*, 10 pairs of *Petrochelidon* and two pairs of *Iridoprocne* in the town. Although no quantitative measurement of niche utilization, such as food samples analysis, was made, a slight difference in foraging was observed among the species. *Iridoprocne* was only seen foraging near to the ground over the grassy airfield. *Tachycineta* and *Petrochelidon* foraged principally in the area encompassed by the town or somewhat overland and at an intermediate height above the ground. *Riparia* appeared to be the most versatile and was seen in all situations even back overland as far as 3-4 miles from the colony.

During most of the morning and early afternoon hours, *Riparia* foraged over the river near the colony. Daily, from about 16-1800 hours, the *Tachycineta* were seen sitting on the utility wires in town and during this time *Riparia* foraged about the resting Violet-green Swallows. All swallow specimens that we collected were found to be feeding heavily on mosquitos. Because of such an unlimited food supply, greater food "niche" separation may not be necessary during the nesting period.

One albino fledgling appeared on 18 July in the Eagle *Riparia* colony and was present until at least 22 July, at which time we left Eagle. More than 830 *Riparia*, from the colony at Circle, were counted as they sat on utility wires on the evening of 10 July. This date was prior to the fledging of young and all were considered to be adults, indicating the size of the colony.

Tachycineta was gone from Eagle by 22 July and from cliffs it occupied downriver by 28 July. It was gone by 5 August in 1951. In 1915, they were last seen by Blackwelder (1919) on 11 August. *Petrochelidon* was first noticed absent from cliffs on 27 July 1966. A *Petrochelidon* colony of considerable size about 17 miles upriver from Circle in 1966 was abandoned in 1968. *Riparia* was still common on 3 August in 1966 and a few were seen by Cade on 24 August in 1951. Blackwelder (1919) found *Tachycineta* abundant, *Riparia* "not abundant", and only one colony of *Petrochelidon*. We found *Riparia* very abundant; *Petrochelidon* with scattered, but usually moderately large colonies; and only a few small colonies of *Tachycineta* on the lower cliffs. Osgood (1909) noted *Petrochelidon* at the Seventy-mile River but not elsewhere and Bishop (1900) did not record it below Dawson but believed it was not seen there because it had already migrated. Osgood (1909) called *Tachycineta* common between Eagle and Circle. In 1951, Cade recorded *Tachycineta* nearly as frequently as he did *Riparia*. There is apparently a dynamic fluctuation of not only species composition but also numbers of individuals over the years. Osgood (1909) noted the Barn Swallow (*Hirundo rustica*) at Eagle, but neither we nor Cade recorded it during the time we spent in the river valley.

Each time the Peregrine left its aerie near Eagle and flew over the *Riparia* colony, the swallows formed a tight, wheeling flock

and chattered loudly, following, although somewhat below, the Peregrine course of flight.

Perisoreus canadensis — GRAY JAY.* Fairly common. On one occasion, at a locality near Circle, we found 12 freshly killed jays about a Peregrine aerie and the nearby plucking perches

Corvus corax — COMMON RAVEN.* In 1966, ravens were seen only at six localities, of which four were probably nesting areas. They were often observed in groups of 4-5, probably siblings or family groups. In 1968, however, because we were on the river about 1½ weeks earlier and at a time when young ravens were just leaving the nest, many more were seen. Eleven nesting sites were found in 1968 and the young were in the process of fledging in the first week of June. On 4 July 1966, a group of eight was seen to frequent a clump of bushes and small trees along the river toward dusk and this may have been a "communal" roost for perhaps two broods of birds. This group was seen there for a total of three days. In 1951, Cade noted the species during nearly every day of travel. A first year bird which Cade collected was beginning to molt into adult plumage on 17 July.

Parus hudsonicus — BOREAL CHICKADEE.* We only identified chickadees as *hudsonicus* on two occasions and heard or saw other parids on two different occasions that might have been *hudsonicus*. Parids on the whole were scarce. By contrast, Bishop, (1900) found chickadees regularly distributed in family or large flocks all the way to Fort Yukon. Cade noted them regularly in 1951; all recorded as *P. hudsonicus*. It is interesting to note that the black-capped chickadee (*P. atricapillus*) does not appear to have been recorded from this region. We had one record from Eagle on 20 June 1966, of an individual we identified as a Gray-headed Chickadee (*P. cinctus*). We watched it for some five minutes at about 40 feet. We will defer the recording of this bird as *P. cinctus*, however, because of the lack of a specimen or undisputed photograph.

Turdus migratorius — ROBIN.* Seen occasionally at frequent localities.

Ixoreus naevius — VARIED THRUSH.* Heard singing principally where the rivers and large streams, e.g. Coal Creek, Seventymile, Tatonduk, Kandik, Nation, etc., enter the Yukon. At the Tatonduk River on 30 June

1966, two adult females and three adult males were taken in a mist net. On 28 July 1966, about 21 miles upriver from Circle, 13 juveniles were taken in two nights of mist-netting and no adults were seen or taken. The juveniles had partially grown adult tail feathers and some adult body feathers, but all had juvenal-plumaged heads. Birds were heard singing most frequently from about 1800 hours, through the night hours, to about 0700 hours the following morning.

*Hylocichla (Catharus) spp.** The records from some 20 nights of mistnetting are instructive in terms of comparative frequencies of thrushes. One bias in the data, however, is that all habitats were not equally sampled with regards to total number of netting nights. The Hermit Thrush (*H. guttata*) was only seen once and that was near Castle Rock, Yukon, and never taken in a net despite netting in spruce habitat. The Gray-cheeked Thrush (*H. minima*) was found most frequently from Circle to about 30 miles above Circle. At Circle, in three nights of mistnetting, only seven individuals were taken, as opposed to 11 Swainson's Thrush (*H. ustulata*). At Eagle no *H. minima* were taken although 20 *H. ustulata* were taken in three nights of mist netting; a few *H. minima* were heard singing, however. *H. ustulata* was extremely common and appeared to be equally as common at Eagle and at Circle and points between. *H. ustulata* and *H. minima* appeared to equally frequent the same habitats along the river proper, relative to their numbers. It would be instructive to determine frequencies of these two thrushes in the Yukon Flats and partitioning of the habitat, if any. Bishop (1900) indicates that *H. ustulata* was the most common thrush. Osgood (1909) cites *H. ustulata* as abundant from Eagle to Circle and only mentions *H. minima* as being fairly common in the vicinity of Circle. Dall and Bannister (1869) also reported *H. ustulata* as more common than *H. minima*.

Sialia currucoides—MOUNTAIN BLUEBIRD. One adult male was seen on 27 June 1966 across from Eagle Village. Records for the interior of Alaska are scattered and infrequent (Kessel and Springer, 1966) but judging from the distribution map in Godfrey (1966:303), there are breeders in the region of the Yukon Territory encompassing the Yukon River. In 1951, Cade was told by Arthur Stevens, an Eagle resident, that a pair came to Eagle nearly every year.

Oenanthe oenanthe—WHEATEAR. One was collected at the mouth of Coal Creek, 20 August 1951, by Cade.

Myadestes townsendi—TOWNSEND'S SOLITAIRE.* Gabrielson and Lincoln (1959:675) state that "It is usually found at rather high elevations, particularly in the breeding season, when it is likely to be at or close to timberline." Contrary to this statement, solitaires on the upper Yukon River appear to prefer a much broader habitat type. Wherever there are drier slopes, usually south or west facing, dominated by aspen or cottonwoods with a sage, grass, or rose understory, the solitaire was found in 1966 and 1968. Young, perhaps a day or two out of the nest, were found among the aspens along the river near Castle Rock on 22 June 1966. Pairs of adults, much aroused by our presence as though a nest were nearby, were found on the drier hillsides at Calico Bluff, Montauk Bluff, and Takoma Bluff. Inasmuch as they were also seen in the spruce stands at higher elevations, their ecological tolerance in the breeding season would seem to have a much greater latitude than heretofore reported for Alaska. Paired solitaires, perhaps breeding pairs and recently fledged young, were also seen about six miles upriver from Circle on 31 July 1966, and in the first week of June, 1968.

Bombycilla garrulus—BOHEMIAN WAXWING.* Seen on five occasions in 1966 at various points on the river. Two separate individuals were watched as they "hawked" insects near Kathul Mt. on 17 July 1966. They would perch on the tip of a tall, usually isolated, spruce at the river's edge, launch forth and fly erratically about grabbing insects then return to the spruce. Seen more frequently in 1951 and sometimes in large flocks. Fledgling waxwings were found as prey items in a Peregrine aerie on 16 July 1966.

Regulus calendula—RUBY-CROWNED KINGLET. Seen or heard singing on but two occasions in 1966.

Anthus spinoletta—WATER PIPIT. Not seen in 1966 nor 1968, but Cade saw it near the Nation River on 12 and 14 August 1951.

Vermivora celata—ORANGE-CROWNED WARBLER.* Our records for *V. celata* pertain to a few birds taken in mistnets on the portion of river near Circle. No warblers were identified as this species elsewhere. An adult taken on 28 July 1966, was in heavy molt and had a newly emerging tail, with all feathers

TABLE 1.

Apparently Stable	Fluctuating Populations	More common proceeding upriver toward and beyond Eagle	More common proceeding downriver toward and beyond Circle	Apparent or actual decrease since early 1900's	Apparent or actual increase since early 1900's	Undeterminable
Canada Goose Mallard Shoveler American Widgeon scaup spp. goldeneye spp. White-winged Scoter Surf Scoter merganser spp. Sharp-shinned Hawk Peregrine Falcon Common Snipe Spotted Sandpiper Herring Gull flicker Say's Phoebe Trail's Flycatcher Bank Swallow Gray Jay Raven Robin Varied Thrush Yellow Warbler Slate-colored Junco White-crowned Sparrow Fox Sparrow	<i>Buteo</i> hawks Marsh Hawk Spruce Grouse Ruffed Grouse Great Horned Owl Short-eared Owl Violet-green Swallow? Cliff Swallow? Barn Swallow? Boreal Chickadee Bohemian Waxwing Pine Grosbeak? C. Redpoll White-winged Crossbill	White-Winged Scoter? Belted King- fisher Hammond's Flycatcher Wood Pewee Hermit Thrush Swainson's Thrush?	White-Fronted Goose Sandhill Crane Northern Phalarope Mew Gull Bonaparte's Gull Arctic Tern Gray-cheeked Thrush Northern Water- thrush Myrtle Warbler? Blackpoll Warbler? Rusty Blackbird? Savannah Sparrow	Violet-green Swallow? Cliff Swallow?	Black Brant Pintail? Gadwall Green-winged Teal Blue-winged Teal Ring-necked Duck Kestrel Killdeer Hudsonian Godwit Rufous Humming- bird Yellow-bellied Flycatcher Cliff Swallow? Mountain Bluebird Towsend Solitaire?	loons spp. grebe spp. swan spp. White-fronted Goose Bufflehead Oldsquaw Harlequin Duck Goshawk Golden Eagle Bald Eagle Merlin Golden Plover Solitary Sandpiper yellowlegs Pectoral Sandpiper Sabine's Gull Boreal owl woodpeckers spp. Olive-sided Flycatcher Tree Swallow Wheatear Swainson's Thrush Townsend Solitaire kinglet pipit Orange-crowned Warbler Wilson's Warbler Tree Sparrow Lincoln's Sparrow Lapland Longspur

of a uniform length, and out about 10 mm. Cade saw several on 17 August 1951 near the Charley River.

Dendroica petechia — YELLOW WARBLER.* Widespread and common on the river.

Dendroica coronata — MYRTLE WARBLER. Identified only once near Kandik River in 1966. Bishop (1900) found it commonly.

Dendroica striata — BLACKPOLL WARBLER. One record, an adult male, mistnetted on 12 July 1966 at Circle. Osgood (1900) only found it occasionally and was of the impression that it increased in numbers near Circle.

Seiurus noveboracensis — NORTHERN WATER-THRUSH.* Widespread and frequently seen, especially common at Circle. Adults were in fresh fall plumage by 1 August 1966, except for 1-3 remaining primary feathers only about one-half emerged.

Wilsonia pusilla — WILSON'S WARBLER.* Seen only on four occasions but doubtless more common. Osgood (1909) found it abundant between Eagle and Circle. Birds of the year were taken in a mistnet about 21 miles upriver from Circle on 28 July 1966.

Euphagus carolinus — RUSTY BLACKBIRD.* Seen on only two occasions, once at Miller's Camp (mouth of Tatonduk River) and once at Circle in 1966. Only two were found as prey items in Peregrine aeries in 1966, while six were found in Peregrine aeries in 1951 (Cade, *et al.*, 1968). Interestingly, it was noted only once, at Circle, by Cade on 25 August 1951.

Pinicola enucleator — PINE GROSBEAK.* Seen on two occasions, once at Eagle on 21 June and once at Circle on 12 July 1966. It was breeding at the latter locality.

Acanthis flammea — COMMON REDPOLL.* Redpolls, as compared to their common status at Fairbanks, were notably scarce in 1966. A slightly greater number was observed in 1968. It was only seen or heard at five localities in 1966. All sightings in 1966 relate to lone individuals flying high in the air, except for a flock of 15 above Wood-chopper Creek and a pair near Kandik River. Only one was seen at Eagle in seven days of observations. By contrast, Cade recorded it on 11 occasions in 1951. All but two of Cade's records were in August. On

17 August, he observed a flock of 12. A female mistnetted at Circle on 2 August 1966, still had a very edematous brood patch and had been gathering food, indicating that young were in the nest at that late date

Loxia leucoptera — WHITE-WINGED CROSS-BILL. Two were seen on 16 June 1966 near Eagle. None was seen in 1968. Contrastingly, Cade saw it, often in large flocks, nearly every day of travel from 11 July to 25 August 1951. These records, in addition to the numerous squirrels seen by Cade, indicated a big spruce cone crop.

Passerculus sandwichensis — SAVANNAH SPARROW.* Seen or heard only in the vicinity of Circle in 1966 where it was moderately common.

Junco hyemalis — SLATE-COLORED JUNCO.* Moderately common throughout the region, being equally so in 1966 and 1951.

Spizella arborea — TREE SPARROW.* Moderately common and widespread. More common at Circle than Eagle.

Zonotrichia leucophrys — WHITE-CROWNED SPARROW.* Frequently, but not commonly, encountered along the entire river. Most of our records come from the vicinity of Circle. Five eggs in a nest near our tent at Eagle in 1966 hatched on 28 June while on that same date, recently fledged young were seen at Eagle and a nest of three fresh eggs was found at Miller's Camp some 20 miles below Eagle.

Passerella iliaca — FOX SPARROW.* Frequently observed and heard, but not abundant, along the entire river. Most frequently seen or mistnetted in the vicinity of Circle. A juvenile on 11 July 1966 at Circle had several newly emerged adult feathers on the breast only.

Melospiza lincolni — LINCOLN'S SPARROW.* Not commonly encountered and only seen on two occasions in 1966 and on two occasions in 1951. It would be instructive to take census counts through uniform habitat along the course of the river to determine the exact relative abundance of the passerines and the extent to which their abundance varies along the river.

Calcarius lapponicus — LAPLAND LONGSPUR. Two juveniles seen on 17 August 1951 by Cade. None was seen in 1966 nor 1968.

SUMMARY

Of the 92 species encountered during the 1966 and 1968 periods of our surveys, 57 were judged to have been breeding (marked with an asterisk). In addition to those species judged to be breeding, 14 other species seen by us, the Common Loon, Arctic Loon, Red-necked Grebe, Bufflehead, merganser spp., Spruce Grouse, Sandhill Crane, Mew Gull, Boreal Owl, Western Wood Pewee, Olive-sided Flycatcher, Ruby-crowned Kinglet, and Myrtle and Blackpoll warblers were most certainly breeding. Of those listed by us the following merit comment as to breeding status. The Blue-winged Teal has doubtlessly recently arrived as a breeder; it breeds farther north in the Flats. The Goshawk also doubtlessly breeds in the region. We would expect to find Golden Eagles, Merlins and Water Pipits breeding near timberline or in the cliff areas on the mountains immediately adjacent to the river. We would also expect Bald Eagle to breed in the region, though sparsely. Marsh Hawks, Great-horned Owls, and Short-eared Owls probably breed irregularly, possibly in considerable numbers, or perhaps annually in limited numbers depending on the size of the prey population. It is also expected that crossbills breed when the seed cone crop conditions are suitable. Three-toed Woodpeckers were doubtlessly in the region in 1966 and 1968 although we missed them. Lastly, the Mountain Bluebird may breed in small numbers annually and it is possible that, at present at least, it is near the northern limits of its breeding range.

From the above listed 26 species we feel justified in adding all, except perhaps the Great-horned Owl, Short-eared Owl, and Crossbill, as also breeding during the period of our survey. The addition of these species would bring to 80 the total number of species breeding. A perusal of the summer and distributional records from Gabrielson and Lincoln (1959) may indicate that as many as 118 species could be breeding in this region of the Yukon River.

The Pine Siskin (*Spinus pinus*) was present in conspicuous numbers during Bishop's survey (1900) as far north as Dawson and the Fortymile River. The species was not seen by Cade nor us. It has, however, been recently shown to breed in the Fairbanks region (White and Brooks, 1964) and likewise it probably breeds along the upper Yukon River. The same applies to the Brown Creeper (*Certhia familiaris*) (see Kessel and Springer, 1966). Two owls, the Great Gray (*Strix nebulosa*) and the Hawk Owl (*Surnia ulula*) were reported by either Bishop (1900) or Osgood (1909) and although not seen by us it is not surprising because of their habits. Cade did not see them in 1951 either, but he found remains of the latter in a Peregrine aerie. There is no reason to believe their status has changed since the time of Bishop and Osgood. In light of the present state of knowledge of these two owls it would be informative to determine their exact status, as it would be for all owls, along the upper Yukon. Osgood (1909) reported seeing Rough-legged Hawks (*Buteo lagopus*) commonly on the Yukon between Eagle and Circle and mentions a nest found in a spruce tree near Charlie Creek. Osgood never reported other species of

Buteo. We believe that the birds seen were actually *Buteo jamaicensis*, *B. "harlani"*, or perhaps the Swainson's hawk (*Buteo swainsoni*) (see Williams, 1925 and Dall and Bannister, 1869, for remarks of *B. swainsoni* in this general region), and that the citing of the hawks as *B. lagopus* was a lapse on Osgood's part. However, Dall and Bannister (1869) reported eggs of *B. lagopus* taken from a nest near Fort Yukon. Their record may lend credence to Osgood's (1909) sightings and suggest that the species has changed its distribution and it may have formerly nested along the Yukon upriver from Circle.

The status of the Barn Swallow, with respect to the upper Yukon, is open to question (see Gabrielson and Lincoln, 1959) and Osgood (1909) gives the only report, to our knowledge, for that region. It most certainly is not of regular occurrence. We would expect that chipping sparrows (*Spizella passerina*) will be recorded within the next few years from the region as they have been seen on the Taylor Highway just to the southwest (see Kessel and Springer, 1966: 194). We are surprised that the Tennessee Warbler (*Vermivora peregrina*) has not been recorded from this region, judging from Godfrey's (1966: 323) range map of it in Canada, but expect it to be recorded from the upper Yukon region in the near future.

No species reported from the region in the early 1900's appear to have disappeared from it although several species have become established since that time. There are, however, some species recorded by Dall and Bannister (1869) from farther downriver on the Yukon Flats that no longer appear to be breeding in that region.

The status of those species seen or listed by us, with respect to adjacent regions further upriver and downriver, and the status of the species along that portion of river we surveyed, as we tentatively interpret it, is summarized in Table 1. The literature heretofore cited is used to determine the category under which it is placed. The species of which little can be done by us concerning their status are given under the heading, undeterminable. Some species, for example the Violet-green Swallow, are given under more than one category as more than one phenomenon may be taking place. Once downriver beyond Circle, into the Flats, the nature of the avifauna and the abundance of various species appears to change rapidly (see for example Blackwelder's 1919, citation for the Belted Kingfisher; and Yocom, 1964). Two species, the Red-legged Kittiwake and Sabine's Gull, are considered as accidentals or of rare occurrence. It is probable that the Gray-headed Chickadee occurs sporadically in the region (see also Gabrielson and Lincoln, 1959: 628). It is evident from this report that a periodic surveillance of the upper Yukon River is in order to verify and further assess its breeding avifauna.

We thank Tom J. Cade and George C. West for reading this report and offering comments. Our work was supported in 1966 by the USFWS, Laurel, Maryland, and in 1968 by the Arctic Institute of North America under contractual arrangements with the Office of Naval Research.

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Accepted May 1, 1969





White, Clayton M. and Haugh, John R. 1969. "Recent Data on Summer Birds of the Upper Yukon River, Alaska, and Adjacent Part of the Yukon Territory, Canada." *The Canadian field-naturalist* 83(3), 257–271.

<https://doi.org/10.5962/p.364125>.

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DOI: <https://doi.org/10.5962/p.364125>

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