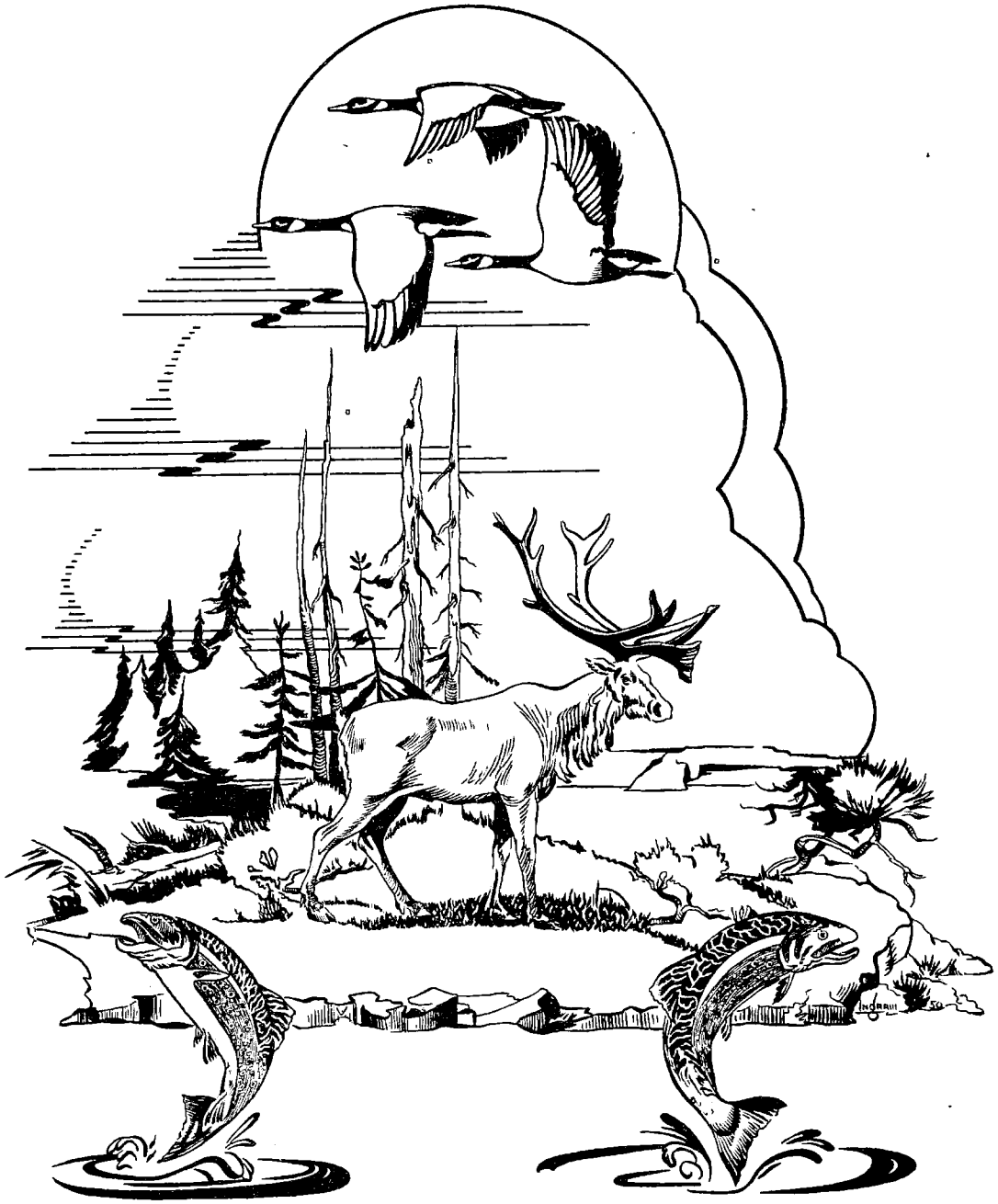
WILDLIFE MANAGEMENT BULLETIN



DEPARTMENT OF NORTHERN AFFAIRS
AND NATIONAL RESOURCES
NATIONAL PARKS BRANCH
CANADIAN WILDLIFE SERVICE

SERIES 2 OTTAWA NUMBER 7

SEPTEMBER 1954

CANADA

DEPARTMENT OF NORTHERN AFFAIRS
AND
NATIONAL RESOURCES

NATIONAL PARKS BRANCH

CANADIAN WILDLIFE SERVICE

WATERFOWL AND OTHER ORNITHOLOGICAL INVESTIGATIONS IN YUKON TERRITORY, CANADA, 1950

by

J. Dewey Soper

WILDLIFE MANAGEMENT BULLETIN

SERIES 2 NUMBER 7

Issued under the authority of
The Minister of Northern Affairs and National Resources

Ottawa

1954

Table of Contents

Wildlife Management Bulletins are produced to make available to wildlife administrators the information contained in reports which are submitted by officers of the Canadian Wildlife Service.

The reports do not, in most cases, cover extensive studies and are not written primarily for publication. Recommendations arising from the studies are not included.

INTRODUCTION

For some time it had been recognized that a greater knowledge of Yukon birdlife was desirable. Relatively few ornithological studies had been carried out in the Territory, partly because of the lack of qualified biologists, but chiefly because of its ruggedness and inaccessibility. Particularly important for administration and management purposes, was a greater knowledge of Yukon waterfowl resources, especially in the southern and south-central parts of the Territory.

During the winter of 1949-50, the writer was instructed by the Canadian Wildlife Service to begin investigations during the summer of 1950. Accordingly, the writer left Edmonton by motor-car in early June and reached the Yukon Territory a few days later travelling over Alberta highways and the Alaska Highway. Preliminary observations of waterfowl were made west of the Liard River and at Teslin Lake on June 12 and 13, and around the north end of Teslin Lake, along portions of the Canol Road and the Teslin River, and at Marsh Lake, on June 14 and 15. Some remnants of winter ice still remained on the lakes at this time. From June 16 to 28, investigations were made by motor-car and motor-boat at Klukshu, Dezadeash, Marsh, Little Atlin, Tagish, Bennett, Canyon, and Aishihik Lakes.

The next phase of the field work was carried out by means of pack and saddle horses from Champagne, northward via Taye and Hutshi Lakes and Division Mountain to Braeburn Lake, from there southward via Anticline and Richthofen Lakes to Takhini. This journey occupied the period from June 29 to July 5, inclusive. By July 14, the examination of Teslin Lake (including Nisutlin Bay) and the Canol Road to Quiet and Lapie Lakes had been completed.

During the latter half of July investigations were conducted at Lake Laberge and down the Yukon River to Dawson. Von Wilczek Lakes and the lower Pelly River were observed en route. In the Dawson district, the investigations included the Klondike River, Hunker and Bonanza Creeks, and the "Sixtymile" Road to the Yukon-Alaska boundary a short distance northwest of Glacier Creek. An aeroplane flight was made from Dawson to Mayo Landing and vicinity, and from there south to Whitehorse, on July 27 and 28.

During the early half of August, field work was carried out northwest of Whitehorse to Kluane Lake, and beyond it to the Alaska boundary en route to Fairbanks, Alaska. On the return journey Kluane, Dezadeash and Klukshu Lakes and several other bodies of water on the Alaska Highway previously visited, were again examined.

During the period of investigation 7,114 miles were travelled by motor-car; 811 miles by motor-boat and canoe; 166 miles on horseback; 375 miles by aircraft; and 84 miles on foot; a total of 8,550 miles.

Splendid co-operation was received from the Commissioner and other officials of the Yukon Territorial Government. Excellent services were rendered by Messrs. Them Kjar and Gordon Cameron, Director and Assistant Director, respectively, of the Game and Publicity Department at Whitehorse. A new truck, a trailer, and a motor-boat were placed at the writer's disposal, and the officials actively participated in the field work during most of the summer. Their co-operation increased the efficiency and speed of operations, and reduced time and expense.

TOPOGRAPHY AND VEGETATION

A distinctive characteristic of the Yukon Territory is its mountainous nature. There is considerable variety of topography, but for the most part the country is rugged. High ridges and mountain ranges frequently alternate in rapid succession with deep valleys and broad, forested bottomlands. In many cases there are swamps, muskegs, and lakes in the depressions.

The high ridges and the mountain chains vary in height from about 3,000 to about 7,000 feet. The southwestern part of the Territory is dominated by the St. Elias Mountains where elevations range from approximately 10,000 up to nearly 20,000 feet. Much of this region is covered with perpetual snowfields and glaciers. Other conspicuous ranges are the Selwyn, Ogilvie, and Mackenzie Mountains of southeast and east-central districts, and the Richardson and British Mountains in the north.

Northern coniferous forest covers the greater part of the Territory. Except in the Arctic tundra and in scattered prairies and grassy benchlands found elsewhere, only the high alplands are wholly devoid of trees and shrubs. As a rule, conifers greatly predominate. The rate of tree growth on the rich alluvial plains is good, but on the hillsides and in areas where there is permafrost, growth is stunted.

Spruce constitute most of the forest, but aspen and balsam poplar are extensively intermingled with these. There are also pure stands of lodgepole pine in the southeastern part of the Yukon, where Alpine fir occurs at higher elevations. White birch and tamarack are relatively rare and widely scattered.

Up to moderate elevations, shrubbery of various kinds is found almost everywhere. In many areas it is abundant. Most of the shrub cover consists of willows, alders, and dwarf birch. Other native species include silverberry, buffalo-berry, shrubby cinquefoil, and Labrador tea. The richest growths of shrubbery occur near lakes and streams and on adjacent lowlands.

There are numerous lakes, ponds, and streams. Large lakes are most numerous in the south-central and south-western part of the Territory east of St. Elias Mountains, where most of them are between 2,100 and 2,500 feet above sea level. An important small lake section lies north of the Arctic Circle and is known as Old Crow Flats.

The greatest waterway of the region is the Yukon River with its tributaries the Lewes, the Stewart, the Pelly, the Porcupine, and the White, which drain into Bering Strait. Another important river is the Peel which empties into the Arctic Ocean.

The greater part of the Territory comes within the Hudsonian Life Zone. Only a relatively small representation of the Canadian Life Zone is found in some valleys in southern Yukon. The true tundra, or Arctic Life Zone, occurs in the extreme north in the Richardson, Barn, Buckland, and British Mountains and the entire coastal district to Beaufort Sea. Arctic-alpine conditions exist in the higher mountains throughout the region.

CLIMATIC CONDITIONS

Yukon Territory is the northwestern extremity of the mainland of Canada. Much of the Territory has Arctic or sub-Arctic conditions. Approximately 25,000 square miles lie north of the Arctic Circle and nearly half of that area is beyond the limit of trees.

Because of this the winters are long, lasting on the average from mid-October until late April. Even in the lowlands snow flurries may occur as early as September and as late as May. Normally ice breaks up during the first half of June on the lakes of southern Yukon and progressively later in central and northern districts.

Winter temperatures are often very low. The average temperatures for the coldest month may fall as low as - 50°F. In the recent past - 83°F. was recorded at Snag Airport, near White River. Usually the coldest periods are short. During mid-winter, the sun is above the horizon in southern districts only about five to eight hours daily, depending on the latitude, and north of the Arctic Circle it fails to appear for periods varying in length according to latitude.

In the lower latitudes there are 20 to 22 hours of daylight in June and 18 to 20 hours during most of July, and in the far north the midnight sun is visible. Summer months normally have warm days and cool nights. Average temperatures range from about 50° to 70°. Occasional short periods are markedly hot with temperatures rising as high as 95°. Two such hot spells were experienced during the summer of 1950. Killing frosts may occur in any month, but are rare in July and relatively rare in the early half of August. As a result of long hours of sunshine and warmth, gardens in Southern Yukon usually have phenomenally rapid growth.

The weather of the interior depends greatly upon the movement of air masses from the Pacific or the Arctic. This causes a wide variation in average temperature and precipitation in different years. Depending upon the year and locality, annual precipitation varies from about seven to 13 inches. From 35 to 50 per cent of this is rain (1½ to two inches per month) during the period from June to September. The heavy warm air from the Pacific loses much of its moisture content in passing over the St. Elias and Coast Ranges, and rainfall is very light in a large area east and northeast of those mountains. Carcross, Champagne, and Aishihik and Kluane Lakes lie within this dry belt. Precipitation increases to the east and north, but nowhere in Yukon Territory can it be regarded as heavy.

WATERFOWL HABITATS AND POPULATIONS

To the casual observer most of Yukon Territory appears to be an unusually poor habitat for waterfowl. This is especially true during the nesting season when the birds are likely to be secretive and widely scattered.

Thinness of dispersal is particularly noticeable in the case of species that nest in forested country lacking extensive marshes, or in country as high, rugged, and mountainous as the Yukon. Upon entering the Territory it was soon realized that the large southern lakes harbour few summer resident wildfowl. These lakes are clear, deep, and cold and so are not basically adapted to support most game ducks, especially surface feeders, or Canada geese. Some lakes support only such duck species as scoters, mergansers, scaups, and golden-eyes and few of these in the breeding season. Others attract no wildfowl of any kind except a few loons. The only fairly good waterfowl populations to be found in summer are on lakes where some of the bays support sub-aquatic vegetation.

Concentrations of wildfowl are rarely seen in summer. Swans do not remain on the southern lakes, and the only species of geese known to be present is the Canada goose, which is so thinly distributed that only two pairs were recorded during the investigations in the country south of Dawson and Mayo Landing.

During migration periods the number of species of waterfowl increases greatly. Hundreds, perhaps thousands, of geese and swans feed and rest in favoured localities on their way to and from the Arctic and sub-Arctic breeding grounds. Such places become known, and are resorted to by gunners during the open season.

Waterfowl potentialities are by no means confined to the larger waters. Area for area, they are greater in numerous little lakes, tarns, ponds, and sloughs that are too small to be shown on standard maps. Excellent waterfowl populations were noted on many ponds in the valleys reached by pack-train, and on others set in from the larger lakes, the tote-roads, and the highways. Some of the better ponds fairly swarmed with birds. There is no doubt that the total number of the small bodies of water that are good waterfowl habitats must be large enough to greatly enhance the waterfowl aggregate of the Territory.

Many of these small waters are rimmed with herbage and some shrubbery, offering ideal, or at least adequate, nesting cover. Many have some emergent vegetation, such as sedges, spikerush, and aquatic grasses (Figs. 1, 7, and 8), as well as various species of under-water plants, including at least certain species of Potamogeton, Myriophyllum, Utricularia, Ranunculus and Hippuris.

Marsh conditions are exceedingly rare and widely scattered. Cattail (Typha) was nowhere observed. The roundstemmed bulrush (Scirpus sp.) was seen only once, at Von Wilczek Lakes. Large numbers of muskeg type ponds are sterile and devoid of birdlife.

Some streams are good wildfowl habitats and good producers of ducks and geese. The most important of these include the Yukon River and its better tributaries. It is reported that in some seasons many wildfowl are reared along the main stream. A fair number of Canada geese and numerous ducks are said to nest along the Nisutlin, Teslin, Pelly, and Stewart Rivers. It is understood that there is also a fair number of waterfowl along parts of the Peel and Porcupine Rivers. Mountain streams and the headwaters of all the principal rivers are too rapid and turbulent to attract many waterfowl.

Old Crow Flats is an outstanding waterfowl breeding area. It lies close to the Yukon-Alaska boundary between the Porcupine River and the British Mountains. This district could not be reached in 1950. It is a maze of creeks, small lakes, and ponds. The northern portion is understood to extend beyond the tree limit and to be Arctic in character. The greater part of the district is good waterfowl country and is resorted to by thousands of ducks and fair numbers of Canada geese and white-fronted geese. Smith and his associates (1948, 1949, 1950) estimated average numbers of wildfowl per square mile as follows:

	1948	1949	1950
Ducks	56.2	38.0	43.0
Geese	2.4	2.2	1.8

Old Crow Flats appears to be the best all-round waterfowl breeding area in Yukon Territory.

Clearly, there are few waterfowl breeding concentrations in the Yukon. A few small ones do occur, but in any given locality the number of nesting ducks and geese is usually low.

Although local populations are characteristically small, the total of scattered pairs and small groups in such a large region as the Yukon must be quite large. Unquestionably the Territory makes a very substantial contribution to the waterfowl resources of North America but, although our knowledge has expanded recently, more extensive examinations of the whole Territory are still required for full appraisal of the situation. Waterfowl in the areas visited in 1950 are discussed in the following section.

WATERFOWL TRANSECT AND OTHER DATA

Waterfowl investigations were carried out in Yukon Territory from June 12 to August 13, 1950. Most of the data were secured by the standard transect method on lakes and streams. On the larger waters a cabin cruiser or a small motor-boat was used and all counts were made on transects having an estimated width of 440 yards. Normally the transect was run close to shore and the results calculated in averages per square mile.

In river travel, the count was made on the full width of the stream regardless of size. This system was used even on the Yukon River, the largest waterway of the Territory. In the part of the river from Whitehorse to Dawson (430 miles) the width of the river does not greatly exceed the standard transect width and much of it is considerably less.

Stream data are therefore necessarily expressed in terms of linear miles, but for comparative purposes an attempt has been made to arrive at a reasonably accurate square-mile conversion.

The total lake areas shown at the bottom of the transect tables, the

estimated waterfowl populations, and the averages per square mile calculated from them, are approximations only. These averages per square mile are invariably lower than the averages per square mile secured on the transects. This is because wildfowl are normally most numerous near the shore where the transects were run. Independent judgment was necessary in each case to arrive at a more or less dependable estimate of the total population of a lake. The figures reached purely by estimation are separated from the transect data in order that they may be appraised without misapprehension.

All tabular data and other information are presented in chronological order.

The transect data were supplemented by observations of waterfowl and other birds secured at random while travelling. They are presented in the annotated list which forms the final section of this report.

Dezadeash Lake

Transect No. 1 — June 17, 1950
Linear miles: 28 — Square miles: 7
Average per square mile: 26.6

Species	Count	Per Cent of Total
Common mallard	34	18.3
Baldpate	16	8.6
Pintail	7	3.8
Greater scaup	106	57.0
American golden-eye	14	7.5
White-winged scoter	2	1.1
Surf scoter	3	1.6
Common merganser	4	2.1
Total	186	100.0

Total lake area: 36 sq. mi. — Estimated population: 400
Average per square mile: 11.1

Some of the bays in Dezadeash Lake have marshy tracts that are attractive to ducks. The best of these lies around the outlet in the northeastern part and along the river into Sixmile Lake (Fig. 1). Waterfowl were most numerous in this locality. Over most of the lake, ducks were thinly distributed. No geese were observed.

During migration the population is greatly increased by flocks of ducks, geese, swans, and sandhill cranes. Most of these resort to the marshy outlet area and vicinity, which is said to be a good place for shooting in autumn.

Klukshu Lake

Transect No. 2 — June 18, 1950
Linear miles: 4 — Square miles: 1
Average per square mile: 11.0

Species	Count	Per Cent of Total
Common mallard	2	18.2
American golden-eye	4	36.4
Harlequin duck	2	18.2
Common merganser	3	27.2
Total	11	100.0

Total lake area: 2 sq. mi. — Estimated population: 20
Average per square mile: 10.0

This cold, clear, relatively sterile, small mountain lake has little attraction for waterfowl. A small weedy tract at the north end had some marshy conditions with quantities of spike rush, sedge, and marsh grass. Potamogeton and Myriophyllum occur in very small quantities. Wildfowl are very scarce during summer, but are said to be more numerous for a time in spring and autumn.

Marsh Lake Outlet, and Four Linear Miles of Yukon River, and Backwaters

Transect No. 3 — June 19 and 23, 1950
Linear miles: 6 — Square miles: 1
Average per square mile: 461.0

Species	Count	Per Cent of Total
Common mallard	32	6.9
Baldpate	9	2.0
Pintail	1	0.2
Greater scaup	100	21.7
American golden-eye	44	9.6
Buffle-head	1	0.2
White-winged scoter	4	0.8
Surf scoter	248	53.8
Common merganser	22	4.8
Total	461	100.0

Total river-pond area: 3.5 sq. mi. — Estimated population: 546
Average per square mile: 156.0

Wet lowlands and marshy conditions occur irregularly at the north end of Marsh Lake, around the outlet, and in the Yukon River bottomlands for miles below the lake (Fig. 7). There appear to be no bulrushes, but sedges and grasses flourish in and along the shallow water. Willow-alder cover is abundant. There are many slough-like backwaters where subaquatic vegetation is plentiful. Numerous wildfowl nest in the area. The population is much greater during spring and autumn.

Little Atlin Lake

Transect No. 4 — June 20, 1950
Linear miles: 8 — Square miles: 2
Average per square mile: 16.0

Species	Count	Per Cent of Total
Common mallard	3	9.4
Baldpate	2	6.2
Greater scaup	8	25.0
American golden-eye	5	15.7
Surf scoter	12	37.5
Common merganser	2	6.2
Total	32	100.0

Total lake area: 20 sq. mi. — Estimated population: 220
Average per square mile: 11.0

This lake (Fig. 2) has little attraction for surface-feeding or marsh-nesting ducks, and diving species are greatly in the majority. As far as known, no true marsh areas exist. Small, boggy, shallow-water tracts exist in some of the bays. These are grown to various grasses and sedges but fall far short of providing typical nesting habitats. The lake is distinctly inferior in character for wildfowl.

Marsh Lake

Transect No. 5
Linear miles: 40
Average per square mile: 77.0

June 21 and 23, 1950
Square miles: 10

Species	Count	Per Cent of Total
Common mallard	90	11.69
Baldpate	134	17.40
Pintail	15	1.95
Ring-necked duck	2	0.25
Greater scaup	167	21.69
American golden-eye	156	20.26
White-winged scoter	27	3.51
Surf scoter	168	21.82
Common merganser	11	1.43
Total	770	100.00

Total lake area: 40 sq. mi.
Average per square mile: 20.0

Estimated population: 800

Swampy or marshy tracts are virtually non-existent in this lake except around the outlet at the north end from which the lake derives its name, and where Transect No. 3 was run. Small, grassy, shallow-water areas in a few of the bays have little importance for waterfowl.

In spring large numbers of ducks, geese, and swans visit the open waters around the outlet before the lake is free of ice. Large concentrations also occur there in autumn, making this part of the lake a noted resort for gunners in the open season.

A part of the central section of this lake is shown in Figure 3.

"Tagish" River

(Between Tagish and Marsh Lakes.)

Transect No. 6 — June 21, 1950
Linear miles: 5 — Average per linear mile: 14.6

Species	Count	Per Cent of Total
Greater scaup	20	27.4
American golden-eye	4	5.5
Barrow's golden-eye	3	4.1
Common merganser	46	63.0
Total	73	100.0

Approx. square miles: 0.65
Average per square mile: 112.3

No adequate cover for marsh-nesting species occurs anywhere in this stream. In some places there is a meagre fringe of spikerush and other bog vegetation along shore. Much of the shore is steep, and there are occasional rock exposures and high, vertical clay banks. A small willow flat marks the west side of the river at the point of exit from Tagish Lake.

A modest number of land-nesting ducks spend the summer along the stream in a fairly suitable environment. Some of the birds noted, particularly those in small flocks, were probably non-breeders or transients.

Tagish Lake

Transect No. 7 — June 21 and 22, 1950
Linear miles: 32 — Square miles: 8
Average per square mile: 23.2

Species	Count	Per Cent of Total
Ring-necked duck (?)	4	2.2
Greater scaup	60	32.3
American golden-eye	70	37.6
Barrow's golden-eye (?)	1	0.5
Common merganser	51	27.4
Total	186	100.0

Total lake area in Yukon: 69 sq. mi. — Estimated pop.: 500
Average per square mile: 7.2

No true marsh area — not even of the smallest size — was found anywhere in this lake (Figs. 4 and 5). This largely accounts for the absence of all marsh-nesting species. At the time of investigation there were no geese on the lake, but a few are reported to visit it during migration, together with small numbers of whistling swans. Such visits are relatively short, as suitable subaquatic plants and other duck foods are scarce; it is likely that birds are attracted by the widely-spaced sand and gravel beaches.

Many of the scaups, American golden-eyes, and common mergansers observed in small flocks were probably not local nesters, but late migrants. Small quantities of ice still remained along parts of the shore.

"Carcross" River

Transect No. 8 — June 22, 1950
Linear miles: 3 — Average per linear mile: 6.7

Species	Count	Per Cent of Total
Common mallard	4	20.0
Baldpate (?)	2	10.0
Greater scaup	8	40.0
American golden-eye	6	30.0
Total	20	100.0

Approx. square miles: 0.4
Average per square mile: 50.0

This stream flows through a partly open flat several hundred yards in width that is characterized by sand, grasses, and willows. Around the mouth of the stream at Tagish Lake, channels and backwaters make a miniature delta-like area; the somewhat marshy tracts in this area are grown chiefly to coarse grasses, sedges, and spikerush. No bulrush was seen.

The total of water birds was insignificant, and was principally composed of herring, short-billed, and ring-billed gulls and Arctic terns. No evidence of nesting activity was found in the locality, but a few of the ducks listed are said to nest along the river.

Bennett Lake

Transect No. 9 — June 22, 1950
Linear miles: 16 — Square miles: 4
Average per square mile: 3.5

Species	Count	Per Cent of Total
Greater scaup	4	28.6
Common merganser	10	71.4
Total	14	100.0

Total lake area in Yukon: 50 sq. mi. — Est. population: 120
Average per square mile: 2.4

The general character of this lake (Fig. 6) seemed to be very similar to that of Tagish Lake. In the parts examined there appeared to be hardly any aquatic or emergent vegetation. Apparently all marsh-nesting species were absent, and the duck population was among the poorest noted anywhere in the Yukon. The only other water birds observed were a few Pacific and common loons, and a sparse distribution of Arctic terns and short-billed gulls.

Canyon Lake and Vicinity

This area was partly examined on June 26 and 28, 1950. As no boat was available, it was impossible to run a transect. Observations were made by means of a motor car and by travel on foot. Sloughs and ponds (some of muskeg type) are fairly numerous in the lowlands (Fig. 8). Many support sedges, aquatic grasses, and under-water plants, but others are barren of all such vegetation.

Waterfowl occur in relatively small numbers throughout the district. On a fair number of the better waters there were ducks in varying degrees of abundance in pairs or flocks of as many as 10, but on many other waters, including the sterile ponds, there were no ducks. The greater scaup was the commonest duck. Other species recorded were mallard, pintail, American golden-eye, and common merganser. The two last-named species, especially, were uncommon.

Canyon Lake is deep and clear and supports very little aquatic plant life and few waterfowl of any kind. The small population was apparently composed only of the species of ducks mentioned above. Four harlequin ducks were observed in the short length of stream between Canyon and Aishihik Lakes. From the limited observations possible, it appeared that Canyon Lake did not have an average duck population of more than 10 or 12 ducks per square mile.

Aishihik Lake Locality

Investigations were carried out in this area on June 26 and 27, under the same circumstances as at Canyon Lake. As far as was ascertained, there were no marsh areas of any considerable size and the wildfowl aggregate was relatively low. Game ducks were especially scarce.

The only duck species noted were mallard, pintail, greater scaup, American golden-eye, buffle-head, surf scoter, and common merganser. The species varied greatly in abundance, but all were scarce except scaups, scoters, and mergansers. From the evidence gathered, the impression was formed that there was an average of about nine ducks per square mile. Aishihik Lake has an area of approximately 70 square miles and so may well have had a total population of between 600 and 700 ducks. As in many other lakes, loons, grebes, terns, and gulls were also present.

There are a fair number of small lakes and ponds in the general vicinity of the lake. They are much the same as those near Canyon Lake and have much the same kind of waterfowl population. The number of ducks was never large and usually consisted of scattered pairs and small groups. Many ponds were destitute of waterfowl.

Taye Lake

Observations at this lake were carried out by saddle-horse and on foot, June 29. As it lies in rather swampy lowlands, the shoreline is not sandy and rocky but largely consists of earth banks, and has a narrow zone of sedges and slough grass. In some bays the plant growth is more extensive.

Relatively few ducks were observed. The most numerous were greater scaups, but they were thinly scattered. One flock of about 50 - evidently migrants or non-breeders - was noted. There were also a few mallards, baldpates, and American golden-eyes, in that order of abundance. The total population was estimated to be about 120, or 35 per square mile. Undoubtedly the actual breeding average is much lower.

It is said that thousands of ducks and some Canada geese and lesser snow geese visit Taye Lake during the spring migration and that especially large numbers rest there during the autumn migration. No geese were noted, but a few scattered pairs of breeding Canada geese are known to occur in some parts of the district.

Hutshi Lakes

This series of small lakes, reached by saddle-horse and on foot, was partially examined on June 30 and July 1. Only occasional parts could be closely observed with binoculars. The most intensive observations from shore were made at the northern-most lake of the series.

In no section were many ducks seen, and in most places there were very few wildfowl except occasional loons, gulls, and terns. Even greater scaups, American golden-eyes, and common mergansers were very scarce. Other species recorded, but seldom seen, were mallard, baldpate, and buffle-head.

The total number of summer-resident ducks in these lakes is insignificant; it was estimated to average about six per square mile. Many small ponds of the adjacent and inter-lake lowlands had a better average, but most of these also appeared to have no ducks. Wildfowl, including a few geese and swans, are reported to be more numerous in Hutshi Lakes during migration.

There are many small lakes and sloughs in the Nordenskiold River Valley northeast of Hutshi Lakes. Some of these are frequented by a few ducks, of which the greater scaup is the most numerous and, often, the only species. Occasional mallards, baldpates, and American golden-eyes were seen. A typical small lake in this valley is illustrated in Figure 10.

Braeburn Lake

It was possible to make a few casual observations around the shores of this lake on July 2 and 3. It appeared to be similar in character to the Hutshi Lakes and had comparatively little aquatic plant growth and few waterfowl of any kind. At Braeburn Lake a female American golden-eye and eight downy young only a few days old were observed.

Richthofen Lake

Several hours were spent travelling by horse along the east shore of this lake on July 3 and 4 (Fig. 11). There were excellent opportunities for binocular observation, especially from high points on the slopes. The lake is long, narrow, and deep, and has clear, cold water. Narrow, rubbly beaches are characteristic, but are sometimes absent. Aquatic vegetation of any kind is either entirely lacking or occurs in inconsiderable quantities.

Because of these conditions there were very few wildfowl, less than in any lake in the Yukon visited up to that time. Only two ducks were observed, an American golden-eye and a buffle-head, both females, probably nesting in the vicinity. The other water birds noted were a few widely scattered common loons, Bonaparte's gulls, and short-billed gulls.

In the lowlands south of Richthofen Lake there are many small ponds in the forest and grasslands. Most of these were without water birds of any species. Pairs or solitary female mallards, American golden-eyes, or buffle-heads were seen on a few. The waters of the Richthofen Lake drainage area were appreciably poorer than either the Canyon-Aishihik or the Taye-Hutshi localities.

Nisutlin Bay, Teslin Lake

Transect No. 10 — July 11, 1950
Linear miles: 28 — Square miles: 7
Average per square mile: 15.4

Species	Count	Per Cent of Total
Common mallard	16	14.8
Baldpate	34	31.5
Green-winged teal	4	3.7
Shoveller	5	4.6
Redhead	2	1.9
Greater scaup	13	12.0
Lesser scaup	2	1.9
American golden-eye	26	24.0
Common merganser	4	3.7
Canada goose	2	1.9
Total	108	100.0

Total bay area: 30 sq. mi. — Estimated population: 300
Average per square mile: 10.0

By Yukon standards this area has fairly good waterfowl habitat conditions around the mouth of Nisutlin River and in the northernmost bay. It is shallow in most places. There is an abundance of Potamogeton and Myriophyllum and considerable quantities of marsh grasses and spikerush but no bulrush. There are many exposed mud-flats and willow-grown lowlands along shore.

The nesting population is not remarkable but the spring and autumn concentrations of wildfowl are reported to be considerable. Thousands of ducks, large numbers of Canada geese, and some lesser snow and white-fronted geese are said to assemble in the locality. The area is a well known waterfowl hunting resort.

Quiet Lake

Transect No. 11 — July 12 and 13, 1950
Linear miles: 40 — Square miles: 10
Average per square mile: 0.3

Species	Count	Per Cent of Total
American golden-eye	2	66.7
Common merganser	1	33.3
Total	3	100.0

Total lake area: 42 sq. mi. — Estimated population: 10
Average per square mile: 0.2

The astonishing scarcity of ducks at this lake (Fig. 12) along the Canol Road is well shown by the above data. It had the smallest average wildfowl population of any lake visited in Yukon Territory. Its altitude is only 300 to 400 feet greater than that of Lakes Teslin and Marsh and is about the same as that of Hutshi Lakes. However, the water is very deep and cold and almost devoid of aquatic food plants, being very like that of Richthofen Lake.

It was reported that there was a better summer resident population of ducks and Canada geese below Quiet Lake at Sandy and Big Salmon Lakes and along Big Salmon River where in autumn flocks of both ducks and geese appear at some points.

Lapie Lakes

This series of small lakes is located along the Canol Road near the headwaters of the Lapie River, which flows north to the Pelly. The first of the series is about 32 miles north of Quiet Lake. They are typical mountain waters with meagre quantities of subaquatic plants and sedges and other emergents. As they are rather sterile they offer little inducement for duck occupation.

Observations of these lakes were made on foot on July 13 and 14, while travelling to and from a more northern destination. On both occasions very few ducks and no geese could be seen; two of the tarns were completely deserted, but at least a few American golden-eyes frequented the locality. Judging by the excited actions of a female at a tract of conifers near one of the lakes, she had a nest with eggs or young in the vicinity.

A few more waterfowl may inhabit the streams of the district; almost certainly a number of harlequin ducks occur along the Nisutlin, McConnell, Rose, and Lapie Rivers.

Lake Laberge

Transect No. 12 — July 17 and 18, 1950
Linear miles: 32 — Square miles: 8
Average per square mile: 13.2

Species	Count	Per Cent of Total
Common mallard	4	3.8
Baldpate	3	2.8
Green-winged teal	2	1.9
Greater scaup	12	11.3
American golden-eye	14	13.3
Buffle-head	1	0.9
Surf scoter	64	60.4
Common merganser	6	5.6
Total	106	100.0

Total lake area: 90 sq. mi. — Estimated population: 500
Average per square mile: 5.5

A large part of the shoreline is composed of bed-rock and gravel (Fig. 13) or is otherwise unsuited to the development of any extensive marshes. The small shore areas supporting grass and spikerush are too scanty and open to attract marsh-nesting species. Subaquatic food plants are also scarce.

Typical of the lake is the relatively large number of scoters, scaups, and golden-eyes. The wildfowl population is greatly increased during migration periods by an influx of ducks, geese, and moderate numbers of swans and cranes. It is apparent that rest is more important than food to migrants in this area, since there is so little vegetation.

Yukon River

(Whitehorse to Dawson, exclusive of Lake Laberge)

Transect No. 13 — July 17 to 23, 1950
Linear miles: 430 — Average per linear mile: 0.23

Species	Count	Per Cent of Total
Common mallard	12	12.0
Baldpate	4	4.0
Pintail	2	2.0
Green-winged teal	3	3.0
Greater scaup	14	14.0
American golden-eye	16	16.0
Buffle-head	1	1.0
Surf scoter	10	10.0
Common merganser	38	38.0
Total	100	100.0

Approx. square miles: 60
Average per square mile: 1.7

Bays and backwaters with marshy conditions are uncommon, but a few do occur. A stream-side tract of this nature is shown in Figure 14. Small sloughs in adjacent lowlands are frequented throughout the summer by numbers of game ducks.

Ordinarily, scattered pairs of Canada geese nest along the river, but none was seen in 1950. It is said that this is not an important route for migrating geese, but that large numbers of sandhill cranes fly over and rest on the open flats and sand-bars in spring and autumn.

Von Wilczek Lakes

These small lakes, situated a few miles northeast of Minto, were visited by truck on a side trip during the voyage down the Yukon River. It had been reported that they had a better than ordinary quantity of aquatic plant life and numbers of waterfowl. They were found to be quite outstanding in these respects, better, in fact, than any other lakes examined in Yukon Territory.

They had a wealth of emergent vegetation. Most surprising were the extensive along-shore tracts of round-stemmed bulrush. This was the only locality in which it was seen during the summer. Sedges and aquatic grasses, and various subaquatic pond-weeds, also grew in considerable abundance. Thus, duck foods were plentiful and attractive true marsh conditions were relatively extensive, making the environment for ducks an exceptionally fine one for this latitude.

The number of summer resident wildfowl was unusually large. The two southernmost lakes, particularly, were frequented by an abundance of ducks and other birds. Examination was handicapped by the lack of a boat, but fairly good binocular observation was possible from several shore positions. The following species, at least, were present: mallard, pintail, green-winged teal, greater scaup, American golden-eye, and buffle-head. Large rafts of ducks, several hundreds in number, were gathered off the far east shore in the lee of the wind, too far distant for positive identification. They may have been greater scaups or surf scoters, or both.

It was roughly estimated that there were at least 1,000 ducks. Allowing 3.5 square miles as the total area of the lakes, the average per square mile would therefore be about 286. This is nearly twice as great as at the Marsh Lake outlet (Transect No. 3) which had the next highest average. Large numbers of ducks and many geese are said to visit the Von Wilczek Lakes during migration periods, especially in autumn.

Klondike River and Vicinity

A reconnaissance by truck and on foot was carried out in this locality on July 24. Examinations were conducted beyond Glenboyle to the east (Fig. 15) and to some extent on Hunker and Bonanza Creeks. Numerous parts of streams, small marshy areas and sloughs were observed, but not a single duck or goose of any species was seen. Evidently, there is a dearth of waterfowl in this whole district of small tributary streams and muskeg ponds on both sides of the Yukon River.

"Sixtymile Road": Dawson-Glacier Creek

On July 25 and 26, the country along this road was examined from Dawson to the Yukon-Alaska International Boundary. No wildfowl of any species was observed. Much of the road is at high altitudes and, in several parts, lies over alplands at tree-line and above it. Water is generally scarce and is found only in small creeks and muskeg ponds. Residents asserted that a few pairs of nesting ducks occur along the creeks on low ground on both slopes of the watersheds draining to Yukon and Sixtymile Rivers. It is usual to see moderate numbers of ducks, geese, and sandhill cranes passing over during migration.

Mayo Landing District

Parts of this area were examined from the air on July 27 and 28. Most of the small lakes and ponds observed appeared to be relatively sterile with an almost complete absence of waterfowl. Only a few ducks, all on one small pond just west of Mayo Landing, were seen.

Smoke, rain, and fog prevented the carrying out of arrangements to run low-altitude transects with a small aircraft over all the larger lakes of the district. Information obtained from a local aircraft operator, Pilot Harbottle, indicated that the summer waterfowl populations are small on McQuesten, Mayo, Janet, and Ethel Lakes. Old residents confirmed this statement. A few ducks remain to nest; most of them are in small flocks, probably non-breeders. According to report, a few widely dispersed pairs of Canada geese nest in favourable tracts.

Pilot Harbottle remarked that when flying low over McQuesten Lake, about July 25, he saw not more than 40 or 50 ducks and no Canada geese on the whole area. Fair numbers of the latter, however, are said to nest along the Stewart River. During spring and autumn migrations, a considerably larger number of ducks occurs on the lakes of the district and there is a moderate influx of Canada, snow, and white-fronted geese and sandhill cranes.

Kluane Lake

This lake (Fig. 17) is one of the largest in Yukon Territory, with a length of about 40 miles and a total area of approximately 180 square miles. It is a typical mountain lake with deep, clear waters, and, for the most part, a dearth of subaquatic plant life and marshy areas. It was rather casually investigated from the west shore on August 5 and 9. Its waterfowl resources in summer are such that transect operations did not appear to be justified.

Prior information from residents of the country clearly indicated that the summer resident wildfowl population of Kluane Lake is very small. Binocular observations made from the west shore were roughly equivalent to a quarter-mile transect run in that area. On August 5, only 62 ducks were recorded along the approximate 40 miles of shoreline, an average of about 6.2 per square mile. Most of these were mallards and pintails noted at the southern extremity of the lake near the mouth of the Slims River. The small remainder was made up of common mergansers and greater scaups.

On the return trip, August 9, no ducks were seen anywhere on the waters near the shore. In the distance a few unidentified birds that may have been loons, scaups, or scoters were noted. Very wide areas of the lake appeared to be wholly barren of wildfowl. The average population per square mile for the lake is probably lower than the 6.2 figure obtained in shore waters on August 5.

Some nesting takes place around the lake, but the number of waterfowl in summer is small in comparison with the number present during migration, when they stop over to feed and rest. H. Lampman, Burwash Landing, stated that in the past the outlet area, at the northwestern end of Kluane Lake, was a notable autumn rendezvous for ducks, whistling swans, and Canada, lesser snow, and white-fronted geese.

These very large concentrations are said to have occurred during the autumn of 1945. Migrants continue to visit the area, but in lesser numbers since that date. Residents speculate as to the reason for this decrease and wonder whether the wildfowl are actually scarcer, or have altered their route of migration. The real cause is not known.

It is also understood that flocks of migrants formerly visited the bay and adjoining flats at the southern extremity of the lake. As the Alaska Highway now passes through this area it is unlikely that concentrations of waterfowl will be seen there again.

SUMMARY OF TRANSECT DATA

Table A. Relative Abundance of Ducks and Geese.

Species	Number Observed	Per Cent of Total
Greater scaup	512	24.73
Surf scoter	505	24.39
American golden-eye	361	17.44
Baldpate	204	9.86
Common merganser	198	9.57
Common mallard	197	9.52
White-winged scoter	33	1.59
Pintail	25	1.21
Green-winged teal	9	0.43
Ring-necked duck	6	0.29
Shoveller	5	0.24
Barrow's golden-eye	4	0.19
Buffle-head	3	0.14
Redhead	2	0.10
Lesser scaup	2	0.10
Harlequin duck	2	0.10
Canada goose	2	0.10
Total	2,070	100.00

Table B. Lake and River Areas in Approximate Order of Merit.

Lake and River Areas	Transect Data		Estimated		
	Transect Area Sq.Miles	Ducks per Sq.Mile	Total Area Sq.Miles	Total Popu-lation	Average per Sq. Mile
Von Wilczek Lakes	--	---	3.5	1,000	286.0
Marsh Lake outlet, etc.	1.0	461.0	3.5	546	156.0
"Tagish" River	0.65	112.0	--	--	--
Taye Lake	--	--	3.4	120	35.3
Marsh Lake	10.0	77.0	40.0	800	20.0
"Carcross" River	0.4	50.0	--	--	--
Dezadeash Lake	7.0	26.6	36.0	400	11.1
Tagish Lake	8.0	23.2	69.0	500	7.2
Little Atlin Lake	2.0	16.0	20.0	220	11.0
Nisutlin Bay, Teslin L.	7.0	15.4	30.0	300	10.0
Laberge Lake	8.0	13.2	90.0	500	5.5
Klukshu Lake	1.0	11.0	2.0	20	10.0
Aishihik Lake	--	--	70.0	600	9.0
Kluane Lake (est.)	10.0	6.2	180.0	700	3.9
Hutshi Lakes	--	--	15.0	90	6.0
Bennett Lake	4.0	3.5	50.0	120	2.4
Yukon River	60.0	1.7	--	--	--
Quiet Lake	10.0	0.3	42.0	10	0.2

NOTES ON YUKON BIRDS.

The following annotated list of birds is derived mainly from personal observations carried out in Yukon Territory during the summer of 1950. A few references to records of other observers are made where deemed desirable. Binominal names are used as, owing to pressure of general field work, no collecting was done and all data is based on sight records only. Observations of birds other than waterfowl were necessarily more or less incidental, but new material relating to occurrence and distribution was obtained.

COMMON LOON. Gavia immer.

At least one pair of these birds was seen on almost all the larger lakes visited. They appeared to be almost universally distributed in suitable lakes. Two were noted on the Yukon River above Selkirk, July 20, but few were seen on streams.

PACIFIC LOON. Gavia arctica.

Pairs and small groups were recorded at Dezadeash Lake, June 16, and a flock of 15 was noted on June 17 at Marsh Lake. On June 22 a pair was seen at Tagish Lake. In mid-July three were observed in Lake Laberge and a few were seen on Yukon River between that lake and Five Finger Rapids. There was no evidence of breeding.

RED-THROATED LOON. Gavia stellata.

Seen by the writer on only one occasion — a pair at Teslin Lake on August 12.

RED-NECKED GREBE. Colymbus grisegena.

Four were seen at Marsh Lake, June 19. On the following day, a pair with a nest and four eggs was found in a marshy bay at Little Atlin Lake. In late June and early July many pairs were observed at the Hutshi Lakes, in sloughs northeast to Braeburn Lake, on Braeburn Lake, and in ponds southward via "Anticline" and Richthofen Lakes to Takhini. On July 1, ten adults, several with downy young, were noted in ponds between Hutshi and Braeburn Lakes. Two pairs with juveniles were seen in weedy ponds south of Pilot Creek on July 5. On July 20 several adults with young were observed at Von Wilczek Lakes. This is believed to increase considerably the information concerning distribution and breeding of the species in Yukon Territory.

HORNED GREBE. Colymbus auritus.

One or more adult pairs were seen as follows: at Dezadeash Lake, June 17; in ponds south of Canyon Lake, June 27; at Taye Lake, June 29 (in

one case with a brood of downy young); in three widely separated ponds along the route from Hutshi Lakes via Braeburn and Richthofen Lakes to Pilot Creek in early July.

PIED-BILLED GREBE. Podilymbus podiceps.

Of this bird, Godfrey in his 1951 paper remarks as follows: "T.M. Shortt observed this species on a pond near Dezadeash Lake on August 12, 1944 (Clarke, MS.). This is apparently the second Yukon record, the other being an observation on Lake Marsh, July 8, by Cantwell (1898, p.25)".

GREAT BLUE HERON. Ardea herodias.

This species was placed by Rand (1946, p.13) on the hypothetical list of Yukon birds. On August 18, 1949, Godfrey (1951, p.94) and two of his assistants observed an immature flying low over the village of Carcross. The species is undoubtedly very rare in the Yukon and probably confined to the southern extremity, as the above is the only definite record for the Territory.

WHISTLING SWAN. Cygnus columbianus.

Considerable numbers of this species visit many lakes during the spring and autumn migrations. They may linger for some time to obtain food and rest. According to reports of local residents Nisutlin Bay in Teslin Lake, and Marsh, Dezadeash, Taye, Hutshi, Aishihik, and Kluane Lakes are among the chief stopping places. Swans are also known to visit Frances and Laberge Lakes and the larger bodies of water in the Mayo Landing district.

(?) TRUMPETER SWAN. Cygnus buccinator.

There is as yet no definite record of this species in the Yukon but the following may be significant.

Clarke (1944) remarks: "The party was also told that swans are occasionally found in summer on small lakes in southwestern Yukon. Such reports might refer to the trumpeter swan, Cygnus buccinator".

In June, 1950, Alex Van Bibber, Champagne, stated that he saw five swans on a small lake about eight miles northeast of the northern extremity of Kluane Lake, on July 1, 1944. The Indians are said to call this body of water Swan Lake and to assert that a few adult swans inhabit the area every summer.

CANADA GOOSE. Branta canadensis.

It is evident from published records and reports of residents that these birds breed locally throughout the Yukon. Apparently the numbers are

small and the nesting pairs widely scattered. The only personal records are: a pair, Morely River, June 12; a pair, Teslin River, near Teslin Lake, June 13; and a pair between Little Atlin Lake and Teslin Lake, July 11. Flocks of various sizes congregate in favourable areas in many southern Yukon lakes during spring and autumn migrations.

BLACK BRANT. Branta bernicla.

Godfrey (1951, p.94) remarks that a specimen taken by an Indian at Sheldon Lake in the summer of 1947 was forwarded to the National Museum for identification, and that the species had not previously been recorded from southern Yukon, where it probably was accidental.

WHITE-FRONTED GOOSE. Anser albifrons.

A few of these geese nest at Old Crow Flats and farther north. In southern Yukon small flocks are reported during the migration periods and are often associated with Canada geese and lesser snow geese. They are definitely asserted to visit at least Teslin, Marsh, and Dezadeash Lakes at these times.

LESSER SNOW GOOSE. Chen hyperborea.

This species occurs in summer only on the Arctic coastal tundra and was not observed by the writer. Residents state that medium-sized flocks appear during migration in various localities including Nisutlin Bay in Teslin Lake, and at Marsh, Dezadeash, Aishihik, and Kluane Lakes. The number of transients is said to be greater in autumn than in spring.

COMMON MALLARD. Anas platyrhynchos.

This species is a fairly common summer resident in southern Yukon, occurring in small numbers north to at least Old Crow Flats. It was observed in numerous localities during the 1950 survey. It was sixth in order of abundance of ducks and geese (Table A). Number observed on transects, 197; per cent of waterfowl total, 9.52.

PINTAIL. Anas acuta.

Pintails seem to be rather thinly distributed throughout the Territory. A pair or two was seen in numerous localities from Marsh and Dezadeash Lakes north only as far as Selkirk, Yukon River; but the species is known to visit regularly districts farther north. On transects the count was only 25, or 1.21 per cent of the total count of ducks and geese.

GREEN-WINGED TEAL. Anas carolinensis.

Only nine of these ducks were observed on all transects (.43 per cent

of all ducks and geese recorded). They may be more numerous in some areas not visited. Examples were seen as follows: Dezadeash Lake, June 17; Lake Laberge, July 17; and Von Wilczek Lakes, July 20. According to Rand (1946) a few stragglers occur farther north.

BALDPATE. Mareca americana.

This species is widely distributed in moderate numbers from the southern boundary north to Old Crow Flats. In the latter area it was the second most numerous duck in 1948 (Smith, 1948). In relative abundance it varies markedly from one area to another. It was widely observed in 1950, and was fourth in order of abundance. Number observed, 204; per cent of total, 9.86. It was only slightly more numerous than the next preceding species.

SHOVELLER. Spatula clypeata.

Previously known to occur sparingly along Canol Road (Rand, 1946). Personally seen only at Nisutlin Bay, Teslin Lake, where five were recorded on July 11.

REDHEAD. Aythya americana

The proprietor of the Dezadeash Lake road-house stated that two of these birds were shot at that lake on October 14, 1949. A pair was seen by the writer in the marshy area at the mouth of the Nisutlin River, Teslin Lake, on July 11, 1950. Evidently this is the first authentic record of the species for Yukon Territory.

RING-NECKED DUCK. Aythya collaris.

There is but one previous record for the region: Marsh Lake, October 5, 1920 (Rand, 1950). A pair was seen near the outlet of the same lake on June 21, 1950. Four ducks seen flying at Tagish Lake on the following day are also believed to have been ring-necked ducks.

GREATER SCAUP DUCK. Aythya marila.

These birds were identified on many transects in southern Yukon. At the commencement of the work during the third week of June, small flocks of up to 10 or 15 of these waterfowl were seen rather frequently and a flock of 36 was noted at Dezadeash Lake. They appeared to be lingering on northward migration. Not all scaups seen on the transects were positively identified as marila, but this species was seen so frequently and was so often the only species of scaups present, that scaups seen at a distance were recorded as marila as a matter of course, unless there was evidence that they belonged to affinis.

Later in the season their numbers declined markedly. Few were seen

in early July, and later, several lakes were investigated where scaups were absent. Only 12 in all were seen on Lake Laberge on July 17 and 18, and 14 on the Yukon River, north to Dawson, during the next few days. These latter were identified as marila; their low numbers at this time indicated thin dispersal in midsummer. No doubt it is this scaup that occurs in very fair numbers on Old Crow Flats (Smith, 1948, 1949, 1950).

These notes are given at some length since Clarke (1944) and Rand (1946) had few positive records. However, Rand (1950) was able to show from Conover's notes and specimens that marila was at least fairly common in southern Yukon during the autumn migration. In the 1950 transect data the species heads the list with a total of 512 observed, which was 24.73 per cent of the total of ducks and geese.

LESSER SCAUP DUCK. Aythya affinis.

Only two lesser scaups were positively identified in 1950. They were seen at Nisutlin Bay, Teslin Lake, July 11. Clark (1944) does not list the species. Rand (1946 and 1950) provides numerous records for southern Yukon, chiefly on the basis of Conover's material.

AMERICAN GOLDEN-EYE. Bucephala clangula.

The status of this species is much the same as that of the greater scaup. Conditions for identification were similar. In mid-June, flocks of golden-eyes identified as clangula were often recorded, but relatively few were observed anywhere in late June, and even less in July and August. Throughout the season, clangula was so often seen, and islandica was so often absent, that unidentified golden-eyes, seen in the distance, were regularly recorded as clangula. It appeared to be the third most abundant duck species and made up 17.44 per cent of the recorded total on the transects. Downy young were seen on several occasions from July 2 to 5, at Braeburn Lake and south to Takhini. The adults noted at this time were all females and were identified as described above.

BARROW'S GOLDEN-EYE. Bucephala islandica.

This species was seldom seen, or at least seldom recognized. Three were observed at "Tagish" River on June 21, and another provisionally recorded the following day at Tagish Lake. A small group thought to be islandica was seen at Teslin Lake on August 12.

BUFFLE-HEAD. Bucephala albeola.

Although widely distributed, the summer occurrence of this species is apparently very limited, but numbers are markedly increased in southern Yukon during migration periods. From mid-June until late July only 13 adults were recorded at Marsh Lake outlet, Aishihik Lake, a pond near Taye Lake, Hutshi

Lake, a pond north of Pilot Creek (female and six young), Lake Laberge, Yukon River above Selkirk, and lower Pelly River. The northern limits of distribution of the species are not precisely known, but it has been recorded as far north as Fort Reliance, near Dawson.

OLD-SQUAW DUCK. Clangula hyemalis.

In the nesting season this species is fairly common along the Arctic Coast and a few occur south to at least Old Crow Flats. Evidently it is seldom found in the interior south of the flats. Robert Porsild, Johnsons Crossing, informed me that a few appear at Teslin Lake during migration and, more unusual, that he saw a small group on Teslin River, just below the lake, on July 11, 1950. Godfrey (1951) collected an adult female near the Takhini River on July 22, 1949.

HARLEQUIN DUCK. Histrionicus histrionicus.

These ducks are apparently rather thinly distributed from the 60th parallel north to the Arctic Coast, and are likely most numerous in the southern part of the Territory. The only 1950 records are: a pair at Klukshu Lake, June 18; a flock of four on the short stream between Canyon and Aishihik Lakes, June 26; and one on the Pelly River, northeast of Selkirk, July 21.

WHITE-WINGED SCOTER. Melanitta deglandi.

A few of these scoters were observed between June 14 and 23, but none thereafter. It is evident that the species is not a very common summer resident. Scattered examples have occurred as far north as the Arctic Coast. Personal records are: two at Squanga Lake, June 14; a pair, Dezadeash Lake, June 17; two pairs, Marsh Lake outlet, June 19; and a flock of 27 at Marsh Lake, June 23.

SURF SCOTER. Melanitta perspicillata.

This species occurs locally as a summer resident throughout the region, but varies greatly in relative abundance in different localities. During the latter part of June a number were seen on Teslin, Dezadeash, Little Atlin, and Marsh Lakes, but they were apparently absent at Klukshu, Tagish, and Bennett Lakes.

From June 19 to 23, flocks of from 50 up to 120 were seen on many occasions at Marsh Lake. Elsewhere, only scattered pairs or small groups were observed. On July 17 and 18, 64 of the species were recorded at Lake Laberge, in flocks of from four to 14. Only 10 of the species were seen on the Yukon River from Whitehorse to Dawson.

This was the second most abundant duck, being exceeded in number

by only the greater scaup. In all, 505 surf scoters, 24.39 per cent of the total, were counted. Presumably it is this species that is the most abundant duck at Old Crow Flats, where scoters may make up as much as 48 per cent of the duck population (Smith et al, 1948, 1949).

RUDDY DUCK. Oxyura jamaicensis.

On July 20, 1949, the National Museum party saw three apparently adult males on a small lake near Takhini River and Alaska Highway (Godfrey, 1951, pp. 95-96). This is the first and only record of the species in Yukon Territory.

COMMON MERGANSER. Mergus merganser.

During the transects 198 of this species were recorded, 9.57 per cent of the total. It was fifth in order of abundance. Mergansers were seen on all of the larger lakes investigated, on some of the smaller ones, and on several streams. Usually the birds occurred in pairs or small flocks of three to five, but flocks of up to 15 were occasionally seen in the latter part of June. A total of 38 was recorded on the Yukon River between Whitehorse and Dawson.

RED-BREASTED MERGANSER. Mergus serrator.

Among the numbers of distant, unidentified mergansers observed by the writer in 1950 some may have belonged to this species. Godfrey (1951, p.96) noted a few in June, July, and August, 1949, at Kluane Lake; between the Kathleen River and Dezadeash Lake; and at Lake Bennett. In the last two localities a few young were seen with the adults.

GOSHAWK. Accipiter gentilis.

Goshawks were not often positively identified but were probably more numerous throughout the region than this would indicate. Personal records are: Marsh Lake, June 19; Hutshi Lake, June 30; Lapie River, July 13; and Klondike River, July 24. All were single individuals.

SHARP-SHINNED HAWK. Accipiter striatus.

One was noted near Champagne, June 27, and no more until the third week of July, when three were recorded along the Yukon River between Lake Laberge and Selkirk. Another was observed at Kluane Lake, August 9.

RED-TAILED HAWK. Buteo jamaicensis.

These hawks are fairly well distributed in southwestern Yukon, but

apparently scarcer to the east and north. During June and July several, in both light and dark plumage, were observed in southeastern and south-central districts, including two along the Rose and Lapie Rivers, Canol Road. One was noted near Ogilvie, Yukon River, July 22, and another, three days later, along Sixtymile Road southwest of Swede Dome — the northernmost record of the season.

SWAINSON'S HAWK. Buteo swainsoni.

This hawk appeared to be generally scarce in most if not all of the region. One was seen near Morley River, June 13, and another at Whitehorse, July 7.

COMMON ROUGH-LEGGED HAWK. Buteo lagopus.

During the last week of June several were seen at Marsh Lake and in the district north and northwest of Champagne. Three were noted during the second week of July along Canol Road from Teslin Lake to the Lapie River. A week later two more were recorded along the Yukon River between Carmacks and Stewart River.

GOLDEN EAGLE. Aquila chrysaetos.

The golden eagle was reported by R. Porsild to occur along Teslin Lake and River. One was noted south of Dezadeash Lake, June 16, and another near Quiet Lake, July 12. It is widely distributed, but apparently scarce in most districts. It evidently ranges north in western Yukon to about the Arctic Circle.

BALD EAGLE. Haliaeetus leucocephalus.

Bald eagles were commoner than golden eagles. They were observed frequently, sometimes as many as three or four in a day, in southwestern districts. One or two were noted daily along the Yukon River north to about the Indian River. On July 27 one was seen from an aircraft between Dawson and Mayo Landing. A nest with two well-developed young was found on July 26 near the south end of Aishihik Lake. At Johnson's Crossing on July 14, R. Porsild reported a pair with two immatures learning to fly but still returning to the nest.

MARSH HAWK. Circus cyaneus.

Single marsh hawks were observed near Little Atlin and Hutshi Lakes on June 20 and 30. A hawk believed to have been of this species was noted in the distance at Von Wilczek Lakes on July 20.

OSPREY. Pandion haliaetus.

The osprey was observed on only two occasions: a pair at Teslin Lake, July 11; and one near the Nisutlin River, southeast of Quiet Lake, July 12.

PEREGRINE FALCON. Falco peregrinus.

From July 19 to 24, several were noted along the Yukon River from below Rink Rapids to the Indian River and a pair was seen at the Klondike River, July 24. There is also a tentative record for August 9 at the Donjek River, Alaska Highway.

PIGEON HAWK. Falco columbarius.

This is evidently an uncommon summer resident. It was noted occasionally in widely separated localities of south-central Yukon, west to Kluane Lake and north to Selkirk. A few have been recorded farther north.

SPARROW HAWK. Falco sparverius.

This species is fairly common in extensive areas of southern Yukon, and was observed in most localities visited. The northernmost records are for single birds seen along Sixtymile Road and the Klondike River.

RICHARDSON'S GROUSE. Dendragapus obscurus.

This species was not seen by the writer in the Yukon despite extensive coverage. In 1949, however, the National Museum party collected two examples at Rainbow Lake, a short distance north of Carcross (Godfrey, 1951, p.97).

SPRUCE GROUSE. Canachites canadensis.

Spruce grouse are reported to be widely distributed and locally abundant at times but relatively few were seen in 1950. During late June and early July one or two adults were seen almost daily in the country lying northward from Champagne. Several of these had broods of young. A few adults and juveniles were noted along Canol Road to the Lapie River and north along the Yukon River to Dawson.

RUFFED GROUSE. Bonasa umbellus.

Although said to be locally common in some years, ruffed grouse were apparently rare in 1950. Clearly, they were at or near the extreme low of the cycle. During June and July only one was noted, at Marsh Lake, June 24. On August 12, three were observed between Teslin and Watson Lakes. They were

reported scarce in various localities north to the Klondike country.

WILLOW PTARMIGAN. Lagopus lagopus.

On July 25 and 26 several female ptarmigan with broods of young were seen along Sixtymile Road northeast of Glacier Creek. Parts of the road lie above timber-line. Ptarmigan were frequenting both the Arctic-Alpine areas and the semi-open brushy tracts immediately below. Their identity was not definitely established, but they are believed to have been of this species.

SHARP-TAILED GROUSE. Pediocecetes phasianellus.

These grouse are reported in various localities of south-central and southwestern Yukon north to Mayo Landing and Dawson districts. Only one was observed in 1950: on August 9, between Burwash Landing and the Donjek River.

WHOOPING CRANE. Grus americana.

A Mr. Johnson, of the Dezadeash Lake road-house, informed me that he saw a pair of these cranes at the marshy northeast extremity of that lake near the end of May, 1946. He was quite definite about their identity and described them accurately. This appears to be a dependable record; if so, it is the first for Yukon Territory.

SANDHILL CRANE. Grus canadensis.

This species was not observed by the writer, but commonly appears in flocks throughout the interior during spring and autumn migrations. Residents of many localities reported occurrences at these times. Some areas are favourite stopping places, whereas in others the flocks are only seen flying over. Reported resting and feeding areas include Kluane, Aishihik, Dezadeash, Marsh, Teslin, and Laberge Lakes.

Large numbers are said to migrate over Dawson and the Stewart River, Selkirk, Carmacks, and Whitehorse localities, especially in the autumn. It is evident that one of the most important migration routes follows the Yukon River. At least during the autumn, large numbers rest on bars and sandy spits along this stream. Considerable numbers are also reported to migrate over the Mayo Landing district.

SEMIPALMATED PLOVER. Charadrius hiaticula.

Personal records are as follows: a pair southwest of Braeburn Lake, July 2; an adult with three downy young at a pond between Richthofen Lake and Pilot Creek, July 3; several adults at Von Wilczek Lakes, July 20; and two adults at Kluane Lake, August 9.

WILSON'S SNIPE. Capella gallinago.

During the latter part of June and early July, scattered individuals were seen and heard in flight at Dezadeash Lake, between Canyon and Aishihik Lakes, at Taye Lake, and north via Hutshi Lakes to Braeburn Lake. None was seen after July.

UPLAND PLOVER. Bartramia longicauda.

Two adults with a nest and four eggs were found on a tract of dry prairie near Hutshi Lakes on June 30. On July 1 and 2, seven were noted on small, scattered prairies between Hutshi Lakes and Braeburn Lake. The males were then in full song. The species was not observed elsewhere. The writer's experience contrasts with that of Clarke (1944) in southwestern Yukon, who saw them not in prairie-parklands but only in "wet, open spruce muskegs".

SPOTTED SANDPIPER. Actitis macularia.

Moderate numbers of these birds were observed in favourable habitats practically everywhere that travelling was done in southern Yukon. Records were obtained as far north as Mayo Landing, Sixtymile Road, and the Klondike River.

SOLITARY SANDPIPER. Tringa solitaria.

According to the 1950 observations this species is widely but very sparingly distributed. During the second week of July three were observed along Canol Road to Quiet Lake and the Lapie River. During the next two weeks several were noted along the Yukon River and one was seen at the Klondike River near Glenboyle.

LESSER YELLOW-LEGS. Totanus flavipes.

In the southern part of the region this species is locally common, but it appears to be absent in extensive areas. It was first noted at Dezadeash Lake on June 17, and again at Marsh Lake outlet on the 23rd. In late June and early July several were seen every day in the district northward from Champagne between Aishihik and Laberge Lakes. In two instances they were accompanied by young of the year. A few were observed along the Canol Road, July 12 to 14, between Quiet and Lapie Lakes. On July 20, several were seen along the Yukon River between Yukon Crossing and Selkirk. None was found farther north.

PECTORAL SANDPIPER. Erolia melanotos.

A sandpiper believed to have been of this species, evidently a belated migrant en route to the Arctic Coast, was observed at Carcross River

on June 22. The species occurs as a spring and autumn transient throughout the interior (Rand, 1946 and 1950).

BAIRD'S SANDPIPER. Erolia bairdii.

A single example of this species was observed by Godfrey (1951, p.99) on August 4, 1949, at Kathleen River.

LEAST SANDPIPER. Erolia minutilla.

This sandpiper is recorded as an infrequent summer resident throughout most of the region. It was seen by the writer only in the latter part of June at Dezadeash and Canyon Lakes.

SEMIPALMATED SANDPIPER. Ereunetes pusillus.

Godfrey (1951, p.99) records a single individual that was seen in company with lesser yellow-legs on August 21, 1949, at a small pond near Mile 904, Alaska Highway.

NORTHERN PHALAROPE. Lobipes lobatus.

Three were noted on a pond near Canyon Lake, June 26, and several others on July 13 at a small lake near the headwaters of Rose River, Canol Road.

LONG-TAILED JAEGER. Stercorarius longicaudus.

Of this species Godfrey (1951, p.99) remarks: "One was observed on June 23 in a snow-storm at Burwash Landing pursuing an Arctic tern over Kluane Lake".

HERRING GULL. Larus argentatus.

This species occurs widely and breeds in the Yukon, at least in the south part and probably in the north. It was observed at nearly all the larger lakes visited throughout the summer, along the Yukon River to Dawson and the Klondike River, and at Mayo Landing. On June 19, three small nesting colonies were found at the north end of Marsh Lake. One colony was located on a low, bed-rock bluff of the mainland, and the other two on ledges of cliffs at Dog Island. The latter two comprised 38 and 16 adults, respectively; nests contained two to three eggs, or similar numbers of downy young that appeared to be from one to four days old.

RING-BILLED GULL. Larus delawarensis.

On June 22 a pair of these gulls was noted near Carcross along the short river between Tagish and Bennett Lakes. The species is known to occur in southern Alaska, but this appears to be the first record for Yukon Territory.

SHORT-BILLED GULL. Larus canus.

The occurrence of this species in southern Yukon is much like that of L. argentatus. It is a common gull that was visibly more numerous than the latter species. It was fairly common along Yukon River to Selkirk, less common to the north of Selkirk, but recorded as far north as Dawson.

BONAPARTE'S GULL. Larus philadelphia.

This gull was noted at many lakes and along streams in a wide area of southern Yukon. As a rule, only a few were seen in most localities, but in some places they were fairly common. One of these places was the Canyon-Aishihik Lakes area where nests were seen in spruces near the shore. Immatures capable of flight were noted at Lapie Lakes, Canol Road, on July 13. Small flocks were present at Whitehorse, July 15 and 16. A few were seen a few days later along Yukon River as far north as a point between Minto and Selkirk.

ARCTIC TERN. Sterna paradisaea.

During the latter part of June scattered pairs and small groups were seen in many southern localities. They were common along the river near Carcross, on June 22. At the end of June a few were found nesting at Hutshi Lakes. Several were recorded in mid-July along Canol Road to Lapie Lakes. They were last noted at Lake Laberge on July 17.

ANCIENT MURRELET. Synthliboramphus antiquus.

An example of this species in winter plumage was received from Them Kjar, Whitehorse, in January, 1952. He stated that the specimen was caught in a fish net at Pelly Lake (200 airline miles northeast of Whitehorse) sometime during November, 1951, by an Indian who said that he had never seen a bird of this kind before. The specimen was forwarded to the National Museum of Canada, Ottawa, where its identity was confirmed by Earl Godfrey who remarked "As you surmised, this is the first record for Yukon Territory".

GREAT HORNED OWL. Bubo virginianus.

Very few of these birds were seen or heard but they were reported to occur in many localities. The last noted, July 21, was flying across the Yukon River between Selkirk and Thistle Creek. The species has been recorded as far north as Fortymile.

HAWK OWL. Surnia ulula.

This owl is evidently very scarce in most of the region. It was recorded only once, on July 13 in the vicinity of the Nisutlin River, south-east of Quiet Lake.

GREAT GREY OWL. Strix nebulosa.

In his manuscript report of 1944, Clarke states that one was collected by T.M. Shortt at Rousseau's road-house, Flat Creek, east of Dawson, on September 2, 1944.

SHORT-EARED OWL. Asio flammeus.

In the latter half of June single examples were noted at Dezadeash, Klukshu, Marsh, and Aishihik Lakes. Evidently the distribution was sparse. One was seen near Teslin Lake on July 11, and another at Kluane Lake, August 6.

NIGHTHAWK. Chordeiles minor.

One or two were observed almost daily from early June to mid-July. It was not observed during the trip down the Yukon River to Dawson in late July. Several were noted August 10 to 12 in the country between Kluane and Dezadeash Lakes.

RUFOUS HUMMINGBIRD. Selasphorus rufus.

Mike Nolan stated that this species occurs sparingly at Marsh Lake and south of there, and that in the summer of 1949 two flew into the glass of large windows at his Marsh Lake Lodge and were killed. It is also reliably reported that one occasionally appears in the flower gardens at Whitehorse.

BELTED KINGFISHER. Megaceryle alcyon.

According to the records, this species is widely distributed in the southern part of the Yukon, but the summer observations of 1950 show that in most of the Territory it was scarce. The only personal records are for one or two individuals seen at Dezadeash, Klukshu, and Hutshi Lakes, and a pair at the Yukon River between Lake Laberge and Hootalinqua.

YELLOW-SHAFTED FLICKER. Colaptes auratus.

This flicker is a fairly common summer resident in many southern localities. Several were observed nearly every day while travelling. It appeared to be distinctly less numerous than elsewhere along Yukon River

below Lake Laberge, partly, perhaps, because this district was observed for the most part from a boat. However, occasional examples were seen north to the Klondike River. It was already nesting at the Morley River on June 12.

YELLOW-BELLIED SAPSUCKER. Sphyrapicus varius.

Only one was observed: at the Morley River, June 13.

HAIRY WOODPECKER. Dendrocopos villosus.

This species is widely, but sparingly and locally distributed in the southern part of the Territory. The only personal records are: Morley River and Teslin Lake, June 12 to 13; Canyon Lake, June 26; Richthofen Lake, July 3; and near Kluane Lake, August 6.

DOWNY WOODPECKER. Dendrocopos pubescens.

This species is extremely rare. It was only twice previously recorded. It was seen at Dezadeash Lake, August 6 and 12, 1944 (Clarke, 1944); and one was collected at the same lake on July 21, 1949, by Godfrey (1951). The writer saw one near Marsh Lake on June 14, 1950.

ARCTIC THREE-TOED WOODPECKER. Picoides arcticus.

Clarke and Shortt observed this species in 1944 at Dezadeash Lake and at Snag. In July, 1949, Godfrey (1951, p.102) collected an adult female and an adult male at Kluane and Sulphur Lakes, respectively.

AMERICAN THREE-TOED WOODPECKER. Picoides tridactylus.

This species occurs in moderate numbers in extensive areas of southern Yukon, but varies greatly in relative abundance from one district to another. It was observed only at wide intervals in the country from Dezadeash Lake and Haines Junction east to Canol Road and north to Minto. Individuals were seen somewhat more frequently in the Canyon-Aishihik Lakes area.

EASTERN KINGBIRD. Tyrannus tyrannus.

One was positively identified by Clarke and Shortt at Champagne on July 4, 1944 (Clarke MS. 1944).

SAY'S PHOEBE. Sayornis saya.

This species was seldom observed. The only personal records are:

between Klukshu Lake and British Columbia boundary, June 16; at Whitehorse, July 14; several between Selkirk and Dawson on the Yukon River, July 21 and 22; a pair at the Klondike River, July 24; one at Mayo Landing, July 28; and one near Kluane Lake, August 6.

TRAILL'S (ALDER) FLYCATCHER. Empidonax traillii.

Few localities were visited in which this species was not seen or heard. It may be scarce in some areas, however, while common in others. Males were singing freely through June and early July and irregularly, thereafter, until July 28. An occasional individual was observed as far north as Sixtymile Road, Dawson, and the Klondike River, the northern limit of the investigation.

LEAST FLYCATCHER. Empidonax minimus.

The first Yukon record is that of an individual seen by Clarke (1945) at Watson Lake. In July, 1949, the National Museum party noted single examples at Haines Junction; at the Dominion Experimental Farm, Alaska Highway; and at the north end of Dezadeash Lake. The Haines Junction specimen was collected (Godfrey, 1951, p.103).

WRIGHT'S FLYCATCHER. Empidonax wrightii

Clarke (MS. 1944) collected a specimen of this flycatcher at Dezadeash Lake on July 31, 1944. Rand (1946) records an adult specimen from Carcross, where Godfrey (1951, p.103) also noted three individuals and collected one specimen in mid-August, 1949.

RICHARDSON'S WOOD PEWEE. Contopus richardsonii.

In mid-June this species was recorded along the Alaska Highway from Watson Lake and the Morley River to Whitehorse, west to Canyon, and south on Haines Road to Dezadeash and Klukshu Lakes. One was heard singing near Division Mountain on July 2 and another between Selkirk and Selwyn, Yukon River, July 21.

OLIVE-SIDED FLYCATCHER. Nuttallornis borealis.

In southern Yukon this flycatcher was noted during the same period and in the same territory as the next preceding species, northwest to Whitehorse and Haines Road. North of Whitehorse it was recorded only once, between Hootalinqua and Big Salmon, Yukon River, July 18.

HORNED LARK. Eremophila alpestris.

None of these larks was observed anywhere at low altitudes in southern

Yukon during the summer. The only horned larks seen were those inhabiting the treeless Arctic-alpine country along Sixtymile Road between Dawson and the Yukon-Alaska boundary. They were fairly common, July 25 and 26, on the several high divides. Some of them were immatures. During migration they are more widely distributed at lower elevations.

VIOLET-GREEN SWALLOW. Tachycineta thalassina.

This species occurs locally in the south. In the latter part of June nesting pairs were seen at Marsh and Dezadeash Lakes, Whitehorse, and Champagne. Others using tree cavities or nesting boxes were noted at Selkirk, lower Pelly River, and at Stewart River, July 21 to 23. A number of them inhabited the town of Dawson. They were observed again at Whitehorse in early August, and a few were present at Burwash Landing on August 6.

TREE SWALLOW. Iridoprocne bicolor.

This swallow was observed locally in wide areas of the south from Watson Lake, Morley River, and Teslin Lake to Whitehorse, and west to the Canyon-Aishihik Lakes district. It was not recorded north of Whitehorse along the Yukon River.

BANK SWALLOW. Riparia riparia.

Bank swallows were observed in many suitable localities in the southern part of the Territory. On June 23 a large nesting colony was located in a high clay bank along the "Tagish" River south of the bridge. The birds were abundant at several nesting points along the Yukon River between Whitehorse and the Indian River, and were locally common as far north as Dawson. Small numbers were present at Whitehorse in early August.

BARN SWALLOW. Hirundo rustica.

This swallow is very uncommon. It was observed only twice during the summer: at Carcross, June 22; and at Whitehorse, July 8, 9, 10, and 29.

CLIFF SWALLOW. Petrochelidon pyrrhonota.

This species was noted in many south-central localities from southern Canol Road west to Canyon and Dezadeash Lake, and northward from Whitehorse to Selkirk. Perhaps fortuitously, it was not observed along the Yukon River north of Selkirk. The largest colony was seen at the Johnsons Crossing bridge, Teslin River.

CANADA JAY. Perisoreus canadensis.

This was a common to fairly common permanent resident throughout the

entire region investigated, including the Dawson-Sixtymile Road area west to Alaska.

STELLER'S JAY. Cyanocitta stelleri.

This jay was not personally observed, but two reports were obtained. In July, 1944, Alex Davis, Champagne, observed one for several minutes at close range near Kathleen Lake, Haines Road. Another was stated to have been clearly seen, in 1949, by Gordon Yardley at his home on the north shore of Tagish Lake, 12 miles east of Carcross. In both cases the birds were clearly observed at a distance of a few yards and recognized as something new and unfamiliar in the region. Both men referred to them as "blue jays".

These observations seem to be unquestionably dependable, and if accepted provide the first records of occurrence in Yukon Territory. The species was previously recorded a relatively short distance to the southwest in British Columbia and in Alaska.

BLACK-BILLED MAGPIE. Pica pica.

This species was noted almost daily in extreme southern Yukon from Teslin Lake west to Dezadeash and Aishihik Lakes, north to Braeburn Lake, and to approximately Big Salmon, Yukon River.

NORTHERN RAVEN. Corvus corax.

This raven occurs locally in varying numbers throughout the region. No large district was traversed without noting the species, except in the Marsh-Tagish-Bennett Lakes sector where it may have been accidentally overlooked.

NORTHWESTERN CROW. Corvus caurinus.

"A specimen was collected by T.M. Shortt (in litt.) at Dezadeash Lake on August 4, 1944. This is the first Yukon record" (Godfrey, 1951 p.105).

CLARK'S NUTCRACKER. Nucifraga columbiana.

A single example was observed by Godfrey (1951, p.105) near Robinson on August 21, 1949.

BLACK-CAPPED CHICKADEE. Parus atricapillus.

This species was apparently very scarce throughout the region investigated. It was observed only a few times: at Marsh Lake, June 24; at Canyon Lake, June 27; and at Pilot Creek, July 4.

GAMBEL'S CHICKADEE. Parus gambeli.

T.M. Shortt collected a specimen at Dezadeash Lake on August 2, 1944 (Clarke MS., 1944). This is the only record for Yukon Territory.

BROWN-HEADED CHICKADEE. Parus hudsonicus.

At least in some localities, this is the commonest chickadee of the region. A few were seen in most localities visited, but in some areas it was evidently rare or absent. It was casually recorded from Whitehorse north to the Klondike River.

RED-BREASTED NUTHATCH. Sitta canadensis.

Only a single example was noted: at Taye Lake, June 29.

BROWN CREEPER. Certhia familiaris.

A single example was observed in heavy spruce forest at Taku Arm, Tagish Lake, near the British Columbia boundary on the evening of June 21. It was only once previously recorded: at Dezadeash Lake, July 30 to August 12, 1944 (Clarke, 1944).

AMERICAN DIPPER. Cinclus mexicanus.

This species is sparingly distributed in the southern part of the region, where it winters. It was personally observed only at Otter Falls, Aishihik River, close to the south end of Canyon Lake, June 26 to 28. During this period, four adults were seen in the locality. Two of these obviously had a nest behind the falls, as they were seen repeatedly carrying food and flying back and forth through the curtain of water. Motion pictures of this performance were obtained at that time by Them Kjar, Director of Game and Publicity. Re-visiting the falls in mid-winter of 1950-51, he found the birds still frequenting the area.

AMERICAN ROBIN. Turdus migratorius.

Throughout the summer robins were observed daily in all country studied as far north as Dawson and Sixtymile Road. The species is common and so widely distributed that it has been recorded in Yukon Territory even beyond the Arctic Circle.

VARIED THRUSH. Ixoreus naevius.

This species occurs only rarely and is widely scattered. In 1950,

it was observed only twice, in the Nordenskiold River Valley below Hutshi Lakes, July 1; and in the vicinity of the Lapie River, Canol Road, July 13.

HERMIT THRUSH. Hylocichla guttata.

Individuals were seen and heard singing in many southern localities from the Watson Lake and Morley River areas westward to Dezadeash and Aishihik Lakes. More were recorded in the latter districts, and at Marsh and Teslin Lakes than elsewhere. It was not recorded along the Yukon River north of Whitehorse during the third week of July, perhaps because the ending of the song season made it more difficult to find.

OLIVE-BACKED THRUSH. Hylocichla ustulata.

These thrushes are commonly distributed in the southern part of the region. They were recorded in practically all investigated areas, north to near Selkirk. Their songs were heard until mid-July. After that time identification was much more difficult.

GREY-CHEEKED THRUSH. Hylocichla minima.

Godfrey (1951, p.108) states that two were observed in the zone of willow and ground birch, above timber-line at Mile 98, Haines Road, on July 26, 1949.

MOUNTAIN BLUEBIRD. Sialia currucoides.

Few of this species were observed and their distribution was erratic. During the latter part of June they were observed only at Marsh and Dezadeash Lakes, and Champagne. During July, widely scattered individuals and pairs were found from Canol Road and Teslin Lake to Whitehorse and Dawson. Only 11 in all were recorded. One was seen at Kluane Lake and another between Donjek and White Rivers on August 5.

TOWNSEND'S SOLITAIRE. Myadestes townsendi.

Apparently this species is thinly dispersed or absent in many parts of the Yukon. The few recorded observations were: near Canyon, June 26; at the head of the Lapie River, July 13; two near Stewart River, July 22; and several on the high, treeless divides along Sixtymile Road west of Dawson, July 25 and 26. A pair was also reported at Minto, July 20.

GOLDEN-CROWNED KINGLET. Regulus satrapa.

A specimen was taken by T.M. Shortt at Hunker Summit (near Dawson) on August 30, 1944 (Clarke MS., 1944). On August 4, 1949, Godfrey (1951,

p.108) saw three in heavy white spruce along the Kathleen River, two of which were collected. These are the first and only records for Yukon Territory.

RUBY-CROWNED KINGLET. Regulas calendula.

Published records indicate wide distribution of this species in southern Yukon north to Dawson, but its occurrence seemed to be very thin and scattered in the summer of 1950. During June and early July solitary singing males were noted only at or near the Morley River, Teslin Lake, the Lapie River, and Marsh and Taye Lakes.

AMERICAN PIPIT. Anthus spinoletta.

This species is a summer resident in most of the Territory above timber-line as far north as the Arctic tundra. Examples were seen by the writer in 1950, July 25 and 26, on the Arctic-alpine divides between Dawson and Glacier Creek near the Yukon-Alaska boundary.

BOHEMIAN WAXWING. Bombycilla garrulus.

This is wide-ranging summer resident of infrequent occurrence which was recorded sparingly in most districts. Along the Yukon River north of Whitehorse it was seen no farther north than about Five Finger Rapids.

NORTHERN SHRIKE. Lanius excubitor.

This species is widely dispersed but uncommon. Single examples were observed by the writer only at Teslin Lake, June 13; and the Lapie River, Canol Road, July 13.

TENNESSEE WARBLER. Vermivora peregrina.

This species is rather common in the extreme southeast, in the Watson Lake and Morley River areas; but it is evidently more thinly distributed in the south-centre of the Territory. Only a few records were obtained, in June and early July, west to Klukshu, Dezadeash, Kathleen, and Canyon Lakes and no farther north than the Hutshi Lakes.

ORANGE-CROWNED WARBLER. Vermivora celata.

This is a scarce summer resident in the southern part of the Territory. It has been recorded as far north as Dawson. It was seen by the writer only at Klukshu Lake, June 17; and at the Von Wilczek Lakes, July 20.

YELLOW WARBLER. Dendroica petechia.

This warbler was well distributed in fair numbers in extreme southeast and south-central localities. Individuals were seen or heard singing during June and early July at many points along the Alaska Highway and almost daily from the southern part of Canol Road west to Canyon and Dezadeash Lakes. It was much less frequently noted north to Hutshi and Braeburn Lakes. In the latter part of July one was recorded at Minto and two at Dawson. They were in full song in June and early July, after which their singing rapidly diminished. However, the two Dawson males were still singing occasionally up to July 27.

MYRTLE WARBLER. Dendroica coronata.

This is evidently the commonest and most widely distributed of Yukon warblers. During June and the early half of July, it was seen or heard singing daily in varying numbers throughout the country investigated. North of Whitehorse it was noted at wide intervals along the Yukon River to Dawson. When its singing stopped it was observed less often.

TOWNSEND'S WARBLER. Dendroica townsendi.

Godfrey (1951, p.110) saw a male about ten miles east of Carcross on August 17, 1949. It has been recorded by others at the Swift River, Marsh Lake, and Laberge Lake, on the Canol Road at the Rose and Lapie Rivers, and at Sheldon Lake.

BLACK-POLL WARBLER. Dendroica striata.

This warbler evidently occurs locally in some numbers throughout southeastern and south-central districts. It was recorded in numerous areas from Watson Lake, the Morley River, and southern Canol Road westward to the Haines Road and Canyon and Hutshi Lakes. It was not found along the Yukon River below Whitehorse in the latter part of July but is known to occur farther north.

NORTHERN WATER-THRUSH. Seiurus noveboracensis.

These thrushes were heard singing in the Watson Lake and Morley River localities, June 11 to 13; at the Teslin River, June 14; and in the Aishihik-Hutshi-Braeburn Lakes country in late June and early July. A male was heard singing near Yukon Crossing on July 20. The species was not recorded after that date.

MACGILLIVRAY'S WARBLER. Oporornis tolmiei.

Godfrey (1951, pp.110-111) remarks: "Noted in three localities by the

writer in 1949, as follows: On July 23 one was seen in a willow shrubbery and windfall tangle near Mile 113, Haines Road. An hour later another was noted in similar habitat about half a mile south of there. In dense alder-willow shrubbery at the edge of timber-line on a mountain side at about Mile 98, Haines Road, another was observed on July 26. This species has not previously been recorded from Yukon." He collected a male at Mile 98, Haines Road, on July 26, 1949.

YELLOW-THROAT. Geothlypis trichas.

In the latter part of June and in early July, this species was observed at the Morley River, Squanga, Taye and Hutshi Lakes, the Nordenskiold River, and Pilot Creek. It is one of the scarcer warblers and is evidently restricted to extreme southern Yukon.

BLACK-CAPPED WARBLER. Wilsonia pusilla.

This species is locally well represented, but, in most places it is thinly dispersed, or apparently absent. It was personally noted only at Dezadeash Lake, June 17; and in the Lapie-Rose Rivers area on July 13 and 14.

AMERICAN REDSTART. Setophaga ruticilla.

Two singing males were observed along the Yukon part of the Alaska Highway west of Watson Lake, and another at the Morley River, June 11 and 12. One was heard singing the following day a short distance southwest of Johnsons Crossing. These are believed to be the first records for Yukon Territory.

RED-WINGED BLACKBIRD. Agelaius phoeniceus.

This is a rare and widely dispersed species in southern Yukon. Two were seen in a marshy bay at Little Atlin Lake, June 20; and several pairs were inhabiting bulrush growth at Von Wilczek Lakes, July 20. No others were observed.

RUSTY BLACKBIRD. Euphagus carolinus.

These birds were thinly scattered, being rare, or apparently absent, in many localities investigated and in intervening territory. Seldom was more than a pair or two seen in any one day. This was the situation throughout the country from Watson and Lapie Lakes west to Dezadeash and Aishihik Lakes and north to Richthofen Lake. The species was not noted on the journey down the Yukon River from Whitehorse.

COWBIRD. Molothrus ater.

A pair of these birds was reported by Alex Davis to have appeared for a time in the summer of 1948 at Champagne. They first attracted his attention by flying about a corral and perching on the backs of the horses. He was confident that he had identified them correctly as he had previously known the species well on the western prairies. The close association with the horses is significant. The authenticity of the occurrence cannot be vouched for, but it appears to be reliable and may well be the first record of the species in Yukon Territory.

WESTERN TANAGER. Piranga ludoviciana.

Two singing males were identified on June 12 along the Rancheria River, west of Watson Lake, and another on the following day, between the Morley River and Teslin. There is one previous record for Yukon Territory: at Kluane, July 6, 1944 (Clarke, 1944).

COMMON PURPLE FINCH. Carpodacus purpureus.

A male was seen and heard singing along the Rancheria River on June 12. This appears to be the second record for Yukon Territory. During previous days moderate numbers of singers were seen or heard all along Alaska Highway from Dawson Creek in British Columbia. Godfrey (1951) observed one at Whitehorse on August 11, 1949.

PINE GROSBEAK. Pinicola enucleator.

This species appears to be rare in Yukon Territory, where it was not recorded by the writer. Godfrey (1951, p.112) saw four in the Carcross district during the latter part of August, 1949; of these, two were collected.

COMMON REDPOLL. Acanthis flammea.

On July 23, 1949, the National Museum biologists saw two small groups of these birds near timber-line at the south end of Dezadeash Lake; and at Mile 1001, Alaska Highway, five were noted on July 28, one of which was collected (Godfrey, 1951, p.112).

PINE SISKIN. Spinus pinus.

Scattered individuals, pairs, and small and large flocks were observed on nine occasions in the following areas: at Marsh and Dezadeash Lakes, from Division Mountain to Braeburn Lake and Pilot Creek, at Quiet Lake, and along the Yukon River from Big Salmon to the Klondike River. The largest flocks were noted at Braeburn and Richthofen Lakes on July 2 and 3.

RED CROSSBILL. Loxia curvirostra.

T.M. Shortt collected an example of this species at Kluane Lake on July 8, 1944. Godfrey (1951, p.112) saw one at Kathleen River on July 18, 1949. He collected two of several seen in the Carcross district during mid-August of the same season.

WHITE-WINGED CROSSBILL. Loxia leucoptera.

A small group was observed along Canol Road between Johnsons Crossing and Quiet Lake, July 12. On July 14 other crossbills were noted between Little Atlin Lake and Whitehorse. These were not completely identified, but in all probability belonged to this species.

SAVANNAH SPARROW. Passerculus sandwichensis.

This species was recorded in numerous localities throughout south-eastern and south-central Yukon, and in a very few localized areas it was fairly common. It was noted with moderate regularity along the Yukon River north to Dawson. Singing was heard regularly until the early part of July.

SLATE-COLOURED JUNCO. Junco hyemalis.

This common and widely distributed species was noted daily in all parts of the country visited throughout the summer of 1950 from extreme southern localities north as far as Sixtymile Road (west of Dawson), the Klondike River, and Mayo Landing. It is to be noted that in at least some south-central areas and perhaps elsewhere, individuals vary in coloration from that of the type race J.h.hyemalis. These are recorded by Godfrey (1951, p.113) as referable to the to the Cassiar junco, J.h.cismontanus; specimens taken by him in the Kathleen River-Dezadeash Lake area and at Carcross were definitely placed under the latter subspecies. Many individuals are of perplexing, intermediate character.

TREE SPARROW. Spizella arborea.

The distribution of these sparrows was sparing and erratic at lower altitudes during the breeding season. They were infrequently noted in very small numbers during the latter part of June in the Marsh-Tagish-Bennett Lakes country and in the district northward from Canyon and Takhini. On July 13 and 14 a few were seen in the Rose River-Lapie Lakes section of Canol Road. After that they were noted only at or near timber-line along Sixtymile Road west to the Yukon-Alaska boundary.

CHIPPING SPARROW. Spizella passerina.

Chipping sparrows were rather widely but thinly distributed in the

southern part of the region, where a pair or two were seen almost daily in most localities examined. Perhaps fortuitously, they were not recorded north of Braeburn and Laberge Lakes.

TIMBERLINE SPARROW. Spizella breweri.

Regarding this sparrow Godfrey (1951, p.114) remarks: "Rand (1946, p.64) placed this species on the Yukon hypothetical list on the basis of Clarke's (1945) record of one heard at Tepee Lake, July 15, 1943. Clarke (MS.) notes that T.M. Shortt definitely established its occurrence in Yukon Territory on July 8, 1944, when he located a large colony at Kluane. Mr. Shortt (in litt.) stated that six were taken".

WHITE-CROWNED SPARROW. Zonotrichia leucophrys.

This species was recorded almost every day in nearly all areas investigated north to Sixtymile Road, the Klondike River, Bonanza Creek, and Mayo. It was most numerous in the area north of the Alaska Highway between Aishihik Lake and Miners Range. The birds were singing strongly through June and early July, but appeared to stop singing about July 15.

WHITE-THROATED SPARROW. Zonotrichia albicollis.

These sparrows were seen only along the Alaska Highway at the Rancheria River where two males were heard singing on June 12. There is one previous record by Clarke (1944) in the Watson Lake area.

GOLDEN-CROWNED SPARROW. Zonotrichia coronata.

Godfrey (1951, p.114) observed this species in Yukon Territory during the summer of 1949. He remarks that it was seen only in the mountains above timber-line, at about Mile 98, Haines Road, where two were observed on July 26; farther south, in British Columbia, the species was common between Mile 85 and 55, along the same road.

FOX SPARROW. Passerella iliaca.

Only six singing males were recorded during the entire season, all of them in the latter part of June and early July in the Rancheria and Morley River areas, at Marsh Lake outlet, at Taye and Hutshi Lakes, and near Pilot Creek. The species was not seen very far north but is known to range north to Old Crow.

LINCOLN'S SPARROW. Melospiza lincolnii.

In all, 15 examples of this sparrow were recorded by the writer in Yukon Territory between June 12 and July 24, 1950. Widely scattered singing

males were observed from the Morley River, Marsh Lake, and Taye Lake north to the Klondike River. Several specimens were collected by Godfrey (1951, p.115) in the southern Yukon region during the summer of 1949.

SONG SPARROW. Melospiza melodia.

This species was noted only once in 1950 when a singing male was observed for some time at the outlet of Dezadeash Lake on June 17. Clarke's (1944, 1945) observation of a pair with young at Squanga Lake in 1943 is the only definite previous record.

LAPLAND LONGSPUR. Calcarius lapponicus.

Godfrey (1951, p.115) found a desiccated adult of this species at Carcross on August 7, 1949. It is assumed that considerable numbers nest on the Arctic tundra of northern Yukon and migrate through the Territory, but little definite information on this matter is yet available.

SNOW BUNTING. Plectrophenax nivalis.

These birds breed in suitable tundra areas along the northern coast of Yukon Territory; a number were noted there by the writer during the summer of 1949. According to southern and central Yukon residents, numerous migrants of this species are to be seen, spring and autumn, as they travel through the interior to and from their Arctic nesting grounds.

LITERATURE CITED

General literature on the Yukon, which is quite extensive, is listed in bibliographies contained in the reports by C.H.D. Clarke (1944) and A.L. Rand (1946). Works dealing exclusively or extensively with the bird life are relatively few in number. Only the following recent papers were consulted while preparing the present report.

Clarke, C.H.D.	1944	Biological reconnaissance of lands adjacent to the Alaska Highway in northern British Columbia and Yukon Territory. Canada, Dept. Mines and Resources.
	1945	Some bird records for Yukon Territory Can. Field-Nat., 59(2): 65.
Godrey, W.Earl	1951	Notes on the birds of Yukon Territory. Nat. Mus. Canada Bull. No.123, pp. 88-115.
Judd, W.W.	1950	Birds observed in Yukon Territory during the summer of 1944. Can. Field-Nat., 64(4): 135-139.
Rand, A.L.	1946	List of Yukon birds and those of the Canol Road, Nat. Mus. Canada Bull. No. 105, Biol. Ser. No. 33.
	1950	H.B. Conover's bird work in Yukon. Can. Field-Nat., 64(6): 214-220.
Smith, Robert H. R.P. Allen	1948	An aerial waterfowl reconnaissance of the far north. U.S. Fish and Wildlife Serv. and Dom. Wildlife Serv., Spec. Sci. Rep. No.60: 5-12.
Smith, Robert H. C.H. Lawrence	1949	Waterfowl breeding ground survey in the Far North. U.S. Fish and Wildlife Serv. and Dom. Wildlife Serv., Spec. Sci. Rep. No.2: 3-11.
Smith, Robert H. C.F. Safrenek	1950	Waterfowl breeding ground survey in Northern Alberta, Yukon, and the Northwest Territories, 1950. U.S. Fish and Wildlife Serv. and Can. Wildlife Serv., Spec. Sci. Rep. No. 8: 8-16.

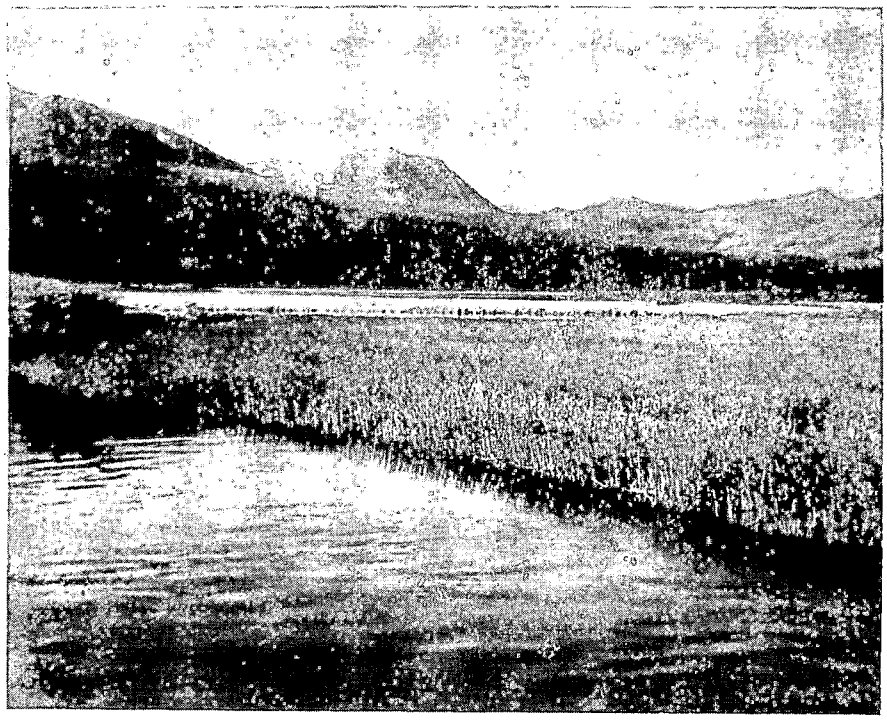


Fig. 1. Marshy area near outlet of Dezadeash Lake, looking northeast. June 17, 1950.

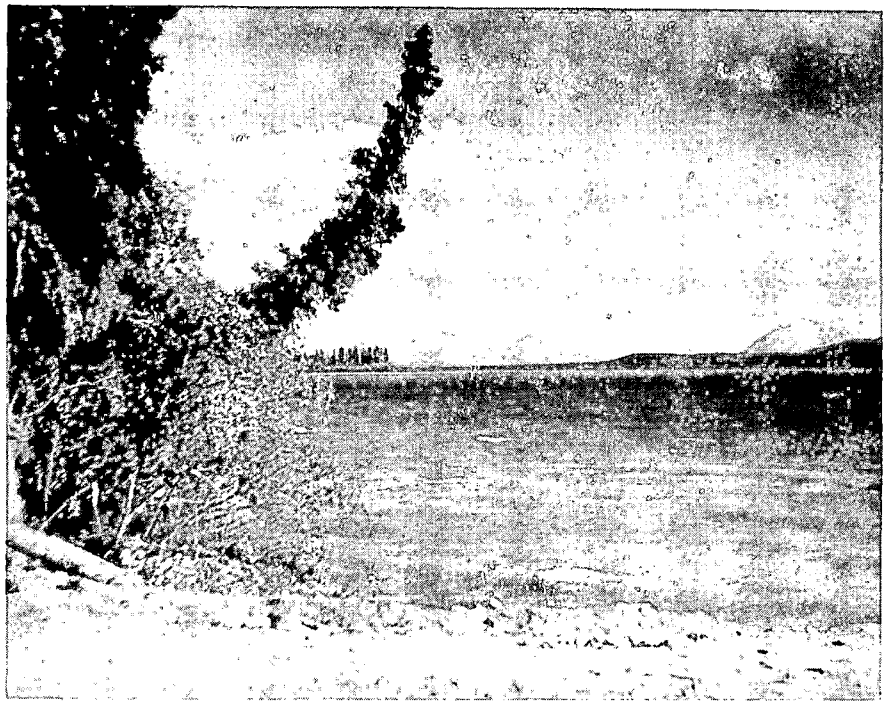


Fig. 2. Little Atlin Lake from the east shore looking southward. June 20, 1950.

Fig. 3. Near middle of Marsh Lake, looking west from east shore. June 20, 1950.

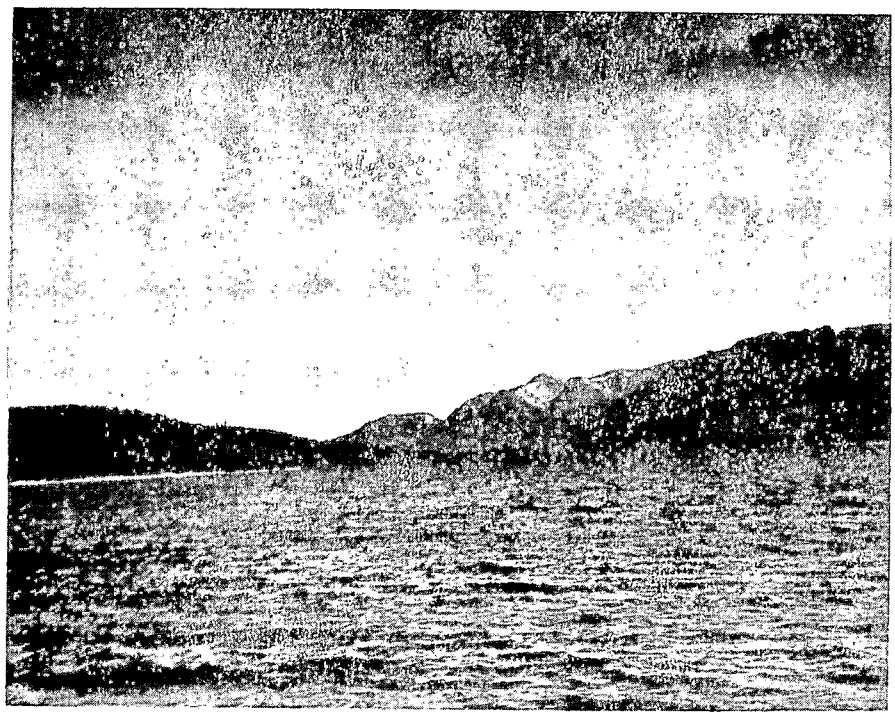


Fig. 4. Looking south over Tagish Lake toward entrance to Taku Arm. June 21, 1950.

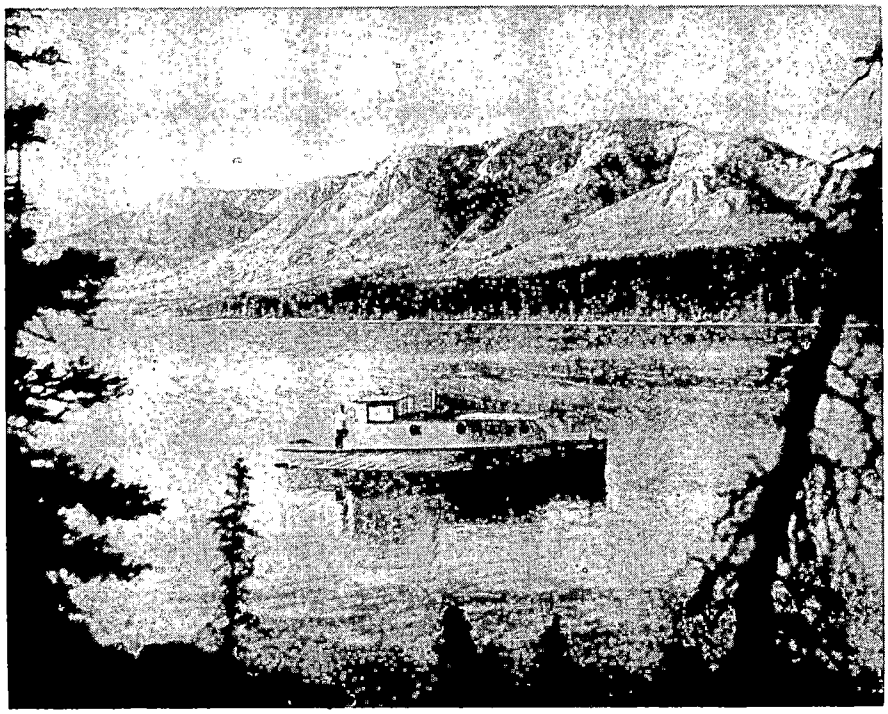


Fig. 5. Taku Arm, Tagish Lake, looking north from a point near the Yukon-British Columbia boundary. June 21, 1950.

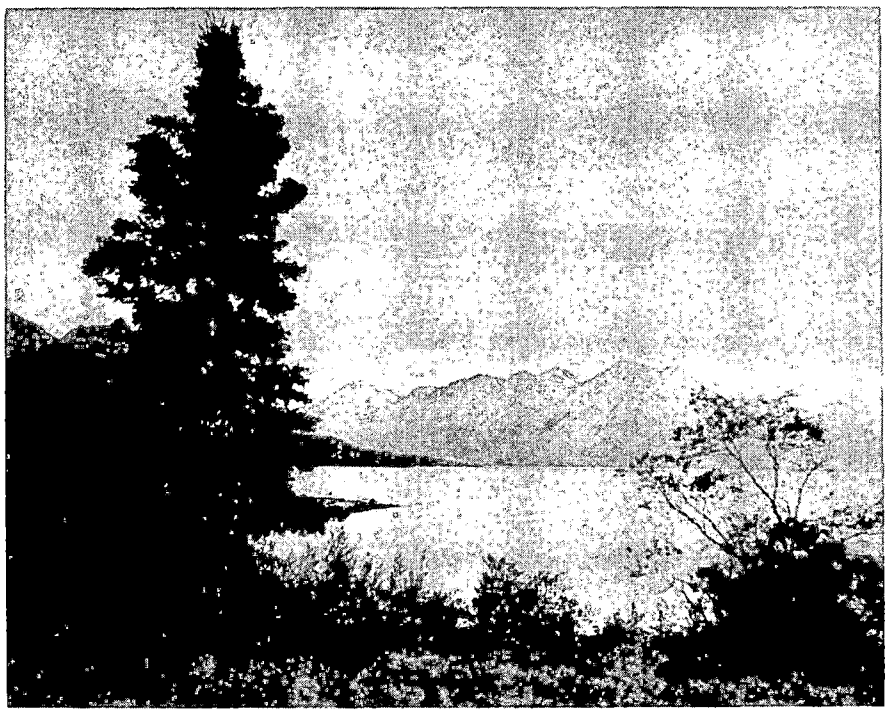


Fig. 6. Lake Bennett a few miles from Carcross, looking southwest to west arm of the lake. June 22, 1950.

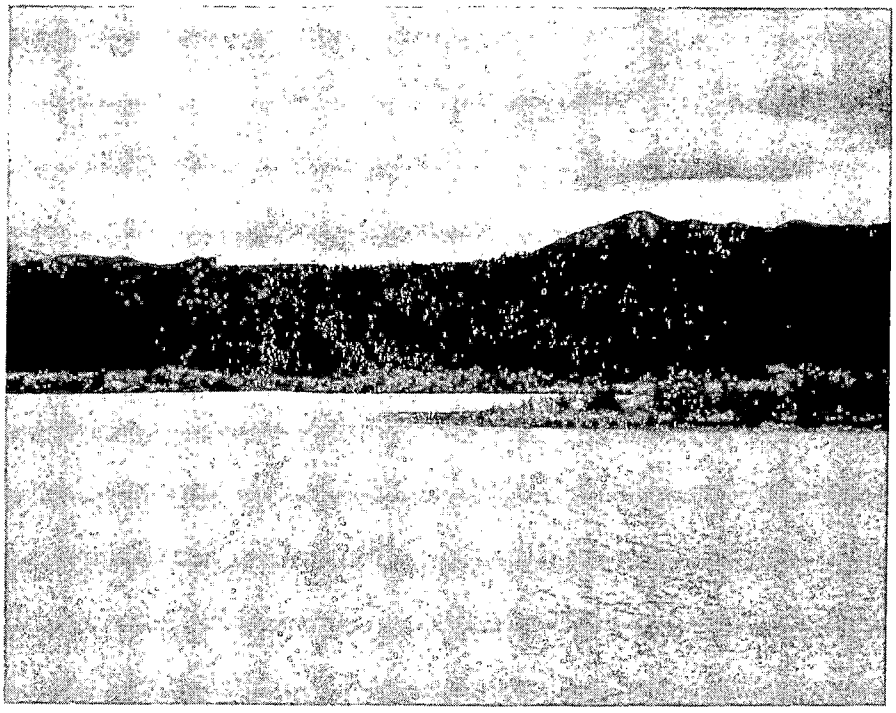


Fig. 7. Slough-like backwaters along west side of Yukon River about four miles northeast of Marsh Lake. June 23, 1950.

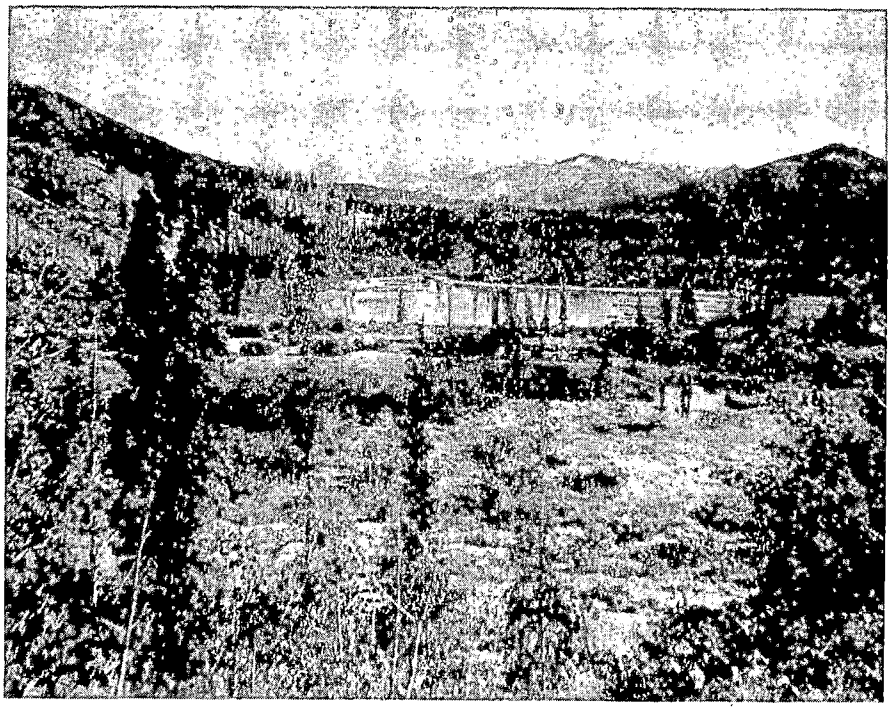


Fig. 8. Mountain valley and small ponds a short distance south of Canyon Lake. June 26, 1950.

Fig. 9. North Hutshi Lake from near north end, looking southwest. June 30, 1950.

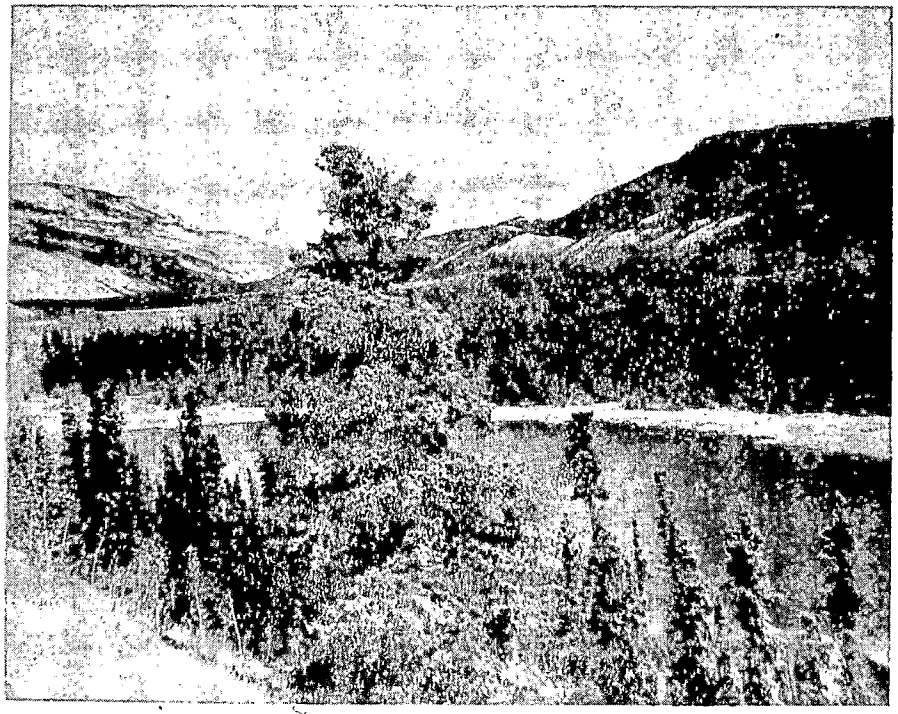


Fig. 10. Nordenskiold River valley and lake about 10 miles northeast of Hutshi Lakes. July 1, 1950.

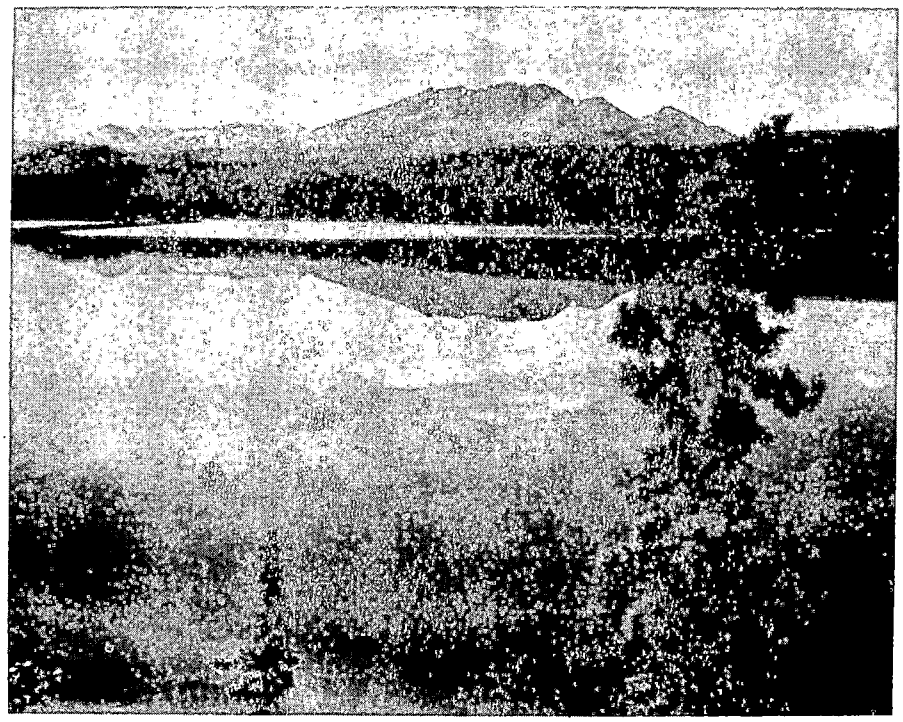


Fig. 11. View of Richthofen Lake. July 4, 1950.

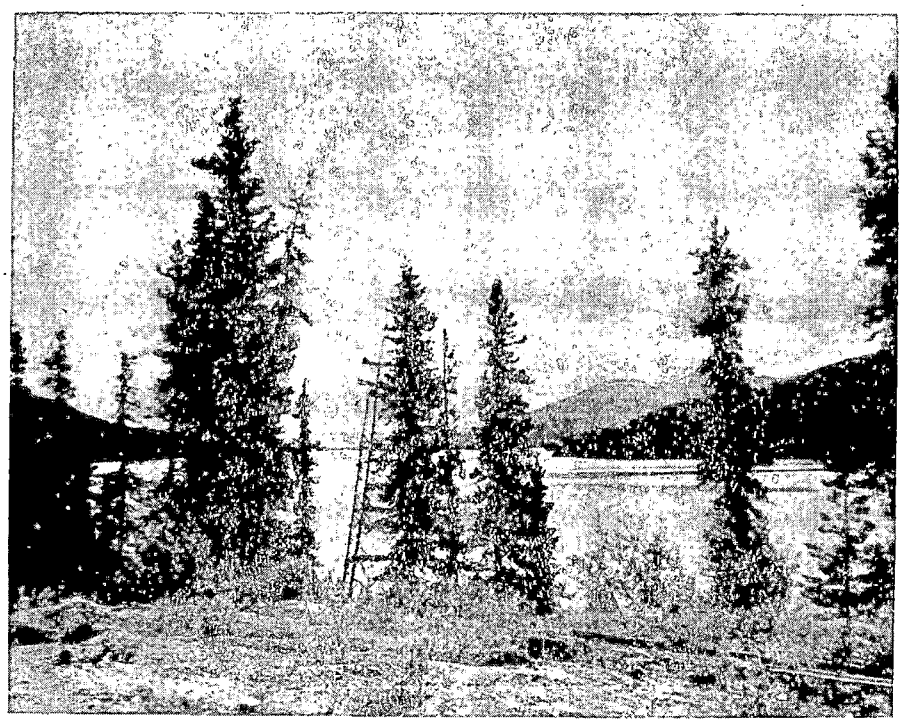


Fig. 12. Quiet Lake along Canol Road looking southwest. July 14, 1950.

Fig. 13. Lake Laberge from the east shore a few miles north of Laurier Creek, looking south. July 18, 1950.

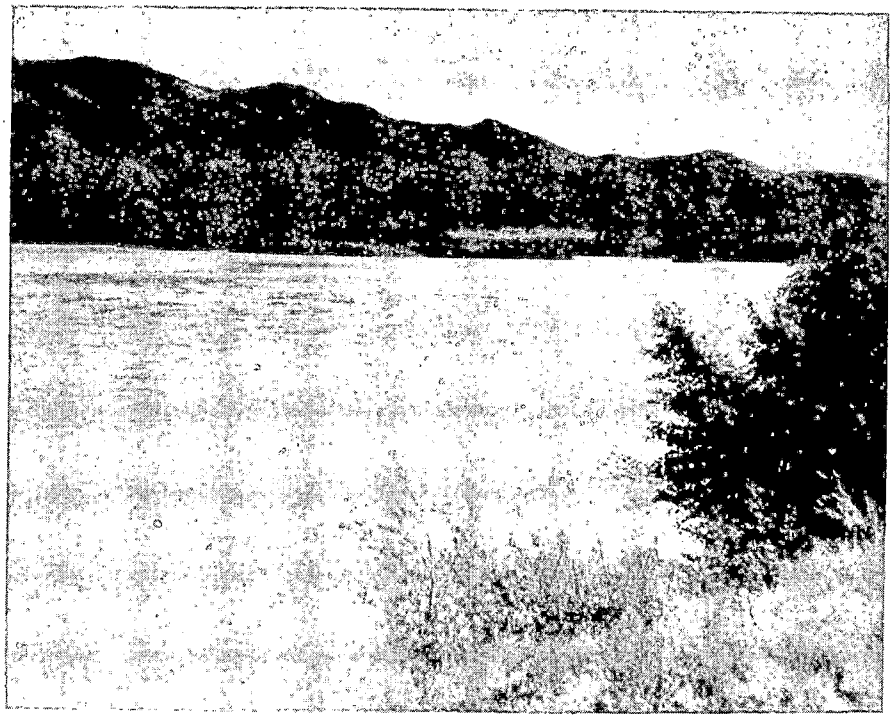


Fig. 14. Yukon River a short distance below Rink Rapids, looking southeast. July 20, 1950.

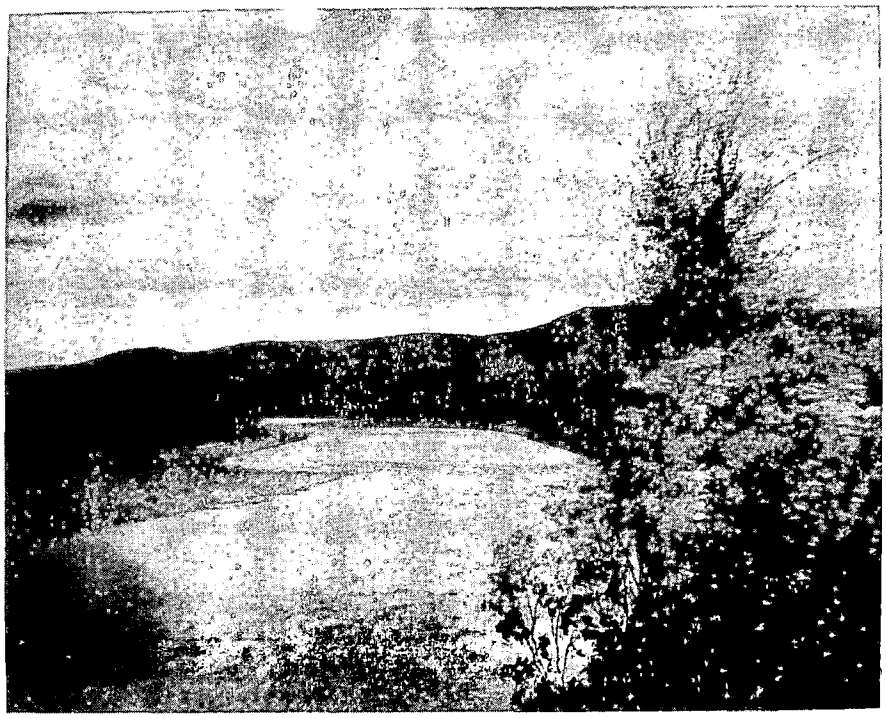


Fig. 15. Klondike River in the vicinity of Glenboyle. July 24, 1950.

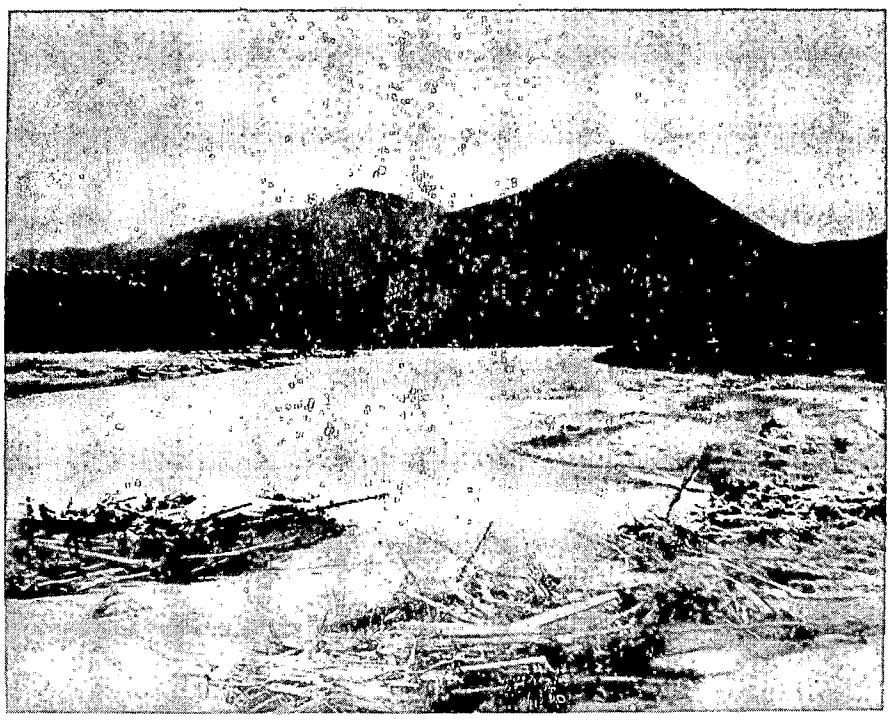
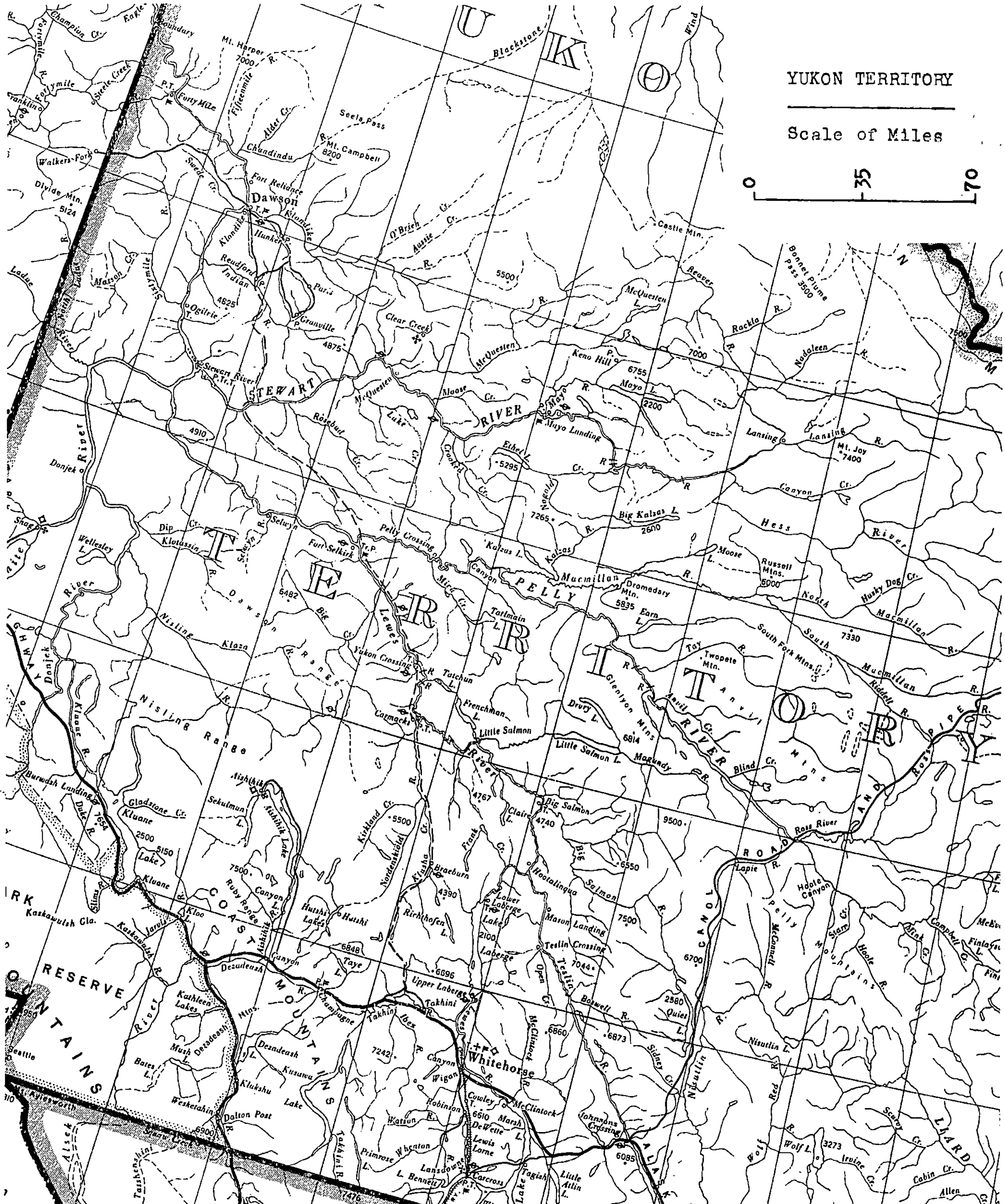


Fig. 16. Donjek River from Alaska Highway looking northeast. August 9, 1950.



YUKON TERRITORY
Scale of Miles
0
35
70
YUKON
TERRITORY
Dawson
Klondike
Hunker
Fort Reliance
Forty Mile
Fortymile
Sixtymile
Mt. Harper 7000
Mt. Campbell 8200
Seela Pass
Chandindu
Blackstone
Castle Mtn.
Bonnet Plume Pass 3500
Ogilvie
Granville
Clear Creek
McQuesten
Keno Hill
Mayo
Mayo Landing
Mayo L.
Lansing
Mt. Joy 7400
Stewart River
STEWART RIVER
Ethel L.
Big Kalzas L.
Hess River
Moose L.
Russell Mtns.
Fort Selkirk
Pelly Crossing
Selwyn
Dip Cr.
Klotassin
Wellesley L.
Donjek
Dromedary Mtn.
Macmillan
PELLY
Earn L.
Tay R.
Twopete Mtn.
South Fork Mtns.
Tatlmain L.
Yukon Crossing
Tatchun L.
Frenchman L.
Carmacks
Little Salmon
Little Salmon L.
Magundy
Glenlyon Mtns
Drury L.
Anvil
RIVER
Blind Cr.
Nisling Range
Klaza
Dawson Range
Big Salmon
Burwash Landing
Kluane Lake
Kluane
Gladstone Cr.
Aishihik
Aishihik Lake
Sekulmun L.
Kirkland Cr.
Nordenskiold
Braeburn
Hootalinqua
Lower Laberge
Laberge
Mason Landing
Teslin Crossing
Ross River
ROAD
CANOL
Lapie R.
Hoole Canyon
Pelly Mountains
Kaskawulsh Gla.
Jarvis R.
Kloo L.
COAST MOUNTAINS
Canyon
Hutshi Lakes
Hutshi
Taye
Dezadeash
Champagne
Takhini
Upper Laberge
Whitehorse
McClintock
Teslin
Boswell R.
Quiet L.
Nisutlin
Nisutlin L.
Kathleen Lakes
Bates L.
Mush
Kusawa Lake
Klukshu
Wesketahin
Dalton Post
Cowley
Robinson
Marsh
DeWette
Lewis
Lorne
Wigan
Watson
Wheaton
Primrose L.
Lansdowne
Carcross
L. Bennett
Tagish
Windy Arm
Little Atlin L.
Johnsons Crossing
ALASKA
Teslin Lake
Mt. Bryde
Wolf L.
Irvine Cr.
Cabin Cr.
Allen Cr.
LIARD
Rancheria
McNaughton
Atlin
Surprise L.
Gladys L.
Tagish L.
Engineer
Discovery
Bennett
Log Cabin
White Pass
Skagway
Taiya Inlet
Chilkat
Klukwan
Klehini R.
Mt. Bigger 8250
Mt. Lodge 10530
O'Connor R.
Tatshenshini
Alsek
RESERVE
MOUNTAINS
Kaskawulsh