

NOTES ON BIRDS AND THEIR HABITATS
KLAZA - PROSPECTOR MOUNTAINS AREA
DAWSON RANGE, YUKON TERRITORY
June 2 - 10, 1982

Prepared for: Canadian Wildlife Service
Whitehorse, Yukon

by: Robert Frisch
April, 1983

Introduction

Through an informal agreement with the Canadian Wildlife Service in Whitehorse, Mr. Frisch conducted observations of birds and their habitats in the Dawson Range during early June, 1982 in return for transportation to and from the area of interest. Mr. Frisch was taken into the area via a CWS four-wheel-drive vehicle and returned via a CWS chartered helicopter which was in the area in conjunction with another project.

The area studied has been strongly influenced by mining exploration activities in the past, and there are numerous access trails, cut-lines, trenches, and abandoned airstrips in evidence at this time. There are, however, no known plans for major developments in the immediate future, and bird studies in that area were not seen as a priority within the CWS Habitat Assessment Program. There is however a continuing need to obtain baseline information on migratory birds and their habitats in many of the lesser-known areas of the Territory, and Mr. Frisch's demonstrated abilities (see Frisch, Robert, 1982, Birds by the Dempster Highway), his desire to conduct surveys in the Dawson Range, and the very minor resource commitment on the part of CWS are seen as justification for the informal agreement.

The attached is the report submitted by Mr. Frisch following his field activity. I have taken the liberty of incorporating minor editorial revisions while retaining the basic substance of the original text.

Malcolm Dennington
Canadian Wildlife Service
Whitehorse, Yukon

April 18, 1983

THE AREA

The area visited is situated in the south-eastern part of the Dawson Range, approximately fifty air miles north-west of Carmacks, and extends from $62^{\circ}18'$ to $62^{\circ}27'$ North latitude and $137^{\circ}16'$ to $137^{\circ}00'$ West longitude.

The terrain traversed lies mostly above timberline and includes some of the highest peaks in the Dawson Range at 6000+' ASL. Roughly fifty miles of terrain was traversed, at elevations from 3300' to 6400'.

The topography is moderately rugged, with flat-topped ridges (Rockpile Ridge)* and mountains (Prospector Mountain) over-topping wide, gently sloping valleys. Steeper slopes characterize Klazas and Apex Mountains and adjacent summits. Steep, V-shaped valleys are largely confined to the Bow Creek drainage east of Klaza Mountain, and to the northern tributaries of upper Big Creek, while the drainage into the Klaza River shows very gradual inclines.

Timber-line is at 4000' - 4300' but very discontinuous, and scattered trees occur to over 4500' (much of the green area shown on 1:250,000 NTS mapsheets is, in fact, treeless). The shrub zone extends to about 5000'. Most of

* For ready reference, the 5000+7 ridge, oriented in an east-west direction, north-west of Klaza Mountain is here named "Rockpile Ridge", and the block of mountains between Prospector and Apex Mountains is referred to as "Miner Mountains". Neither are named on the NTS mapsheets.

the alpine zone is vegetated. Scree, talus, rock fields, and some rock outcrop, often in the form of tors, cover a good part of the sloping terrain above 5000', and level terrain above 5500'.

The lithology appears to be largely metamorphic and/or igneous, (including some volcanics) and acidic in character as inferred chiefly from the vegetation --Empetrum nigrum, Saxifraga tricuspidata, and Oxytropis Huddelsonii. A few calciphiles were noted, including Rhododendron lapponicum and Oxytropis Jordallii.

The region appears to have been so far undocumented ornithologically, and interest stems from the fact that it lies at the southern limit of the Beringian refugium. This presumably applies to the vegetation in particular, but possibly also to the occurrence of the Surfbird, a species whose present distribution appears to be relatable to the refugium.

METHODS

The area was reached on June 2 by four-wheel-drive vehicle via the old mining road from Carmacks to Big Creek. The route shown in Figure 1 was traversed by foot between June 2 and June 10. All field equipment required was packed for the duration of the trip, and camps were established as per dates shown in Figure 1.

RESULTS

Weather and Plant Phenology:

The weather was warm with the exception of June 3, a windy day with some snow flurries above 5000'. Clear and cloudy skies occurred in about equal proportions, with thunder showers on one day. After June 5, nights were frost-free even at elevations above 5000' (at least on the nights when camp was made at those elevations). The late onset of spring in 1982 resulted in presumably unusual persistence of snow above 5000'. The ridges to the west of the traverse route seemed largely snow-covered, and on the north slopes of "Rockpile Ridge" extensive snow was encountered down to about 4700'. Scrub birch (Beta glandulosa) was coming into leaf below 4700' on June 7 (excepting a few favoured sites encountered earlier). By that date, precocious willows (especially Salix lanata and Salix alaxensis) were in full bloom to the limit of occurrence at about 4300' (an index of the lateness of the season). Douglasia Gormanii (typically the earliest flower in the alpine zone) was in full bloom wherever encountered, with some blooms beginning to fade, but most other early alpine plants were just coming into bloom during the first days of the trip.

Habitats and Birds Observed

1. Timberline Zone East of Klaza Mountain

(Elevation approximately 4000' - 4500'). This habitat was traversed during the afternoon of June 2 and the morning of June 3 (timberline was again traversed in the valley of upper Big Creek and at the head of Hayes Creek but, except for localized patches, the vegetation seemed significantly different from that of the Klazas Mountain timberline. Also, the timberline habitat type was more extensive at Klaza Mountain than at Big Creek and Hayes Creek).

This area was characterized by dry, mostly open, spruce woods (white spruce), much scrub birch (Betula glandulosa), and some willow (Salix glauca, S. planifolia, S. lanata) and alder (Alnus crispa), and a groundcover dominated by Empetrum nigrum, Vaccinium vitisidaea, and Ledum palustre. On dry grassy openings exceptionally fine Pulsatilla patens were in full bloom. The only other flowers in full bloom were Eriophorum spp. (possibly also Carex spp.) and Anemone parviflora, noted in a few wetter sites, and on bare shaly ground above timber Douglasia Gormanii. Oxytropis Huddelsonii (?) was coming into bloom in the latter sites (a species of possible interest, if correctly identified). Boggy tussocks areas occurred in saddles and on some poorly drained slopes.

Birds Observed

Rather few birds were observed in this habitat. (In my experience it tends to be rather poor bird habitat wherever encountered). Species thought to be specifically associated with this habitat are marked with an asterisk. Brackets indicate less definite association.

Willow Ptarmigan*	1.
Upland Sandpiper*	Pair, appeared on territory, on expanse of open hummocky terrain with low shrub and some small spruce (typical habitat) June 2 - 3.
Common Raven	2 in overflight, June 3.
Grey Jay(*)	A few on June 2; heard June 3.
Am. Robin*	A few (only) June 2, 3.
Townsend's Solitaire*	Noted twice by outcrops (tors)(Figure 1) singing actively, June 3 (when most other birds were silent, presumably due to the weather).
Yellow-rumped Warbler*	Fairly many (about 7) in spruce woods (several seemed migrating), June 2; 1 or 2 in last spruce, June 3.
Wilson's Warbler	2, apparently migrating, June 2 (atypical habitat, no singing).
Pine Grosbeak*	Heard once, in woods, June 2.



FIGURE 1.

Rocky outcrops N.E. of Klaza Mountain, typical habitat
of Townsend's Solitaire.

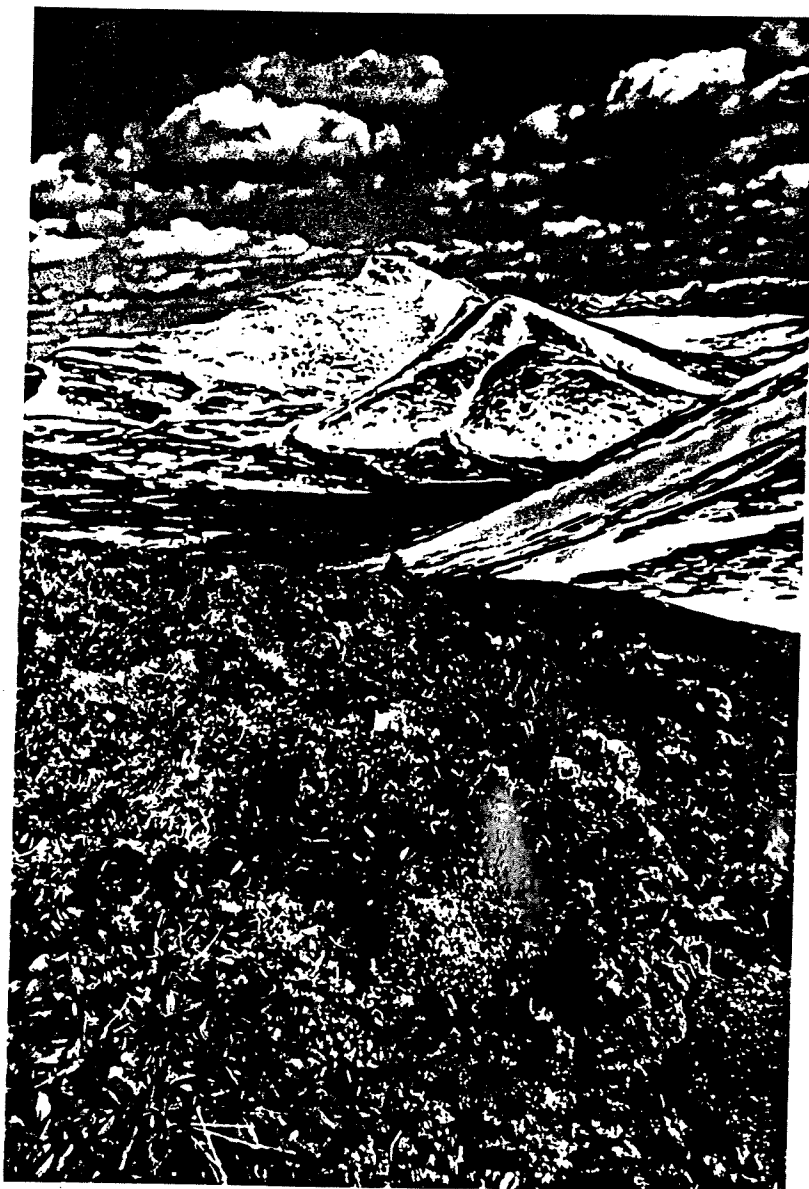


FIG. 12.

Habitat type 2 (alpine heath tundra), north of Klaze Mountain.

Common Redpoll*	(Assumed to be common R.) once or twice in overflight, June 2, 3.
Dark-eyed Junco*	Many (about 10) June 2; a few in last spruce, June 3.
White-crowned Sparrow*	A few, June 2; several (most common species) in fringe of timber, June 3.

Missing expected species: Am. Tree Sparrow - expected at limit of timber.

2. Alpine Heath Tundra

This habitat was traversed June 3 - 4, north and northwest of Klaza Mountain (Figure 2), and June 7 - 10 in the "Miner Mountains" and adjacent parts of Prospector Mountain. It was best developed on the southern spurs of the "Miner Mountains", and also appeared to occur on Klaza Mountain itself and to the southeast (from inspection through binoculars).

Typically the habitat consisted of thin Dryas-lichen heath on dry stony ground. Other characteristic plants were dwarf oxytropes (*O. Huddelsonii?*), dwarf willows (*Salix arctica*, *Salix reticulata*), low graminoids (*Douglasia Gormanii*, *Minuartia* spp. and *Drabba* spp.), patches of bell heather (*Cassiope tetragona*), and two species of apparent distributional interest, *Draba densifolia* (my provisional

identification) (Figure 3) and an unidentified dwarf umbellifer resembling Podistera yukonensis. (D. densifolia seems undescribed from the Yukon; the umbellifer requires identification). Towards 5500' this vegetative cover tends to become discontinuous, with much stony/rocky ground exposed. No heath of this type was seen above 5700', while downslope towards 4500' thicker mossy cover with some shrub tended to take over, especially on north or northeast facing slopes. Minor tussock/hummock areas occupied poorly drained sites. Talus occurred locally, but was extensive only in the area north and northeast of Klaza Mountain (north head of Magpie Creek and east extension of "Rockpile Ridge"). The heath seemed notable for its thinness and its richness in flowers, including the apparently rare species mentioned. The umbellifer was seen only in the "Miner Mountains". Of areas I know, it most resembles the heath in the southern Richardson Mountains. Unfortunately, the area where it was best developed, the south spurs of the "Miner Mountains", was severely degraded by cat trails and stripped ground, apparently dating from the previous season. Much of the scarring was evidently due to unnecessary driving off the main cat roads. A grizzly sow with three cubs was encountered in this area.



FIGURE 3.

Draba densifolia (provisional) on Prospector Mountain
at elev. 5500'.



FIGURE 4.

Headwaters of Maggie Creek where 7-9 pairs of Surfbirds
were noted.

Birds Observed

As is typical for this habitat, only two species likely to breed there were encountered, Surfbirds and Horned Larks. The others, even the numerous pipits, were presumably using it as feeding areas or for territorial activities, or passing through. The species thought to be specifically associated with this habitat are marked with an asterisk. Brackets indicate less definite association.

Rock Ptarmigan* A total of 3 were seen in this habitat. Many of the remaining sightings of this species were in neighbouring rocky or hummocky terrain, and the nest found on June 9 was just below the heath in the upper shrubzone.

White-tailed
Ptarmigan A cock was briefly seen in this habitat at night, June 10.

Golden Plover A few were seen at the north head of Magpie Creek, June 3, as well as in the "Miner Mountains", June 9. The birds seem only periferally associated with this habitat.

Surfbird* An estimated 7 to 9 pairs were noted, 3 to 4 in the mountains at the north head of Magpie Creek (Figure 4) and northwest

of there, 4 - 5 in the "Miner Mountains" including the west end of the spur to Prospector Mountain. (This very rough estimate seems comparable to or in excess of the estimated population densities in the South Ogilvies or South Richardsons). The birds displayed actively and were evidently on territory. Ground observations were all from between 5200' and 6000', the latter on rock-rubble (the same elevations are favoured in the Ogilvies and the upper Sixty-Mile area.

The occurrence of the species in this area constitutes a new southern limit of its occurrence in the Yukon (and if a true limit is of interest in coinciding with the southern limit of the Beringian Refuge).

Short-eared Owl(*) 1 flying by, apparently hunting, June 9, "Miner Mountains".

Bank Swallow A few flying northwest, apparently migrating, June 9, "Miner Mountains".

Cliff Swallow A few flying northwest, apparently migrating, June 9, "Miner Mountains".

- Swallow sp. A few flying northwest, apparently migrating, June 9, "Miner Mountains".
- Common Raven 1 seen flying overhead in this and other habitats in the "Miner Mountains". (Date lacking).
- Horned Lark* Common in "Miner Mountains", but relatively few were noted elsewhere in this typical lark habitat (more were seen on "Rockpile Ridge" in relatively hummocky terrain). One nest with 4 eggs, June 8, "Miner Mountains".
- Water Pipit(*) This seemed to be the commonest species in this habitat (as in the alpine zone throughout), though it no doubt breeds mainly in the adjacent hummocky and mossy terrain.
- Common Redpoll(*) A few (small bands to 5 individuals) were seen foraging in this habitat (Those identified or in overflight in the "Miner Mountains" on June 8 and 9 were Common Redpoll).
- Gyr Falcon(*) 1 in overflight, northwest of north head of Magpie Creek, June 4.

3. Hummock/Tussock Tundra

Hummocky tundra, generally with minor decumbent shrub to around 5500', was encountered throughout the alpine zone. The ground tended to be rather wet, but probably often due to run-off from snowmelt. This type of terrain dominated the "Rockpile Ridge" and round and west of "Rockpile Mountain" (June 5 - 6) (Figure 5), the ridge culminating in Prospector Mountain (June 9), and several slopes and ridges in the "Miner Mountains", especially above 5500' (June 8). A stretch of dry hummocky terrain with open birch scrub characterized the "Rockpile Ridge" east of "Rockpile Mountain".

Tussock tundra was largely confined to saddles and depressions (but tussocks in varying proportions occurred in all areas of hummock tundra). Above 5500', mineral soil and stony or rocky ground with marked cryoturbation features became prominent.

Ericads and sedges (Carex, Eriophorum), with moss and lichen, were the dominant vegetation. Low shrub (mainly Salix planifolia, also Betula glandulosa) was generally found scattered among (or on) the hummocks, with some Salix to 5500' and higher.

Of botanical interest was the local but widespread occurrence of Primula tschuktschorum (Figure 6) at seepages in this habitat, in full bloom to 6000'.



FIGURE 5.

Habitat type #3 (Hummock/Tussock Tundra) on "Rockpile Ridge", N.E. of Klaza Mtn. This was one of the better bird habitats in terms of both species and numbers observed.



FIGURE 6.

Primula tschuktschorn at 6200' on Prospector Mtn. The species was widespread, at seepages, in this area.

In the area visited, hummocky tundra appeared to be the most widespread habitat type in the alpine zone.

Birds Observed

This habitat seemed to be the richest in birds (both species and numbers), especially on "Rockpile Ridge". (In contrast, in the Ogilvie and Richardson Mountains, the shrubzone seems the richest, at least in bird numbers). The species thought to be specifically associated with this habitat are marked with an asterisk; brackets indicate less definite association.

- | | |
|---------------------|--|
| Rock Ptarmigan* | Several (3-6) seen daily in this habitat especially in the drier or rockier parts (east section of "Rockpile Ridge" and in the "Miner"-Prospector Mountain area. |
| Golden Eagle(*) | 1 seen June 6 in the distance above Prospector Mountain, apparently in part above this habitat. |
| Northern Harrier(*) | 1 seen June 3 hunting above this habitat near Klaza Mountain. |
| Merlin(*) | 1 seen June 5 flying low above this habitat near "Rockpile Mountain". |

- Golden Plover* Occasional to common in this habitat. The commonest non-passerine on "Rockpile Ridge", where some 2 to 3 dozen were seen. A few were seen in the mountains east and southeast of the ridge (north head of Magpie Creek), as well as in the "Miner Mountains". Some were noted on stonier terrain above 5500'. No migrant flocks were noted.
- Upland Sandpiper(*) Several pairs occurred below and west of "Rockpile Mountain" on "Rockpile Ridge", always near the shrubzone.
- Whimbrel* A pair seemed on territory on "Rockpile Ridge" just west of the benchmark 5129' (Prospector Mountain Map Sheet 1:50,000) in typical hummock-tussock tundra habitat (nearest known breeding areas I believe are the Burwash Uplands and the Dempster Highway, km 96). Seen June 6.
- Long-tailed Jaeger* An obviously territorial pair observed in wet tussock-hummock tundra at 5000' at the north head of Magpie Creek, June 4 and 5. Singles were seen June 3, 5, & 6, at distances to 10 km from the occupied site. (The nearest breeding

- sites known to me are in the Ruby Range and at North Fork Pass, Dempster Hwy.)
- Horned Lark* Common - unusually so for this often wet habitat - especially on "Rockpile Ridge" (however, dry areas were always present, and presumably became more extensive after the snowmelt).
- Cliff Swallow 1 flying near "Rockpile Mountain", June 5, apparently migrating.
- Common Raven(*) A pair, June 5, near "Rockpile Mountain" overflying this habitat.
- Water Pipit Common, the most common species, in evidence most of the time throughout this habitat. One nest with 4 eggs found on June 8 in the "Miner Mountains".
- Common Redpoll Several daily, especially on "Rockpile Ridge" and in the "Miner Mountains", mostly in overflight.
- Savannah Sparrow Noted a few times daily in tussock areas in the lower shrubbier part of this habitat zone (seemed somewhat less numerous than in corresponding habitat in the south Ogilvies).
- Am. Tree Sparrow The odd one was noted in shrubby parts of this habitat near the true shrubzone.

Smith's Longspur

Seemed quite common around and west of "Rockpile Mountain" on "Rockpile Ridge", in hummocky and generally quite shrubby areas (low or decumbent shrub above the actual shrubzone). 8 or more males were seen or heard singing in this area, June 5 and 6. A few, males and females, apparently migrating, were seen June 3 by Klaza Mountain. (The nearest known breeding areas are I believe the Burwash Uplands and North Fork Pass in the South Ogilvies).

Lapland Longspur

A male and a female separately, plus a pair nearby (less than half a kilometre away and quite possibly the same birds) were seen on "Rockpile Ridge" near the 5129' benchmark (cf. entry on Whimbrel). The habitat here was rather wet hummock-tussock tundra, much of it shrubless. No singing was heard during my presence from 11:00 A.M. to 1:00 P.M., June 6. (The nearest breeding area known to me is North Fork Pass, South Ogilvies. The present site seems a likely breeding location).

Missing expected species: Common Snipe. However, very few were noted on several visits in June to the northward extensions of the Dawson Range in the Dawson Plateau by the upper Sixty-Mile near Boundary. (Weeden 1960 found none on Chilkat Pass, and Hoefs 1973 found the species only "occasional" in the Kluane Game Sanctuary). I also expected to see the odd migrant Baird's Sandpiper.

4. Rocky Areas

Rocky areas formed a minor component of the terrain traversed except in the block of mountains northwest of Klaza Mountain (north head of Magpie Creek and mountains towards "Rockpile Ridge") (Figure 7) and in the mountains towards Apex Mountain, where talus and stony tundra were widespread. There may be a negative bias in this impression estimate due to the avoidance of talus when hiking, and rocky ground may well occupy a third of the alpine terrain. Most of the rocky terrain traversed was stony or rocky tundra with local outcrop (including tors) on ridgetops, where this terrain type was generally prevalent above 5500' (with sparsely vegetated hummock tundra). Tors were prominent on "Rockpile Ridge", "Rockpile Mountain" being essentially a wasted tor; they also occurred locally in the shrubzone down to timberline (as in Habitat Type 1) east of Klaza Mountain.



FIGURE 7.
Habitat type #3 and #4 (Rocky Areas) in the "Rockpile
Ridge" area.

Species Observed

Rocky areas support rather few bird species, talus being the least utilized habitat type. The habitat association is nonetheless quite strict in some cases (Rosy Finch, Townsend's Solitaire, Say's Phoebe), so these areas and their birdlife are here treated separately. The species specifically associated with this habitat are marked with an asterisk; brackets indicate less definite association.

Golden Eagle	Sightings of this species (total 6) were often above this habitat.
Gyr Falcon	The bird listed under Habitat 2 (near north head of Magpie Creek, June 4) also overflowed this habitat.
American Kestrel	1 hunting above Prospector Mountain at about 6500', June 9.
Rock Ptarmigan	Often encountered near, and sometimes on, rocky ground.
White-tailed Ptarmigan	A cock was seen June 9 on a tor west of Prospector Mountain. The surrounding habitat, though rather barren, seemed possibly breeding habitat.
Golden Plover	3 were seen (2 male, 1 female) on stony ground at 5500' at the north head of Magpie Creek, June 3. The birds were

displaying (territorial calls) and feeding.

- Surfbird(*) Occasionally seen foraging or displaying on rocky ground including talus slopes to 6000'.
- Say's Phoebe* 1 (only!), "Rockpile Mountain" at 5700'. The bird seemed on territory.
- Townsend's Solitaire* Most solitaires occurred by outcrops at timberline, where they seemed a fairly regular species. Some were encountered in the alpine zone to 6000', generally singing actively ("Rockpile Mountain", Prospector Mountain).
- Horned Lark(*) Commonly seen on rocky ground adjacent to the usual tundra habitat, to 6000'.
- Water Pipit(*) Sometimes seen on rocky ground adjacent to the usual tundra habitat, to 6000'.
- Grey-crowned Rosy Finch* The species seemed infrequent, and was not seen north of Big Creek. It was heard twice north and northwest of the north head of Magpie Creek, and one was seen on "Rockpile Mountain". All occurrences were in rocky areas above 5500'.
- Common(?) Redpoll A few were seen in rocky areas to about 5800' (no doubt they were Common Rs.).

Missing expected species: Wheatear (occurs in Kluane area, south Ogilvies, and on tors in the upper Sixty-Mile region); Snow Bunting - could possibly occur in highest rocky parts of Dawson Range, especially north-facing cirques (occurs in St. Elias Mountains and south Ogilvies).

5. Shrubzone

The shrubzone was traversed or skirted daily. Most places it was best developed (dense shrub without trees) from about 4300' to near 5000', generally apparently irrespective of slope aspect. The tallest densest shrub occurred by creeks, in draws, and at timberline. In places, belts of shrub extended to below 3500', as on the north-facing slopes of upper Big Creek (Figure 8). Over wide areas where timberline was diffuse, shrub seemed the most extensive habitat, as for instance in the upper Klaza River drainage (viewed from "Rockpile Ridge"). Along the route, it was most extensive on the south slope (north-facing) of the upper Big Creek valley.

Dominant shrubs were Salix spp., Salix planifolia (wet areas), Salix lanata (draws), Salix glauca (drier sites), Betula glandulosa (very widespread, also on wetter sites). Some Alnus crispa was also seen. The ground, especially on north-facing slopes, tended to be very hummocky, with thick moss and grasses on apparently old



FIGURE 8.

Habitat type #5 (Shrubzone) in the upper Big Creek valley.

aggraded colluvia. Carex-Eriophorum tussocks were on the whole relatively less prominent.

As usual, the best bird habitat was along creeks, where varied terrain and cover provided a variety of niches. Few birds were seen in areas dominated by extensive low birch scrub. Plants of interest were Primula tschuktschorum, locally down to 4300' by creeks and runnels, with some blooms already fading June 10; Gentiana algida(?), common by creeks, especially the north head of Magpie Creek (if correctly identified from last year's fruiting capsules) and one occurrence of Synthyris borealis in full bloom at 4500' on a moss-earth site in this very atypical habitat.

Species Observed

The species specifically associated with this habitat are marked with an asterisk. Brackets indicate a less definite association.

Northern Harrier*	1 east of Klaza Mountain, June 3 (same bird as noted under Habitat Type 3).
Willow Ptarmigan*	Only a few were noted (total about 10), all in this zone throughout the region.

- Rock Ptarmigan(*) A nest with 4 eggs was found several hundred feet down in the shrubzone, "Miner Mountains", June 9 (otherwise the species was seen in alpine zone only).
- Upland Sandpiper* Noted widely but sparsely (total about a dozen pairs) in areas with open shrubbery, or open areas within the shrubzone (often birds were moving between this zone and adjacent hummocky tundra).
- American Robin* Common in all areas with tall shrubbery.
- Grey-cheeked Thrush* Noted only twice, in areas with tall shrub on south slope of upper Big Creek valley, June 6 (singing briefly once only).
- Townsend's Solitaire(*) Those seen by outcrops within the shrubzone are mentioned under 'Rocky Areas'.
- Wilson's Warbler* Fairly common in taller shrubbery (about shoulder-high) throughout the zone.
- Common Redpoll* Several daily, especially on "Rockpile Ridge" and in "Miner Mountains", most often around this zone. At least 1 pair showed territorial alarm behaviour. Because of 'flighty' habits the species is hard to allocate to one particular zone, but normally breeds in shrubzone.

- Savannah Sparrow* Widespread but apparently rather uncommon in hummock-tussock areas with low shrub (more were seen in more open ground above shrubline).
- White-crowned Sparrow* Common most places in taller shrub.
- Tree Sparrow* Common most places, but not noted east of Klaza Mountain (elsewhere the most common species in this habitat).
- Lincoln's Sparrow* 1 only, singing at timberline in upper Big Creek valley, June 10.

Missing expected species: Fox Sparrow, Golden-crowned Sparrow, Orange-crowned Warbler (not a typical shrubzone species), Yellow Warbler (may have been late arriving that season).

6. Woods

Aside from the ridgetop timberline woods east of Klaza Mountain (Habitat Type 1), woods were traversed on crossing the valley of upper Big Creek, June 6 and 7. Two main types of forest were encountered: (a) boggy spruce forest on the north-facing (south) slope (June 6), and (b) montane-type spruce forest on the south facing (north) slope (June 7). In addition, there was minor riparian bench forest

along the creek and its lower branches. Open grass-sage-aspen bluffs, well developed on lower south-facing valley slopes downstream of the route, were not traversed.

The bog forest (a) was open white spruce taiga with a very hummocky to tussocky floor and many slanted trees (drunken forest). Despite the poor drainage and aspect, no black spruce were noted. Ground cover was mosses with lichen, sedge, horsetail (Equisetum pratense), labrador tea, bog blueberry and some red bearberry (Arctostaphylos rubra). The willow-scrub birch understory was of about average density (for central Yukon boggy forest). Towards the valley bottom thickets of scrub birch-willow on wet hummocky terrain, and scrub birch on dry hummocky terrain, replaced much of the continuous forest, leaving just isolated spruce. A belt of fairly dense willow-scrub birch thicket infiltrated the forest at timberline, and locally extended to the valley floor. Taken as a whole, the bog forest seemed remarkable for supporting apparently pure stands of white spruce on strongly frost-heaved terrain, in a biotope that seemed of advanced age (deep vegetative ground cover, large hummocks with dry tops, large tussocks, old trees).

The montane-type forest (b) seemed fairly typical for this forest type on well drained slopes in the central Yukon, with fairly dense canopy white spruce mixed with some

birch, an open willow-scrub birch understory, and groundcover dominated by mosses, horsetail, linginberry, crowberry, with some lupine, toadflax (Geocaulon) etc. Relatively treeless thickets were lacking; timberline was much as in (a).

The narrow valley floor was occupied by small stands of riparian white spruce (the typical relatively tall well-developed trees) with a few cottonwoods, early succession willow-cottonwood-whitespruce associations, and tall willow thickets with some alder (occasional alder occurred in all the communities to timberline, if I recall correctly). Some boggy scrub birch flats occurred upstream along the route. There was little open ground (meadows, glades, bars).

Species Observed

Unusual numbers of Tree Sparrows were seen in the bog forest (a). Robins too were common (again because of the shrubby areas, no doubt). On the other hand, not one Yellow-rumped Warbler, or Kinglet, was seen in this forest (see also 'Missing Expected Species' below). On the whole, forest species seemed under-represented. An asterisk marks the species specifically associated with this habitat. Brackets indicate less definite association.

- Golden Eagle(*) 1 quartering along aspen bluffs near valley bottom, June 6.
- American Kestrel* A pair repeatedly seen over valley bottom, June 6 - 7.
- Upland Sandpiper* A pair was apparently on territory June 6 - 7 in a shrubby opening in the bog forest near the bottom of the valley (the densest shrub I have seen this species in).
- Common Flicker* 1, near valley bottom, June 7.
- Grey Jay* Noted only once, at timberline in the montane forest June 7 (but subsequently heard from the alpine zone at timberline below).
- Common Raven(*) Seen in overflight along valley at least once (notes deficient).
- Boreal Chickadee* Noted once, in montane forest, June 7.
- American Robin* Appeared common throughout the bog forest, and at timberline in the montane forest; some also in the valley bottom.
- Ruby-crowned Kinglet* Noted once, in montane forest, June 7.
- Yellow-rumped Warbler* Noted only once, in montane forest, June 7.

Wilson's Warbler*	Several noted on both June 6 and 7, in thickets near timberline and by creeks.
Dark-eyed Junco*	Common in the bog forest (the commonest species); a few in the montane forest; to timberline in both.
Am. Tree Sparrow*	Noted throughout the bog forest (second most common species there, mainly in the open areas); some in valley bottom, and common again at timberline of montane forest.
White-crowned Sparrow*	Several in bog forest, valley bottom, and at timberline in montane forest.

Missing Expected Species: Varied Thrush!; Grey-cheeked Thrush, Fox Sparrow; also Lincoln's Sparrow, Yellow and Orange-crowned Warbler, White-winged Crossbill, Bohemian Waxwing.

7. Creeks

The only major creek along the route was Big Creek (upper course) (Figure 9), which was followed for about 4 km on June 7. Minor creeks encountered were two tributaries of upper Big Creek (June 7), and the north head of Magpie Creek (June 4, 5). Due no doubt in large part to snowmelt, Big Creek carried a considerable volume of water and did not

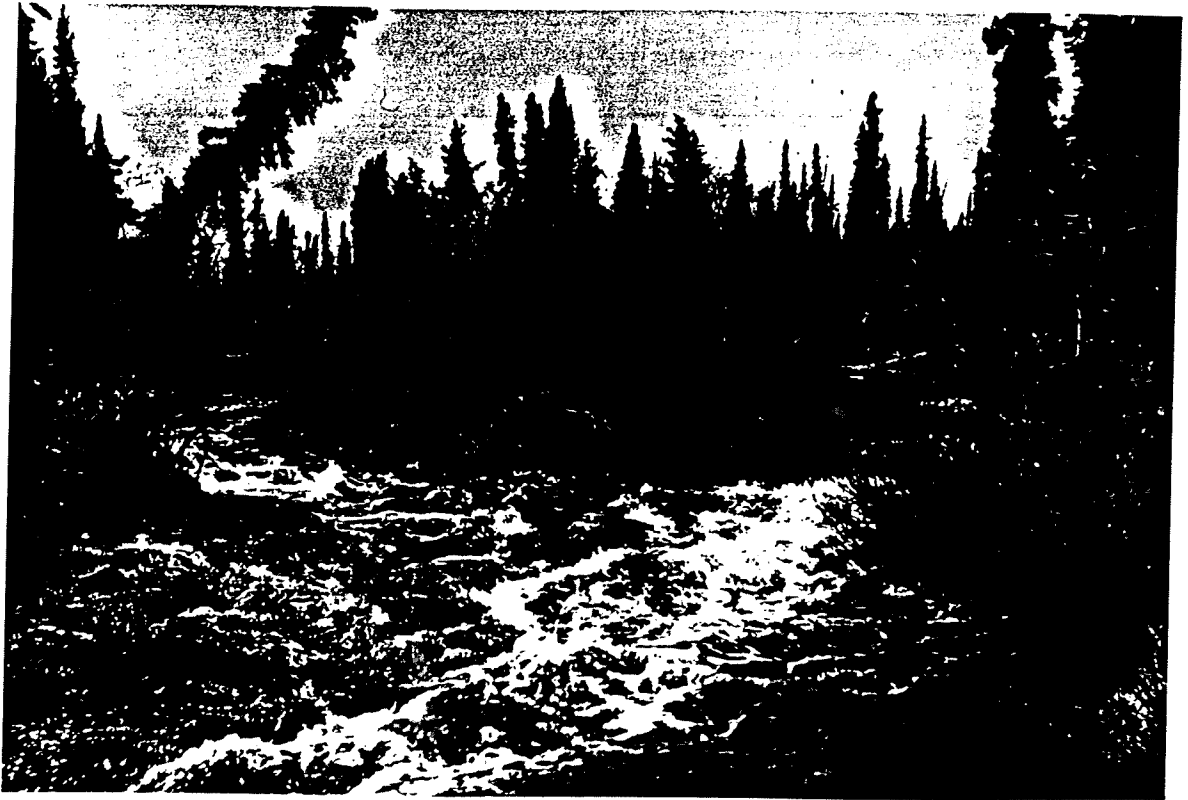


FIGURE 9.

Habitat type "7 (Creeks), in shrubby woods. Upper Big Creek.

look readily fordable in most places. To judge from stream-bed and bench development, the unnamed northwest headwater branch of Big Creek is in fact the main creek, the named west branch being a much narrower watercourse (6 - 12' wide near the mouth) lacking major bench habitat, though it seemed to carry a comparable volume of water.

Disregarding the southwest branch, upper Big Creek is a swift bouldery watercourse about 20 to 30 feet in width through a narrow valley floor, with few braids and little bar or flood-plain development and little Aufeis (one small area was encountered). Younger benches support willows (some alder) and early succession cottonwood-white spruce (for riparian woods see "Woods").

Of botanical interest seemed Primula sibirica, locally abundant on turfy sites on benches.

Species Observed

Only strictly riparian species are considered.

Spotted Sandpiper 2 time, singles, June 7.

Belted Kingfisher 1, June 7.

Missing Expected Species: Harlequin Duck, American Dipper (there seemed too few gravel bars for Wandering Tattlers to be expected).

APPENDIX I BIRD SPECIES OBSERVED IN THE KLAZA - PROSPECTOR MOUNTAINS AREA OF THE DAWSON RANGE
June 2 - 10, 1982

Bird Species Observed	Wooded Timberline Zone E of Klaza Mt.	Alpine Heath Tundra	Hummock/ Tussock Tundra	Rocky Areas	Shrubzone	Woods	Creeks
Willow Ptarmigan							
Rock Ptarmigan		C	C	C	U		
White-tailed Ptarmigan		U		U	(nest)		
Golden Eagle			U	U			
Northern Harrier			U		U		U
Gyr Falcon		U		U			
Merlin			U		U		
American Kestrel			U	U			
American Golden Plover		(C)	C			U	
Surfbird		C		(C)			
Upland Sandpiper	C		C		C	C	
Whimbrel			U				
Spotted Sandpiper							
Longtailed Jaeger		(U)	U	(U)			U
Short-eared Owl		U					
Belted Kingfisher							
Common Flicker							
Say's Phoebe				U			
Horned Lark		C	C	(C)		U	
Bank Swallow		(of), U					
Cliff Swallow		(of), U					
Swallow sp.		(of), U					

C - Common (more than about 3 daily in habitat)
U - Uncommon (less than about 3 daily in habitat)
Brackets indicate untypical habitats
(OF) - in overflight, alpine zone

APPENDIX I BIRD SPECIES OBSERVED IN THE KLAZA - PROSPECTOR MOUNTAINS AREA OF THE DAWSON RANGE (Continued)
June 2 - 10, 1982

Bird Species Observed	Wooded Timberline Zone E of Klaiza Mt.	Alpine Heath Tundra	Hummock/ Tussock Tundra	Rocky Areas	Shrubzone	Woods	Creeks
Common Raven	U	U	U			U	
Grey Jay	U					U	
American Robin	C				C	U	
Grey-cheeked Thrush					C	C	
Townsend's Solitaire	C			C	C		
Boreal Chickadee						U	
Ruby-crowned Kinglet						U	
Water Pipit		C	C	(C)			
Yellow-rumped Warbler	C*						C*
Wilson's Warbler	(C)				C		C
Pine Grosbeak	U						
Grey-crowned Rosy Finch							
Common Redpoll		C		U			
Savannah Sparrow			C		C		
Dark-eyed Junco	C		C		C		
White-crowned Sparrow	C					C	C
American Tree Sparrow					C	C	C
Lincoln's Sparrow					C	C	
Smith's Longspur			C*		U		
Lapland Longspur			U		C*		

C - Common (more than about 3 daily in habitat)
U - Uncommon (less than about 3 daily in habitat)
Brackets indicate untypical habitats
* - Locally