

KOOTENAY NATIONAL PARK  
P.O. BOX 220  
RADIUM HOT SPRINGS, B.C.

THE BIRDS OF KOOTENAY NATIONAL PARK

1st Report (1965) of Fieldstudies  
Conducted

by

K.E. Seel,  
Park Naturalist

A note of appreciation to all  
those who directly or indirectly  
helped compile the fieldnotes  
and specimen.

K.E.S.

The Birds of Kootenay National Park

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# THE BIRDS OF KOOTENAY NATIONAL PARK

by K.E. Seel,  
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## First Report (1965)

### Introduction:

Little is known of the bird population of Kootenay National Park, whether resident or migrant. Much less has been printed about it. As far as can be ascertained, members of the University of British Columbia were the first researchers to present a preliminary report on the birds and mammals of the area under discussion here (J.A. Munro and I. McTaggart Cowan, 1943)\*. No subsequent reports are available. The Canadian Wildlife Service's booklet, "Birds of Canada's Mountain Parks" marks the first attempt to bring a rather generalized, if not incomplete, guidebook of bird fauna to the casual park visitor (J.A. Munro, 1950). This booklet was supplemented by a "Provisional Bird Checklist for Western National Parks." Neither of the latter publications were specific about the birds to be found in Kootenay National Park.

With increased public interest in the natural history of National Parks, it became increasingly evident that further field work would be required to provide missing information and data.

This "first report" is the result of a serious attempt to record the avi-fauna of Kootenay National Park and marks the beginning of a long-range research project in this field. Observations noted and specimen collected are far from presenting a complete list. The study period covered here ranges from January to December, 1965 and is supplemented by data collected sporadically from 1960 to the present. To provide a ready comparison between the semi-arid southwest portion of the park and the adjacent wetlands and sloughs of the Columbia River drainage system, a listing of birds frequenting a limited area of these wetlands has been added.

### Physiography:

Kootenay National Park is situated in south-eastern British Columbia, between the semi-arid Rocky Mountain Trench (Columbia River Valley) and the Continental Divide, which also marks the provincial boundary between Alberta and British Columbia. The area contained in the park, 543 square miles, was set aside as a National Park in 1920 to preserve the fauna, flora and scenic values along the Banff-Windermere Highway, then under first construction.

The park provides a cross-section of the western sector of the Rocky Mountain System, straddling the Western Front Ranges (Brisco and Stanford) and various ranges of the Main Range (Mitchell, Vermilion, Hawk Ridge, Ball Mountain Group and Bow

\* See Appendix

Range). The ranges listed are separated by lateral valleys, roughly parallel to the Rocky Mountain Trench in alignment. The main valleys, the Kootenay and Vermilion Valleys, are the watersheds and sources of the Kootenay and Vermilion Rivers. They are broad U-shaped valleys, well forested, providing a variety of habitats. Although present, lakes and marshes are not numerous. The highway enters the park from the Columbia River Valley at an elevation of 3,011 feet above sea level; it crosses Sinclair Pass (4,875') and crosses the Vermilion Pass into Banff National Park at an elevation of 5,382 feet above sea level. Climatic conditions and their subsequent effect on fauna and flora vary considerably, particularly with increase in elevation. This marked variance in elevation and climatic conditions has resulted in the formation of more or less distinct environments, the Biotic Areas or Life Zones.

#### BIOCLIMATIC ZONES:

At least twelve bioclimatic zones may be distinguished throughout British Columbia (Krajina, 1959).\* Of these, three are recognized in the park, the Interior Douglas Fir Zone (modified Dry Forest Zone), the Subalpine Engelmann Spruce - Subalpine Fir Zone, and the Alpine Zone (Alpine Tundra Vegetation Zone). Between the first and second zone listed, extends a broad belt of transition. It occupies valley bottoms mainly and reaches from the park's southern boundary to the vicinity of Kootenay Crossing and Wardle Creek. This transitional zone was subjected in the past to several extensive forest fires (1820-1927) and large infestations of bark beetles and needle miners (1936-1949; *Dendroctonus monticolae*; *Ips interpunctus*; *Recurvaria milleri*) which attacked the secondary successional conifer species Lodgepole Pine (*Pinus contorta latifolia*) mainly. Infestations and fires caused the environment to become modified to a considerable degree.

#### 1. Interior Douglas Fir Zone (modified Dry Forest Zone)

Only two small portions of the park along its southernmost boundary can be identified with this zone. There exists one limited area in each, the Columbia River Valley and the Kootenay River Valley. The elevational range lies between 2,800 and 3,500 feet above sea level. Annual temperatures may vary from 112°F in the summer to -50°F in the winter. Precipitation is light, averaging 15 inches annually, with snowfall presenting 26-35% of the total. 75 to 200 frost-free days are recorded yearly.

As there is a complete absence of Ponderosa Pine (*Pinus ponderosa*) this zone cannot be truly classified as belonging to the Dry Forest Zone. However, certain floral and faunal species of the Dry Forest Zone Association make their appearance in what shall be listed here as the Interior Douglas Fir Zone. The dominant and climatic climax tree is the Douglas Fir (*Pseudotsuga menziesii*). Associated edaphic climax trees are Western Larch (*Larix occidentalis*), Western Red Cedar (*Thuja plicata*) and Douglas Maple (*Acer glabrum*), Lodgepole Pine (*Pinus contorta latifolia*), Trembling Aspen (*Populus tremuloides*) and Rocky Mountain Juniper (*Juniperus scopulorum*), all of which have become established locally.

\* See References

Associated climatic climax plants are:

- (a) Shrubs - Saskatoon Berry (*Amelanchier alnifolia*), Dwarf Juniper (*Juniperus communis*), Crawling Juniper (*Juniperus horizontalis*), Common Bearberry (*Arctostaphylos uva-ursi*), Creeping Barberry (*Berberis repens*), Purple-flowered Beard-Tongue (*Penstemon fruticosus*), Wild Rose (*Rosa* sp.), Buffalo Berry (*Shepherdia canadensis*), White Flat-topped Spiraea (*Spiraea lucida*), Rubber Rabbit-Brush (*Chrysothamnus nauseosus*).
- (b) Herbs & Chamaephytes - Showy Purple Aster (*Aster conspicuus*), Pinegrass (*Calamagrostis rubescens*), Sedge (*Carex concinnoides*), Small-flowered Pussy's-Toes (*Antennaria parvifolia*), Large-flowered Gaillardia (*Gaillardia aristata*), Northern Bedstraw (*Galium boreale*), Wild Strawberry (*Fragaria* sp.), Twin-flower (*Linnaea borealis americana*), Arrow-Leaved Balsam Root (*Balsamorhiza sagittata*), Mariposa Lily (*Calochortus macrocarpus*), Bluebunch Wheat Grass (*Agropyron inerme*), Junegrass (*Koeleria cristata*), Wheeler Bluegrass (*Poa nevadensis*).

## 2. Subalpine Engelmann Spruce - Subalpine Fir Zone

With very few and limited exceptions, all park areas situated between an elevation of 3,800 feet above sea level and timberline, are generally regarded as belonging to this category. Exceptions occur mainly in the southern part of the park (Kootenay River Valley) where repeated fires and insect plagues have disrupted the forest's orderly succession severely. This has resulted in the formation of a broad transitional belt which will be discussed later.

Annual temperatures may vary from 98°F in the summer to -65°F in the winter. Precipitation is moderate, amounting to up to 60 inches annually, of which the snowfall presents 48-72% of the total precipitation. From 50 to 100 frost-free days may occur annually.

The typical climatic climax plant association of this zone is the Alpine Fir-Engelmann Spruce-Labrador Tea-Rhododendron association (*Abies-Picea-Ledum-Rhododendron*). In at least the lower elevations of this zone the Engelmann Spruce (*Picea engelmannii*) is the dominant conifer, while the Alpine Fir (*Abies lasiocarpa*) achieves dominance over the spruce near timberline. Associated edaphic climax trees are Lodgepole Pine (*Pinus contorta latifolia*), Whitebark Pine (*Pinus albicaulis*), Limber Pine (*Pinus flexilis*), Western Red Cedar (*Thuja plicata*), Douglas Maple (*Acer glabrum*), Alpine Larch (*Larix lyallii*) and several willows (*Salix* Sp.).

Associated climatic climax plants are:

- (a) Shrubs - Labrador Tea (*Ledum groenlandicum* & *Ledum glandulosum*), White Mountain Rhododendron (*Rhododendron albiflorum*), Mountain Ash (*Sorbus* sp.), Red-berried Alpine Blueberry (*Vaccinium scoparium*), Rusty Menziesia (*Menziesia ferruginea glabella*), Red Osier Dogwood (*Cornus stolonifera*), Dwarf Birch (*Betula glandulosa*), Dwarf Juniper (*Juniperus communis*), Spring Currant (*Ribes lacustre*).
- (b) Herbs & Chamaephytes - Queen Cup (*Clintonia uniflora*), Canada Dogwood (*Cornus canadensis*), Rattlesnake Plainain (*Goodyera repens*), Twinflower (*Linnaea borealis americana*), Stiff-interrupted Clubmoss (*Lycopodium annotinum*), One-sided Wintergreen (*Pyrola secunda*), Northern Mitrewort

(*Mitella nuda*), One-flowered Wintergreen (*Moneses uniflora*), Red Mountain Heath (*Phyllodoce empetriformis*), White Mountain Heather (*Cassiope mertensiana*), Red-berried Elder (*Sambucus pubens*), Foam Flower (*Tiarella unifoliata*), Western Meadow Rue (*Thalictrum occidentale*).

### 3. Alpine Zone (Alpine Tundra Vegetation Zone)

This zone comprises those areas of the park above the timberline or in excess of 6,500-7,000 feet in elevation and consists of high windswept meadows, exposed plateaus or barrens. Those sections of the Main Ranges of the Rocky Mountain System occurring in the park, support this life zone mainly in their upper and exposed parts. There are no climatological data available for this area and study and comparison is therefore curtailed. It can be inferred here, however, that climatical conditions may border extremes, temperature- and precipitation-wise. Nothing is known of the number of frost-free days that occur.

Because of this, a limited but much-varied plant association has become established, consisting of dwarfed shrubs, herbs and chamaephytes. The climatic climax plant association is recognized as Red Mountain Heath-White Mountain Heather Association (*Phyllodoce empetriformis*-*Cassiope mertensiana*).

- (a) Shrubs - Dwarf Willows (*Salix* sp.), Bog Laurel (*Kalmia polifolia*), Black Crowberry (*Empetrum nigrum*), Labrador Tea (*Ledum groenlandicum*), Black Twinberry (*Lonicera utahensis*), Red Mountain Heath (*Phyllodoce empetriformis*), White Mountain Heather (*Cassiope mertensiana*), Shrubby Cinquefoil (*Potentilla fruticosa*), Woolly Alpine Cinquefoil (*Potentilla ledebouriana*), Red-berried Alpine Blueberry (*Vaccinium scoparium*).
- (b) Herbs & Chamaephytes - Sedges (*Carex* sp.), Yellow-Flowered False Dandelion (*Agoseris glauca*), Pearly Everlasting (*Anaphalis margaritacea*), Yellow Mountain Avens (*Dryas drummondii*), White Mountain Avens (*Dryas hookeriana*), Golden Fleabane (*Erigeron aureus*), Cut-leaved Fleabane (*Erigeron compositus*), Mountain Sandwort (*Arenaria dawsonensis*), Nodding Pink (*Lychnis attenuata*), Alpine Forget-me-Not (*Myosotis alpestris*), Alpine Point-Vetch (*Oxytropis podocarpa*), Western Lousewort (*Pedicularis bracteosa*), Common Jacobs Ladder (*Polemonium pulcherrimum*), Yellow Mountain Saxifrage (*Saxifraga aizoides*), Red-stemmed Saxifrage (*Saxifraga lyallii*), Moss Campion (*Silene acaulis*), wild Valerian (*Valeriana sitchensis*), Paint Brushes (*Castilleja* sp.). This listing has been kept short out of necessity.

Two additional environmental zones of secondary and limited importance are worthy of a further mention. They are: (a) the belt of transition between the Interior Douglas Fir Zone and the Subalpine Spruce and Fir Zone; and (b) the Hydroseres found in the park.

- (a) The Transitional Belt - As already explained, this area was subjected to far-reaching disturbances of its plant and animal community. It has only been since 1941 that the community comprising the belt has attained what appears to be some stability. Following the forest fires and insect plagues of some years ago, the belt's reforestation, etc., was influenced considerably by the surrounding bioclimatic zones and their plant and animal communities.

It is because of this, that the transitional belt contains now certain characteristics of the Interior Douglas Fir and Subalpine Spruce and Fir Zones, as well as plants and animals associated with the process of secondary succession.

1. Trees - Douglas Fir (*Pseudotsuga menziesii*), Lodgepole Pine (*Pinus contorta latifolia*), Engelmann Spruce (*Picea engelmannii*), Western Larch (*Larix occidentalis*), Trembling Aspen (*Populus tremuloides*), Rocky Mountain Juniper (*Juniperus scopulorum*).
2. Shrubs - Dwarf Juniper (*Juniperus communis*), Red Osier Dogwood (*Cornus stolonifera*), Shrubby Cinquefoil (*Potentilla fruticosa*), Labrador Tea (*Ledum groenlandicum*), White flat-topped Spirea (*Spiraea lucida*), Red-berried Elder (*Sambucus pubens*), Redstem Ceanothus (*Ceanothus sanguineus*).
3. Herbs & Chamaephytes - Fireweed (*Epilobium augustifolium*), Western Wood Lily (*Lilium philadelphicum*), Large-flowered Gaillardia (*Gaillardia aristata*), Arrow-leaved Balsam Root (*Balsamorhiza sagittata*), Common Pink Wintergreen (*Pyrola asarifolia*), Fussy's Toes (*Antennaria* sp.), Windflower (*Anemone multifida*), Paint Brushes (*Castilleja* sp.).

- (b) Hydroseres - Only very limited areas can be classified as hydroseres in the park. Most of those found occur in the Kootenay River Valley, where glaciation has effected ponds, marshes and small lakes to become established by damming, or filling of kettles. To a limited degree, Beaver (*Castor canadensis*) have formed hydroseres along suitable streams. Annual flooding of the Kootenay River creates similar but temporary conditions which perhaps have their rightful mention in this paragraph as well.

Some members of the wetland plant communities are:

1. Trees - Engelmann Spruce (*Picea engelmannii*), Lodgepole Pine (*Pinus contorta latifolia*), Trembling Aspen (*Populus tremuloides*), Northern Black Cottonwood (*Populus trichocarpa*), Willows (*Salix* sp.), Northwestern White Birch (*Betula papyrifera*).
2. Shrubs - Dwarf Birch (*Betula glandulosa*), Wild Rose (*Rosa* sp.), Red Osier Dogwood (*Cornus stolonifera*), Shrubby Cinquefoil (*Potentilla fruticosa*).
3. Herbs, Chamaephytes & Hydrophytes - Sedges (*Carex* sp.), Water Lily (*Nuphar polysepalum*), Cattail (*Typha latifolia*), Yellow Mountain Avens (*Dryas drummondii*), Coltsfoot (*Petasites speciosa*), and flood-tolerant grasses, such as Bentgrass (*Agrostis stolonifera*), Venus' Slipper Orchid (*Calypso bulbosa*), Butterwort (*Pinguicula vulgaris*), Dwarf Can. Primrose (*Primula mistassinica*).

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#### Fieldwork Comments

Fieldwork and surveys were carried out as time permitted and as opportunities presented themselves. The areas studied were by necessity near the Banff-Windermere Highway; only on few occasions were notes taken in the outlying or



wilderness areas of the park. An accompanying map shows the areas studied to date. Those portions of the bioclimatical zones for which field notes have been compiled are shown in colour. Blank areas have not been investigated to any degree and will be the goal of investigations in years to come.

Altogether nearly 500 bird observations have been substantiated by field notes in 1965 alone. Of these, nine (9) birds were not identified with certainty, which, if shown in the following listing at all, will be succeeded by a question mark (?). No birds were collected through the use of firearms, nets or other devices. However, during the course of the year, thirty-one (31) dead birds or "road kills" were examined, and where the skins were not damaged beyond repair or recognition, added to the park reference collection.

#### REFERENCES

1. Munro, J.A., & Cowan, I. McTaggart, 1943 - Preliminary Report on the Birds and Mammals of Kootenay National Park, B.C. - CANADIAN FIELD NATURALIST, 58: 34-51.
2. Taverner, P.A., 1934 - Birds of Canada - NATIONAL MUSEUM OF CANADA, BULL. No. 72, Biol. Series 19.
3. Munro, J.A., & Cowan, I. McTaggart, 1947 - A Review of the Bird Fauna of B.C. - B.C. PROVINCIAL MUSEUM OF NATURAL HISTORY, SPECIAL PUBL. No. 2.
4. Johnstone, W.B., 1949 - The Birds of the East Kootenay, B.C. - B.C. PROVINCIAL MUSEUM OF NATURAL HISTORY, OCCASIONAL PAPER No. 7.
5. Krajina, V.J., 1964 - Ecology of the Forests of the Pacific Northwest - UNIVERSITY OF B.C., PROGRESS REPORT 1963, APPENDIX H: 71-87.
6. Krajina, V.J., 1959 - Bioclimatic Zones in B.C. - UNIVERSITY OF B.C. BOTANICAL SERIES No. 1.
7. McLean, A., & Holland, W.D., 1957 - Vegetation Zones and Their Relationship to the Soils and Climate of the Upper Columbia Valley - CANADIAN JOURNAL OF PLANT SCIENCE, Vol. 38, No. 3: 328 - 345.
8. Peterson, R.T., 1961 - A Field Guide to Western Birds - PETERSON FIELD GUIDE SERIES No. 2, 2nd Edition.
9. Lyons, C.P., 1962 - Trees, Shrubs & Flowers to Know in British Columbia - 2nd Edition - J.M. DENT & SONS LTD.
10. Stirrett, G.M., 1965 - Approved & Standardized Names of Plants in National Parks - NATIONAL PARKS SERVICE.

ANNOTATED LIST

Order Gaviiformes - Loons

Family Gaviidae - Loons

Loon - (*Gavia immer*) Brunnich

Previous Records

Four were seen at Dog Lake, May 1943 (Thompson).

New Fieldnotes

Summer Record - One adult was seen at Dog Lake, July 4, 1964.

There have been no other sightings, migration or nesting records.

Loons appear to be relatively rare visitors.

Order Anseriformes - Swans, Geese, Ducks

Family Anatidae - Swans, Geese, Ducks

Canada Goose - (*Branta canadensis*) Linnaeus

Previous Records

Seen fairly regularly on migration (Thompson); nesting record - Radium, April 24, 1938 - eggs.

New Fieldnotes

Migration, Spring - One bird each was sighted near the Vermilion River at Assiniboine Slide and near the Kootenay River at Mile 51, Banff-Windermere Highway. Both birds appeared to be resting and remained stationary for several days. At present there are no other summer or fall migration records.

Snow Goose - (*Chen hyperborea*) Pallas

Previous Records

Migration, Autumn - Near Kootenay Landing a large flock was seen in flight. 1941. (Thompson).

New Fieldnotes

Migration, Spring - One bird was seen resting for several days near Simpson Monument, June 3 - 5, 1965.

Mallard - (*Anas platyrhynchos*) Linnaeus

Previous Records

Occurs on migration and nests in the meadows along Dolly Varden Creek, where broods of young have been met with. (Thompson).

New Fieldnotes

Migration, Spring - Kootenay Crossing Marsh, a pair, May 15, 1965.

Summer Record - Kootenay Pond, three females, May 27, 1965.

Migration, Autumn - Small ponds near Kootenay Pond, two males and three females, September 5, 1964.

No nesting records were obtained this summer.

Green-winged Teal - (*Anas carolinensis*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Migration, Autumn - One bird was observed resting in a puddle near Mile 51 of the Banff-Windermere Highway, September 1, 1965. (female?)

Blue-winged Teal - (*Anas discors*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - Kootenay Crossing Marsh, three males, May 15, 1965. The marsh was visited on several later occasions, but no teal had remained to nest.

Ring-necked Duck - (*Aythya collaris*) Donovan

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - A pair was observed at the Kootenay Crossing Marsh May 15, 1965. Later visits confirmed that no nesting had taken place.

American Widgeon, Baldpate - (*Mareca americana*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One male, Kootenay Pond, May 27, 1965.

Migration, Autumn - Two males and two females, Kootenay Pond, October 9, 1965.

Lesser Scaup Duck - (*Aythya affinis*) Eyton

Previous Records

No records are available.

New Fieldnotes

Migration, Autumn - Kootenay Pond, one female, October 5, 1965.

Common Golden-Eye - (*Glaucionetta clangula*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One male, Kootenay River near McLeod Meadows, April 4, 1964; two males and two females (2 pairs?) were sighted resting on the Kootenay Crossing Marsh May 15, 1965.

Migration, Autumn - Two females were seen on Kootenay Pond, September 1, 1965.

Barrow's Golden-Eye - (*Glaucionetta islandica*) Gmelin

Previous Records

Two pairs observed on a small lake about 3 miles north of Kootenay Crossing, April 29, 1943 (Munro, Cowan).

New Fieldnotes

Migration, Spring - One male was observed swimming on the Kootenay River near the 40-mile mark, Banff-Windermere Highway, March 31, 1965.

Migration, Autumn - Four males and four females, resting briefly on Kootenay Pond, October 9, 1965.

Bufflehead - (*Glaucionetta albeola*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One female, Kootenay Crossing Marsh, May 15, 1965.

Migration, Autumn - One male, three females, Kootenay Pond, November 5, 1965.

Harlequin Duck - (*Histrionicus histrionicus*) Linnaeus

Previous Records

Observed on Tokumm Creek and on Sinclair Creek (Meredith).

New Fieldnotes

Nesting - Five young were hatched from a nest near the McKay Creek water intake for the Radium Hot Springs water supply. At least the female remained with the young at the settling basin for several weeks, June and July, 1963.

Migration, Autumn - For several years (1959, 1960, 1961, 1962) a female with a brood of 3 - 5 immature birds appeared at Sinclair Creek, 150 feet upstream from the swimming pools, during the latter part of August and leaving about the middle of September. They would ascend the stream, then ride down on the current, and do this for hours at a time.

Summer Record - One male, sewage Lagoon, Redstream Campground,

July 4, 1964. No Harlequin Ducks were observed in the park during 1965.

Ruddy Duck - (*Erismatura jamaicensis*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One pair was observed at the Kootenay Crossing Marsh, making all efforts to build a nest. However, no Ruddy Ducks were observed on the marsh during subsequent visits and if the nest was completed and used at all, it showed no signs of life for the remainder of the season. May 15, 1965.

Order Falconiformes - Birds of Prey

Family Accipitridae - Kites, Hawks & Allies

Goshawk - (*Accipiter gentilis atricapillus*) Linnaeus

Previous Records

An adult male seen flying across the Banff-Windermere Highway near Marble Canyon, June 25, 1943 (Munro, Cowan). An adult killed a ruffed grouse in the winter of 1942-43 (Meredith).

New Fieldnotes

Summer Record - One immature bird was observed perching near the Radium Hot Springs, August 30, 1965. One immature bird was observed perching at Hector's Gorge, August 21, 1965.

Sharp-Shinned Hawk - (*Accipiter striatus velox*) Vieillot

Previous Records

One seen flying through the woods in Sinclair Canyon, June 21, 1943 (Munro-Cowan).

New Fieldnotes

Migration, Spring - One sharp-shinned hawk (?) in flight, near Radium Hot Springs, April 5, 1965.

Red-Tailed Hawk - (*Buteo jamaicensis calurus*) Cassin

Previous Records

The red-tailed hawk was observed on three occasions and undoubtedly nests in the park. An old stick nest in a tall lodgepole pine at Dolly Varden Creek was thought to be of this species (Munro, Cowan) 1943.

New Fieldnotes

Nesting Record - One pair was observed caring for two young birds in a stick nest 60 feet above the ground. The parent birds had used the abnormal branch growth of a Lodgepole Pine to support their crude nest. Crook's Meadows, July 13, 1965. The birds remained for the months of July and August and had left by August 29.

Migration, Autumn - One immature bird seen perched on an Engelmann Spruce, 1 mile south of Kootenay Crossing, September 1, 1965.

Swainson's Hawk - (*Buteo swainsoni*) Bonaparte

Previous Records

No records are available.

New Fieldnotes

Migration, Autumn - Only one observation was recorded near Dolly Varden Creek, where a bird (dark phase) preyed upon small rodents along the banks of the Kootenay River. The hawk would perch on an Engelmann Spruce until spotting his prey and then try to pounce on it in a very inefficient manner, only to have to return to his perch. During the observation period the hawk missed his prey during every attempt (seven).

Golden Eagle - (*Aquila chrysaetos*) Linnaeus

Previous Records

Said to nest on Wardle Mountain. In the spring of 1943, five were seen feeding on an elk carcass near Kootenay Crossing (Thompson).

New Fieldnotes

Migration, Spring - Two, Radium Hot Springs, in flight, May 14, 1963. Two, observed gliding above Mt. Redstreak, February 19, 1964 (a sunny, clear day, 34° F.) One, Radium Hot Springs, in flight; March 21, 1965. One, Radium Hot Springs, in flight; March 23, 1965. One, McLeod Meadows, in flight; April 10, 1965.

Summer Record - Two, Sinclair Creek (headwaters of), in flight, July 2, 1965.

Bald Eagle - (*Haliaeetus leucocephalus*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One, near Radium Hot Springs in flight; April 1, 1965. One, Kootenay Pond, in flight, May 13, 1965.

Marsh Hawk - (*Circus cyaneus*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One female was seen circling around Kootenay Crossing Marsh in search of prey. The very appearance of the hawk caused near panic among terrestrial and aquatic birds present; May 15, 1965.

Sparrow Hawk - (*Falco sparverius*) Linnaeus

Previous Records

One heard at Kootenay Crossing on June 14; another pair apparently nesting on the flats adjacent to Settlers' Road on June 28 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One, male, near Mt. Harkin Viewpoint, April 30, 1965. One, male, near Nixon Creek, April 30, 1965.

Summer Record - One male, Mile 51, Banff-Windermere Highway, August 11, 1965. One female, 1 mile south of Kootenay Crossing, August 11, 1965. One male, Mile 51, Banff-Windermere Highway, August 14, 1965.

Order Galliformes - Gallinaceous Birds

Family Tetraonidae - Grouse, Ptarmigan

Blue Grouse - (*Dendragapus obscurus richardsonii*) Douglas

Previous Records

Reported as common on the open sidehills along the upper Kootenay River Valley (Thompson). Three adult males seen on the west slope of Mt. Berland, north of Radium, June 24, 1943 (Munro, Cowan). One, July, Kootenay National Park (Museum Zoology, University of B.C.)

New Fieldnotes

Spring Records - One male, Redstreak Campground, May 2, 1963; one pair, Redstreak Campground, April 16, 1965, displaying typical courtship behaviour.

Summer Records - One pair, Redstreak Campground, July 2, 1964, displaying typical courtship behaviour. One female with a brood of 4 chicks, Redstreak Campground, June 13, 1965. One female with a brood of 3 half-grown chicks, Paint Pots Nature Trail, August 4, 1965.

Nesting - One female was observed in Redstreak Campground during the first two weeks of July 1965, incubating an undetermined number of eggs. The nesting site was revisited September 1. Five eggs had apparently been hatched. One egg failed to do so and was collected.

Franklin Grouse - (*Canachites franklini*) Douglas

Previous Records

One specimen was flushed up June 27, 1943. Droppings were noticed in various places (Munro, Cowan).

It is considered to be the commonest grouse in the park (Meredith, Thompson).

New Fieldnotes

Summer Records - One male, Paint Pots Nature Trail, May 12,



1964.

Autumn Records - One male, Ottertail Pass Trail, October 6, 1960.

Ruffed Grouse - (*Bonasa umbellus phaios*) Aldrich & Friedman

Previous Records

Not common in 1943. Two, Dolly Varden Creek Valley, June 14; one female with small brood, June 25; one male, two females with downy chicks, John McKay Creek, June 27 (Munro, Cowan, 1943). A recent increase in population is reported (Thompson, 1943?). One downy young, Kootenay National Park, June 25, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Spring Records - One male displaying courtship behaviour, Redstreak Campground, May 5, 1963. One male displaying courtship behaviour, McLeod Meadows, April 10, 1965.

Summer Records - One female with seven chicks, Redstreak Campground, August 9, 1963. One female with 6 juveniles, Redstreak Campground, September 7, 1965.

Autumn Records - One male, Mt. Redstreak, October 13, 1965. Two males, Redstreak Campground, November 25, 1965. The grouse were very spooky, possibly due to constant threat of predation by dogs and coyotes frequenting this area of the park. One male was observed in thick cover near Redstreak Campground, December 10, 1965. One male, Redstreak Campground, November 30, 1965.

White-Tailed Ptarmigan - (*Lagopus leucurus leucurus*) Richardson

Previous Records

Observed on Wolverine Pass, 1938 (Meredith).  
Observed at Luxor Pass and above Floe Lake (Rutherford).

New Fieldnotes

Summer Records - 3 birds, above Floe Lake, July 13, 1963.

Autumn Records - 4 birds, at Wolverine Pass, November 3, 1962.  
1 bird, Stanley Glacier Valley, October 9, 1964.

Order Gruiformes - Cranes, Rails, Coots

Family Fulicinae - Coots

American Coot - (*Fulica americana*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - Two, Kootenay Crossing Marsh, May 15, 1965.

Order Charadriiformes - Shore Birds, Gulls,  
Auks, Allies

Family Charadriidae - Plovers

Sea-pinked Plover - (*Charadrius hiaticulata*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One bird was observed searching for food in a marshy area adjacent to the Banff-Windermere Highway, near Mile 45, April 7, 1964.

Kildeer Plover - (*Charadrius vociferus*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One, Paint Pots Nature Trail, May 16, 1965.

Summer Records - One, headwaters of Helmet Creek, July 23, 1961. One, Dog Lake, June 23, 1963.

Family Scolopacidae - Snipe, Sandpipers

Spotted Sandpiper - (*Actitis macularia*) Linnaeus

Previous Records

One, Kootenay River near Kootenay Crossing, June 18; five, along upper reaches of Tokumm Creek, June 25 (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - one bird was observed wearing breeding plumage, near Paint Pots Nature Trail, May 27, 1965. One, near Paint Pots Nature Trail, July 28, 1965; two, Numa Creek, August 20, 1965.

Greater Yellow Legs - (*Totanus melanoleucus*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Summer Record - One, Kootenay Pond, May 27, 1965. Two, Kootenay Pond, August 19, 1965.

Baird's Sandpiper - (*Erolia bairdii*) Coues

Previous Records

Observation and specimen collected, Kootenay Crossing, May 17, 1945 (Museum of Zoology, University of B.C.).

New Fieldnotes

No records available to date.

Family Laridae - Gulls, Terns

Sub-Family Larinae - Gulls

Glaucous Gull - (Larus hyperboreus) Gunnerus

Previous Records

No records are available.

New Fieldnotes

Summer Records - A large flock (50+) of what were believed to be glaucous gulls were seen in flight near the Paint Pots Nature Trail during the latter part of a violent storm of several days' duration, July 17, 1965.

California Gull - (Larus californicus) Lawrence

Previous Records

No records are available.

New Fieldnotes

Summer Records - Two, Radium Hot Springs, July 22, 1965 (after a storm); two Paint Pots Nature Trail, August 1, 1965 (one appeared to be immature); one, Kootenay Pond, August 7, 1965 (2nd year immature).

Bonaparte Gull - (Larus philadelphia) Ord

Previous Records

No records are available.

New Fieldnotes

Summer Records - One observed at Kootenay Pond, May 27, 1965.

Order Strigiformes - Owls

Family Strigidae - Typical Owls

Horned Owl - (Bubo virginianus) Gmelin

Previous Records

Reported to be resident of the park. One seen by Meredith flying across the highway near Hawk Creek, June 1943 (Meredith). One seen perching near McLeod Meadows, summer 1960 (Gilroy).

New Fieldnotes

No new sightings have been recorded.

Order Caprimulgiformes - Goatsuckers, Allies

Family Caprimulgidae - Goatsuckers

Nighthawk - (Chordeiles minor) Forster

Previous Records

Established summer visitor in the open region of the park from Kootenay Crossing south. First seen June 24 (Thompson).

New Fieldnotes

Summer Records - One male, Radium Hot Springs, June 13, 1965; one, Mile 30, Banff-Windermere Highway, June 17, 1965; \*(this bird was killed by a vehicle. Its condition did not warrant retaining it for the reference collection). Three birds were observed in flight, Redstreak Campground, July 15, 1965; one male, Radium Hot Springs, August 1, 1965. A large flock (15+) were seen near Redstreak Campground, August 2, 1965; one, Radium Hot Springs, August 15, 1965; one, Radium Hot Springs, September 4, 1965.

Nesting Records - Female incubating 2 eggs, Redstreak Campground, July 13, 1961. Female feeding two fledglings, with a third egg apparently barren, Redstreak Campground, July 27, 1961.

Order Micropodiformes - Swifts, Hummingbirds

Family Micropodidae - Swifts

Black Swift - (Nephoecetes niger) Gmelin

Previous Records

A pair was observed on the evening of June 24 and again June 27 at Vermilion Crossing (Munro, Cowan, 1943).

New Fieldnotes

Summer Record - Nine birds were seen flying above Marble Canyon, August 20, 1965.

Family Trochilidae - Hummingbirds

Black-Chinned Hummingbird - (Archilochus alexandri) Bourcier & Mulsant

Previous Records

No records are available.

New Fieldnotes

Summer Records - One female, what is believed to be a black-chinned hummingbird (?) was observed for one-half hour, near Radium Hot Springs, August 9, 1965.

Rufous Hummingbird - (Selaphorus rufus) Gmelin

Previous Records

One, Vermilion Crossing, June 12; one female near Vermilion Crossing, June 16 (acted in the manner of a nesting bird);

noted also at Kootenay Crossing, June 18, and McKay Creek, June 27 (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One female, near Radium Hot Springs, August 25, 1965. \*(It was killed flying into a window. The specimen was badly damaged and not retained for the reference collection.)

Calliope Hummingbird - (*Stellula calliope*) Gould

Previous Records

No records are available.

New Fieldnotes

Summer Records - One female, near Radium Hot Springs, August 1, 1965.

Order Coraciiformes - Kingfishers, etc.

Family Alcedinidae - Kingfishers

Belted Kingfisher - (*Megaceryle alcyon*) Linnaeus

Previous Records

Nest seen along Kootenay River, June 14 (clay and sand cliff), (Munro, Cowan, 1943).

Regular summer visitor (Thompson).

New Fieldnotes

Migration, Spring - One male, Kootenay Crossing, May 15, 1965 (perched).

Summer Record - One, Kootenay Crossing, May 27, 1965 (in flight). One male, Hector's Gorge, July 3, 1965. One female, Radium Hot Springs, July 15, 1965. \*(This bird killed itself flying into a window. The specimen should have been added to the reference collection, but was disposed of by an inadvertent person before the specimen could be collected).

Order Piciformes - Woodpeckers, etc.

Family Picidae - Woodpeckers

Red-Shafted Flicker - (*Colaptes cafer collaris*) Vigors

Previous Records

One pair, Crook's Meadows (Rocky Mtn. Bungalow Camp), June 25; one pair was evidently nesting, 1 mile south of above meadows, June 29; one pair nested at Kootenay Crossing, until the tree supporting the nest was felled June 16, killing four of the eight young (Munro, Cowan, 1943). Nestlings collected, Kootenay National Park, June 25, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Migration, Spring - A call was heard (Radium Hot Springs) March

29, 1965. One bird was observed at Radium Hot Springs, Apr. 4, 1965. One pair was observed courting at McLeod Meadows April 10, 1965. One male, Radium Hot Springs, July 13, 1965.

Summer Records - One male, Crook's Meadows, July 13, 1965. One female, Radium Hot Springs, July 16, 1965. One male, Mile 51, Banff-Windermere Highway, July 21, 1965. One, Radium Hot Springs, July 31, 1965. One female, Radium Hot Springs, Aug. 6, 1965. One female, Radium Hot Springs, Aug. 25, 1965. One male, Radium Hot Springs, Aug. 29, 1965. A pair was observed at Radium Hot Springs; they had evidently been disturbed by someone. They flew about in great excitement, lamenting all the while; Sept., 1965.

Migration, Autumn - One, Radium Hot Springs area, Sept. 30, 1965. One male, Radium Hot Springs area, Oct. 11, 1965.

Autumn Record - One; this bird was observed by Chief Warden T.L. Ross at his residence near Redstreak Campground, Dec. 6, 1965.

### Pileated Woodpecker - (*Ceophloeus pileatus*) Linnaeus

#### Previous Records

Reported from Nixon Creek (G. Hopping).  
Reported from Sinclair Summit (W.B. Johnstone).  
Noted at Kootenay Crossing (Thompson).  
Two were seen on Tokumm Creek, June 25; one each were seen at McKay Creek and McLeod Meadows, June 29 (Munro, Cowan, 1943).

#### New Fieldnotes

Spring Records - One male bird was seen perched, Radium Hot Springs, Apr. 16, 1965.

Summer Records - One male, Redstreak Campground, Aug. 7, 1965.

Autumn Records - One male, Sinclair Canyon Trail, Sept. 25, 1961. One female, Mt. Redstreak, Oct. 12, 1965. One female, near Radium Hot Springs, Nov. 4, 1965. One female, Sinclair Canyon, Dec. 4, 1965.

### Yellow-Bellied Sapsucker - (*Sphyrapicus varius*) Linnaeus

#### Previous Records

Apparently not common. Observed at Kootenay Crossing and south of this point. A male collected, June 28, had eaten five carpenter ants, (*Camponotus* sp.), seven smaller ants of a different species, and two adult Clark beetles (*Ips* sp.), (Munro, Cowan, 1943).

#### New Fieldnotes

Migration, Spring - One male, near Redstreak Campground, May 4, 1964. A pair apparently courting, near Radium Hot Springs, May 8, 1965. One male, near Redstreak Campground, April 30, 1965.

Summer Records - One male was observed feeding on insects, at Crook's Meadows, July 13, 1965. Three immatures were observed on an apple tree which was damaged extensively, near Radium Hot Springs, July 29, 1965.

Nesting - A pair was observed feeding their brood in a nest situated 35 feet above the ground in a Trembling Aspen. The

fledglings could be heard for a long way. The actions of the adult birds were controlled to a large degree by the flight pattern of a pair of Red-tailed Hawks nesting nearby, who would cause the sapsuckers to become very excited for a short while, which was followed by a quiet watching period until the hawks had disappeared again.

Hairy Woodpecker - (*Dryobates villosus monticola*) Anthony

Previous Records

Associated with the aspen and cottonwood stands from Kootenay Crossing south, none were seen north of this point (Munro, Cowan). Nest with large young, Crook's Meadows (Rocky Mountain Bungalow Camp) June 14, 1943 (?) (Hopping). Adult male collected, near Kootenay Crossing, June 14; juvenile male collected June 28, at the above location (Munro, Cowan, 1943). Young out of nest, collected at Kootenay National Park, June 14, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Winter Records - One female was observed searching for insects, Dog Lake, February 13, 1965. One female, at feeding station near Redstreak Campground, December 31, 1965.

Autumn Records - One female, Redstreak Campground, Sept. 23, 1965; one female, near Redstreak Campground, Oct. 31, 1965; one female, near Redstreak Campground, December 5, 1965; one female, near Redstreak Campground, Dec. 17, 1965. Note: It is interesting to note that this bird sat in company with a Steller's Jay and three Clark Nutcrackers. The distance between each bird and the next was only a matter of a few feet. The five birds rested in the upper branches of a dead Douglas Fir and their conversation could be heard for a long way. There were no other birds in evidence in the neighbourhood.

Downy Woodpecker - (*Dryobates pubescens*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Winter Records - One female was observed searching for insects near Redstreak Campground, February 14, 1965. One female was observed near above location, Feb. 20, 1965. One female, location as above, Mar. 20, 1965. The birds (or bird) was attracted by suet hung outdoors in a feeder. They (or it) would appear on several occasions during the days shown and possibly on other days as well. These have been the only observations of Downy woodpecker in the park to date.

Arctic Three-Toed Woodpecker - (*Picoides arcticus*) Swainson

Previous Records

Two were seen along the highway between Dolly Varden Creek and Kootenay Crossing, June 9 (Munro, Cowan, 1943).

New Fieldnotes

Autumn Records - One female, Redstreak Campground, Oct. 31, 1965. \*(The specimen had apparently killed itself flying into a light standard. Its condition was such that it could not be

added to the park's reference collection).

Nesting - A nest was observed along the Marble Canyon Trail, located about six feet above the ground in a dead Engelmann Spruce. The adult birds were feeding their brood which consisted of at least 2 young, July 6, 1963. The nest was visited again in 1964, when it was noted that Western Red Squirrels (*Tamiasciurus hudsonicus richardsoni*) had made it their home. The nest remained abandoned in 1965.

American Three-Toed Woodpecker - (*Picoides tridactylus*) Linnaeus

Previous Records

The most common woodpecker in the park (Munro, Cowan). Five specimens were collected; one male observed June 10 (Munro, Cowan, 1943). Male Collected with brood patch, Kootenay National Park, June 25, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Winter Records - One female, searching for insects, Radium Hot Springs, January 7, 1965.

Summer Records - One female, Redstreak Campground, July 15, 1965; one male, Marble Canyon Campground, July 21, 1965.

Autumn Records - One male, pecking away at the bark of an apple tree, near Redstreak Campground, Nov. 19, 1965.

Nesting - A pair was observed nesting and feeding their young. The young birds could be heard for quite a distance. The nest was located in a dead Lodgepole Pine, 40 to 50 feet above the ground. (It was noticed again that this nest's entrance hole, like most others, was aligned in a westerly direction).

Order Passeriformes - Perching Birds

Family Tyrannidae - Tyrant Flycatchers

Eastern Kingbird - (*Tyrannus tyrannus*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Summer Record - One bird was seen perched on a telephone post, near Mile 51, Banff-Windermere Highway, August 18, 1965.

Traill's Flycatcher - (*Empidonax traillii*) Audubon

Previous Records

Considered to be the least common flycatcher in the park. One was identified, on the basis of voice, Kootenay Crossing, June 14 (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One was seen perched on the top of a small dead Lodgepole Pine near the Paint Pots Nature Trail, Aug. 4, 1965; one was observed near Marble Canyon, along side the Vermilion River, Aug. 20, 1965.



Hammond Flycatcher - (*Empidonax hammondii*) Xantus

Previous Records

This was the commonest flycatcher; met with in many localities from the Sinclair Summit to Marble Canyon (Munro, Cowan). Specimen Collected, Kootenay National Park, June 18, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

None to date.

Wright Flycatcher - (*Empidonax wrightii*) Baird

Previous Records

Included on basis of voice identification. No specimens were obtained. Appears to be less abundant than Hammond's flycatcher, etc. (Munro, Cowan, 1943).

New Fieldnotes

None to date.

Western Wood Peewee - (*Myiochanes richardsonii*) Swainson

Previous Records

Seen on several occasions at Kootenay Crossing and in open territory to the north (Munro, Cowan, 1943). A female in breeding condition was collected June 19, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Summer Records - Two birds were observed along the Dolly Varden Fire Road, July 13, 1965.

Olive-Sided Flycatcher - (*Nuttallornis borealis*) Swainson

Previous Records

First heard June 13, subsequently became common and was recorded from various places along the Banff-Windermere Highway between Vermilion Crossing and Vermilion Pass (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One, Dolly Varden Campground, Aug. 7, 1965; one, Marble Canyon, Aug. 20, 1965; one, Dolly Varden Creek, Sept. 6, 1965.

Family Hirundinidae - Swallows

Violet-Green Swallow - (*Tachycineta thalassina*) Swainson

Previous Records

Amongst a small number of white-bellied swallows flying over the Big Burn (Kootenay Crossing, 1926) on June 24, one at least was identified satisfactorily as this species (Munro, Cowan, 1943).

New Records

Migration, Spring - Several birds, Redstreak Campground, April 1, 1965; several birds, Redstreak Campground, April 24, 1965;

Summer Records - Several birds, Redstreak Campground, July 14, 1965; several birds, Redstreak Campground, July 31, 1965.

Tree Swallow - (*Iridoprocne bicolor*) Vieillot

Previous Records

Several pairs seen on two occasions in the big burn where evidently nesting in old tree stumps that stand on the rough slope above the river (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One, Redstreak Campground, May 20, 1964; a pair, Kootenay Crossing Marsh, May 15, 1965 (above pair may have been nesting as they were seen carrying plant material from the marsh).

Summer Records - Several, Kootenay Pond, Aug. 7, 1965; one, Vermilion Crossing, Aug. 7, 1965.

Nesting - One pair was observed nesting in a dead lodgepole pine, Paint Pots Nature Trail, May 27, 1965. Although some snow still remained on the ground in sheltered places, the pair had established a nest, which seemed unusual.

Bank Swallow - (*Riparia riparia*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Autumn - Several (10+) were seen among other swallows perched on a telephone wire adjacent to Kootenay Pond, Aug. 7, 1965.

Rough-winged Swallow - (*Stelgidopteryx ruficollis*) Vieillot

Previous Records

Approximately six pairs nested in a bank beside the Banff-Windermere Highway near Kootenay Crossing; others were seen in similar places between that point and the Sinclair Summit (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - Four, Settlers' Road, July 13, 1965; Several, Radium Hot Springs, July 31, 1965; several, Kootenay Pond, Aug. 7, 1965.

Migration, Autumn - A large flock (50+), were resting at Kootenay Pond, Sept. 1, 1965; one was seen at Hector's Gorge, Sept. 28, 1965.

Barn Swallow - (*Hirundo rustica*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - Several were observed at Kootenay Crossing Marsh, May 15, 1965.

Summer Records - Two were seen at Settlers' Road, July 13, 1965.

Migration, Autumn - Several were resting on the telephone wire at Kootenay Pond, Aug. 7, 1965.

Cliff Swallow - (*Petrochelidon pyrrhonota*) Vieillot

Previous Records

On June 24 a pair was seen flying about a hard sand-cliff near the big burn and it was assumed that they were nesting there (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - Three were seen on the cliffs near Hector Gorge, July 21, 1965.

Migration, Autumn - Six were resting on the telephone wire at Kootenay Pond, Aug. 7, 1965.

Family Corvidae - Jays, Magpies, Crows

Canada Jay - (*Perisoreus canadensis bicolor*) Miller

Previous Records

Small bands composed of adults and young were met with at various places between Dolly Varden Creek and Marble Canyon (Munro, Cowan, 1943).

Young collected, Kootenay National Park, June 13, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Winter Records - Two, Radium Hot Springs, Feb. 7, 1963; three, Stanley Glacier Trail, Feb. 24, 1965; a pair, Radium Hot Springs, Apr. 4, 1964; two, Kootenay Crossing, Dec. 31, 1965.

Summer Records - One, Marble Canyon, May 27, 1965; one, Paint Pots Nature Trail, July 21, 1965; one, Marble Canyon Camp-ground, July 21, 1965; two, Sinclair Creek picnic area, July 30, 1965; one, Hawk Creek, Aug. 14, 1965; one, Hector's Gorge, Aug. 14, 1965 \*(this specimen was killed by a vehicle, examined and found too badly damaged to be added to the reference collection.) Two, Marble Canyon, Aug. 20, 1965; one, Marble Canyon Trail, Aug. 20, 1965;

Autumn Records - Two, Radium Hot Springs, Oct. 5, 1965; one, Mile 51, Banff-Windermere Highway, Oct. 5, 1965; one, Mile 49, Banff-Windermere Highway, Oct. 5, 1965; Two, Mile 42, Banff-

Windermere Highway, Oct. 5, 1965; one, Paint Pots Nature Trail, Oct. 5, 1965; one, Hawk Creek, Oct. 5, 1965; one, McLeod Meadows, Oct. 5, 1965; three, Nixon Lake, Oct. 6, 1965; three, near Radium Hot Springs, Oct. 11, 1965; one, Park Administration Office, Oct. 15, 1965; three, near Olive Lake, Oct. 22, 1965; one, near Kootenay Pond, Oct. 22, 1965; one, Simpson Monument, Oct. 22, 1965; five, near Vermilion Crossing, Oct. 22, 1965; three, Marble Canyon, Oct. 22, 1965; two, Redstreak Campground, Oct. 27, 1965; two, Snow Creek Cabin, Nov. 1, 1965; five, Marble Canyon, Nov. 8, 1965 \*(these five birds almost came into the vehicle to obtain morsels of food given them by hand.) Two, near Redstreak Campground, Dec. 9, 1965. Note: five of the listed birds were killed by vehicles. Damage prevented them from being added to reference collection.

Steller's Jay - (*Cyanocitta stelleri annectens*) Baird

Previous Records

One is reported wintering at Kootenay Crossing, 1942-43 (Thompson). Some were observed occasionally on Sinclair Summit (Rutherford).

New Fieldnotes

Winter Records - one was observed near Radium Hot Springs, Mar. 13, 1963; one, at feeding station near Redstreak Campground, Dec. 31, 1963.

Spring Records - one was observed at McLeod Meadows almost taking offered morsels out of the observer's hand, Apr. 10, 1965.

Autumn Records - one, near Redstreak Campground, Oct. 11; one, near Redstreak Campground, Oct. 15; one, McLeod Meadows, Oct. 22; one, Redstreak Campground, Oct. 27; one, near Redstreak Campground, Oct. 31; one, Snow Creek Cabin, Nov. 1; one, McKay Creek, Nov. 5; one, Vermilion River Canyon, Nov. 8; one, near Redstreak Campground, Dec. 9; two, McLeod Meadows, Dec. 9; one, near Redstreak Campground, Dec. 17; one, near Redstreak Campground, Nov. 21, 1965.

Black-Billed Magpie - (*Pica pica*) Linnaeus

Previous Records

Meredith and Thompson report seeing magpies occasionally in spring at Kootenay Crossing and state that formerly they occurred more regularly. Apparently a number were killed by the wardens some years ago and in recent years they have been decidedly scarce. Possibly at one time magpies nested in the park but apparently none does so now. A wing was picked up on a timbered slope north of Radium June 27 (Munro, Cowan, 1943).

New Fieldnotes

Winter Records - One bird was observed in flight near Hector's Gorge, Feb. 18, 1965.

Spring Records - One, near Radium Hot Springs, Apr. 19, 1962.

Autumn Records - One, Kootenay Pond, Oct. 5, 1965; two, Kootenay Crossing, Oct. 5, 1965; one, Dolly Varden Campground, Oct. 5, 1965; one, observed at Redstreak Campground, Oct. 20; two, observed in flight, McLeod Meadows, Oct. 22; one, Hector's Gorge, Oct. 22; three, near Redstreak Campground, Dec. 4, 1965.

Raven - (*Corvus corax*) Linnaeus

Previous Records

Several wintered at Kootenay Crossing 1942-43 (Thompson).  
Seen in Lower Kootenay Valley, January, 1943 (Rutherford).

New Fieldnotes

Spring Records - One, Radium Hot Springs, Apr. 8, 1961; one  
observed in flight, Kootenay Crossing Marsh, May 15, 1965.

Summer Records - One, Marble Canyon Campground, July 14; one,  
Radium Hot Springs, July 17; two, Radium Hot Springs, Aug. 1;  
one, Kootenay Valley Viewpoint, Aug. 7; one, Kootenay Pond,  
feeding on a carcass of a Columbian Groundsquirrel (*Spermophilus  
columbianus columbianus*), Sept. 6, 1965.

Autumn Records - One, Redstreak Campground, Sept. 23; one, Mile  
44, Banff-Windermere Highway, Oct. 5; Two, in flight over the  
Pot Holes, Marble Canyon, Oct. 5; three, in flight, Radium Hot  
Springs, Oct. 11; two (one in flight, one perched on a dead  
Lodgepole Pine), Kootenay Crossing, Oct. 22; two, in flight above  
Redstreak Campground, Oct. 31; two, in flight, Serac Creek,  
Nov. 8; one, perched on a Douglas Fir, Redstreak Campground,  
Nov. 26; one, Sinclair Canyon, Dec. 4; two, Mile 51, Banff-  
Windermere Highway, Dec. 5; one, Crook's Meadow, Dec. 5; three,  
near Redstreak Campground, Dec. 6; one, Sinclair Canyon, Dec.  
9; one, near Redstreak Campground, Dec. 15; two, Radium Hot  
Springs, Dec. 16, 1965.

Winter Records - Five, in flight near McLeod Meadows, Dec. 31;  
two, in flight near Kootenay Crossing, Dec. 31, 1965. Several  
in flight, near Radium Hot Springs, Feb. 2, 1966.

American Crow - (*Corvus brachyrhynchos*) Brehm

Previous Records

Observed in spring of 1942 and 1943 at Radium (Meredith).  
Reported as casual at Kootenay Crossing (Thompson). Not known  
to nest within the park, but 3 seen at Radium, June 29, may have  
been nesting locally. It is significant to note that crows were  
first noted in the park in the spring subsequent to the epidemic  
in the Sinclair Canyon sheep band. The abundant carrion may  
well have been responsible (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - The earliest spring sighting made was of a  
flock (10+), observed flying near the park boundary at Dry  
Gulch, March 13, 1965. One, in flight, McLeod Meadows, Apr. 10, 1965;  
one, Radium Hot Springs, May 7, 1961; several in flight, Kootenay  
Crossing Marsh, May 15, 1965.

Summer Records - Two, Radium Hot Springs, July 30; two, Mile 51,  
Banff-Windermere Highway, Aug. 18; one, Kootenay Pond, Sept. 1;  
one, Radium Hot Springs, Sept. 4; one, Settlers' Road turn-off,  
Sept. 6, 1965.

Migration, Autumn - 215 birds by actual count, were observed  
flying south in a broad well-scattered flight pattern of  
smaller groups (25+), about 6:30 p.m. The passing of the flock  
lasted 18 minutes, Redstreak Campground, Sept. 7, 1965.

Clark Nutcracker - (Nucifraga columbiana) Wilson

Previous Records

A pair with full-grown young was seen near Crook's Meadows (Rocky Mountain Bungalow Camp) June 18; others were seen on Mt. Wardle (Munro, Cowan, 1943). Also see Nesting Record below. Reported from Marble Canyon and other points in the winter (Thompson).

New Fieldnotes

Winter Records - One, Radium Hot Springs, March 10, 1963; a large flock of 50+ was observed feeding on fir cones (*Pseudotsuga menziesii*) near Redstreak Campground. Standing beneath the feeding flock, it literally rained cones and bracts on the observer, Jan. 7, 1965. One, Radium Hot Springs, Jan. 15; several, Radium Hot Springs, Feb. 20; 1965.

Spring Records - Several, Radium Hot Springs, Mar. 30, 1965.

Summer Records - One, Marble Canyon Campground, Aug. 14, 1965; two, Paint Pots Nature Trail, Sept. 6, 1965.

Autumn Records - Two, Radium Hot Springs, Oct. 11; one, Radium Hot Springs, Oct. 15; two, Redstreak Campground, Oct. 23; one, Redstreak Campground, Nov. 3; three, near Redstreak Campground, Nov. 19; two were observed feeding on suet in a bird feeder near Redstreak Campground, Nov. 26; one, Redstreak Campground, Dec. 3; two, Redstreak Campground, Dec. 4; one, McLeod Meadows, Dec. 5; one, near Redstreak Campground, Dec. 10; two, near Redstreak Campground, Dec. 15; three, at feeding station near Redstreak Campground, Dec. 17; 1965.

Winter Records - Two, at feeding station near Redstreak Campground, Dec. 28; two, at feeding station near Redstreak Campground, Dec. 31.

Nesting Records - Full-grown young, Vermilion Crossing, June 18, 1943 (Munro).

Family Paridae - Chickadees, Titmice

Black-Capped Chickadee - (Parus atricapillus) Linnaeus

Previous Records

A pair of these birds answered an owl call on Tokumm Creek on June 25 (Munro, Cowan, 1943).

New Fieldnotes

Spring Records - Four, Radium Hot Springs, Mar. 30, 1965.

Summer Records - Two, Radium Hot Springs, July 31, 1965.

Autumn Records - One, Radium Hot Springs, Sept. 26, 1965; one, Radium Hot Springs, Oct. 10, 1964; two, Mt. Redstreak, Oct. 12, 1965; four, Redstreak Campground, Oct. 19, 1965; six, near Redstreak Campground, Oct. 23, 1965; several were observed feeding on suet and peanut-butter at a bird-feeder near Redstreak Campground Nov. 19, 1965; three, same place as foregoing, Nov. 28; five, same place, Dec. 3; two, Redstreak Campground, Dec. 4; several, at feeding station near Redstreak Campground, Dec. 15, 1965.

Winter Records - Several, near Redstreak Campground, Dec. 28; several, near Redstreak Campground, Dec. 31, 1965.

Mountain Chickadee - (*Parus gambeli*) Ridgway

Previous Records

Seen only once, in the pine-wood near Crook's Meadows (Rocky Mountain Bungalow Camp), but the species is probably more plentiful than this lack of records would indicate (Munro, Cowan, 1943).

New Fieldnotes

Winter Records - A flock was seen feeding on what appeared to be fir seeds (*Pseudotsuga menziesii*), Radium Hot Springs, Feb. 7; several, feeding on what appeared to be fir seeds, Radium Hot Springs, Feb. 22; several, feeding on what appeared to be fir seeds, Radium Hot Springs, Feb. 28, 1965.

Spring Records - Several, Redstreak Campground, Mar. 30, 1965.

Summer Records - One, Redstreak Campground, June 13; one, Dolly Varden Fire Road, July 13; one, drinking water out of a bird bath, near Redstreak Campground, July 13; one, near Redstreak Campground, July 16; two, Sinclair Canyon Trail, July 22, 1965; a flock of 10+ in flight, near Redstreak Campground, Aug. 5; several, Paint Pots Nature Trail, Sept. 6; several, Radium Hot Springs, Sept. 7, 1965.

Autumn Records - Three, Radium Hot Springs, Sept. 23; one, Radium Hot Springs, Sept. 26; several, Radium Hot Springs, Oct. 1, 1965. One, Radium Hot Springs, Oct. 10, 1964. A flock of 20+ was observed flitting from tree to tree, Mt. Redstreak, Oct. 13; three, Redstreak Campground, Oct. 23; five, Redstreak Campground, Oct. 31; several small flocks were seen frequenting a bird feeder, near Redstreak Campground, Nov. 7; several, as above, Nov. 19; several, Redstreak Campground, Nov. 26; several, Redstreak Campground, Dec. 3; several, Sinclair Canyon, Dec. 4; several, Redstreak Campground, Dec. 4; many, near Redstreak Campground, Dec. 15; 1965.

Boreal Chickadee - (*Parus hudsonicus*) Forster

Previous Records

Pairs observed several times in the thick spruce woods where nesting was evidently in progress (Munro, Cowan, 1943).

New Fieldnotes

Autumn Records - Two birds were observed in Engelmann Spruce bordering the Paint Pots Nature Trail, Oct. 5; two others were seen the same day at Marble Canyon, Oct. 5, 1965.

Chestnut-Backed Chickadee - (*Parus rufescens*) Townsend

Previous Records

None available.

New Fieldnotes

Winter Records - A group was seen foraging through conifers, along the Dog Lake Trail, Feb. 14; several more were seen doing the same thing along the Stanley Glacier Trail, Feb. 24; 1965.

Summer Records - Two (+) birds were seen foraging through Douglas Fir at McKay Creek, Aug. 28; two, feeding on suet at a bird feeder near Redstreak Campground, Nov. 19; three, same locality as foregoing, Nov. 26; several, Redstreak Campground, Dec. 3; 1965.

White-Breasted Nuthatch - (*Sitta carolinensis*) Latham

Previous Records

None available.

New Fieldnotes

Winter Records - One bird was observed on a bird feeder twice during the same day for extended periods, near Redstreak Campground, Feb. 7, 1964.

Summer Records - One, near Redstreak Campground, drinking from a birdbath, May 24, 1965; one, same locality and action as foregoing, Aug. 2, 1965.

Red-Breasted Nuthatch - (*Sitta canadensis*) Linnaeus

Previous Records

Occurs in all forest types throughout the park (Munro, Cowan, 1943). Kootenay National Park, June 25, 1943 (Munro).

New Fieldnotes

Winter Records - Several, foraging near Redstreak Campground, Feb. 7; several, near Redstreak Campground, Dec. 28; several, near Redstreak Campground, Dec. 31; 1965.

Spring Records - One, foraging near Redstreak Campground, Apr. 5; one, foraging near Redstreak Campground, Apr. 24; 1965.

Summer Records - One, Dolly Varden Fire Road, July 13; one, Radium Hot Springs, July 30; one, Redstreak Campground, Aug. 2, 1965; two, Redstreak Campground, Aug. 10, 1961.

Autumn Records - One, Paint Pots Nature Trail, Oct. 20; two, on bird feeder near Redstreak Campground, Nov. 19; three, on bird feeder near Redstreak Campground, Nov. 26; several, Redstreak Campground, Dec. 3; many, at feeding station near Redstreak Campground, Dec. 15; 1965.

Family Certhidae - Tree Creepers

Brown Creeper - (*Certhia familiaris*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Summer Records - One bird was observed along the Kindersley Pass Trail, June 21, 1964.

Winter Records - One, Radium Hot Springs, Feb. 7, 1965.

Autumn Records - One, near Redstreak Campground, Oct. 1; one, near Redstreak Campground, Oct. 26; one, near Redstreak Campground,



Nov. 24; one, Redstreak Campground, Dec. 1; 1965.

Family Cinclidae - Dippers

American Dipper - (Cinclus mexicanus) Swainson

Previous Records

Heard on Vermilion River near Vermilion Crossing and Marble Canyon (Thompson). A single bird was seen on Tokumm Creek, June 25; a young bird was seen with a slightly spotted, light-coloured breast of the first plumage at Sinclair Creek near the hot springs (Munro, Cowan, 1943).

New Fieldnotes

Spring Records - One female (?) was observed flying and walking under water in Sinclair Creek next to the hot springs, Apr. 7, 1964.

Summer Records - One, near the Iron Gates, Aug. 1, 1965.

Autumn Records - One, Marble Canyon, Oct. 5, 1965; one, at the Pot Holes near Marble Canyon, Oct. 22; one, at Marble Canyon, Oct. 22; 1965.

Nesting - Dippers have been known to nest at the Radium Hot Springs Aquacourt for several years now, and females of them can be observed often. One pair was known to be nesting on one of the ledges in the Marble Canyon. The number of eggs or fledglings were not observed.

Family Troglodytidae - Wrens

Winter Wren - (Troglodytes troglodytes) Linnaeus

Previous Records

This species is subject to noticeable fluctuations in numbers of population. In 1943 it appeared scarce; only four birds were recorded, one at Vermilion Crossing and heard again June 10 and 11; three others in the heavy timber bordering Tokumm Creek.

New Fieldnotes

Winter wrens are common summer visitors of the cedar grove along the Redstreak Campground Trail above the Aquacourt. They have been recorded and heard there for several years (Munro, Cowan, 1943).

Summer Records - One was seen along the Cobb Lake Trail, June 14, 1965; one other bird was observed along the Kimpton Creek Trail, July 1, 1965.

Nesting - One pair was seen tending to a nest of seven fledglings near the Marble Canyon Campground, July 22, 1965.

Family Turdidae - Thrushes

American Robin - (Turdus migratorius) Linnaeus

Previous Records

Previous Records

One of the commonest birds of the park (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - The earliest spring sighting of a robin occurred near Radium Hot Springs, Mar. 3, 1965; one male, near Redstreak Campground, Mar. 16; one male, near Redstreak Campground, Mar. 8; one male, near Redstreak Campground, Mar. 13; one male, near Redstreak Campground, Mar. 30; three males (?), Mile 22, Banff-Windermere Highway, Mar. 31; several, in flight near McLeod Meadows, Apr. 10; 1965.

Summer Records - One, near Marble Canyon, May 27; one, Crook's Meadows, July 13; three immatures, Settlers' Road, July 13; two, Paint Pots Nature Trail, July 14; one, near Redstreak Campground, July 16; one, near Marble Canyon Campground, July 21; one, Paint Pots Nature Trail, July 28; one, Sinclair Creek Picnic Area, July 30; two, of which one was an immature bird, near Redstreak Campground, Aug. 2; one, near Radium Hot Springs, Sept. 1; 1965.

Migration, Autumn - One bird was observed near Redstreak Campground, Sept. 24, 1965.

Nesting - One pair with four fledglings was observed about a nest constructed on an exhibit case in Redstreak Campground, July 31, 1965.

Varied Thrush - (*Ixoreus naevius*) Gmelin

Previous Records

Pairs or single birds were seen or heard from Sinclair Summit To Tokumm Creek. A pair was observed at Tokumm Creek, feeding young in the nest, June 25 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - The earliest spring record is of Redstreak Campground, April 4, 1965, when one bird was observed. One female, near Redstreak Campground, May 2, 1965; one male, Paint Pots Nature Trail, May 6, 1964.

Migration, Autumn - One bird was seen in a terrible downpour near Nixon Lake, Oct. 6, 1965.

Hermit Thrush - (*Hylocichla guttata*) Pallas

Previous Records

Although not heard or seen at lower elevations, it was observed in several places at higher altitudes along Tokumm Creek (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One, at Marble Canyon, June 16; one, at Settlers' Road, July 13; one, along the Paint Pots Nature Trail, July 28; 1965.

Swainson's Thrush - (*Hylocichla ustulata almoe*) Oberholster

Previous Records

Numerous transients were recorded at Vermilion Crossing,

June 9 to June 13 (Munro, Cowan, 1943). One bird was collected, Kootenay National Park, June 10, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Migration, Spring - one bird was seen at Redstreak Campground, June 13; one, near Redstreak Campground, June 14; 1965.

Summer Records - one, along Kimpton Creek Trail, July 1; one, at Crook's Meadows, July 13; one, at Marble Canyon Campground, July 14; one, near Radium Hot Springs, July 15; 1965.

Mountain Bluebird - (*Sialia currucoides*) Bechstein

Previous Records

Fairly common in open situations in the Kootenay Valley; one was seen 3 miles south of Vermilion Crossing, June 17; several pairs nested at Crook's Meadows (Rocky Mountain Bungalow Camp). One bird (?) was collected at Kootenay National Park, June, 1943 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - one male seen at Stoddart Creek marks the earliest spring record, Mar. 20, 1965. One male, Mile 51, Banff-Windermere Highway, Mar. 31; one male, near Radium Hot Springs, Apr. 4; one female, near Radium Hot Springs, Apr. 4; 1965. One male was observed at Hector's Gorge, Apr. 7, 1964. Several birds were seen at McLeod Meadows, Apr. 10, 1965.

Summer Records - One, Mile 51, Banff-Windermere Highway, July 21; one, near Radium Hot Springs, July 31, 1965.

Migration, Autumn - One male was observed feeding an immature bird, Mile 51, Banff-Windermere Highway, Sept. 6; one female with four immature birds was observed sitting on a telephone wire near Mile 44, Banff-Windermere Highway, Sept. 6; one male and four immature birds were seen sitting on a fence near Redstreak Campground, Sept. 6; 1965.

Nesting - One pair raised a brood of four young in a woodpecker nest 7 feet off the ground and situated exposed to the west, in a Douglas Fir.

Townsend Solitaire - (*Myadestes townsendi*) Audubon

Previous Records

Seen regularly along the highway between Sinclair Canyon and Vermilion Crossing, etc. One bird (?) was collected, Kootenay National Park, June, 1943 (Munro, Cowan, 1943).

New Fieldnotes

Spring Records - One was observed calling from a Douglas Fir and later a Rocky Mountain Juniper, near Radium Hot Springs, Mar. 30; one, near Redstreak Campground, May 2; 1965.

Autumn Records - Three birds were observed on a flank of Mt. Redstreak, Oct. 12; two, near Park Administration Office, Oct. 15; one, near Redstreak Campground, Oct. 23; three, near Redstreak Campground, Oct. 31; six, in flight, near Radium Hot Springs, Nov. 3; one, at Sinclair Canyon, Dec. 4; one, near Redstreak Campground, Dec. 4, 1965.

Winter Records - One bird was observed near Redstreak Campground, Dec. 31, 1965.

Nesting - One pair was seen nesting on a steep embankment near Redstreak Campground, May 28, 1965.

Family Sylviidae - Gnatcatchers, Kinglets

Golden-Crowned Kinglet - (Regulus satrapa olivaceus) Baird

Previous Records

Observed during several times early in June; several pairs were seen in the open spruce forest bordering Tokumm Creek, June 25; very likely it is a fairly common summer visitant to the Sub-Alpine Forest biotic area (Munro, Cowan, 1943).

New Fieldnotes

Winter Records - Two females were seen near Radium Hot Springs, Feb. 7, 1965. One male was observed in the same locality, Feb. 17, 1964.

Spring Records - One female, near Redstreak Campground, June 13; one female, at Sinclair Canyon, July 22; 1965.

Ruby-Crowned Kinglet - (Regulus calendula) Linnaeus

Previous Records

Not particularly common. Songs were heard near Vermilion Crossing and Kootenay Crossing (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - Several females were seen near Radium Hot Springs, May 2; one male was heard singing, near above locality, May 17; 1965.

Summer Records - One female, at Marble Canyon, May 27; one female, at Marble Canyon, June 3; one male, Settlers' Road, July 13; one male, Crook's Meadows, July 13; one female was perched on a branch with an insect in her beak, near Radium Hot Springs, July 14; 1965.

Migration, Autumn - One female was observed near Redstreak Campground, Sept. 7, 1965.

Family Motacillidae - Wagtails

Alpine Pipit - (Anthus spinoletta)

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One bird was killed by traffic near Mile 51, Banff-Windermere Highway, May 15, 1965 and added to the park's reference collection. However, it had to be disposed of later.

Migration, Autumn - This bird was also killed by traffic, but near Wardle Creek, Sept. 6, 1965, and added to the park's reference collection as No. 1.

Family Bombycillidae - Waxwings

Bohemian Waxwing - (*Bombycilla garrulus*) Linnaeus

Previous Records

A pair was observed evidently nesting near Kootenay Crossing, June 19; another pair near Vermilion Crossing, June 23, 24; specimen collected, Kootenay National Park, June 19, 1943 (Munro Collection, Okanagan Landing, B.C.), (Munro, Cowan, 1943).

New Fieldnotes

Spring Records - A pair was seen near Redstreak Campground, June 14, 1965.

Autumn Records - A flock of 14 migrating birds was observed resting on a Douglas Fir, Redstreak Campground, Oct. 15; another flock of 12 birds was seen feeding from bush to bush (*Juniperus scopulorum* and *Arctostaphylos uva-ursi*), near Redstreak Campground, Nov. 24; 1965.

Cedar Waxwing - (*Bombycilla cedrorum*) Vieillot

Previous Records

No records are available.

New Fieldnotes

Summer Records - One pair was observed perching on an apple tree near Redstreak Campground, July 4, 1964.

Family Sturnidae - Starlings

Starling - (*Sturnus vulgaris*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - A large group in flight, Radium Hot Springs, Mar. 22, 1964. A large group in flight, Radium Hot Springs, Mar. 21; four perched during a storm, Radium Hot Springs, Mar. 29; a group of 8, McLeod Meadows, Apr. 10; 1965.

Migration, Autumn - Several flocks, McLeod Meadows, Oct. 5; three perched on the back of an elk, McLeod Meadows, Oct. 22 (morning); a flock of 9, Simpson's Monument, Oct. 22; a flock of 7, McLeod Meadows (afternoon); 1965.

Family Vireonidae - Vireos

Solitary Vireo - (*Vireo solitarius cassinii*) Xantus

Previous Records

A single singing male seen at McKay Creek June 27, constitutes our only record (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One bird was observed singing, Redstreak Campground, June 20, 1965.

Summer Records - One, observed at Kimpton Creek trail, July 1; two, near Redstreak Campground, Aug. 5; two, at McKay Creek, Aug. 28, 1965.

Nesting - A pair was observed feeding 2 immature birds in their nest, Sinclair Canyon, July 22, 1965.

Red-Eyed Vireo - (*Vireo olivaceus*) Linnaeus

Previous Records

Three were noted on June 27, in the dense deciduous growth bordering McKay Creek (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One, at Redstreak Campground, May 17; one, at Redstreak Campground, June 14, 1965.

Warbling Vireo - (*Vireo gilvus*) Vieillot

Previous Records

Two were seen near Vermilion Crossing Campground, June 14; seen also along John McKay Creek (Munro, Cowan, 1943); specimen, Kootenay National Park, June 14, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Summer Records - One bird was observed singing from a willow thicket at Crook's Meadow, July 13, 1965.

Family Parulidae - Wood Warblers

Tennessee Warbler - (*Vermivora peregrina*) Wilson

Previous Records

Common in the spruce woods where the song was first heard, June 13 (Munro, Cowan, 1943); specimen, Kootenay National Park, June 24, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Summer Records - One male was observed trying to obtain a drink from a watering basin, but found himself disturbed by agitated robins, pine siskins and juncos, July 13, 1965, near Redstreak Campground.

Magnolia Warbler - (*Dendroica magnolia*) Wilson

Previous Records

None available.

New Fieldnotes

Migration, Spring - One male was observed singing at Marble Canyon. A second bird, possibly the female, was seen but not identified positively, June 3, 1965.

Migration, Autumn - One male was observed perching in an Engelmann spruce near Mile 51, Banff-Windermere Highway, Sept. 6, 1965.

Audubon's Warbler - (*Dendroica auduboni*) Townsend

Previous Records

This is the commonest warbler in the park, etc. (Munro, Cowan, 1943). Specimen, Kootenay National Park, June 11, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

Migration, Spring - One male, Radium Hot Springs, April 30; one male, near Radium Hot Springs, May 8, 1965.

Summer Records - One male, Paint Pots Nature Trail, May 27; one male, Sinclair Canyon Trail, May 29; one male, Redstreak Campground, July 13; one male, catching insects near Radium Hot Springs, July 14; one male, Paint Pots Nature Trail, July 14; one male, near Redstreak Campground, July 15. A pair was observed busy collecting insects, presumably to feed their young, Sinclair Canyon, July 22; 1965.

Migration, Autumn - Seven birds, of which at least one was a male, displayed their flycatcher-like ability to catch insects in flight during a warm afternoon, Paint Pots Nature Trail, Sept. 6, 1965.

Townsend's Warbler - (*Dendroica townsendi*) Townsend

Previous Records

Satisfactory identification of this warbler, by song or by sight, was made a number of times between June 10 and June 24 in the vicinity of Vermilion Crossing. Several others were seen June 25 along Tokumm Creek, (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One male observed, Marble Canyon, May 27; one male, along Kimpton Creek Trail, July 1; one male, Sinclair Canyon, July 22; 1965.

MacGillivray's Warbler - (*Oporornis tolmiei*) Townsend

A transient appeared in a bushy thicket at Vermilion Crossing June 12; a singing male was taken June 25; up Tokumm Creek this warbler was found to be fairly common in tangled deciduous vegetation of the slides, June 25 (Munro, Cowan, 1943). Specimen, Kootenay National Park, June 25, 1943 (Munro Collection, Okanagan Landing, B.C.)

New Fieldnotes

None to date.

Yellowthroat - (*Geothlypis trichas*) Linnaeus

Previous Records

Two males of this species were observed at close range in a flooded willow swamp on Dolly Varden Creek, June 14, 1943 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One male, Kootenay Crossing Marsh, May 15, 1965.

Nesting - A pair tending a nest in a flooded area of willow thickets near the Kootenay River, Settlers' Road, July 13, 1965.

Wilson's Warbler - (*Wilsonia pusilla*) Wilson

Previous Records

Seen at Kootenay Crossing, June 18 & June 22 (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One male observed singing, Radium Hot Springs, Aug. 8, 1964.

Nesting - A pair was observed for some time, tending a nest in a willow thicket, Crook's Meadows, July 13, 1965.

American Redstart - (*Setophaga ruticilla*) Linnaeus

Previous Records

A female was taken at Vermilion Crossing, June 10; this was the only specimen seen (Munro, Cowan, 1943); specimen, Kootenay National Park, June 10; Munro Collection, Okanagan Landing, B.C.

New Fieldnotes

None to date.

Family Ploceidae - Weaver Finches, etc.

English Sparrow - (*Passer domesticus*) Linnaeus

Previous Records

None are available.

New Fieldnotes

Summer Records - One pair was observed looking for kitchen scraps, near Redstreak Campground, Aug. 1, 1965.

Note: They are known to be resident in larger towns in the Columbia River Valley.

Family Icteridae - Meadowlarks, Blackbirds, Bobolinks

Western Meadowlark - (*Sturnella neglecta*) Audubon

Previous Records

Included in the park's fauna on the authority of Warden Rutherford who stated that in April 1937, one settled on a bare piece of ground close to the cabin at Marble Canyon and remained there in the vicinity for two days thereafter (Munro, Cowan, 1943).

New Fieldnotes

None available.



Red Winged Blackbird - (*Agelaius phoeniceus*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - Several, Kootenay Crossing Marsh, May 15, 1965.

Cowbird - (*Molothrus ater*) Boddaert

Previous Records

Several seen accompanying horses in the pasture at Kootenay Crossing during the early summer of 1943 (Thompson).

New Fieldnotes

Migration, Spring - A pair was seen with five juveniles, frequenting the lawn in front of the park Administration Building, June 14, 1965.

Family Thraupidae - Tanagers

Western Tanager - (*Piranga ludoviciana*) Wilson

Previous Records

In Kootenay National Park the western tanager is near its westerly limit of distribution and is not common. A singing male was seen at Crook's Meadows (Rocky Mountain Bungalow Camp) June 14-21; another singing male was observed at Vermilion Crossing, June 24; a pair near the animal lick, June 27; at lower elevations adjacent to Radium it was more abundant. Several were seen there on June 27 & June 29 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - Three males and two females were seen bathing in a bird bath, near Redstreak Campground, May 20, 1964. One male observed singing near above locality, Mar. 31, 1965.

Summer Records - One male bird, Radium Hot Springs, May 25; one male bird, Redstreak Campground, May 27; one male, near Radium Hot Springs, July 12; a pair was seen at a bird bath, near Redstreak Campground, July 13; one male, singing, Radium Hot Springs, July 14; one male, Sinclair Canyon, July 22; 1965.

Nesting - A pair was known to be nesting near Redstreak Campground; although the nest was not located, the pair of adult birds was seen with an undetermined number of fledglings near Redstreak Campground, July 30; 1965.

Family Fringillidae - Grosbeaks, Finches, Sparrows, etc.

Evening Grosbeak - (*Hesperiphona vespertina*) Cooper

Previous Records

Several times at Vermilion Crossing the presence of small wandering bands was announced by their loud whistled calls.

A flock of five was seen June 12; two males and two females were seen June 19; six were seen in flight near Dolly Varden Creek June 24, and a mated pair was in the trees at the edge of the animal lick (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - The only bird observed in the park during 1965 was a male killed by vehicular traffic near Numa Canyon, July 17; it was inspected but found too damaged to retain for the reference collection.

Purple Finch - (*Carpodacus purpureus*) Gmelin

Previous Records

No records are available.

New Fieldnotes

One male, feeding near Redstreak Campground, Apr. 6, 1965. One pair of purple finches arrived near Redstreak Campground May 3, 1965 and remained in the vicinity of a bird feeder, bird bath and garden until well into August of the same year. Nesting took place in a relatively small Douglas Fir and although the nest was not checked for its number of eggs, Aug. 2, the pair showed off four immature birds at the bird bath. The family remained for a few more days and then left the area.

Cassin's Purple Finch - (*Carpodacus cassinii*) Baird

Previous Records

An adult male was seen June 29, on the roof of the (old) gateway building at Radium Hot Springs (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - Every March, during the years of 1958 and 1963, large flocks of these birds would come flying like a blanket into the plowed-out and cleared roadways of the McKay Creek Industrial Compound. They would remain but a few minutes and then disappear again to make room for another flock. One single male was observed near Redstreak Campground, Mar. 30, 1965.

Pine Grosbeak - (*Pinicola enucleator*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Autumn Records - Two males, Mt. Redstreak, Oct. 12; one male, Mt. Redstreak, Oct. 13; one female, Redstreak Campground, Oct. 19; one female, in flight near Paint Pots Nature Trail, Oct. 22; two females, Marble Canyon, Nov. 1; three females were observed near Redstreak Campground during a violent storm. They were seeking protection in the branches of a small Douglas Fir. One bird was blown off the branch several times, only to return to it for shelter. Nine females, feeding on seeds of roadside weeds near Redstreak Campground, Nov. 25; a large flock (15±), near Redstreak Campground, Nov. 25; a large flock (30±) males and females, feeding on seeds of roadside weeds, near Redstreak Campground, Dec. 15; 1965.

Winter Records - A flock of 12 birds was seen near Redstreak Campground, Dec. 25; one male, near Redstreak Campground, Dec. 27; several males and females, near Redstreak Campground, Dec. 31; 1965.

Common Redpoll - (*Acanthis flammea*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Autumn Records - A large flock (30+), consisting of both sexes, visited the *Potentilla fruticosa* shrubs near the park Administration Office, Nov. 24, evidently feeding on the seeds (11:15 a.m.); a second flock of 9 birds of both sexes visited the same shrubs at 3:50 p.m., Nov. 24; a flock of 9 birds of both sexes was seen feeding on the seeds, Nov. 26; 1965.

Pine Siskin - (*Spinus pinus*) - Wilson

Previous Records

Common in flocks of five or six in the woods and open places, from Sinclair Canyon to Vermilion Crossing. One such flock appeared on the lawn at Vermilion Crossing.

New Fieldnotes

Migration, Spring - Several, Redstreak Campground, Mar. 30, 1965.

Summer Records - Several, near Redstreak Campground, July 13; 20+, Redstreak Campground, Aug. 2; 3, Redstreak Campground, Aug. 15; two, Banff-Windermere Highway, Miles 51 and 42, Aug. 18; 1965.

Note: Pine Siskins were considerably more plentiful than the fieldnotes would indicate. They were observed almost daily anywhere along the Banff-Windermere Highway during some periods, and were conspicuous by their absence during other periods. These observations seem to confirm similar observations made in neighbouring areas which point out the fluctuations of observations. (Two killed birds were examined but found too damaged to retain.)

Red Crossbill - (*Loxia curvirostra*) Linnaeus

Previous Records

Crossbills are highly erratic in local distribution and in the summer of 1943 were found to be scarce throughout the southern Rocky Mountain area. The only individuals seen in the park were three, feeding in a pine grove at McLeod Meadows, June 28 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One pair was observed feeding in a Douglas Fir at Redstreak Campground, Apr. 10, 1965.

White-Winged Crossbill - (*Loxia leucoptera*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - A resting flock of 4 males and 7 females was observed taking advantage of a bird bath near Redstreak Campground, May 19, 1965. The flock remained for several hours, resting, feeding and bathing.

Savannah Sparrow - (*Passerculus sandwichensis*) Gmelin

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One, feeding near Redstreak Campground, Apr. 2, 1965.

Summer Records - Three, at Crook's Meadows, July 13; two, at Kootenay Pond, Aug. 7; 1965.

Vesper Sparrow - (*Poocetes gramineus*) Gmelin

Previous Records

A single bird was seen at Radium, June 27 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One, killed by a vehicle near Mile 51, Banff-Windermere Highway, May 15; several, near Redstreak Campground, June 20, 1965.

Summer Records - One, near Redstreak Campground, Aug. 25, 1965.

Slate-Coloured Junco - (*Junco hyemalis*) Linnaeus

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One male, giving a single call note near park Administration Building, March 19; one, Redstreak Campground, singing, Mar. 30; several, at McLeod Meadows, Apr. 10; one, Marble Canyon, killed by a vehicle, May 27; 1965.

Summer Records - One male, Marble Canyon Campground, July 14; one, Radium Hot Springs, Aug. 2; 1965.

Oregon Junco - (*Junco oreganus montanus*) Ridgway

Previous Records

Abundant along the highway and in clearings in semi-open woods; no young were seen outside of the nest prior to June 29; a nest containing four eggs was examined, June 21 (Munro, Cowan, 1943). Specimen record, Kootenay National Park, June 11, 1943, eggs; (Munro).

New Fieldnotes

Migration, Spring - Seven, near Redstreak Campground, Feb. 7; one, near Redstreak Campground, Apr. 1; several, near Redstreak Campground, May 2; one, Kootenay Crossing Marsh, May 15, 1965.

Summer Records - Three, Settlers' Road, July 3; three, Dolly Varden Fire Road, July 13; several immature birds drinking water near Redstreak Campground, July 13; one immature, drinking water at same locality as above, July 14; many immature and mature birds, Sinclair Canyon, July 22; one immature killed by car, Radium Hot Springs, July 29; one, observed at Numa Creek, Aug. 20; many, observed at Redstreak Campground, Aug. 25, 1965.

Migration, Autumn - One, Radium Hot Springs, Sept. 23; several, Radium Hot Springs, Sept. 27; several, Redstreak Campground, Oct. 1; three, Radium Hot Springs, Oct. 19; eight, near Redstreak Campground, Oct. 23; 1965.

Note: In the years previous to the study period, several nests were observed on various occasions; unfortunately no exact records were kept.

Pink-Sided Junco - (*Junco oreganus mearnsii*)

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One, near Redstreak Campground, May 27, 1965.

Summer Records - One, near Redstreak Campground, July 30; several, near Redstreak Campground, Aug. 2; one, Radium Hot Springs, killed by a car; Aug. 15; (Reference Collection No. 2). One, near Redstreak Campground, killed by flying into a large window, Aug. 25; 1965. (Reference Collection No. 3).

Migration, Autumn - Many in flocks, near Redstreak Campground, Sept. 1 - 5, 1965.

Chipping Sparrow - (*Spizella passerina*) Bechstein

Previous Records

Common in pairs in many parts of the park where they frequented the same habitat as that occupied by juncos. One was seen carrying nesting material, June 14 (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - Two, killed by vehicles near Radium Hot Springs, May 24; one, at Marble Canyon, May 27; 1965.

Summer Records - One, at Marble Canyon, June 30; one, at Kimpton Creek Trail, July 1; two, near Settlers' Road, July 13; four, at Crook's Meadow, July 13; five, of which some were immatures, Radium Hot Springs, July 13; two, near Redstreak Campground, preening their feathers, July 14; several, in Sinclair Canyon, July 22; one adult and one immature bird were observed drinking water, near Redstreak Campground, Aug. 2; two immatures, near Redstreak Campground, Aug. 25, 1965.

Migration, Autumn - One, near the Paint Pots Nature Trail, Oct. 5, 1965.

Clay-Coloured Sparrow - (*Spizella pallida*) Swainson

Previous Records

No records are available.

New Fieldnotes

Summer Records - Three birds were observed at McKay Creek, Aug. 28; one, near Redstreak Campground, drinking water, Aug. 29, 1965.

White-Crowned Sparrow - (*Zonotrichia leucophrys gambelii*) Nuttall

Previous Records

In the big burn (of 1926) a pair was established on a nesting territory, etc.; both were under observation June 24, 25; this was the only record, nevertheless the species probably is of common occurrence at higher altitudes (Munro, Cowan, 1943). Specimen record, Kootenay National Park, June 24, 1943 (Munro).

New Fieldnotes

Migration, Spring - One bird was observed resting on a fence for several hours, near Redstreak Campground, May 13, 1965.

Fox Sparrow - (*Passerella iliaca*) Merrem

Previous Records

One June 25 one was heard singing at the edge of the forest bordering a slide about five miles south of Vermilion Crossing. Two other males were seen on the same date on slides bordering Tokumm Creek. No doubt further investigation will reveal that fox sparrows nest commonly in many such places. (Munro, Cowan, 1943).

New Fieldnotes

Migration, Spring - One fox sparrow (rusty form, after Peterson) was observed singing near a bird bath, near Redstreak Campground, May 20, 1965.

Lincoln's Sparrow - (*Melospiza lincolni*) Audubon

Previous Records

A singing male was heard and seen June 24 and 25 on a slide bordering Tokumm Creek (Munro, Cowan, 1943).

New Fieldnotes

Summer Records - One bird was observed singing at McLeod Meadows, Aug. 7, 1965.

Song Sparrow - (*Melospiza melodia*) Wilson

Previous Records

No records are available.

New Fieldnotes

Migration, Spring - One bird was observed singing near Redstreak Campground, Apr. 5; another, near the same locality, May 2; 1965.

Snow Bunting - (*Plectrophenax nivalis*) Linnaeus

Previous Records

None are available.

New Fieldnotes

Autumn Records - A small flock of three birds was definitely identified at Sinclair Pass, November 5, 1965. Another somewhat larger flock was seen the same day near Hector's Gorge. However, definite identification was impossible.

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APPENDIX "A"

Listing of Birds Observed by  
Munro & Cowan in Kootenay National Park, 1943

(as taken from The Canadian Field Naturalist, Vol. 58, No. 2; March-April, 1944.)

1. Loon	<i>Gavia immer</i>
2. Canada Goose	<i>Branta canadensis</i>
3. Snow Goose	<i>Chen hyperborea</i>
4. Mallard	<i>Anas platyrhynchos</i>
5. Barrow Golden Eye	<i>Glaucionetta islandica</i>
6. Harlequin Duck	<i>Histrionicus histrionicus</i>
7. Goshawk	<i>Astur atrica pillus</i>
8. Sharp-shinned Hawk	<i>Accipiter velox</i>
9. Red-tailed Hawk	<i>Buteo borealis</i>
10. Golden Eagle	<i>Aquila chrysaetos</i>
11. Sparrow Hawk	<i>Falco sparverius</i>
12. Blue Grouse	<i>Dendragapus obscurus</i>
13. Franklin Grouse	<i>Canachites franklini</i>
14. Ruffed Grouse	<i>Bonasa umbellus</i>
15. Whittailed Ptarmigan	<i>Lagopus leucurus</i>
16. Spotted Sandpiper	<i>Actitis macularia</i>
17. Horned Owl	<i>Bubo virginianus</i>
18. Nighthawk	<i>Chordeiles minor</i>
19. Black Swift	<i>Nephoecetes niger</i>
20. Rufous Humming Bird	<i>Selasphorus rufus</i>
21. Belted Kingfisher	<i>Megaceryle alcyon</i>
22. Red-shafted Flicker	<i>Colaptes cafer</i>
23. Pileated Woodpecker	<i>Ceophloeus pileatus</i>
24. Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
25. Hairy Woodpecker	<i>Dryobates villosus</i>
26. Arctic Three-toed Woodpecker	<i>Picoides arcticus</i>
27. Three-toed Woodpecker	<i>Picoides tridactylus</i>
28. Alder Flycatcher	<i>Empidonax trailli</i>
29. Hammond Flycatcher	<i>Empidonax hammondi</i>
30. Wright Flycatcher	<i>Empidonax wrighti</i>
31. Western Wood Pewee	<i>Myiochanes richardsoni</i>
32. Olive-sided Flycatcher	<i>Nuttallornis mesoleucus</i>
33. Violet-green swallow	<i>Tachycineta thalassina</i>
34. Tree Swallow	<i>Iridoprocne bicolor</i>
35. Rough-winged Swallow	<i>Stelgidopteryx ruficollis</i>
36. Cliff Swallow	<i>Petrochelidon albifrons</i>
37. Canada Jay	<i>Perisoreus canadensis</i>
38. Steller Jay	<i>Cyanocitta stelleri</i>
39. Magpie	<i>Pica pica</i>
40. Raven	<i>Corvus corax</i>
41. American Crow	<i>Corvus brachyrhynchos</i>
42. Clarke Nutcracker	<i>Nucifraga columbiana</i>
43. Black-capped Chickadee	<i>Penthestes atricapillus</i>
44. Mountain Chickadee	<i>Penthestes gambeli</i>
45. Boreal Chickadee	<i>Penthestes hudsonicus</i>
46. Red-breasted Nuthatch	<i>Sitta canadensis</i>
47. Dipper	<i>Cinclus mexicanus</i>
48. Winter Wren	<i>Tannus hiemalis</i>
49. Amer. Robin	<i>Turdus migratorius</i>
50. Varied Thrush	<i>Ixoreus naevius</i>
51. Hermit Thrush	<i>Hylocichla guttata</i>
52. Olive-backed Thrush	<i>Hylocichla ustulata</i>



53. Mountain Bluebird	<i>Sialia currucoides</i>
54. Townsend Solitaire	<i>Myadestes townsendi</i>
55. Golden-crowned Kinglet	<i>Regulus satrapa</i>
56. Ruby-crowned Kinglet	<i>Corthylio calendula</i>
57. Bohemian Waxwing	<i>Bombycilla garrula</i>
58. Solitary Vireo	<i>Vireo solitarius</i>
59. Red-eyed Vireo	<i>Vireo olivaceus</i>
60. Warbling Vireo	<i>Vireo gilvus</i>
61. Tennessee Warbler	<i>Vermivora peregrina</i>
62. Audubon Warbler	<i>Dendroica auduboni</i>
63. Townsend Warbler	<i>Dendroica townsendi</i>
64. Macgillivray Warbler	<i>Oporornis tolmiei</i>
65. Yellow Throat	<i>Geothlypis trichas</i>
66. Wilson Warbler	<i>Wilsonia pusilla</i>
67. American Redstart	<i>Steophaga ruticilla</i>
68. Western Meadowlark	<i>Sturnella neglecta</i>
69. Cowbird	<i>Molothrus ater</i>
70. Western Tanager	<i>Piranga ludoviciana</i>
71. Evening Grosbeak	<i>Hesperiphona vespertina</i>
72. Cassin Purple Finch	<i>Carpodacus cassinii</i>
73. Pine Siskin	<i>Spinus pinus</i>
74. Red Crossbill	<i>Loxia curvirostra</i>
75. Vesper Sparrow	<i>Pooecetes gramineus</i>
76. Oregon Junco	<i>Junco oreganus</i>
77. Chipping Sparrow	<i>Spizella passerina</i>
78. White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
79. Fox Sparrow	<i>Passerella iliaca</i>
80. Lincoln Sparrow	<i>Melospiza lincolni</i>

APPENDIX "B"

A Comparative Listing of Birds Observed at the  
Radium Slough

(Columbia River Wetlands, 1½ miles west of  
the park)

1. Common Loon, two pairs diving for food, June 15, 1965.
2. Ring-necked Grebe, a pair observed nesting, April 23, 1965;  
one male, May 23, 1965.
3. Canada Goose, a pair observed nesting, April 10, 1965;  
several pairs observed nesting, April 23, 1965.
4. Mallard, a pair observed nesting, April 10, 1965;  
a male feeding, April 23, 1965.
5. Blue-winged Teal, a pair believed to be nesting, May 31, 1965.
6. Wood Duck, one male was observed, other remained hidden and  
were not identified positively, May 23, 1965.
7. Common Goldeneye, a pair was observed nesting, April 23, 1965;  
one female feeding, May 24, 1965;  
one female with six ducklings, May 31, 1965;  
three females feeding, Sept. 24, 1965.
8. American Coot, a pair nesting, with the female busy incubating,  
May 25, 1965.
9. Black Tern, two were seen scooting down to water level again  
and again, June 1, 1965.
10. Night Hawk, one male hunting for dragonflies, June 15, 1965.
11. Belted Kingfisher, one male was seen perched on a dead tree,  
June 15, 1965.
12. Eastern Kingbird, a pair was observed, evidently nesting, June 1,  
1965.
13. Western Wood Pewee, one bird was seen, May 23, 1965.
14. Traill's Flycatcher, several were seen working out of trembling  
aspen and cottonwood groves, June 5, 1965.
15. Violet-green Swallow, several were observed, May 24, 1965.
16. Barn Swallow, several were observed, May 24, 1965.
17. Black-billed Magpie, two were observed flying about, April 23,  
1965;  
one was seen in flight, June 15, 1965.
18. Cedar Waxwing, possibly a pair, were seen June 15, 1965.
19. Yellow Warbler, a pair was seen collecting nesting materials,  
June 5, 1965; a single bird (male) was seen June  
15, 1965.

20. Audubon's Warbler, one male was seen, May 24, 1965.
21. Western Meadowlark, one was observed Apr. 23, 1965.
22. Red-winged Blackbird, a male was seen in flight, and many call notes were heard of others, May 25, 1964; several birds were seen, April 23, 1965.
23. Fox Sparrow (Rusty Form), one was observed perched on a willow branch and singing, May 24, 1965.
24. Swamp Sparrow, one female was seen gathering nesting material, April 23, 1965.



Fig. 1 - Columbia River Valley;  
Dry Interior Douglas Fir Zone.



Fig. 2 - Columbia River Valley Slough, outside of  
the park area - Dry Interior Douglas Fir Zone.



Fig. 3 - Kootenay River Valley, New Growth Burnt Over Area; Transitional Zone.



Fig. 4 - Kootenay River Flood Planes and Old River Bed, Kootenay River Valley; Transitional Zone.



Fig. 5 - Kootenay River, Transitional Zone.



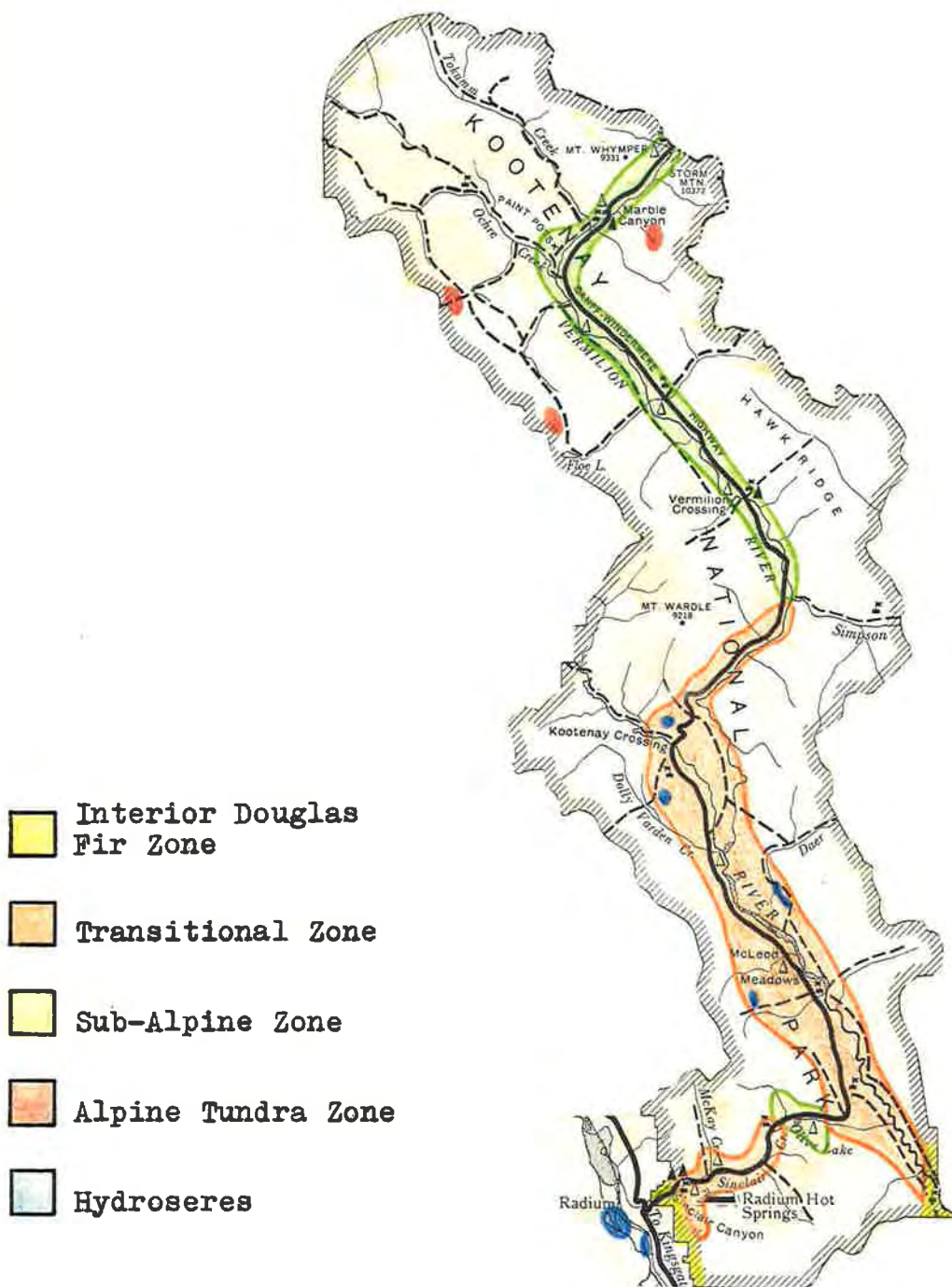
Fig. 6 - Vermilion River, Subalpine Zone



Fig. 7 - Vermilion Range, above Vermilion River;  
Alpine Tundra Vegetation Zone.



Fig. 8 - Slide Slopes near Marble Canyon;  
Subalpine Zone.



KOOTENAY NATIONAL PARK

Survey areas are shown in the colours of corresponding life zones.