THE
MAMMALS OF KOOTENAY NATIONAL PARK

First Report - (1965)

by

K.E. Seel,
Park Naturalist

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Introduction

Although Kootenay National Park was originally set aside to preserve the landscape immediately adjacent to the Banff-Windermere Highway, today the park can be regarded as a wildlife refuge, if not a sanctuary, as much as a scenic park, because of its very nature and location. Protected from the ever-increasing hunting pressure along the western park boundary, the wildlife has grown appreciative of the peaceful surroundings in the park, and most larger species may be observed throughout the year with little difficulty.

Several researchers and fieldworkers have on occasion investigated the status of the wildlife as a whole, or specific portions of it. Unfortunately, little published material or collected specimen were made available to the park through these research programs, and the information to satisfy the park's own needs is scanty, to say the least. The first published report is that of J.A. Munro and I. McTaggart Cowan of 1943, titled, "Preliminary Report on the Birds and Mammals of Kootenay Nationa Park." As far as is known here, I. McTaggart Cowan followed this report up with the following: "Parasites, Diseases and Injuries of Game Animals in Banff, Jasper and Kootenay National Parks, 1944." For the years of 1945 and 1946 his "General Report Upon Wildlife Studies in the Rocky Mountain National Parks" is available. The latter reports seem to mark the end of an era of major research into the status of the wildlife in the park. In the period following, D. Flook, D. Blood, and possibly a host of other field researchers from the Canadian Wildlife Service have intermittently studied certain species of mammals, but no reports concerning their research and results are available in the park, and some doubt exists as to them ever having been published. The most recent fieldwork paper available is that of Park Warden J.C. Holroyd, "A Summary of Goat Observations on Mt. Wardle, Jan., 1962 to Dec., 1963."

At present (1965-1966) the herds of Rocky Mountain Sheep (Ovis canadensis canadensis) in the Rocky Mountain Trench, and thus far only outside the park boundaries, have become subjected to what amounts to an epidemic of lungworm (Genus Protostrongylus), causing many of the stricken animals to succumb to what may be bacterial pneumonia which develops in the thoracic region as

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a result of their weakened condition. The Fish and Game Branch of the Province of British Columbia is conducting an emergency investigation into the problem and it is hoped that some very useful information may be made available to this park as a result of this investigation. It must be noted here that the same disease mentioned previously, literally wiped out the park's sheep herds between 1936 and 1942.

To supplement the relatively meagre information available to the park's Interpretive Service, and to lay the foundation to a park reference collection, a limited trapping program was brought into effect during the latter part of the 1965 visitor season. Seasonal Interpretive Officer K.W. Reid, a post-graduate student of the University of British Columbia, was largely responsible for the organization and the carrying out of the fieldwork.

General Report

The Warden Service of the park has for many years now reported on general wildlife observations which are listed in their monthly diaries and are available to the park's Interpretive Service for scrutiny. Since 1961 these observations have been supplemented by wildlife observations collected by the writer of this report. In the process of this, "Wildlife Observation Cards"* apparently printed by this Department but never used in the park, were utilized. These records have been filed in a proper cabinet and make up a part of the permanent reference collection.

In addition to this, limited collections were made as opportunities presented themselves. At the writing of this report the number of specimen collected amounts to thirty-four (34). (See appendix for detailed report).

With the planning of a greater emphasis on collecting and field research in the season of 1966, several new pieces of equipment were purchased to facilitate a sensible and most information-producing trapping program.

(a) Field Equipment

At present the following numbers of spring traps are part of the trapping program:

Standard Mouse Traps (with padded striker bar)	- 24
Single Spring Traps, No. "0"	- 24
Single Spring Traps, No. 1	- 12

In addition to the above traps, the following live traps were purchased recently:

Havahart Live Trap No. 3	- 2
Havahart Live Trap No. 2	- 3
Havahart Live Trap No. 1	- 4

During limited trial periods, the live traps were found to be much superior to the single spring traps in several ways. Although bulkier and harder to conceal, the successful-trapping ratio per trap appeared to be higher than for an equal amount of spring traps. Live traps, if looked after properly, render their specimen undamaged. Further to this, unwanted specimen

* See Appendix for Sample Card.

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may be released after useful specimen records have been taken. Recently much useful information has become available concerning the use of tranquilizer tabs in restraining captured carnivores. With more research, some of the information gained and supplemented by experimental fieldwork may soon be adapted to serve the park's research program and facilitate the data and specimen collecting presently under way, with the least amount of damage to the wildlife concerned and/or subsequent waste.

It is hoped that more live traps may be purchased in the near future, to coincide with a stepped-up fieldwork program.

(b) Laboratory

No laboratory space is available in the park at present, and all laboratory work has been carried out under relatively primitive conditions. It is the writers' opinion that thought should be given to overcoming this situation and that adequate laboratory space, equipped with basic utilities, should be made available to the Interpretive Service at an early date. The benefits of such a space would be manyfold and obvious enough without further detailed explanation.

A need for various smaller pieces of related equipment has become evident, and it is hoped that some of this may be purchased as the program develops further in 1966.

(c) Specimen Storage Facilities

No specimen storage facilities have been available in the park in the past. This has had a detrimental effect on the development of a basic park reference collection of mammals. Very recently the Park Superintendent has consented to have the first adequate specimen storage cabinet constructed and this project is presently in the latter stages of completion.

This will, of course, overcome one of the main obstacles of the past and provide a stimulating effect to the cataloguing and collecting of mammals found in the park. It should be stressed here that the collecting of entire specimen is planned to include no specimen larger than a coyote. Thus far only the skulls of larger mammals have been collected.

(d) Permanent Records

Complete and concise records have been kept whenever possible of all collections made to date. The present method of keeping these records in survey-field books (Instruments Limited (1951), Field Book No. 360), will be superseded, as soon as the permanent record cards, etc., discussed at the sixth Annual Park Naturalists' Conference in Calgary, are supplied to this office.

A complete listing of authenticated records, both of collections made by the park's Interpretive Service and fieldworkers of outside institutions, is added to this report in the form of Appendices A, B and C. The terminology used follows Cowan and Guiguet (1965).

Summary

It is, of course, realized that much more fieldwork will have to be undertaken throughout the next few years, to collect the information so necessary to the park as a whole, and the

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Natural History Program in particular. Preliminary steps have been taken recently to obtain valuable field data from those institutions which have during previous years carried out research programs in Kootenay National Park. This pertains mainly to the Canadian Wildlife Service, the University of British Columbia, and the National Museum of Canada. It is hoped that these institutions may be willing and able to supplement park-gathered records and general ecological information.

Meanwhile, the collecting and acquiring of up-to-date technical information, reports and reference books is being continued as part of a concerted effort to overcome the general lack of park reference records and collections, as they pertain to the mammals of Kootenay National Park.

REFERENCES

1. The Mammals of B.C., by I. McTaggart Cowan, 3 Edt., 1965; Handbook No. 11, B.C. Provincial Museum.

2. Preliminary Report on the Birds and Mammals of Kootenay National Park, by J.A. Munro and I. McTaggart Cowan, 1943; The Can. Field Naturalist, Vol. 58, No. 2, 34:51.

3. Parasites, Diseases and Injuries of Game Animals in Banff, Jasper and Kootenay National Parks, by I. McTaggart Cowan, 1944; Dept. of Mines and Resources, Ottawa.

4. General Report Upon Wildlife Studies in the Rocky Mountain National Parks, by I. McTaggart Cowan, 1945 and 1946.

5. A Summary of Goat Observations on Mount Wardle, Kootenay National Park, by J.C. Holroyd, Park Warden, 1963.

6. The Journal of Wildlife Management, by the Wildlife Society, several volumes.

7. Wildlife Investigational Techniques, by the Wildlife Society, 1963; 2nd Edt. (Revised).

8. Principles of Field Biology and Ecology, by A.H. Benton, 1965; McGraw-Hill.

APPENDIX "A"

PARA REFERENCE COLLECTION - (1965)

Ref. Coll. No. 1 - Alces americana andersoni, Peterson; (skull only)
Wardle Creek, Elev. 4,700'; May 23, 1964; (sex - female).

No. 2 - Oreamnus americanus americanus, Blainville; (skull only, poor condition)
Sinclair Canyon, Elev. 3,400'; June 27, 1964.

No. 3 - Ovis canadensis canadensis, Shaw (?); (skull only, poor condition)
Mt. Sinclair, Elev. 6,700'; October 15, 1962.

No. 4 - Castor canadensis leucodontus, Gray; (skull only, poor condition)
Columbia River Valley, Elev. 2,600'; May 19, 1964.

No. 5 - Ondatra zibethica osoyoosensis, Lord; (skull only, poor condition)
Redstreak Campground, Elev. 3,400'; Sept. 5, 1963.

No. 6 - Lepus americanus columbiensis, Rhoads; (skull only, poor condition)
Redstreak Campground, Elev. 3,400'; July 4, 1962.

No. 7 - Taxidea taxus taxus, Schreber; (skull only)
Radium - Highway 93, Elev. 2,900 (?); Oct. 26, 1964.
T.L. - 797 mm.
T. - 139 mm.
H.F. - 125 mm., weight 20.5 lbs.
Sex - Male

No. 8 - Mustella erminea invicta, Hall; (whole specimen)
Radium, Elev. 3,730'; Nov. 15, 1962.
T.L. - 291 mm.
T. - 86 mm.
H.F. - 40 mm.
Sex - Male

No. 9 - Sorex palustris navigator, Baird; (whole specimen)
Radium Hot Springs Aquacourt, Elev. 3,330'; Sept. 3, 1961.
T.L. - 161 mm.
T. - 78 mm.
H.F. - 20 mm.
Sex - Female

No. 10 - Peromyscus maniculatus artemisiae, Rhoads; (whole specimen)
Radium, Elev. 3,175'; Aug. 15, 1962.
T.L. - 150 mm.
T. - 66 mm.
H.F. - 20 mm.
Sex - Male

No. 11 - Lepus americanus columbiensis, Rhoads; (skull and study skin)
Redstreak Campground, Elev. 3,400'; July 18, 1965.

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No. 11 (Cont'd) - T.L. - 389 mm.
T. - 36 mm.
H.F. - 136 mm.
Sex - Male.

No. 12 - Spermophilus columbianus columbianus, Ord. (skull and study skin)
McLeod Meadows, Elev. 3,800'; July 28, 1965.
T.L. - 338 mm.
T. - 90 mm.
H.F. - 51 mm.
Sex - Female.

No. 13 - Eutamias amoenus luteiventris, Allen; (study skin only)
Redstreak Campground, Elev. 3,400'; Aug. 19, 1965.
T.L. - 205 mm.
T. - 91 mm.
H.F. - 31 mm.
Sex - Male.

No. 14 - Tamiasciurus hudsonicus richardsoni, Bachman: (study skin only)
Redstreak Campground, Elev. 3,250'; May 24, 1965.
T.L. - 313 mm.
T. - 124 mm.
H.F. - 48 mm.
Sex - Female.

No. 15 - Tamiasciurus hudsonicus richardsoni, Bachman; (skull and study skin)
Redstreak Campground, Elev. 3,400'; Aug. 19, 1965.
T.L. - 316 mm.
T. - 117 mm.
H.F. - 49 mm.
Sex - Female.

No. 16 - Neotoma cinerea drummondi, Richardson; (skull only)
Redstreak Campground, Elev. 3,400'; Aug. 19, 1965.
T.L. - 418 mm.
T. - 176 mm.
H.F. - 47 mm.
Sex - Male.

No. 17 - Tamiasciurus hudsonicus richardsoni, Bachman; (skull and study skin)
Redstreak Campground, Elev. 3,400'; Aug. 20, 1965.
T.L. - 346 mm.
T. - 135 mm.
H.F. - 49 mm.
Sex - Female.

No. 18 - Tamiasciurus hudsonicus richardsoni, Bachman; (skull and study skin)
Redstreak Campground, Elev. 3,400'; Aug. 20, 1965.
T.L. - 332 mm.
T. - 125 mm.
H.F. - 47 mm.
Sex - Female.

No. 19 - Eutamias amoenus luteiventris, Allen; (skull and study skin)
Redstreak Campground, Elev. 3,400'; Aug. 20, 1965.
T.L. - 225 mm.
T. - 90 mm.
H.F. - 31 mm.
Sex - Female.

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No. 20 - Neotoma cinerea drummondi, Richardson; (skull only)
Redstreak Campground, Elev. 3,400'; Aug. 20, 1965.
T.L. - 443 mm.
T. - 212 mm.
H.F. - 51 mm.
Sex - Male.

No. 21 - Eutamias amoenus luteiventris, Allen; (study skin only)
Redstreak Campground, Elev. 3,400'; Aug. 21, 1965.
T.L. - 209 mm.
T. - 87 mm.
H.F. - 32 mm.
Sex - Male.

No. 22 - Eutamias amoenus luteiventris, Allen; (study skin only)
Redstreak Campground, Elev. 3,400'; Aug. 21, 1965.
T.L. - 226 mm.
T. - 100 mm.
H.F. - 33 mm.
Sex - Female.

No. 23 - Eutamias amoenus luteiventris, Allen; (skull and study skin)
Redstreak Campground, Elev. 3,400'; Aug. 21, 1965.
T.L. - 220 mm.
T. - 96 mm.
H.F. - 33 mm.
Sex - Male.

No. 24 - Tamiasciurus hudsonicus richardsoni, Bachman; (study skin only)
Redstreak Campground, Elev. 3,400'; Aug. 21, 1965.
T.L. - 311 mm.
T. - 125 mm.
H.F. - 49 mm.
Sex - Female.

No. 25 - Neotoma cinerea drummondi, Richardson, (study skin only)
Redstreak Campground, Elev. 3,400'; Aug. 21, 1965.
T.L. -
T. -
H.F. - 46 mm.
Sex - Male.

No. 26 - Neotoma cinera drummondi, Richardson; (study skin only)
Radium Junction, Elev. 3,175'; Aug. 26, 1965.
T.L. - 336 mm.
T. - 112 mm.
H.F. - 45 mm.
Sex - Male.

No. 27 - Myotis lucifugus, Le Conte; (skull and study skin)
Radium Hot Springs, Elev. 3,330'; Sept. 1, 1965.
T.L. - 81 mm.
T. - 39 mm.
H.F. - 9 mm.
Sex - Female (?)

No. 28 - Canis latrans lestes, Merriam; (skull and flat skin)
Wardle Creek, Elev. 4,200'; Nov. 15, 1965.
T.L. - 40½ inches
T. - 12 1/16 inches
H.F. - 7 3/16 inches.
Sex - Female.
Weight - 19 3/4 lbs.
Girth - 19½ inches.

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No. 29 - Peromyscus maniculatus, Wagner; (skull and study skin)
Radium Junction, Elev. 3,120'; Dec. 3, 1965.
Note: This specimen has not been examined to date.

No. 30 - Ovis canadensis canadensis, Shaw; (skull only)
Iron Gates, Elev. 3,380'; Dec. 3, 1965.
Note: This specimen was collected by the Warden Service. No measurements were taken. (Sex female, yearling).

No. 31 - Tamiasciurus hudsonicus richardsoni, Bachman; (skull and study skin)
Radium Junction, Elev. 3,120'; Dec. 3, 1965.
Note: This specimen has not been examined to date.

No. 32 - Cervus canadensis nelsoni, Bailey; (skull only)
Crook's Meadow, Elev. 3,800'; Dec. 5, 1965.
(Sex female).

No. 33 - Cervus canadensis nelsoni, Bailey; (skull only)
Nixon Creek, Elev. 3,800'; Dec. 11, 1965.
(Sex female).

No. 34 - Erethizon dorsatum nigrescens, Allen
Sinclair Pass, Elev. 4,875'; Aug. 8, 1962.
Note: The skull and skin of this specimen were too damaged to be of any use to the Reference Collection.

T.L. - 32 3/4 inches
T. - 9 inches
H.F. - 4¼ inches
Sex - Male.

APPENDIX "B"

A LISTING OF KNOWN SPECIMEN COLLECTIONS TAKEN BY INSTITUTIONS AND FIELDWORKERS OUTSIDE OF THE PARK SERVICE

1. Sorex cinereus cinereus, Kerr; two males, one immature; Vermilion Crossing, collected by Munro & Cowan, 1943; (U.B.C.)

2. Sorex vagrans obscurus, Merriam; 9 specimens taken, male & female; Vermilion Crossing, collected by Munro & Cowan, June 24 & 28, 1943; (U.B.C.)

3. Sorex palustris navigator, Baird; one male, Vermilion Crossing; collected by Munro & Cowan, 1943; (U.B.C.)

4. Micro sorex hoyi intervectus, Jackson; two nursing females, Vermilion Crossing; collected by Munro & Cowan, June 10 & 18, 1943; (U.B.C.)

5. Myotis evotis evotis, Allen; seven pregnant females, Vermilion Crossing; June 28, 1943; twelve females, Vermilion Crossing, July 7, 1946; collected by Munro & Cowan (U.B.C.)

6. Mustela cicognani (?), one nursing female, Crook's Meadow, June 21, 1943; collected by Munro & Cowan (U.B.C.)

7. Mustela vison, Schreber; one specimen taken at Vermilion Crossing; collected by Munro & Cowan, June 27, 1943; (U.B.C.)

8. Gulo luscus, Linnaeus; one specimen trapped, Simpson River; collector unknown, winter 1941-42.

9. Mephitis mephitis, Schreber; killed by a car near Kootenay Crossing; collected by Thompson, year unknown.

10. Lynx canadensis canadensis; Kerr; 29 specimens taken, between Vermilion Crossing and Wardle Creek; collected by Trapper W. Nixon, winter 1916-17.

11. Eutamias amoenus, Allen; several trapped between Sinclair Summit and Marble Canyon; collected by Munro & Cowan, 1943; (U.B.C.)

12. Glaucomys sabrinus, Shaw; frequently trapped before the area became a National Park; one adult female taken, Vermilion Crossing; collected by Munro & Cowan, June 17, 1943 (U.B.C.)

13. Peromyscus maniculatus artemisiae (Rhoads); six specimens, Vermilion Crossing; two specimen, five miles south of above; collected by Munro & Cowan, 1943 (U.B.C.)

14. Neotoma cinerea drummondi (Richardson); one specimen, Radium Hot Springs; collected by Meredith, June 30, 1943; examined by Munro & Cowan, 1943 (U.B.C.)

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15. Phenacomys intermedius, Merriam; several specimens, Vermilion Crossing; one specimen, six miles south of above; collected by Munro & Cowan, 1943 (U.B.C.)

16. Clethrionomys gapperi, Vigors; several specimens, Vermilion Crossing; first young taken at above, June 24, collected by Munro & Cowan, 1943 (U.B.C.)

17. Microtus pennsylvanicus drummondi, Audubon & Bachman; several specimens taken at or near Vermilion Crossing; one female trapped June 12, contained seven embryos; the first young (¼ grown) were trapped June 23; collected by Munro & Cowan, 1943; (U.B.C.)

18. Microtus (longicaudus?) mordax, Merriam; adult male & female were taken June 10, Vermilion Crossing; nursing female & male were taken June 28, 2 miles north of above; collected by Munro & Cowan, 1943 (U.B.C.)

19. Zapus princeps idahoensis, Davis; taken at Kootenay Crossing, Vermilion Crossing and Crook's Meadows, 1943 & later (?); collected by Munro & Cowan (U.B.C.)

20. Lepus americanus columbiensis, Rhoads; specimen record listed in "Mammals of B.C.", Cowan & Guiguet; (3 ed. rev.) 1965; Provincial Museum.

21. Synaptomys borealis chapmani, Allen; specimen record listed in "Mammals of B.C.", Cowan & Guiguet; (3 ed. rev.) 1965; Provincial Museum.

22. Erethizon dorsatum nigrescens, Allen; specimen record listed in "Mammals of B.C.", Cowan & Guiguet (3 ed.rev.) 1965; Provincial Museum.

23. Martes americana abietinoides, Gray; specimen record listed in "Mammals of B.C.", Cowan & Guiguet; (3 ed. rev.) 1965; Provincial Museum.

24. Felis concolor missoulensis, Goldman; specimen record listed in "Mammals of B.C.", Cowan & Guiguet; (3 ed. rev.) 1965; Provincial Museum.

25. Lynx canadensis canadensis, Kerr; specimen record listed in "Mammals of B.C.", Cowan & Guiguet; (3 ed. rev.) 1965; Provincial Museum.

26. Ovis canadensis canadensis, Shaw; specimen record listed in "Mammals of B.C.", Cowan & Guiguet; (3 ed. rev.) 1965; Provincial Museum.

Note:
The first steps have been undertaken to obtain further, and detailed, specimen information and records from the National Museum of Canada, Canadian Wildlife Service and University of British Columbia.

APPENDIX "C"

PROVISIONAL CHECKLIST
OF THE MAMMALS OF KOOTENAY NATIONAL PARK
(As Prepared from Collection Records & Wildlife Observations)
- 1965 -

ORDER INSECTIVORA

FAMILY SORICIDAE - Shrews

Cinereus Shrew - Sorex cinereus cinereus, Kerr

Wandering Shrew - Sorex vagrans obscurus, Merriam

Navigator Shrew - Sorex palustris navigator (Baird)

Pygmy Shrew - Microsorex hoyi intervectus, Jackson

ORDER CHIROPTERA

FAMILY VESPERTILIONIDAE - Common Bats

Long-eared Myotis - Myotis evotis evotis (Allen)

Little Brown Myotis - Myotis lucifugus (Le Conte)

ORDER LAGOMORPHA

FAMILY OCHOTONIDAE - Pikas

Rocky Mountain Pika - Ochotona princeps princeps (Richardson)

FAMILY LEPORIDAE - Hares, Rabbits

Snowshoe Hare - Lepus americanus columbiensis, Rhoads

ORDER RODENTIA

FAMILY SCIURIDAE - Squirrels, Chipmunks, Marmots

Hoary Marmot - Marmota caligata okanagana (King)

Columbian Groundsquirrel - Spermophilus columbianus columbianus (Ord)

Mantled Groundsquirrel - Spermophilus lateralis tescorum (Hollister)

Northwestern Chipmunk - Eutamias amoenus luteiventris (Allen)

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Red Squirrel - Tamiasciurus hudsonicus richardsoni (Bachman)

Northern Flying Squirrel - Glaucomys sabrinus (Shaw)

FAMILY CASTORIDAE - Beavers

American Beaver - Castor canadensis leucodontus, Gray

FAMILY CRICETIDAE - New World Rats & Mice

White-footed Mouse - Peromyscus maniculatus artemisiae (Rhoads)

Bushy-tailed Wood Rat - Neotoma cinerea drummondi (Richardson)

Northern Bog-Lemming - Synaptomys borealis chapmani, Allen

Boreal Redback Vole - Clethrionomys gapperi (Vigors)

Mountain Heather-Vole - Phenacomys intermedius, Merriam

Richardson Vole - Microtus richardsoni richardsoni (DeKay)

Meadow Vole - Microtus pennsylvanicus drummondi (Audubon & Bachman)

Long-tailed Vole - Microtus (longicaudus?) mordax, (Merriam)

Muskrat - Ondatra zibethica (Linnaeus)

FAMILY ZAPODIDAE - Jumping Mice

Western Jumping Mouse - Zapus princeps idahoensis, Davis

FAMILY ERETHIZONTIDAE - Amer. Porcupines

Porcupine - Erethizon dorsatum nigrescens, Allen

ORDER CARNIVORA

FAMILY CANIDAE - Dog-like Flesheaters

Coyote - Canis latrans lestes, Merriam

Wolf - Canis lupus, Linnaeus

Red Fox - Vulpes fulva (Desmarest); (V. alascensis)

FAMILY URSIDAE - Bears

Amer. Black Bear - Ursus americanus cinnamomum (Audubon & Bachman)

Grizzly Bear - Ursus arctos horribilis, Ord

FAMILY MUSTELIDAE - Weasel-like Flesheaters

Marten - Martes americana abietinoides, Gray

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Fisher -	Martes pennanti (Erxleben)
Short-tailed Weasel -	Mustela erminea invicta, Hall (M. cicognani)
Long-tailed Weasel -	Mustela frenata, Lichtenstein
Mink -	Mustela vison, Schreber
Wolverine -	Gulo luscus, Linnaeus
Yellow Badger -	Taxidea taxus taxus (Schreber)
Striped Skunk -	Mephitis mephitis (Schreber)
Can. River Otter -	Lutra canadensis (Schreber)
	FAMILY FELIDAE - Cat-like Flesh-eaters
Cougar -	Felis concolor missoulensis, Goldman
Bobcat -	Lynx rufus pallescens, Rafinesque
Canada Lynx -	Lynx canadensis canadensis, Kerr

ORDER ARTIODACTYLA

	FAMILY CERVIDAE - Deer
Rocky Mountain Elk -	Cervus canadensis nelsoni, Bailey
Mule Deer -	Odocoileus hemionus hemionus (Rafinesque)
Whitetail Deer -	Odocoileus virginianus ochrourus, Bailey
British Columbia Moose -	Alces alces andersoni, Peterson
	FAMILY BOVIDAE - Sheep, Goats, etc.
Mountain Goat -	Oreamnos americanus americanus (Blainville)
Rocky Mountain Big Horn Sheep -	Ovis canadensis canadensis, Shaw

WILDLIFE OBSERVATION

1. SPECIES
2. LOCALITY
3. DATE
4. TIME
5. NUMBER

ADULT MALES
ADULT FEMALES
YEARLING MALES
YEARLING FEMALES
UNCLASSIFIED
YOUNG OF YEAR

6. WEATHER SKY WIND PPTE TEMP GROUND

7. CONDITION

8. ACTIONS

9. FOOD

10. HABITAT

11. REMARKS

12. PARK DISTRICT OBSERVER

R. 39-1208-P

APPENDIX - "D"