

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

VERMILION PASS BURN SMALL MAMMAL STUDY

June, 1975

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During the month of June, trapping continued in ten areas for a total of 4352 trap $\frac{1}{2}$ days. It had been planned to sample two other areas as well, but wet weather over the last three weeks hampered the setting of traps. Trap success this year (4.09 captures per 100 trap $\frac{1}{2}$ days) was considerably better for the same period than in 1973 (0.76 captures per 100 trap $\frac{1}{2}$ days). I intend to reserve comment on this obvious difference until the data is more complete.

As shown in Table 1, there were five trap deaths this month. None of these, however, can be attributed to bad weather. At least four mice died due to predators taking advantage of the entrapped animals. Mink or some other member of the family *Mustelidae* are probably responsible. In the same areas that the deaths occurred, bait stealing has been a constant problem. Within twenty hours, on one occasion, 39 out of 68 traps had been ransacked. Bait has also been taken from closed traps. As a consequence, when the bait is thus stolen, the trap door is often reset. Within 5 hours at one location, 8 of 48 remaining closed traps still containing bait were reset. This has happened a number of times on at least 4 traplines, resulting in three additional deaths (not shown on Table 1 because they were outside the normal trapping periods), as I was not aware some traps had been opened and reset. In area 1-1, then, there was an overall total of three deaths. As these were all female *Clethrionomys*,

area 1-1 may have to be replaced by another trapping area of similar habitat in July. To help alleviate the predator problem in the future, it would be wise not to leave closed traps in the field without checking for more than a day. If one wants to keep the traps in position, folding them up should stop any tampering. Because most of the trap deaths had been partially devoured or insect damaged, only one was kept for study, - skin and skull purposes.

Six traps were destroyed or damaged by bear(s) this month.

Three recaptures of animals (all *Zapus*) tagged in 1973, occurred this month as well. A species new to the study was also trapped. In area B-2, one northern bog lemming (*Synaptomys borealis*) was captured and released. Signs that the species may have been present were found in a few other locations in the past but none had been caught.

Table 1 contains all other trap data for the month of June. For calculating trap success, 'escapes' have been added to 'retained captures' to yield 'total captures'.¹

¹In the May monthly report, 'escapes' did not enter the table data in any way.

TABLE 1

	trap $\frac{1}{2}$ days	# of individuals	# of retained captures	captures/ individual	escapes	total # of captures	captures/100 trap $\frac{1}{2}$ days	# of deaths (predation)	# of deaths (other)	deaths/100 captures
1-1	408	5	5	1	-	5	1.23	1	-	20
<i>Peromyscus</i>		2	2	1						
<i>Clethrionomys</i>		3	3	1				1		
UB-1	72	1	1	1	-	1	1.39	-	-	0
<i>Clethrionomys</i>		1	1	1						
A-1	612	12	34	2.83	-	34	5.56	-	-	0
<i>Peromyscus</i>		5	19	3.8						
<i>Clethrionomys</i>		7	15	2.14						
Y-3	476	23	38	1.65	2	40	8.40	-	1	2.5
<i>Peromyscus</i>		3	6	2						
<i>Clethrionomys</i>		13	23	1.77						
<i>Microtus penn.</i>		1	1	1						
<i>Zapus</i>		4	6	1.5						
<i>Spermophilus</i>		2	2	1						

TABLE 1
(continued)

	trap 1/2 days	# of individuals	# of retained captures	captures/individual	escapes	total # of captures	captures/100 trap 1/2 days	# of deaths (predation)	# of deaths (other)	deaths/100 captures
B-2	408	10	19	1.9	-	19	4.66	-	-	0
<i>Clethrionomys</i>		3	4	1.33						
<i>Microtus penn.</i>		6	14	2.33						
<i>Synaptomys</i>		1	1	1						
2-1	612	6	7	1.17	-	7	1.14	2	-	28.57
<i>Peromyscus</i>		2	3	1.5				1		
<i>Clethrionomys</i>		1	1	1				1		
<i>Microtus penn.</i>		1	1	1						
<i>Eutamias</i>		2	2	1						

TABLE 1
(continued)

	trap $\frac{1}{2}$ days	# of individuals	# of retained captures	captures/ individual	escapes	total # of captures	captures/100 trap $\frac{1}{2}$ days	# of deaths (predation)	# of deaths (other)	deaths/100 captures
M-1	612	12	21	1.75	-	21	3.43	-	-	0
<i>Peromyscus</i>		3	7	2.33						
<i>Clethrionomys</i>		2	3	1.5						
<i>Microtus penn.</i>		2	2	1						
<i>Zapus</i>		5	9	1.8						
D-1	540	10	20	2	-	20	3.7	1	-	5
<i>Peromyscus</i>		7	17	2.43				1		
<i>Spermophilus</i>		3	3	1						
B-1	340	13	21	1.62	-	21	6.18	-	-	0
<i>Peromyscus</i>		10	16	1.6						
<i>Microtus penn.</i>		1	1	1						
<i>Eutamias</i>		2	4	2						

TABLE 1
(continued)

	trap $\frac{1}{2}$ days	# of individuals	# of retained captures	captures/individual	escapes	total # of captures	captures/100 trap $\frac{1}{2}$ days	# of deaths (predation)	# of deaths (other)	deaths/100 captures
K-3	272	8	10	1.25	1	11	4.04	-	-	0
<i>Peromyscus</i>		6	7	1.17						
<i>Microtus longicaudus</i>		1	1	1						
<i>Eutamias</i>		1	2	2						
Totals/Averages	4352	100	176	1.76	3	179	4.09	4	1	2.79