

Mt. Edziza Wildlife Survey - October 13, 1979

A helicopter flight was conducted October 13, p.m. over the known caribou ranges of Mt. Edziza Park. A northern Mountain Jet Ranger was utilized. Observers were Randy Diston, pilot, Wally Macgregor Fish & Wildlife Branch, Victoria; Chris Kissinger and Grant Hazelwood - Parks. The weather was cloudy but did not interfere with the flights to any large degree. Lack of snow cover on the severe brown and grey of the alpine made spotting wildlife difficult.

OBSERVATION TABLE

comments

male female calves uncl.

1 caribou 1 1 4 9 10 caribou 2 caribou 3 caribou 1 caribou 1 caribou 12 caribou

5 caribou 1 4 5 caribou 10 caribou 1 9 2 caribou 1 1 0% calves

3 caribou 2 3 3 caribou 1 caribou 1

12 caribou 4 8 12 caribou 1 caribou 1

34 TOTAL 12 22 0

3 moose 2 2 3 moose 5 moose 3 2 8% calves

5 moose 3 2 5 moose 2 2 1

2 moose 1 1 2 moose 1 1

3 moose 3 3 3 moose 2 2

7 moose 3 4 7 moose 4 4

25 TOTAL 11 12 25 TOTAL 2 2

Mtn. Goat TOTAL 3 3 0% kids 3 3

Mtn. Sheep TOTAL 0 2 2 100% lambs

Birds observed were one bald eagle soaring and approximately 125 ptarmigan which were very visible against the brown alpine. 1977 surveys observed several thousand ptarmigan in this same area.

Mountains sheep (2 ewes & 2 lambs) were observed in the cinder ridges at the north end of the mountain mass. No special attempt was made to fly the steeper terrain of either goats or sheep during this survey so all observations are purely superficial only.

Mountain goat were only observed in the upper canyon of Elwyn Creek and 3 adults were seen.

Moose were found in the arctic birch stands at the northern end of the plateau. A total of 25 were observed with 2 calves included. This is an 8% ratio of calves to adults. Most of these moose also winter at this high elevation as only the deepest snow drives them off of the plateau.

The caribou were not found in any great numbers. A total of 34 were observed with no calves present. The caribou of Mt. Edziza were down in the arctic birch areas adjacent to the alpine. Three large bulls on the east side were up in cloud on the cinder plateau and the 6 observed on the west side (a lone large bull and a large bull with 4 cows) were also still in the alpine near the head of Elwyn Creek. The ratio of 1 bull to 2 cows is expected but the total lack of recruitment is of management concern.

COMMENTS

The hunting closure on caribou should be continued in Mt. Edziza Park.

The survey of the caribou should be conducted in the last week of September. This should coincide with the concentration of caribou upon the alpine rutting grounds. Our survey found the rutting companies already off the alpine and down into the arctic birch and lost its census efforts unless much more time and effort is utilized. Ptarmigan numbers appear down from past years.

W. G. Hazelwood
Parks Biologist

W.G.H.

1976

A late winter Jet Ranger helicopter flight to Mt. Edziza Park was conducted on March 29. Passengers on board were Dave Hatler, Smithers Fish and Wildlife Branch, Chris Kissinger, Parks Branch, Smithers and Grant Hazelwood, Parks Branch, Victoria.

The flight was mainly an orientation flight for D. Hatler to introduce him first-hand to the wildlife values in the Park and to show the "insular" geography of the Park since he had been unable to join the field trip in August of 1975. In-park flying was one hour.

The flight was of necessity a brief one since the main objective was to fly Spatsizi Park to the East. The West side of the Park where the escarpments form the main unglaciated winter ranges, was the area flown. The winter range and adjacent plateau was excessively windswept with shallow snowdrifts. A fueling stop was made in the Spectrum Range before returning to Klappan airstrip on the B.C.R.

Mountain caribou were only found in the north end of the Park and 61 were observed. No effort was made to classify the herd.

The August, 1975 ground and air count of 58 correlates very closely to the late March numbers and it is believed by Hazelwood that the herd is endemic to the Park except for possible brief Spring and Fall periods of nomadism. Fred Harper (Fish & Wildlife Branch) in 1972 winter flights tallied 67 caribou in the same area.

Mountain goat were only observed intermittently as no serious effort was made to fly all levels of the escarpments. One group of 18 goat were found in a rocky canyon on a North-flowing tributary to Elwyn Creek. It is year-round goat habitat as many were observed here in August. Another loose group of 20 were observed near

successfully.

available, residents must have hunted the east side but perhaps not indicate 7 non-resident rams were taken. With all the lake access

indicates only 3 rams were taken from M.U. 6-21. Guide Returns the east side of Mt. Edziza as well. The compulsory reporting data legal size. One non-resident ram and one grizzly was harvested on place last summer and fall. Eleven were rams of which 3 were of Creek and on the Spectrum plateau area where guided hunting took Twenty-four sheep including rams were observed in Raspberry Park.

observed location in August up near the glacier in the heart of the

wintering near the escarpment approximately 10 miles from his search in August, 1975. One highly identifiable ram was found fork of Elwyn Creek. None were found here during an intensive facing escarpments. Sheep were found on the plateau near the north from Elwyn Creek south to a point beyond Mess Lake along the west much more extensively than do the goats. The winter range extends The sheep utilize the plateau in the vicinity of the escarpment rams and 17 Class IV rams.

8 lambs, 56 ewes and Class I rams, 14 Class II rams, 15 Class III to be in the Park. A total of 110 sheep were classified as follows: counts were obtained on roughly half of the total population believed Mountain sheep were surveyed most intensively and classified

limiting factor on the winter ranges. escarpment or in creek canyons. Snow depths were not an apparent get in close to classifiy. All were found on cliffs on either definitely classified as male but no special attempt was made to total of 43 goats were observed, five were kids, and two were Raspberry Creek on the escarpments West of the Spectrum Range. A

Of general interest are the 12 sheep observed on Coolidge
mountain on the NW corner of the Kiasline Plateau. One golden eagle
and 3 ptarmigan were also observed in the Park during the one hour
flight.

W. G. Hazelwood
W. G. Hazelwood
June, 1976

MOUNT EDZIZA PARK WILDLIFE REPORT

An Argument for Nature Conservancy Status

By: W. G. Hazelwood
Parks Biologist

November, 1975

Mount Edziza Park - Wildlife Survey

Mount Edziza Park was created in 1972, mainly for its splendid volcanic beauty. Only a little was known of the biological resource that resided within this former volcanic area and this initial survey was planned to increase that knowledge and provide a basis for proper wildlife management prior to future pressures from access roads, development and extraction work on nearby mineral reserves. On August 13 - 18 this initial wildlife-oriented survey was carried out.

SURVEYS Earlier surveys were mainly overflights in the winter of

1972, 1972 summer (helicopter) by the Fish and Wildlife Branch (Harper et al) and 1973 winter (fixed wing) by the B.C.L.I.

(Luckhurst et al) as part of the coverage extended over the entire Spatsizi area. Summer surveys were also conducted in 1962 and 1963 as part of the Northern Surveys of the Fish and Wildlife

Branch. (Robinson et al)

This survey was conducted by helicopter initially, then by a four day 40 mile hike from North to South along the Western

alpine areas of the Park. All sightings are above 4500' elevation and timberline.

Two monuments of human disaster were also observed. The

first, North of Edziza Peak was the large 8 foot high cross marking the grave of John Barrington and Charley Etzerza who had met an

accidental death on the glacier in November 1950 and their bodies were not found until the following June. The second took place

in 1956 when Herman Peterson, well-known Northern bush pilot,

crashed his blue Aeronca into an unnamed creek 6 miles north of

Eve cone with Mt. Edziza
in background. View is
S.E. across northern
plateau area.



The main extinct crater
of Mt. Edziza is now
glaciated. Mtn. sheep
frequent the cliffs on
the right of the
picture.

Eve cone - one of the
spectacular volcanic
cinder cone formations
near Mt. Edziza.



Other smaller species of wildlife observed were the common marmot, hoary marmot and the Arctic ground squirrel. One chipmunk was also observed in the Raspberry Pass. A late September visit to Buckley Lake resulted in observations of moose, wolf, muskrat, beaver, red squirrel and deer mouse.

* 2 - 4 year old males may be present in this total.

	♂	♀	Imm. of year	Total
Mountain Sheep	48	78*	13	139
Mountain Goat	35	78*	37	150
Mountain Caribou	14	33	6	53
Moose	13	8	2	23
Grizzly	1	1	2	4
Wolverine	1	1	-	2
Wolf	1	1		2

Classified counts of the larger wildlife were as follows:

evidence of voles or lemmings were observed during the survey. Thus the vegetation as well as the wildlife populations, are still in the process of pioneering on this dynamic area. No less than 200 years ago some of these volcanoes were still erupting. In part to more severe climatic conditions arising from close proximity to the Coastal Mountains and also to the fact that areas of the game-rich Spatsizi Plateau to the East. This is due to the wildlife of the Park is not as plentiful as the WILDLIFE August crash and hiked out to Telegraph Creek after the accident. Lifted out by helicopter (see photo). Peterson survived the Only the wings, doors and cowling remain, the rest having been Raspberry Pass. This crash site was visited during the hike.

Bird populations, other than the horned lark and Townsend's solitaire, were quite sparse. An annotated list of species is as follows:

ALPINE AREAS

Red-tailed hawk - one observed soaring near the headwaters of Elwyn Creek.

Gyr Falcon - one pair protecting territory on escarpment at Elwyn Creek.

Golden eagle - one observed soaring at Raspberry Pass.

Willow ptarmigan - observed on west plateau near Elwyn Creek.

Rock ptarmigan - observed south of volcanic areas at 6000' near plane crash site.

Spruce grouse - one adult and 5 imm. (but flying) at Raspberry Creek 4500'.

Robin - one seen near Raspberry Creek.

Grey Jay - three seen near Raspberry Creek.

Horned Lark - very common near Elwyn Creek on alplands.

Townsend's solitaire - very common all through alpine of Park.

Mountain chickadee - seen near Raspberry Creek.

Water ouzel - one at Raspberry Creek.

Semi-palmated plover - Raspberry Lakes in Pass.

Wandering tattler - Raspberry Lakes in Pass.

BUCKLEY LAKE (September-October observations)

Waterfowl staging area in September-October.

Common merganser

American coot

Mallard

Goldeneye

Buttlehead

Green-winged teal

Lesser scaup

Herring gulls

Northern phalaropes

Canada geese

Shoveller ducks

Bald eagle

Golden eagle

Osprey

Marsh hawk

Peregrine falcon

Raven

Brown-headed cowbird

Dark-eyed junco

White-winged crossbill

Redwing blackbird

Mountain chickadee

Grey Jay

Common snipe

Spotted sandpiper (egg found in nest in October)

Aquatic Invertebrates

Leeches (diving ducks observed feeding on them)
 freshwater shrimp (Gammarus and other spp.)
 caddisfly larval cases (2 sp.)

OTHER INFORMATION

Surveys by other agencies covered only big game species during the winter. The Cessna 180 flights by Luckhurst (B.C.L.I.) in 1973 over the Park show only sheep and goat; however, his 116 sheep and 49 goats compares favourably with Harper's (Fish & Wildlife) 1972 winter helicopter flights which showed 152 sheep and only 11 goats, 67 caribou, 62 moose and 3 wolves in the Park area. Classified counts by fixed wing are much harder to obtain as the figures show.

A comparison of the classified counts of the sheep population is also of interest.

	<u>TOTAL</u>	<u>RAMS</u>	<u>EWES</u>	<u>LAMBS</u>	<u>UNCLASSIFIED</u>
Harper et al (1971-72)	152	34	40	25	53
Luckhurst et al (1973)	116	14	-	-	102
Hazelwood et al (1975)	139	48	56	13	22 *

* A band of 22 ewes and lambs and 8 rams were reported by the guides on August 16 in the Spectrum Range as an unclassified count. Two legal rams were taken from this area prior to August 16 as well. Only one ram was observed south of Raspberry Pass so there is no duplication involved. The 8 rams are included in the classified count, the ewes and lambs are not.

SEASONAL RANGES The 22 moose (Alces alces) were all observed in

the arctic birch scrub zone at 4500' elevation south-east of

Buckley Lake in August. Many were still there in October (R. Wells

pers. comm.). A single bull was also seen in the creek valley

north of and tributary to, Raspberry Creek. The 22 moose undoubtedly represent a good portion of the population from around Buckley Lake



The hoary marmot is also to be observed along the escarpments of the West side of the Park.



Moose were also found gathering in the subalpine arctic birch communities north east of Mt. Edziza.



Osborn caribou escaping heat and insects on a snow patch at 6000' elevation.

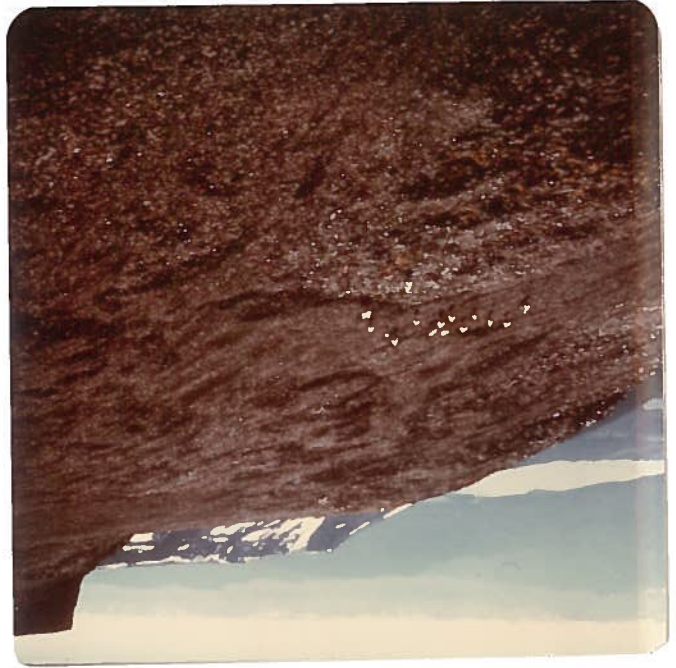
where swamps and old burn area indicate good early wintering potential. They probably move out to the Stikine breaks in late winter. Observations made from September 28 - October 6, 1975 at Buckley Lake were of 8 individual bulls, and 2 cows. A mature bull and a 1 1/2 year old bull were harvested from the lake (R. Wells pers. comm.) prior to and during our visit. The rut was in full swing at this time.

Many antlers were found in the upper reaches of Raspberry Creek where an old burn area exists. Since antlers are dropped in December and January generally, it is probable that these animals remain here for the remainder of the winter as well. The area is heavily browsed and would be classed as 2W for moose under B.C.L.I. standards. The lower plateau in the vicinity of Stinking Water Lake is heavy to deciduous cover and appears to be excellent moose winter range.

Osborn caribou (Rangifer tarandus osborni) are very nomadic in their habits and it is possible that the summer population of Mt. Edziza Park (est. 80 - 100 animals) could migrate up the Stikine River and through the Gnat Pass in late fall or early winter. However, it is likely these animals remain in the vicinity of Mt. Edziza permanently. Sixty-seven caribou were observed by Harper et al (1972 - winter) in the Mt. Edziza area during February. Luckhurst (1973 - winter) did not observe any caribou in the Park area during his February flights.

Summer distribution in the Park was localized to the snow patches above 5500' elevation on the north and west sides of the alpine zone. A daily vertical migration was observed with the caribou feeding at night down on the vegetated western plateau and

Mountain goat also
utilize these high areas.
Kakiddi Lake is seen
in the background from
N.E. of the peak in an
extreme volcanic area.



Caribou utilize moraines,
tuffeilds and high elevation
lava areas in order to avoid
insects and midsummer heat
of lower areas.



Symbolic view of the
caribou and the cross
on the north side of
Mt. Edziza.



traveling several miles each morning up to the cooler insect-free unvegetated areas at 6 and 7 thousand feet elevation on or near the glaciers. It is reported that caribou do not generally inhabit the Spectrum Range South of the Raspberry Pass, as the local hunting guides in the area have never seen any there, nor any sign of their presence (D. Brown pers. comm., Aug. 16/75).

Mountain goat (Oreamnos americanus) were found on both the East and West sides of the Park in August. The escarpment on the west edge of the plateau is utilized both in summer and winter as escape terrain. Most of Luckhurst's (1973 winter) sightings were along the Mess Creek escarpment where 46 of 49 animals were observed in the Park. The South-facing cliffs above the plane wreck also had evidence of several goat wintering there last winter.

One interesting note was the high incidence of twinning, where six different nannies observed had twins. The 78 nanny sightings undoubtedly include immature billies (up to 5 years of age) which are often seen in company of nursery groups. Many of these goat herds were seen far from good escape terrain and were observed running for several miles across the plateau to reach safety when we were sighted on the ground.

The long ridges on the East side of the Edziza Peak area were found to be excellent summer habitat for goats. Ball Creek south of the Park is also excellent goat habitat where in 1969 this observer counted over 100 goats in one herd. No goats were observed in the areas of most recent volcanic activity.

Mountain sheep (Ovis dalli stonei) were found in almost all areas of the Park with the exception of the extreme North end on the lava flows and on the glacier itself. Although a picture was

taken of a ewe inside Eve Cone in the winter. In some cases they were found in very marginal habitat as the vegetation was almost non-existent near the glacier edges on the East and West sides of Mt. Edziza and again in the higher areas of the Spectrum Range. Luckhurst found a substantial part of the sheep population wintering along the west escarpment above Mess Creek in co-habitation with mountain goats. No sheep were found on the East side of the Park in February 1973 (Luckhurst). Harper reports only 3 in 1972 - winter and it is postulated that all of the Park population of sheep winter on the west escarpments.

The Spectrum Range has a substantial sheep population present which were being hunted by a local guide (R. Ball) from Telegraph Creek. Clients are brought in by plane to Johnny Lake and by horse up the Telegraph Trail. They had two legal rams as of August 16, 1975 and reported seeing 8 rams and 22 ewes, lambs and yearlings in their hunting territory south of Raspberry Pass. This is the extreme southern edge of Stone Sheep range as defined by the local climate. Luckhurst (winter - 1973) reported sheep south and west of Raspberry Pass and south and east of Mess Lake along the andesite cliffs of the escarpment.

Other species of wildlife other than ungulates, were not found in any abundance with the exception of Arctic ground squirrels (Spermophilus undulatus) which were common throughout the hike from Mt. Edziza to Raspberry Pass. These animals, which utter a cry similar to a bird call, were the smallest mammals observed, other than a Least chipmunk (Eutamias minimus) in the Pass area. No voles or lemmings, nor any evidence thereof, was observed in the Park alpine areas. One common marmot (Marmota monax) was observed

The hot springs immediately East of Mess Lake are not presently in the Park but their mineral lick value to moose and scientific values dictate that they be given additional protection under the Park Act.



The Spectrum Range comprising the south end of the Park is an area of volcanism that exhibits exciting colour variations and supports a small population of Stone Sheep and Mtn. Goat.



Sow grizzly and one of two
yearling cubs near the
headwaters of Elwyn Creek
on the West Plateau.



Stone mountain sheep
nursery herd found southwest of
Coffee Crater.

The plateau on the West
side above the escarpments
supports a sparse grassland
community that is utilized
sparingly by sheep, goat,
caribou and an omnivorous
grazer, the grizzly bear,
who also finds resident
ground squirrels and marmots
here.



on the escarpment rim above Mess Creek which was considered unusual at that (5000') elevation. Hoary marmots (Marmota caligata) and their diggings were observed in several areas along the west side of the Park Plateau area.

A wolverine (Gulo luscus) was observed and photographed south of Coffee Crater on the plateau alpine area. A sow and twin yearling cubs represented the only grizzly (Ursus arctos horribilis) sighting during the survey. They were seen in the alpine area at the headwaters of Elwyn Creek, west of Mt. Edziza. One male grizzly was seen three days previously southwest of Coffee Crater (R. Norris, pers. comm.). No extensive evidence of their digging out marmots or ground squirrels was observed in the areas traversed.

Wolves (Canis lupis) were reported by the guides in the Spectrum Range, where a pair (one pure white) were seen during our visit on August 16, 1975. Four wolves were reported by K. Joy, south of Taweh Creek during his Park status survey in the summer of 1967.

The Buckley Lake area had approximately 20 wolves howling during the evening of October 3, 1975. Four were observed at dawn on October 4 attempting to bring down a yearling moose. This attempt failed when the young bull took refuge in Buckley Lake (G. Taylor pers. comm.). Earlier in the week wolves had been heard howling south of the lake in the Elwyn Creek area.

Muskrat and beaver were observed in Buckley Lake and the latter was responsible for extremely high water levels in Stinking Water Lake where the trail was inundated.

One red squirrel was observed in the spruce-pine forest and others were heard in the area. A deer mouse also visited the tent during several nights of our stay.

Grassy spits and marginal marshes are utilized extensively by thousands of migrating waterfowl that stage on Buckley Lake in September - October.



Buckley Lake with the Klastine River valley in the background.



The toe of the lava flow reaches the small lake at the S.W. end of
Buckley Lake. Diving ducks utilize this lake along with Buckley
Lake.



The Autumn colours above Stinking Lake indicate the deciduous forests
that make up some of the prime moose winter range. Waterfowl make
extensive use of this lake in October.



The basic conclusion reached, as a result of research and field exposure to the Park, was an overwhelming desire to support Fred Harper's contention (then Regional Fish and Wildlife Biologist for the region) that the wildlife here is largely endemic to the Park and such an insular area should have total protection for scientific study purposes. The entire seasonal ranges of Stone Sheep, Mountain Goat and possibly also Osborn Caribou, Moose and Grizzly Bear lie within the combined Park and Recreation area surrounding it. The guides and trappers in the area will have to be dealt with in terms of relocation and possibly also compensation through the Fish and Wildlife Branch.

It is felt that we are now in a far better position to deal with the almost certain location of a mining access road through the Raspberry Pass and its implications to the wildlife in the Park

CONCLUSIONS

The absence of fish in Buckley Lake was very surprising. The biological productivity of the lake is extremely high. Freshwater shrimp are extremely abundant and an extensive algal "bloom" was present on the lake surface. Leeches and caddisfly larval cases were also observed. During the course of a strong north wind on October 5 the lake "turned over" with the algal bloom going under or washed ashore and the surface temperature changing from 11° C to 8° C. In view of the large size of the lake (5 miles by 1 mile) and its high productivity; a predator (rainbow trout) could be added into the ecosystem and thus supply an additional dimension of recreation to the Park. A more in-depth survey should be conducted prior to any introduction.

The ridges of the East side of the Park offer aesthetic vistas as well. Nicknamed the "Cathedral" this columnar basalt formation is quite unique. Mtn. sheep utilize the cave and lower grassy edges of the formation.



Escarpments along the West side of Mt. Edziza Park. These andesite cliffs and terraces comprise the critical sheep and goat winter habitat.



after it is constructed. The estimated 50 - 60 sheep and 80 goat occupying range south of the Pass will be in great danger of overexploitation if suitable precautions are not taken in advance. Inaccessibility has protected the ungulate populations here in the past but this is rapidly changing. Another conclusion reached during the survey is that almost the entire Stone sheep population estimated to be in excess of 200 animals utilizes the escarpments and valleys along the west side of the Park in winter. If this is indeed so, then a seasonal migration across the glacier or around it must occur twice a year in the northern third of the Park. It is not the intention to place undue restrictions on the local Indian population for their winter meat needs, so a question mark should be placed over the Buckley Lake area where the traditional pack trail allows access from Telegraph Creek (present use of the trail is minimal with the advent of road access down the Stikine from Dease Lake). The trail is presently growing over but more intensive management may change this as hiking access needs grow Provincially.

RECOMMENDATIONS

1. That immediate steps be taken to clear the way for Nature Conservancy status except for the Buckley Lake area below 3,000 feet in elevation.

2. That a limnological investigation of Buckley Lake take place as a feasibility study prior to stocking rainbow trout in that lake.

The cooperation of the Wildlife Section of the F.L.U.C. Secretariat and the Regional biologists of the Fish and Wildlife Branch in providing flight maps and data is very much appreciated. The companionship and expertise of Milt Warren, Information and Education Officer of the Fish & Wildlife Branch in participating in the air and ground survey work also contributed greatly to the success of the study.

ACKNOWLEDGEMENTS

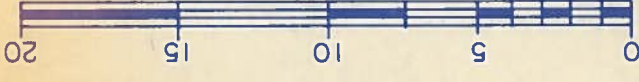
3. That the Park boundaries on the West side be extended to include hot springs on Elwyn Creek and adjacent to Mess Lake in order to protect these essential wildlife mineral licks from any form of exploitation.



EDIZYA
PARK
 1975
 BOUNDARIES

RECREATION AREA * 1,000 FEET CONTOURS

Scale in kilometres



Scale in miles



Terrace (320km) 200mi.

Eastman Cr.

37

Dease Lake 108km

KINASKAN LAKE

MOWDADE LAKE

MOWCHILLA LAKE

KAKIDDI LAKE

NUTLUDE LAKE

26s

29

CREEK - EDDONTENPON LAKE TRAIL

ETZERZA CRATER

EVE CONE

EDIZYA PEAK
 9143 feet
 (2788m)

COCOA CRATER

COFFEE CRATER

START OF AUGUST HIKE

CAMP HORSE

SPECTRUM RANGE

2wolves

1g Grizzly

1wolverine

3 Grizzly

4wolves

1g Grizzly

1wolverine

2wolves

1g Grizzly

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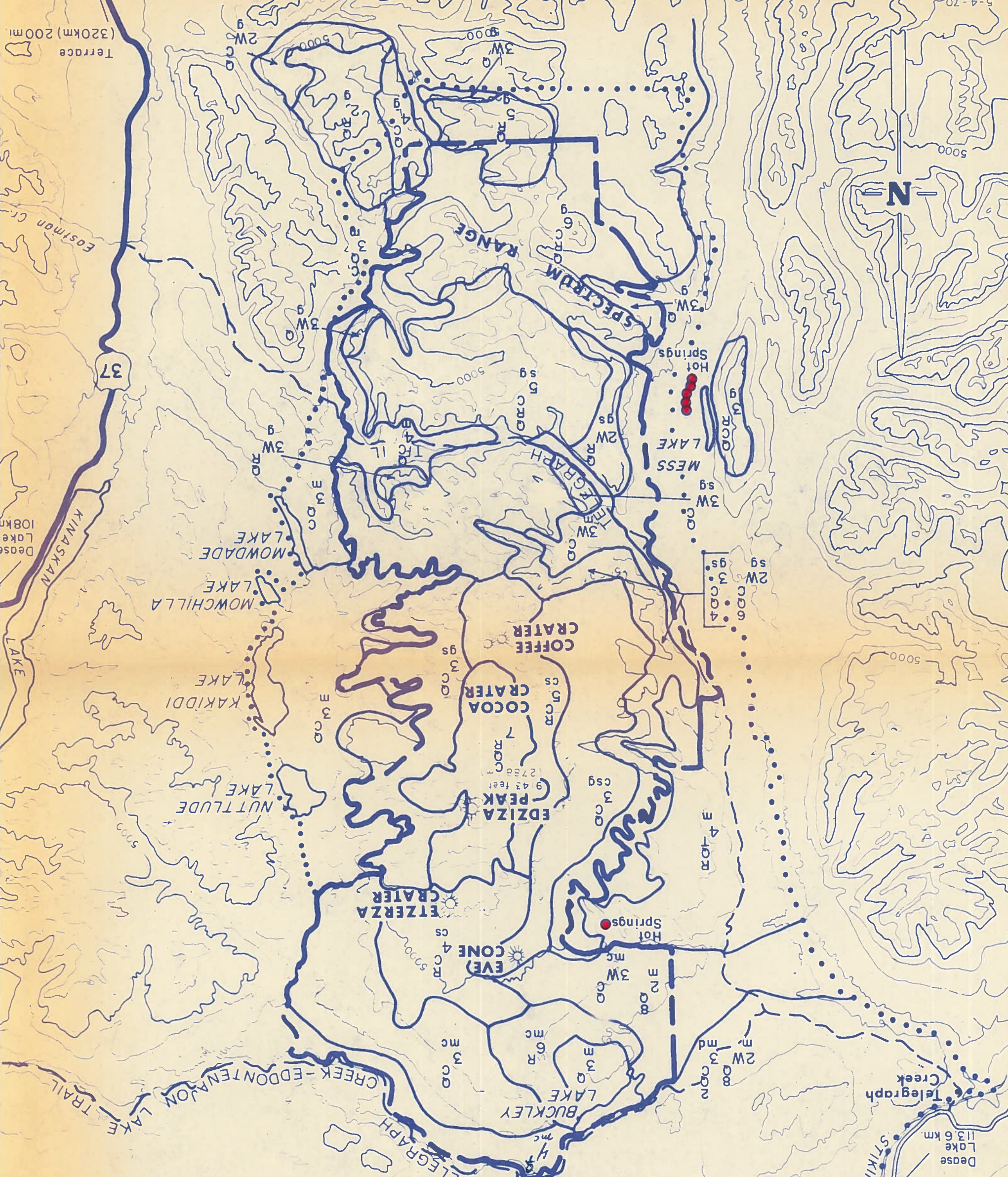
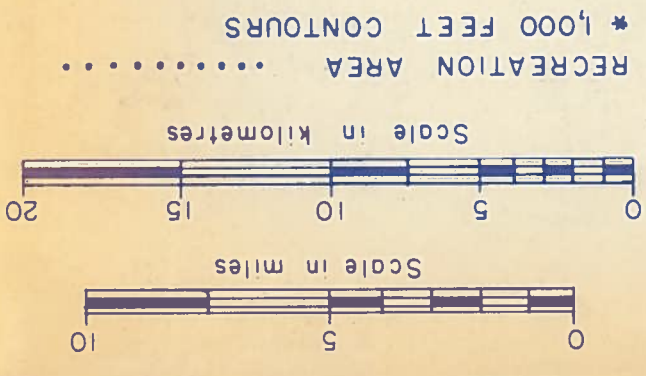
2wolves

1g Grizzly

1wolverine

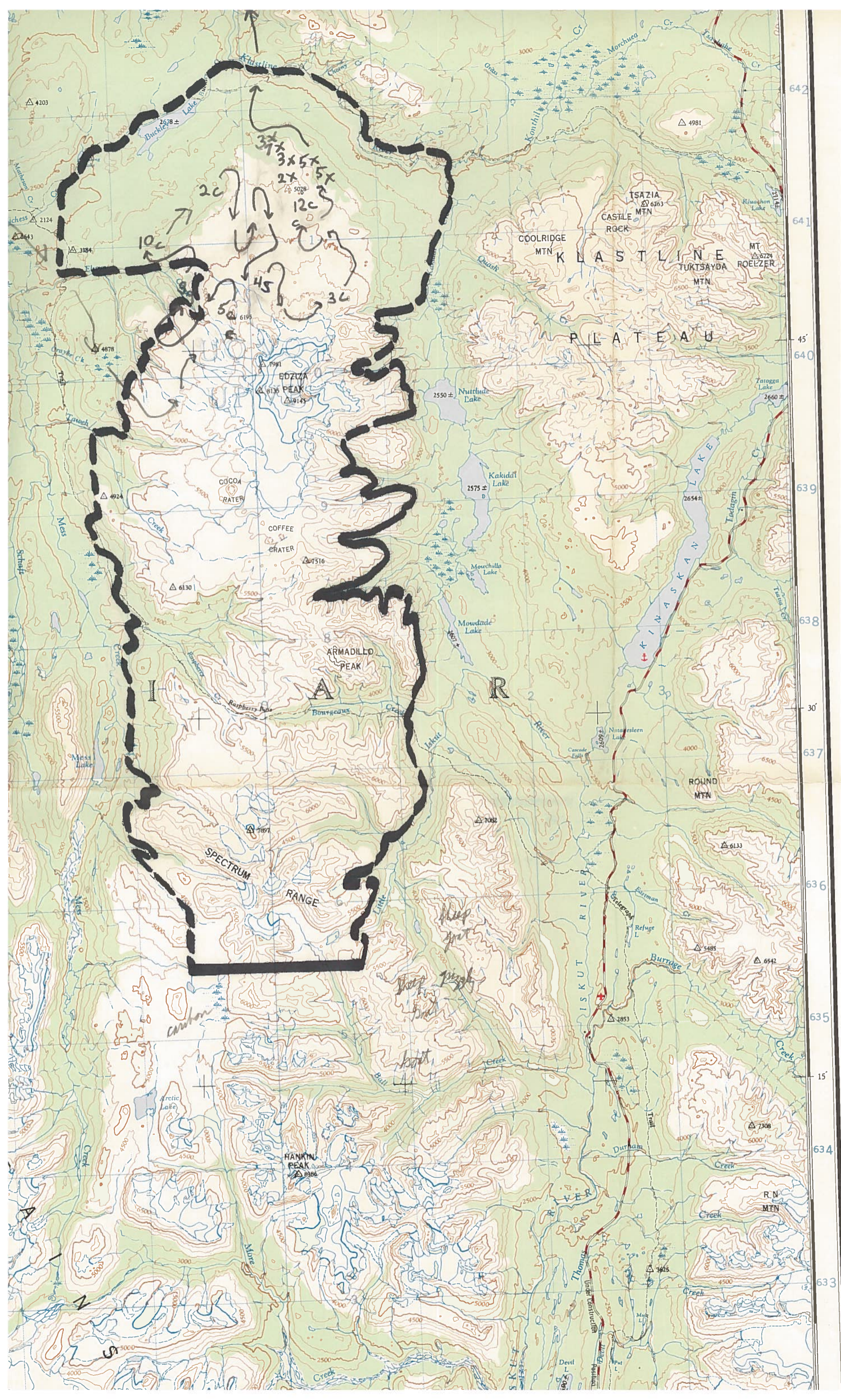
2wolves

MT. EDZIZA PROVINCIAL PARK



Terrace (320km) 200mi

5-4-70



GRID ZONE DESIGNATION
9V

100 000 M SQUARE IDENTIFICATION

UQVQ	640
UPVP	
40	

1 Read square
2 Local point line on U
3 Local point line on V
4 Estimate
5 Read
6 Estimate
7 Read
8 Estimate

IGNORE the SMALLER figures of any grid number; these are for finding the full coordinates. Use ONLY the LARGER figures of the grid number.
example 32 0000m.E.

TEN THOU
UNIVERSAL TRANSV
ZOI



63 3000m.N.
63 4
63 5
63 6
63 7
63 8
63 9
64 0
64 1
64 2