

ECOLOGICAL RESERVES  
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VICTORIA, B.C. V8W 1X4

Klaskish River

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ECOLOGICAL RESERVES COLLECTION  
GOVERNMENT OF BRITISH COLUMBIA  
VICTORIA, B.C.  
VRV 1X4

REPORT ON BIRD CENSUS OF THE KLASKISH VALLEY,  
BRITISH COLUMBIA

MAY 6 - 21, 1978

BY M. S. RODWAY

REPORT TO:

VERTEBRATE ZOOLOGY DIVISION  
B. C. PROVINCIAL MUSEUM  
VICTORIA, B. C. V8V 1X4

SUBMITTED:

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Report on Census of the Klaskish Valley,  
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M. S. RODWAY

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The Klaskish Valley and adjacent mountains were censused on foot on the route as shown on the attached map. Careful records of all birds encountered were kept in an attempt to correlate species distribution and diversity and population densities with altitudinal change, as well as to simply document species occurrence in the area.

In all fifty-four species were found over the entire census route. The accompanying table lists all but one species and indicates areas and numbers in which they were found. The one species not included - Canada Goose - was an interesting sighting but was excluded from the table as they could not be considered utilizing the area. A total of 1 855 Canada Geese were sighted flying NW. over the Mahatta Creek Valley on May 9.

In the following analyses, the data used is perhaps scant to make definitive conclusions, but it is felt to indicate general patterns for the period the study was undertaken. A more intensive, long-term study would be required to elaborate the present conclusions.

Figure 2 indicates the range of species occurrence as a function of elevation. To a large extent the species distribution is determined by habitat and only indirectly by elevation as it effects habitat types. However, the correlation, if indirect, still seems significant. The occurrence of sub-alpine meadows at elevations as low as 1 500' was an especially interesting factor in the area and influenced the altitudinal distribution of some species. Especially noted for their affinity for these meadows were Ruby-crowned Kinglets, Dark-eyed Juncos and Savonna Sparrows. The former two were found only in association with these meadows, and the latter utilized the meadow habitat as well as the somewhat similar open estuary habitat giving it a discontinuous range relative to altitude. This low elevation alpine habitat of course also limited the upward range of a number of forest dwelling species in those specific areas where the alpine habitat occurred. This is not well indicated in Fig. 2 as some mountains (eg the 3 100' peak noted in table 1 N. of the lake) had no open meadow habitat at all and were heavy forest right over the top.

I am not experienced enough to judge, but it seems that this low elevation alpine habitat is a unique feature of this area around and including the Brooks Peninsula, and may warrant further qualified study for consideration for protection.

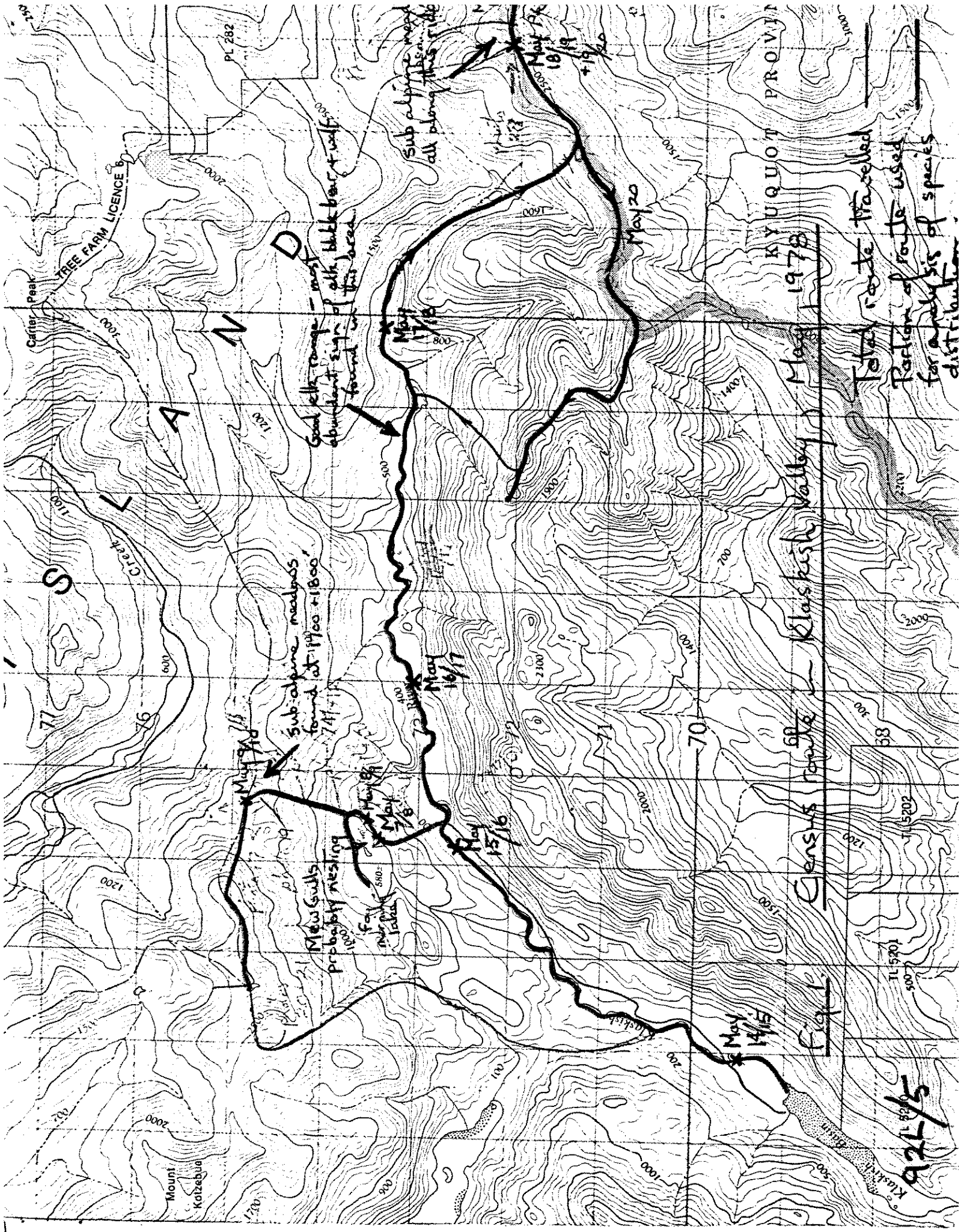
From Fig. 2 and Table 1 (species totals) it can readily be discerned that species diversity generally decreases with increasing elevation. This is offset by habitat diversity such as at the lake and in areas of sub-alpine meadows interspersed with forest. Using the figures only from the census route along the Klaskish R. where the habitat is relatively homogenous this trend becomes quite apparent as is illustrated in Fig. 3. The occurrence of only five species at the 700' camp May 17/18, is a misleading figure

resulting from the fact that the river was very loud where I camped and the hearing range was greatly reduced.

The attempt to analyse density variation was not successful due to the lack of standardization of areas. There was constant change experienced in the range over which birds could be heard due to the loudness of the river, weather conditions, habitat type (eg open meadow or dense forest) the projection of different bird songs and call (ie some birds can be heard further away than others), etc. The only quantitative analysis that can be made with the data collected is one based on individuals encountered per distance travelled. This is tabulated at the bottom of Table 1. These figures do not correspond very greatly with those for species diversity relative to elevation, as large numbers of single species offset any general trend towards a reduction in total avian population corresponding to a reduction in the number of species. Thus, though these figures do suggest a decrease in total bird numbers with increasing elevation (especially the figures from the camping areas) no definite conclusions can be made. The average figure of 18 individuals per km travelled provides some form of baseline for future reference.

Mammalian species were not studied specifically in the area, but were noted where encountered. As indicated on the map in Fig. 1, the apparently most productive and heavily used area for elk, black bear, and wolf encountered on the route taken was around the 500' elevation along the Klaskish R. This area was characterized by an open grassy forest floor interspersed with the more general shrubbery of salmon berry and huckleberry. Grazing seemed relatively heavy here, tending to keep the shrubbery down. As a recommendation it is suggested that this area be further looked at for consideration pertaining to the Ecological Reserve Proposal and its effectiveness for the purposes intended (ie protecting elk range).

In conclusion it may be said that the entire area of the Brooks Peninsula and adjacent watersheds are in need of preservation due to its unique geological history and the resultant biotic communities, especially the vegetative communities of the low elevation sub-alpine meadows.



TREE FARM LICENCE B

PL 282

Sub-alpine meadows found at 11000 + 1800

Mew Gulls probably nesting

Sub-alpine meadow all along this route

May 14/15

May 15/16

May 16/17

May 17/18

May 18/19

May 20

May 20

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927/5

Figure 1

Census route in Klaskan Valley, May 1978

Total route travelled

Portion of route used for analysis of species distribution

KYUQUOT PROVINT

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Table 1

Distribution of Avian Species in the Klaskish Valley, May 6-21, 1978.

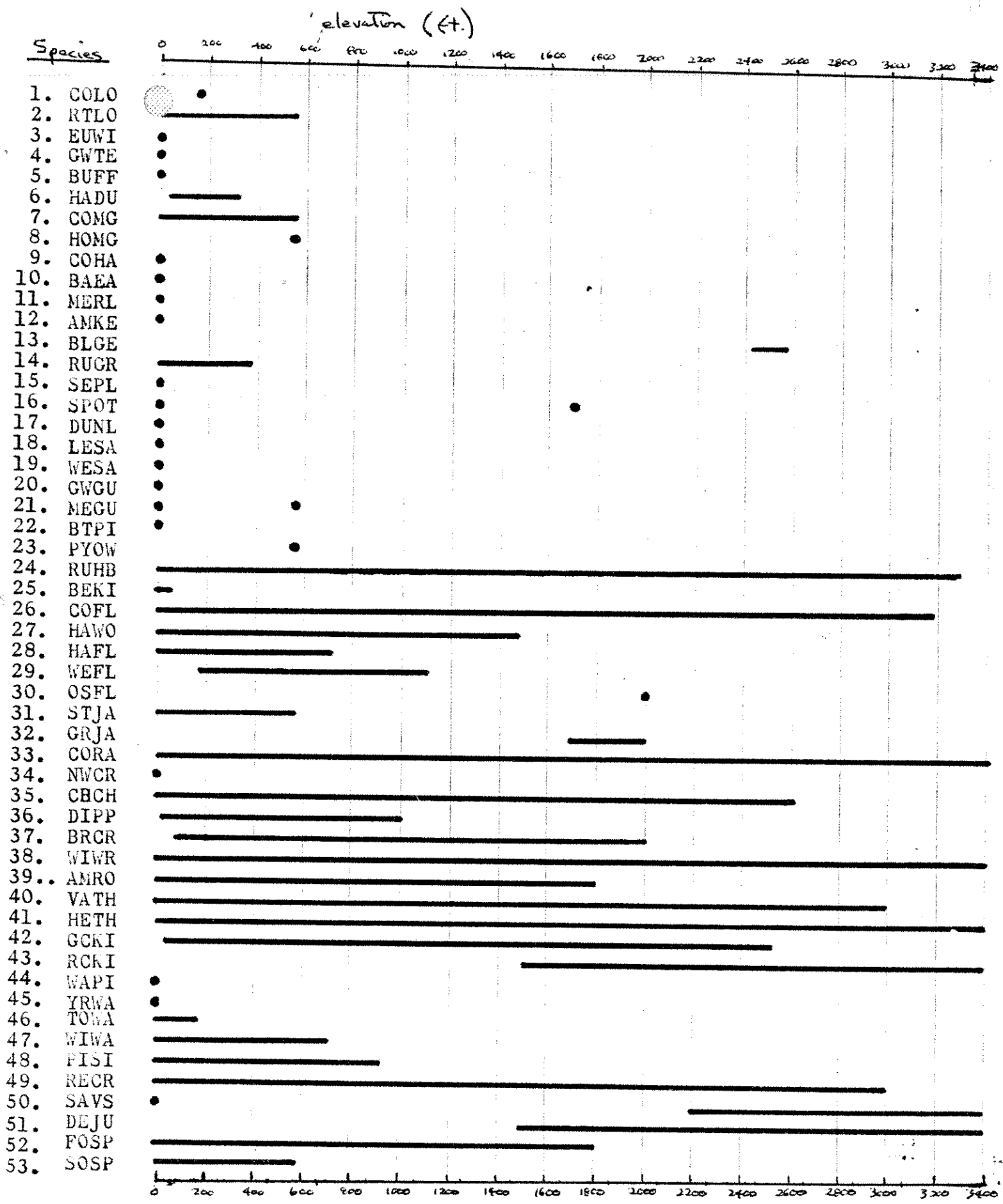
Species (see over for key)	Estuary - Maximum sightings from May 6, 11-14, & 21.	From estuary to 1 km upstream. Maximum sightings from May 6, 7, 14, & 21.	Camp May 14/15. One km upstream; elevation: app. 30 ft.	From 1 km to 5.5 km upstream. Sightings from May 15 & 21.	Camp May 15/16. 5.5 km upstream; elevation: 180 ft.	From 5.5 km to 7.8 km upstream May 16.	Camp May 16/17. 7.8 km upstream; elevation: 310 ft.	From 7.8 km to 12.1 km upstream. May 17.	Camp May 17/18. 12.1 km upstream; elevation: 700 ft.	From elevation 700 ft. to 1500 ft. (12.1 km to 13.4 km) at head of river. May 18.	From 1500 ft. to 2900 ft. peak east of head of river. Distance traversed: 2.4 km. May 18.	Camp on 2900 ft. peak east of head of river. May 18/19/20.	From 2900 ft. peak SE to 3400 ft. peak. Distance 2.7 km. May 19.	From 2900 ft. peak SW along ridge 6.3 km. (see map) May 20.	From Klaskish R. at 180 ft. elevation N to lake at 580 ft. May 7.	Camp at lake May 7/8/9. Lake perimeter explored.	From lake at 580 ft. N to 1800 ft. peak. May 9.	Camp on 1880 ft. peak, May 9/10.	From 1800 ft. peak W to 3100 ft. peak. May 10.
1 COLO						1													
2 RTLO	1					1													
3 CUNI	16																		
4 GATE	424																		
5 BUFF	16																		
6 HADU			1318			2314	2324												
7 CANG	3058	28	28	28	19		18										19		
8 MORG																	23		
9 COHA	1																		
10 BAEA	1																		
11 BLRL	1																		
12 ANKE	1																		
13 BLOE	Blue Grouse	heard from most locations, but found consistently (2) at 2500 (3) (3) feet.																	
14 RUGR	1	2	1	5	1	1	1	1											
15 SEPL	5																		
16 SPOT	1												1						
17 OLAL	1																		
18 WESA	130																		
19 WESA																			
20 GUCU	1																		
21 MOCU	3																16		
22 BTPI	3																		
23 LYOW																			
24 BUHB	7	6	2	3	1			1					1			1	1	2	
25 B. I.	1	1	2	1															
26 COPL	1		1		1								1	2		1			
27 HARG		1	1	1	1		1	1	1	1						1		2	
28 HAPL	2	1	1	2	1	2	1	6								1		2	
29 HAPL					1	1		1											
30 HSFL									1										
31 STJA	2				1													2	
32 GRJA																			
33 CORA	1	1				1							3					1	
34 KPCR	7																		
35 CBCH	2	3	2	2	2	1	1	2											
36 LIPP			1	4	1	5	2	2	1	1					6	6			
37 BROR				1															
38 FLKR	3	4	2	10	4	14	2	11	2	14	2	1	8	14	1	7	7	2	
39 ANRO	10	3	2	8	2	5	2	2							1	2		2	
40 VATH	4	1	2	10	3	6	3	12		5		1	1	6	2	4	3	2	
41 HETH	3	3	1	2	4	2	3	2	2	6	6	2	14	16	2	3	7	2	
42 GCKI			2	1	1	4	1	2		2	1			5		4	3	2	
43 BKAI										1	3	1	18	10					
44 FAPI	6																		
45 YRGA	1																		
46 TORA	4	2	1	1															
47 MISA	3	1	2	4	2	3	1	5	1										
48 PISI	10		1															1	
49 BREOR	8	2	3	1		6	8	12											
50 HAYS	12												3				6	5	
51 DEJU										1			4	3					
52 FOST	2	1	3	3				1								1	2		
53 GOSP	5	1															2		
Total Species	38	16	20	18	19	13	13	14	5	9	7	4	12	9	5	20	13	9	9
Total Individ.	261	32	36	62	30	53	28	61	7	32	16	5	65	62	12	64	35	16	37
Distance travelled		1.0km		4.5km		2.3km		4.3km		2.3km	2.4km		2.7km	6.3km	0.8km		1.3km		2.2km
Individ. per km.		32		14		24		14		14	7		24	10	15		27		17

Key to species.

1. Common Loon
2. Red-throated Loon
3. European Widgeon
4. Green-winged Teal
5. Bufflehead
6. Harlequin Duck
7. Common Merganser
8. Hooded Merganser
9. Cooper's Hawk
10. Bald Eagle
11. Merlin
12. American Kestrel
13. Blue Grouse
14. Ruffed Grouse
15. Semipalmated Plover
16. Spotted Sandpiper
17. Dunlin
18. Least Sandpiper
19. Western Sandpiper
20. Glaucous-winged Gull
21. Mew Gull
22. Band-tailed Pigeon
23. Pygmy Owl
24. Rufous Hummingbird
25. Belted Kingfisher
26. Common Flicker
27. Hairy Woodpecker
28. Hammond's Flycatcher
29. Western Flycatcher
30. Olive-sided Flycatcher
31. Stellar's Jay
32. Gray Jay
33. Common Raven
34. Northwestern Crow
35. Chestnut-backed Chickadee
36. Dipper
37. Brown Creeper
38. Winter Wren
39. American Robin
40. Varied Thrush
41. Hermit Thrush
42. Golden-crowned Kinglet
43. Ruby-crowned Kinglet
44. Water Pipet
45. Yellow-rumped Warbler
46. Townsend's Warbler
47. Wilson's Warbler
48. Pine Siskin
49. Red Crossbill
50. Savanna Sparrow
51. Dark-eyed Junco
52. Fox Sparrow
53. Song Sparrow

Fig. 2

Species range as a function of elevation.



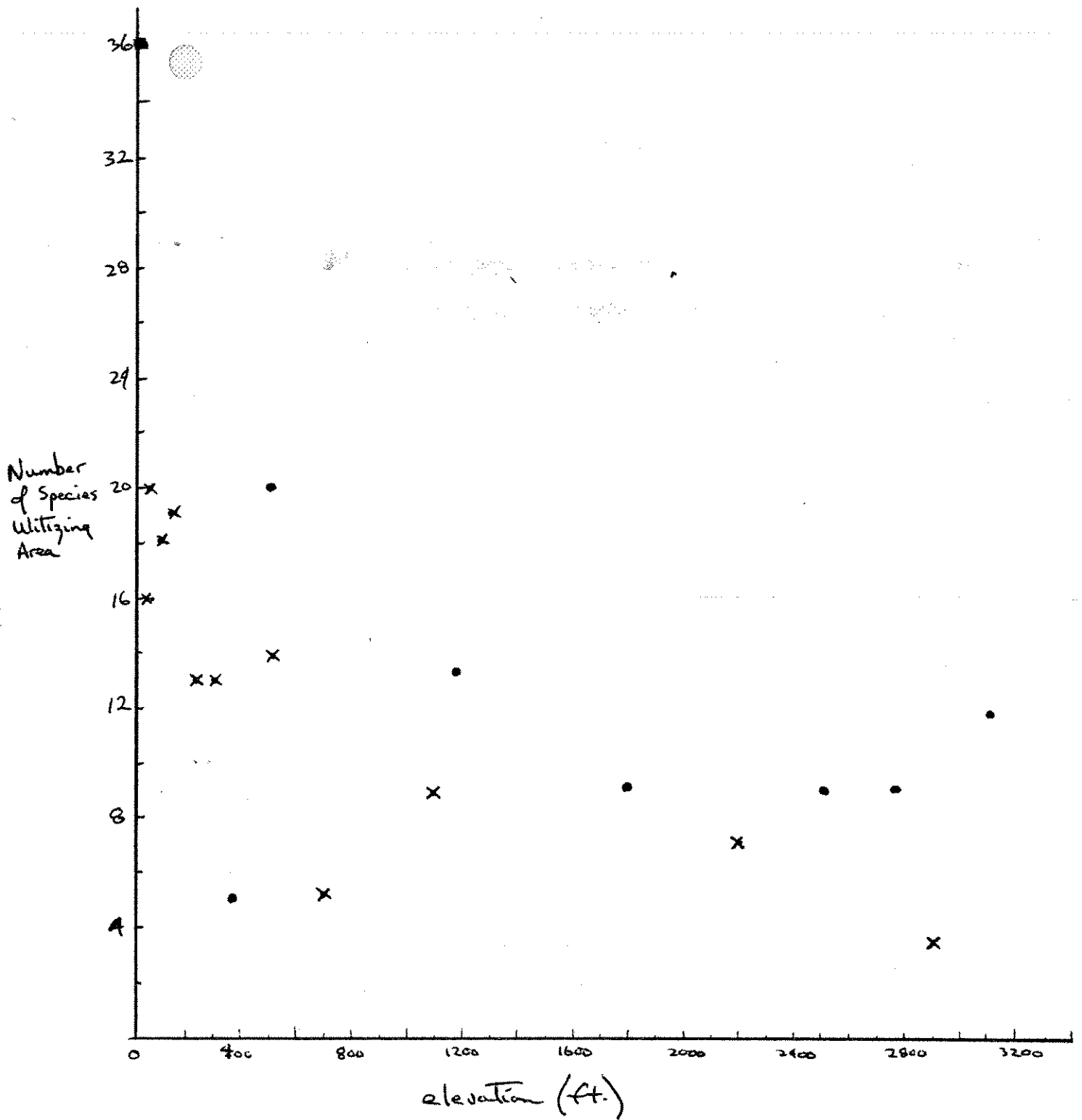


Fig. 3 Species diversity as a function of elevation

- x Data from along the river and over its source only.
- Remaining data.



