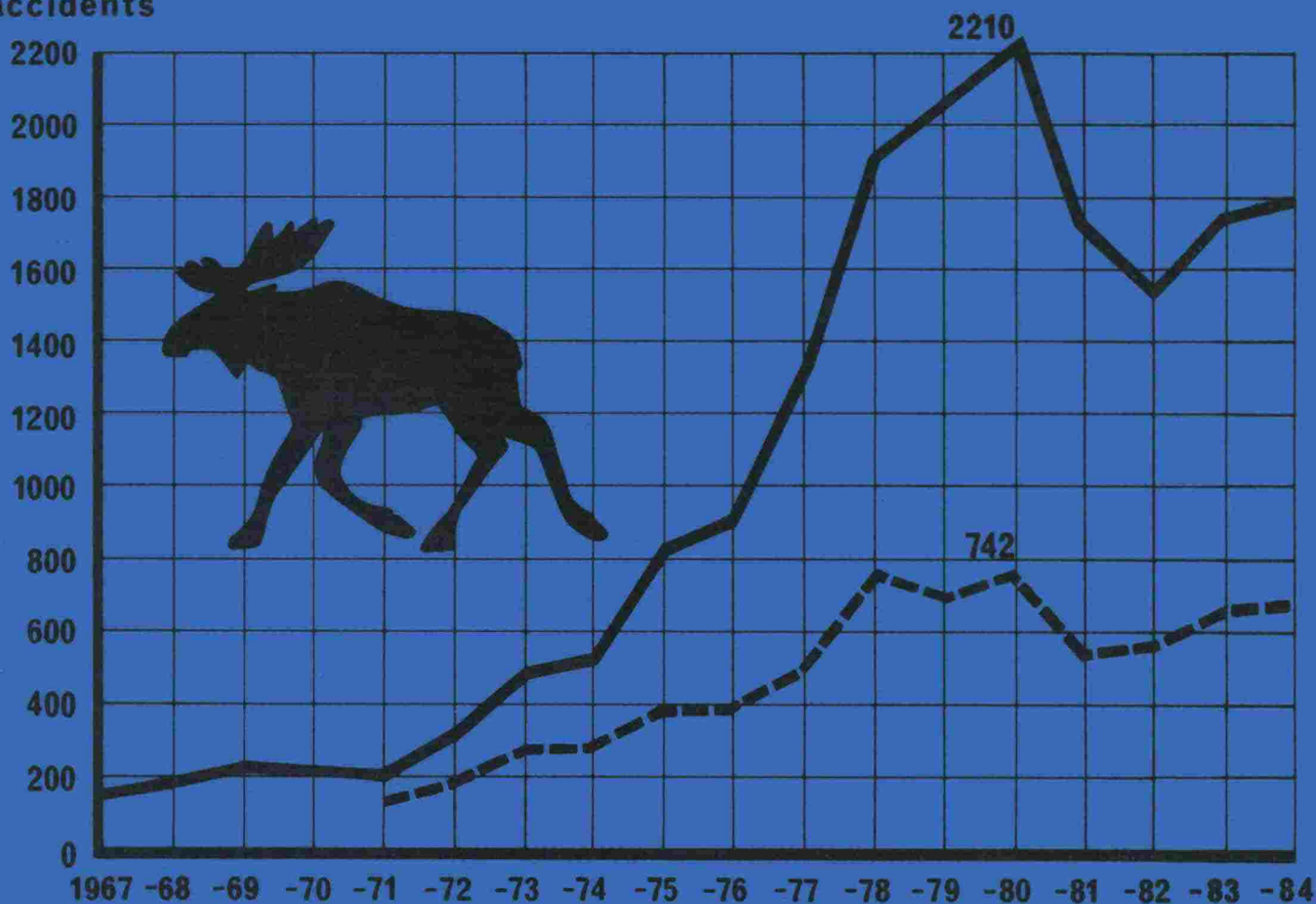


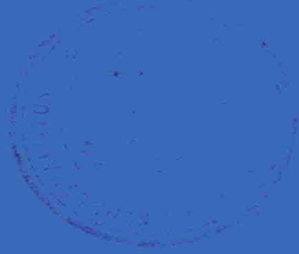
accidents



ELK AND DEER ACCIDENTS ON PUBLIC ROADS IN 1984

ROADS AND WATERWAYS ADMINISTRATION
TRAFFIC DIVISION

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ELK AND DEER ACCIDENTS ON PUBLIC ROADS IN 1984

Roads and Waterways Administration
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PREFACE

According to statistics some 14000 police-reported accidents occur annually in Finland on the roads maintained by the Roads and Waterways Administration. Some 2500 of these accidents are caused by elks and white-tailed deer. The stock of both these animals has grown rapidly in Finland during the past ten years and has consequently become a problem for traffic safety.

This summary has been compiled by the Traffic Division of the RWA. The material has been collected and analysed by Mr Sami Sarkkinen, who is studying at the Helsinki University of Technology.

Chief Engineer

K. Härkänen

1. ELK AND DEER ACCIDENTS IN 1984 AND THE DEVELOPMENT OF ACCIDENTS

After a downward trend of some two years there was a slight increase in the number of elk and deer accidents after 1983. According to the RWA's statistics, which are based on police-reported accidents, there were 1797 elk (*Alces alces*) accidents and 654 white-tailed deer (*Odocoileus virginianus*) accidents on public roads in 1984. So the number of elk and deer accidents increased by 2 % compared with the previous year.

Table 1. Elk and deer accidents and their consequences in 1975-1984

Year		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Number of accidents	Elk	824	896	1285	1930	2067	2210	1729	1550	1755	1797
	Deer	401	391	468	736	704	742	587	528	639	654
	In all	1225	1287	1753	2666	2771	2952	2316	2078	2394	2451
Number of fatalities	Elk	10	3	2	3	9	7	3	5	6	5
	Deer	-	-	1	-	1	-	-	-	-	-
	In all	10	3	3	3	10	7	3	5	6	5
Number of injured	Elk	283	221	247	474	413	353	243	265	243	215
	Deer	10	6	12	25	11	13	28	6	19	13
	In all	293	227	259	499	424	366	271	271	262	228

The number of elk and deer accidents with personal injuries in 1984 was one of the lowest during the past ten years. In 1984 5 persons were killed and 215 were injured in elk accidents on public roads. 13 persons were injured in deer (=white-tailed deer) accidents. In 1984 some 69000 elks were shot, which is 25 % more than during the previous year.

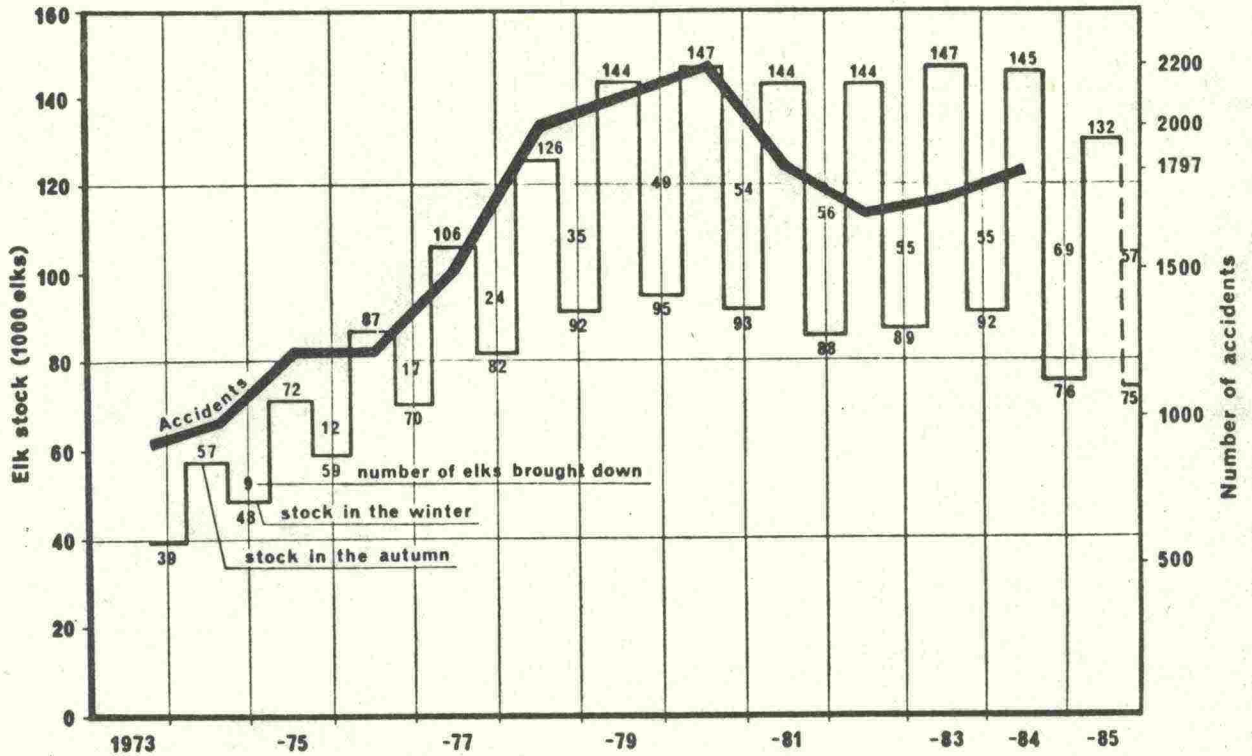


Fig. 1. Elk stock and elk accidents on public roads in 1973-84

2. ELK AND DEER ACCIDENTS AND THEIR DEVELOPMENT IN ROAD AND WATERWAY DISTRICTS IN 1984

Most of the elk and deer accidents occur in the southern road and waterway districts. In 1984 the number of elk and deer accidents was almost the same as in 1983, the increase being 2 %. The increase was greatest in the districts of Kainuu (30 %), Uusimaa (24 %) and Lappi (19 %). There was a significant decrease in the districts of Pohjois-Karjala (20 %), Mikkeli (15 %) and Vaasa (10 %).

The number of elk accidents with personal injuries decreased from the previous year in the districts of Pohjois-Karjala, Mikkeli, Vaasa and Keski-Suomi (Table 2). This kind of accidents increased in the districts of Uusimaa, Kainuu and Lappi (Lapland). There were altogether 5 fatal elk accidents in 1984.

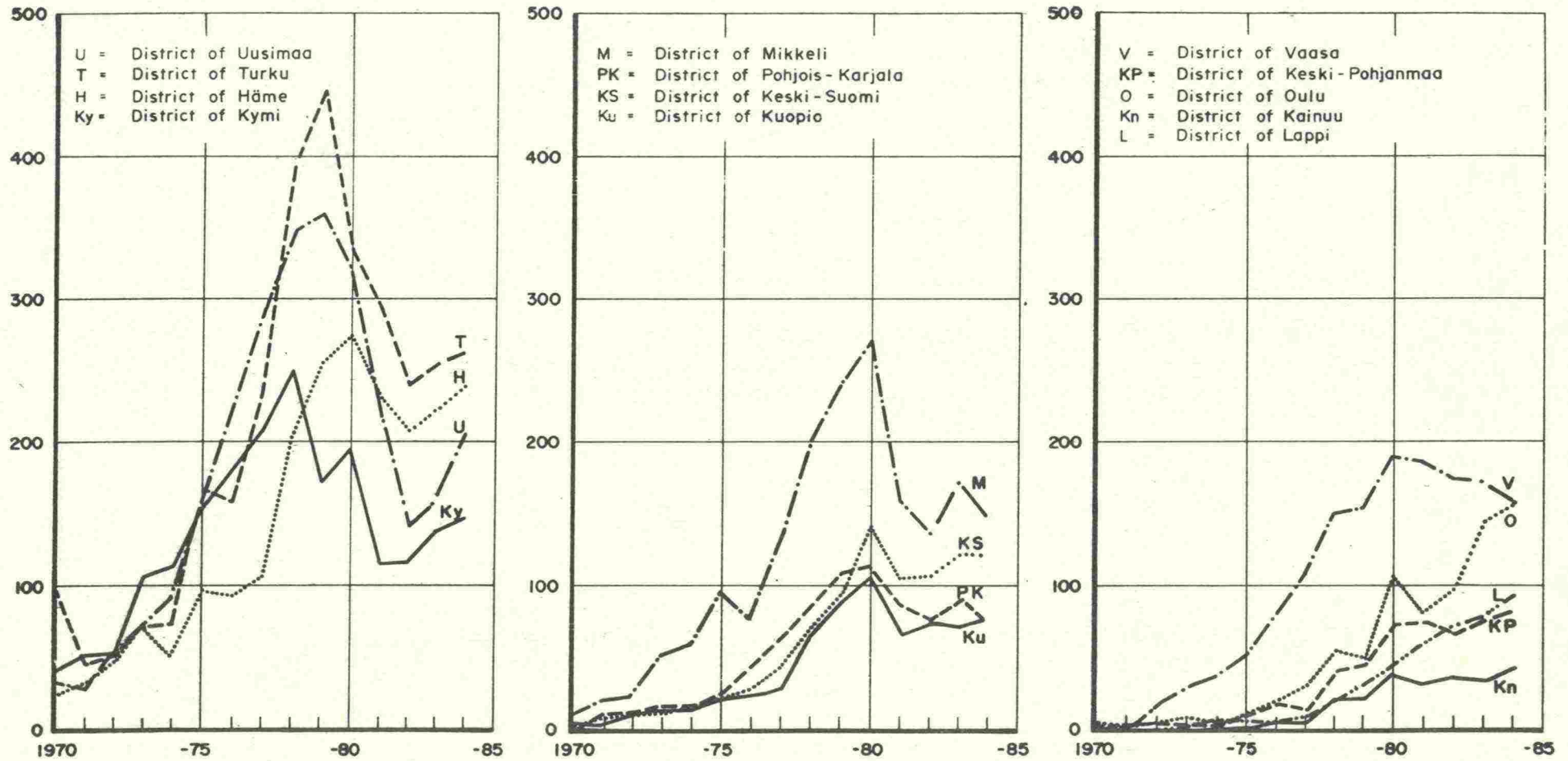
Table 2. Elk and deer accidents by road and waterway district in 1983-84

District	Elk accidents							Deer accidents							Elk and deer accidents in all		
	Fatal accidents		Personal injuries accidents		All elk accidents			Fatal accidents		Personal injuries accidents		All deer accidents			Elk and deer accidents in all		Change %
	83	84	83	84	83	84	Change %	83	84	83	84	83	84	Change %	83	84	
U	-	1	18	15	160	204	+28	-	-	4	7	82	96	+17	242	300	+24
T	-	-	32	34	256	262	+ 2	-	-	9	2	282	273	- 3	538	535	- 1
H	1	1	19	28	224	242	+ 8	-	-	3	2	256	268	+ 5	480	510	+ 6
Ky	1	1	11	15	142	147	+ 4	-	-	-	-	1	1		143	148	+ 3
M	-	1	20	9	175	148	-15	-	-	-	-	4	5		179	153	-15
PK	1	-	8	7	91	73	-20	-	-	-	-	-	-		91	73	-20
Ku	-	-	5	7	75	75	+ 0	-	-	-	-	-	-		75	75	+ 0
KS	-	-	13	11	122	120	- 2	-	-	1	-	11	5		133	125	- 6
V	-	-	14	8	173	154	-11	-	-	-	-	3	5		176	159	-10
KP	-	-	6	4	78	82	+ 5	-	-	-	-	-	-		78	82	+ 5
O	-	1	12	8	147	154	+ 5	-	-	-	-	-	-		147	154	+ 5
Kn	-	-	7	7	33	42	+27	-	-	-	-	-	1		33	43	+30
L	-	-	5	6	79	94	+19	-	-	-	-	-	-		79	94	+19
Whole country	3	5	170	159	1755	1797	+ 2	-	-	17	11	639	654	+ 2	2394	2451	+ 2

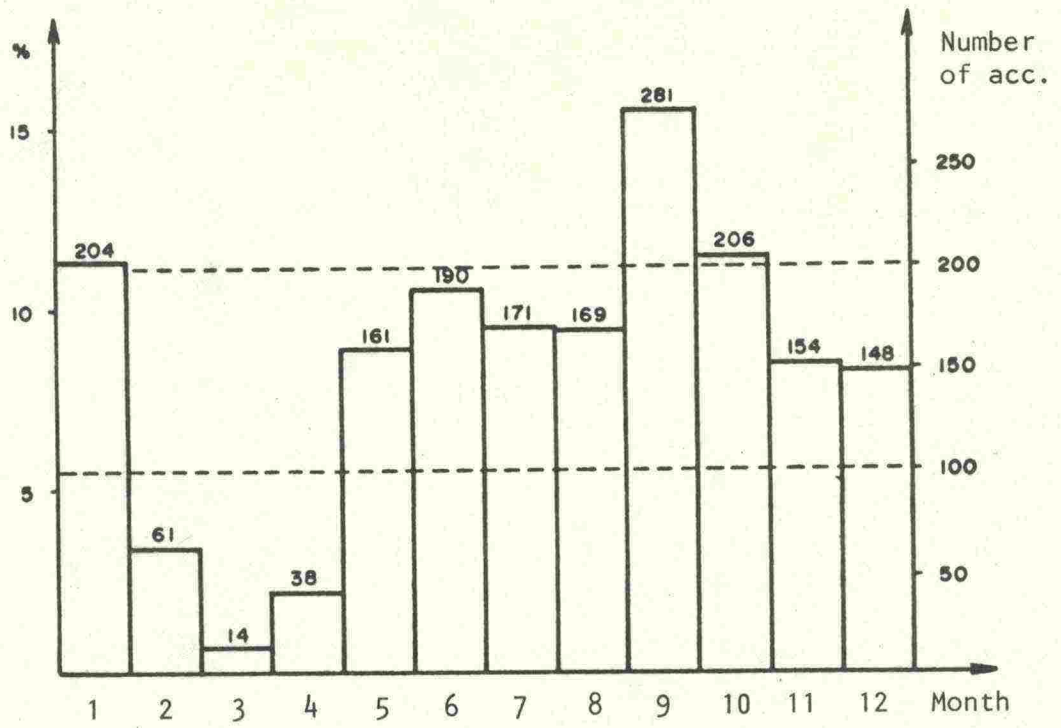
Nearly all deer accidents occurred in the districts of Uusimaa, Turku and Häme. In the whole country there was a 2 % increase in the number of deer accidents in 1984. The number of accidents increased considerably in the district of Uusimaa (17 %).

There were altogether 11 deer accidents with personal injuries in 1984. In 1983 the corresponding figure was 17. There have been no fatal accidents due to deer since 1980.

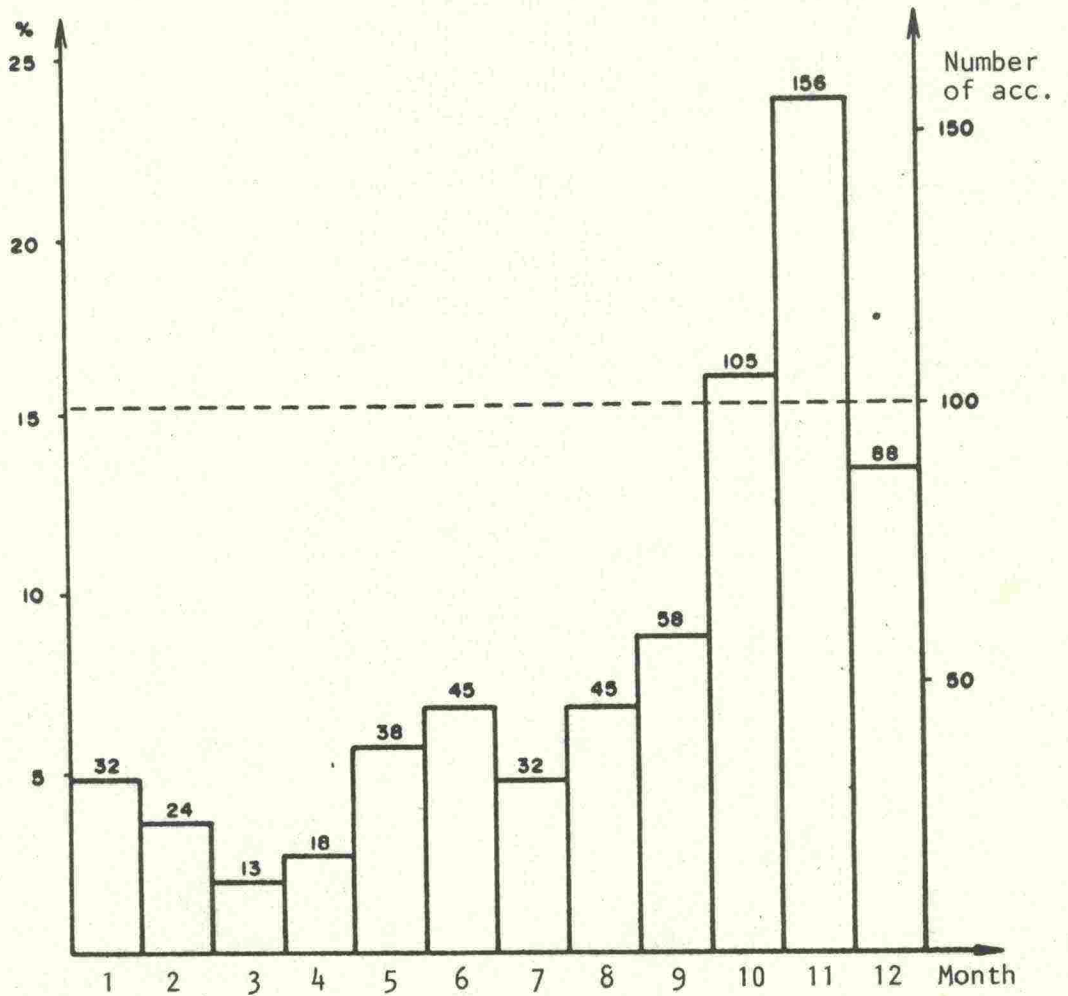
Fig. 2. Elk accidents by road and waterway district in 1970-1984 according to RWA's statistics



APPENDICES



Elk accidents by month on public roads in 1984



Deer accidents by month on public roads in 1984

RESULT OF ELK-HUNTING IN 1975-1984

GAME MANAGEMENT AREA	YEAR									
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Etelä-Häme	601	844	1711	2489	3358	3045	3123	1398	1941	2587
Etelä-Savo	976	1226	1711	2657	4843	7423	6466	4839	4367	5711
Keski-Suomi	578	794	1055	1657	2386	3722	4337	4266	3928	4517
Kymi	1545	2724	4307	5596	6625	3770	2944	3229	2980	5122
Lappi (Lapland)	874	905	1035	1201	1365	1497	1719	2136	2550	4354
Oulun lääni	801	965	1184	1560	2169	3092	4290	7231	8240	11349
Pohjanmaa	580	692	899	1181	1977	3641	6635	8135	6489	7609
Pohjois-Häme	531	626	1162	1467	2350	2784	2791	2737	2266	3337
Pohjois-Karjala	626	690	936	1310	2672	2567	3099	3762	3501	4115
Pohjois-Savo	402	729	980	1284	2432	3720	3952	3348	3050	2791
Ruots. Pohjanmaa	767	913	1716	2176	2734	3225	3943	4626	5201	4794
Satakunta	849	1309	1760	3312	5064	5052	3957	4250	4090	5067
Uusimaa	1699	2131	2809	4771	5305	5616	4358	2640	2981	3235
Varsinais-Suomi	1458	2400	2863	3965	5707	4608	3564	2325	2210	2763
Kainuu										1492
In all	12287	16948	24128	34626	48987	53762	56178	54922	54983	68843

Source: Hunters Central Organization

GAME MANAGEMENT AREA	Shooting licences granted			Shot					shooting %	fawns %	1984 estimate of stock before hunting
	full-grown elks	fawns	in all	full-grown elks		fawns		in all			
				in all	shooting %	in all	shooting %				
Etelä-Häme	1347	1378	2725	1324	98,3	1263	91,7	2587	94,9	48,8	6360
Etelä-Savo	3395	3109	6504	3102	91,4	2609	83,9	5711	87,8	45,7	11390
Kainuu	876	741	1617	858	97,9	634	85,6	1492	92,3	42,5	5120
Keski-Suomi	2463	2542	5005	2380	96,6	2137	84,1	4517	90,2	47,3	10220
Kymi	3511	2161	5672	3264	93,0	1858	86,0	5122	90,3	36,3	9180
Lappi (Lapland)	2972	1879	4851	2919	98,2	1435	76,4	4354	89,8	33,0	9480
Oulu	6456	5653	12109	6291	97,4	5058	89,5	11349	93,7	44,6	21490
Pohjanmaa	4222	4184	8406	4130	97,8	3479	83,2	7609	90,5	45,7	14280
Pohjois-Häme	1751	1817	3568	1714	97,9	1623	89,3	3337	93,5	48,6	8490
Pohjois-Karjala	2672	2309	4981	2429	90,9	1686	73,0	4115	82,6	41,0	9940
Pohjois-Savo	1518	1504	3022	1487	98,0	1304	86,7	2791	92,4	46,7	7550
Ruots.Pohjanmaa	3240	2372	5612	2909	89,8	1885	79,5	4794	85,4	39,3	8560
Satakunta	2703	2704	5407	2632	97,4	2435	90,1	5067	93,7	48,1	9000
Uusimaa	2097	1422	3519	1976	94,2	1259	88,5	3235	91,9	38,9	7150
Varsinais-Suomi	1395	1440	2835	1373	98,4	1390	96,5	2763	97,5	50,3	6800
Whole country	40618	35215	75833	38788	95,5	30055	85,3	68843	90,8	43,7	145010

Result of elk-hunting in 1984

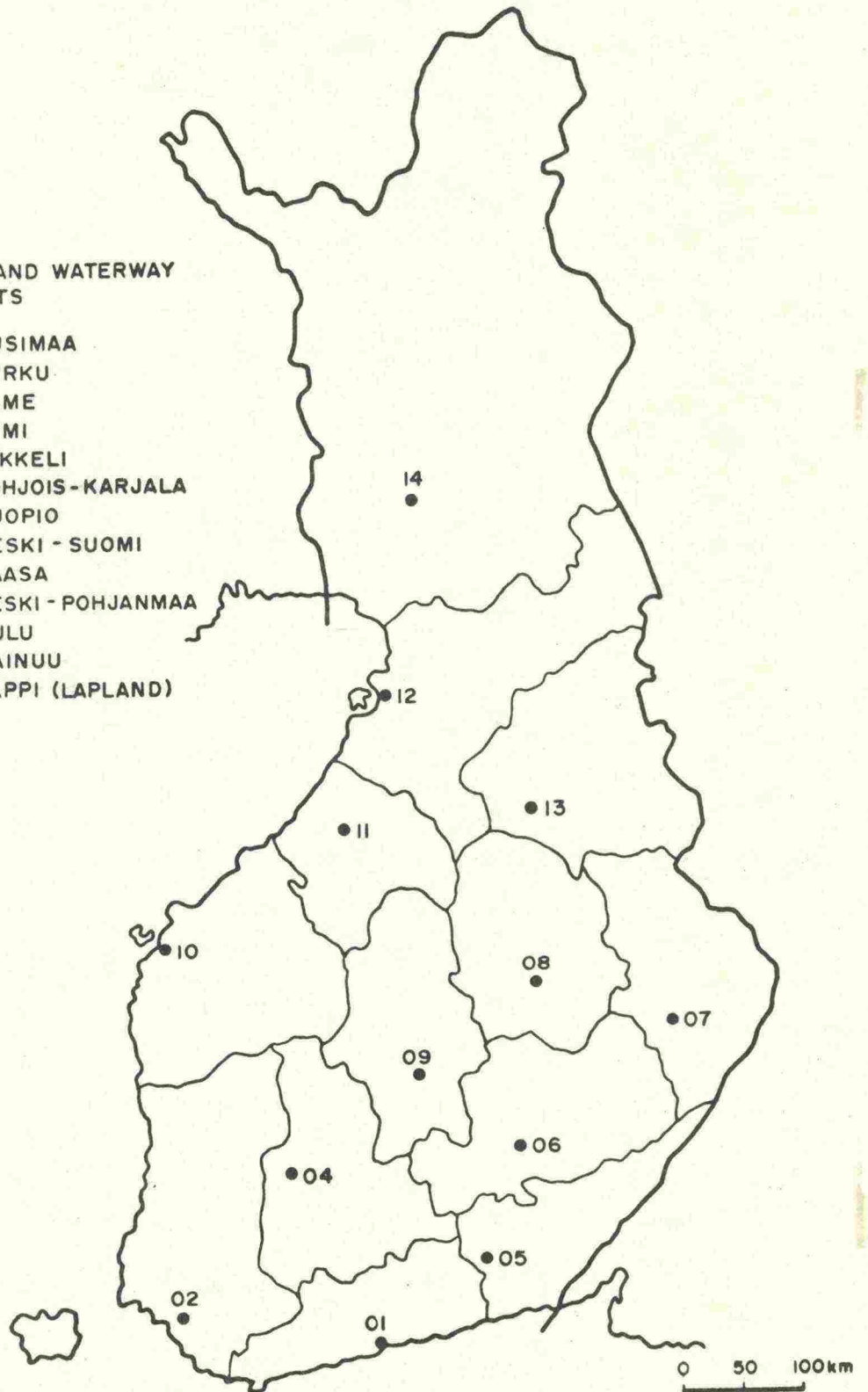
GAME MANAGEMENT AREA	shooting licences	Shot				shooting %	fawns %	Shot	1983 shooting %
		buck	doe	fawn	in all				
Etelä-Häme	1600	419	448	951	1818	54,0	52,3	2312	82,2
Etelä-Savo	44	14	14	3	31	65,9	9,7	31	65,7
Keski-Suomi	44	13	7	1	21	46,2	4,8	23	53,4
Kymi	39	17	11	-	28	71,8	0,0	24	56,3
Pohjanmaa	41	7	8	12	27	46,3	44,4	38	80,3
Pohjois-Häme	677	201	169	308	678	69,8	45,4	708	74,7
Ruots.Pohjanmaa	62	22	16	6	44	64,5	13,6	35	57,2
Satakunta	1382	464	303	676	1443	71,8	46,8	1610	80,1
Uusimaa	1209	305	259	270	834	54,1	32,4	915	52,1
Varsinais-Suomi	1387	462	358	676	1496	75,4	45,2	1442	81,3
Whole country	6485	1924	1593	2903	6420	69,2	45,2	7138	74,1

Result of deer-hunting in 1984

Source: Hunters Central Organization

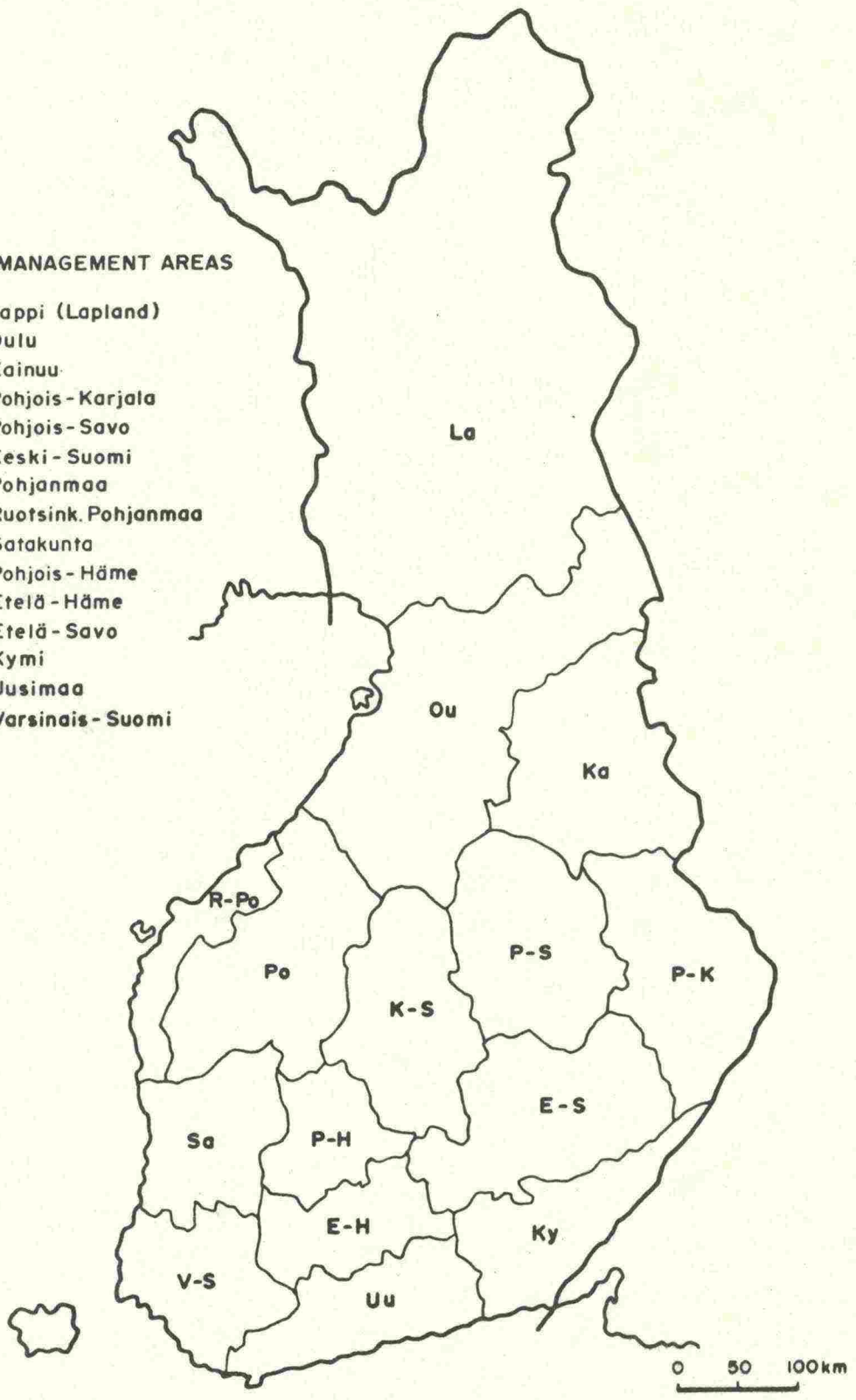
ROAD AND WATERWAY
DISTRICTS

- 01 ▪ UUSIMAA
- 02 ▪ TURKU
- 04 ▪ HÄME
- 05 ▪ KYMI
- 06 ▪ MIKKELI
- 07 ▪ POHJOIS-KARJALA
- 08 ▪ KUOPIO
- 09 ▪ KESKI-SUOMI
- 10 ▪ VAASA
- 11 ▪ KESKI-POHJANMAA
- 12 ▪ OULU
- 13 ▪ KAINUU
- 14 ▪ LAPPI (LAPLAND)



GAME MANAGEMENT AREAS

- La = Lappi (Lapland)
- Ou = Oulu
- Ka = Kainuu
- P-K = Pohjois-Karjala
- P-S = Pohjois-Savo
- K-S = Keski-Suomi
- Po = Pohjanmaa
- R-Po = Ruotsink. Pohjanmaa
- Sa = Satakunta
- P-H = Pohjois-Häme
- E-H = Etelä-Häme
- E-S = Etelä-Savo
- Ky = Kymi
- Uu = Uusimaa
- V-S = Varsinais-Suomi



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