

Electronic Appendix 1. – Temporal change of successional dominants (percentage cover values  $\pm$  SE) during the study period. Species with a cumulated average cover over 2.5% at least at one site are listed. H – high sites, L – low sites.

Site/year	H1																							
Species	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<i>Amaranthus albus</i>	61.6	$\pm 10.7$	0.0	$\pm 0.0$	0.3	$\pm 0.1$	0.0	$\pm 0.0$	1.0	$\pm 1.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$
<i>Ambrosia artemisiifolia</i>	1.6	$\pm 1.1$	1.1	$\pm 0.7$	4.1	$\pm 2.7$	5.8	$\pm 2.6$	23.6	$\pm 5.5$	10.6	$\pm 2.2$	2.4	$\pm 0.5$	11.8	$\pm 2.5$	3.2	$\pm 0.5$	0.1	$\pm 0.0$	7.8	$\pm 1.0$	0.1	$\pm 0.0$
<i>Anthemis ruthenica</i>	0.3	$\pm 0.2$	47.2	$\pm 13.2$	18.4	$\pm 8.2$	8.0	$\pm 4.2$	0.1	$\pm 0.1$	3.0	$\pm 0.3$	13.0	$\pm 5.6$	2.5	$\pm 0.7$	1.0	$\pm 0.3$	0.8	$\pm 0.6$	2.8	$\pm 1.0$	1.5	$\pm 0.6$
<i>Apera spica-venti</i>	0.0	$\pm 0.0$	0.3	$\pm 0.2$	15.4	$\pm 6.5$	56.0	$\pm 5.8$	1.2	$\pm 0.3$	0.3	$\pm 0.1$	0.3	$\pm 0.1$	0.8	$\pm 0.3$	0.7	$\pm 0.6$	0.1	$\pm 0.1$	0.1	$\pm 0.1$	0.0	$\pm 0.0$
<i>Bromus tectorum</i>	0.0	$\pm 0.0$	0.5	$\pm 0.3$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.2	$\pm 0.1$	0.0	$\pm 0.0$	7.2	$\pm 2.4$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$
<i>Carex stenophylla</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.3	$\pm 0.3$
<i>Chondrilla juncea</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$
<i>Conyza canadensis</i>	3.1	$\pm 1.1$	32.2	$\pm 16.8$	19.0	$\pm 4.4$	0.2	$\pm 0.1$	0.5	$\pm 0.3$	0.2	$\pm 0.0$	0.5	$\pm 0.1$	0.8	$\pm 0.3$	0.5	$\pm 0.3$	0.6	$\pm 0.4$	0.1	$\pm 0.1$	0.8	$\pm 0.3$
<i>Cynodon dactylon</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.1	$\pm 0.1$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.1	$\pm 0.1$	0.9	$\pm 0.8$	1.5	$\pm 1.4$
<i>Equisetum ramosissimum</i>	0.7	$\pm 0.1$	0.6	$\pm 0.1$	1.6	$\pm 0.2$	1.0	$\pm 0.2$	1.5	$\pm 0.4$	1.6	$\pm 0.5$	0.3	$\pm 0.1$	2.4	$\pm 1.9$	0.4	$\pm 0.1$	4.1	$\pm 1.3$	1.5	$\pm 0.4$	1.8	$\pm 0.6$
<i>Eryngium campestre</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.1	$\pm 0.1$	0.6	$\pm 0.3$	1.9	$\pm 0.9$	1.6	$\pm 0.7$	2.7	$\pm 1.2$	3.4	$\pm 1.0$	3.9	$\pm 1.0$	7.0	$\pm 3.0$
<i>Erysimum diffusum</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	1.6	$\pm 0.5$	2.7	$\pm 1.3$	3.5	$\pm 2.1$	5.4	$\pm 1.7$	4.1	$\pm 0.9$	0.2	$\pm 0.1$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	1.9	$\pm 0.9$	0.9	$\pm 0.5$
<i>Lepidium densiflorum</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.4	$\pm 0.4$	0.0	$\pm 0.0$	0.1	$\pm 0.1$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.0	$\pm 0.0$
<i>Poa angustifolia</i>	0.0	$\pm 0.0$	0.2	$\pm 0.1$	0.2	$\pm 0.1$	2.2	$\pm 0.9$	6.4	$\pm 2.1$	5.2	$\pm 1.6$	9.8	$\pm 2.7$	35.0	$\pm 8.8$	38.0	$\pm 9.0$	9.0	$\pm 1.1$	16.6	$\pm 2.2$	33.4	$\pm 4.7$
<i>Poa pratensis</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.1	$\pm 0.1$	1.1	$\pm 0.6$	0.3	$\pm 0.3$	0.5	$\pm 0.4$	0.7	$\pm 0.6$	1.2	$\pm 1.0$	0.8	$\pm 0.3$	0.3	$\pm 0.2$	0.7	$\pm 0.6$	0.0	$\pm 0.0$
<i>Potentilla argentea</i>	0.0	$\pm 0.0$	0.0	$\pm 0.0$	0.2	$\pm 0.1$	0.5	$\pm 0.4$	0.4	$\pm 0.2$	0.6	$\pm 0.3$	1.1	$\pm 0.3$	3.0	$\pm 1.4$	3.9	$\pm 1.4$	9.3	$\pm 3.9$	9.6	$\pm 2.5$	11.3	$\pm 4.6$
<i>Rumex acetosella</i>	2.6	$\pm 1.1$	7.6	$\pm 4.2$	0.9	$\pm 0.5$	1.4	$\pm 0.5$	0.8	$\pm 0.6$	0.2	$\pm 0.1$	6.0	$\pm 2.9$	19.2	$\pm 8.5$	11.0	$\pm 4.4$	0.2	$\pm 0.1$	2.2	$\pm 1.2$	4.7	$\pm 1.2$
<i>Trifolium arvense</i>	0.0	$\pm 0.0$	0.2	$\pm 0.1$	0.2	$\pm 0.1$	7.3	$\pm 3.1$	4.1	$\pm 1.9$	0.3	$\pm 0.1$	20.6	$\pm 6.1$	0.1	$\pm 0.1$	43.0	$\pm 14.7$	0.0	$\pm 0.0$	19.8	$\pm 1.6$	0.1	$\pm 0.0$





Site/year	L2																							
Species	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<i>Amaranthus albus</i>	0.5	±0.2	0.1	±0.0	0.1	±0.0	0.0	±0.0	0.1	±0.1	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Ambrosia artemisiifolia</i>	0.2	±0.2	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Anthemis ruthenica</i>	0.0	±0.0	0.4	±0.4	0.5	±0.4	0.3	±0.2	2.1	±0.9	1.0	±0.4	4.0	±1.2	0.0	±0.0	0.1	±0.1	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Apera spica-venti</i>	0.0	±0.0	0.2	±0.1	0.1	±0.1	6.6	±2.7	15.4	±2.1	3.4	±0.8	2.5	±0.6	5.8	±1.2	2.9	±0.7	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Bromus tectorum</i>	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.6	±0.2	2.9	±1.0	0.0	±0.0	0.1	±0.1	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Carex stenophylla</i>	2.2	±1.0	0.7	±0.3	0.1	±0.1	1.9	±0.9	1.3	±0.6	0.6	±0.3	2.9	±0.8	6.6	±3.4	4.2	±3.2	0.2	±0.2	0.4	±0.3	0.2	±0.2
<i>Chondrilla juncea</i>	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.4	±0.4	0.0	±0.0	0.6	±0.4	0.7	±0.4	3.6	±1.2	0.8	±0.4	3.7	±1.1	0.5	±0.3	0.2	±0.1
<i>Conyza canadensis</i>	6.0	±1.3	0.4	±0.3	0.8	±0.2	0.1	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.1	±0.1
<i>Cynodon dactylon</i>	6.6	±2.6	4.3	±1.7	9.2	±4.3	21.4	±4.1	37.2	±2.5	38.0	±4.1	39.0	±6.9	54.0	±8.6	61.0	±10.3	54.0	±7.5	45.0	±3.3	48.4	±3.2
<i>Equisetum ramosissimum</i>	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Eryngium campestre</i>	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Erysimum diffusum</i>	1.0	±0.8	37.8	±4.9	19.6	±3.1	26.0	±4.2	2.1	±0.6	9.6	±1.9	0.1	±0.1	0.6	±0.4	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Lepidium densiflorum</i>	0.1	±0.1	11.6	±4.0	16.0	±4.9	3.3	±1.0	1.8	±0.4	0.8	±0.4	0.2	±0.1	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Poa angustifolia</i>	0.4	±0.3	0.1	±0.1	0.0	±0.0	0.3	±0.2	2.1	±1.1	1.1	±0.6	9.6	±6.4	7.2	±3.2	17.6	±11.0	14.4	±4.8	28.2	±6.8	27.8	±6.6
<i>Poa pratensis</i>	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.4	±0.4	1.4	±0.9	10.8	±5.3	15.0	±6.9	11.0	±6.1	14.4	±6.6	13.0	±5.9	10.9	±6.5
<i>Potentilla argentea</i>	0.2	±0.1	0.3	±0.3	0.8	±0.4	0.9	±0.6	1.4	±0.6	0.7	±0.3	3.9	±1.6	9.0	±3.6	0.7	±0.4	0.8	±0.6	0.4	±0.3	0.0	±0.0
<i>Rumex acetosella</i>	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0
<i>Trifolium arvense</i>	0.1	±0.1	0.0	±0.0	0.1	±0.1	0.5	±0.1	0.2	±0.1	0.1	±0.0	0.1	±0.1	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0	0.0	±0.0