

Appendix S1. Presence and absence of plant species in each of the five treatments. RedL indicates the threat status from the Red List of endangered plant species in Switzerland (Moser et al., 2002): LC denotes “not threatened”, NT “nearly threatened”, EN “endangered”, VU “vulnerable” and DD indicates species where no data for a precise classification is possible.

Family	RedL	Name	mowed/ manual	mowed/ helicopter	mulched/ manual	mulched/ helicopter	organic
Apiaceae	LC	<i>Aegopodium podagraria</i>	0	1	0	0	1
	LC	<i>Daucus carota</i>	1	1	1	1	1
Araliaceae	LC	<i>Hedera helix</i>	1	0	0	0	1
Asteraceae	LC	<i>Achillea millefolium</i>	1	1	0	1	1
	NT	<i>Ambrosia artemisiifolia</i>	0	0	0	0	1
	NT	<i>Artemisia absinthium</i>	0	0	0	0	1
	LC	<i>Arthemisia vulgaris</i>	0	0	0	0	1
	LC	<i>Cirsium arvense</i>	1	1	1	1	1
	LC	<i>Crepis biennis</i>	1	1	0	0	0
	LC	<i>Crepis taraxacifolia</i>	0	0	0	1	0
	LC	<i>Erigeron annuus</i>	1	1	1	1	1
	LC	<i>Lapsana communis</i>	0	1	0	0	0
	LC	<i>Leontodon hispidus</i>	1	0	0	0	0
	LC	<i>Petasites hybridus</i>	0	0	0	0	1
	LC	<i>Senecio vulgaris</i>	0	1	0	0	0
	LC	<i>Solidago canadensis</i>	1	1	0	0	0
	LC	<i>Sonchus asper</i>	0	0	0	1	0
	LC	<i>Sonchus oleraceus</i>	1	1	0	1	0
	LC	<i>Taraxacum officinale</i>	1	1	1	1	1
	Brassicaceae	LC	<i>Brassica napus</i>	1	0	0	1
LC		<i>Capsella bursapastoris</i>	1	0	1	1	0
LC		<i>Cardamine pratensis</i>	1	1	1	1	0
Campanulaceae	VU	<i>Campanula latifolia</i>	0	0	0	0	1
	LC	<i>Campanula persicifolia</i>	0	0	0	0	1
Caryophyllaceae	LC	<i>Cerastium glomeratum</i>	0	1	0	0	0
	NT	<i>Cerastium semidecandrum</i>	1	1	1	1	1
	LC	<i>Saponaria officinalis</i>	0	0	1	0	0
	LC	<i>Stellaria media</i>	1	0	1	0	1
Chenopodiaceae	LC	<i>Atriplex patula</i>	0	1	0	0	0
Convolvulaceae	LC	<i>Calystegia sepium</i>	0	1	1	1	0
	LC	<i>Convolvulus arvensis</i>	1	1	1	1	1
Crassulaceae	LC	<i>Sedum album</i>	1	1	0	1	1
Cucurbitaceae	LC	<i>Bryonia dioica</i>	0	0	1	0	0
Cyperaceae	LC	<i>Carex muricata</i>	0	0	0	0	1
	LC	<i>Carex spicata</i>	0	0	0	0	1
Euphorbiaceae	LC	<i>Euphorbia cyparissias</i>	1	0	0	0	0
	LC	<i>Euphorbia helioscopia</i>	1	1	0	1	0
Fabaceae	EN	<i>Anthriscus cerefolium</i>	0	0	0	0	1
	LC	<i>Coronilla varia</i>	1	0	0	0	0
	LC	<i>Medicago lupulina</i>	1	1	1	1	1
	LC	<i>Medicago sativa</i>	1	0	0	0	0

	LC	<i>Trifolium pratense</i>	1	1	1	1	1
	LC	<i>Trifolium repens</i>	1	0	0	0	0
	LC	<i>Vicia sepium</i>	1	1	1	1	1
Fumariaceae	LC	<i>Fumaria officinalis</i>	1	1	0	1	0
	EN	<i>Fumaria vaillantii</i>	0	1	0	1	0
Geraniaceae	LC	<i>Erodium cicutarium</i>	0	1	0	0	0
	LC	<i>Geranium dissectum</i>	0	1	0	0	0
	LC	<i>Geranium molle</i>	1	1	1	1	1
	NT	<i>Geranium pratense</i>	1	0	0	0	0
	LC	<i>Geranium pyrenaicum</i>	0	1	1	1	1
	LC	<i>Geranium sanguineum</i>	1	1	1	1	1
	LC	<i>Geum urbanum</i>	0	1	1	0	1
Lamiaceae	LC	<i>Glechoma hederaceum</i>	0	0	1	1	0
	LC	<i>Lamium purpureum</i>	1	1	1	1	1
Liliaceae	LC	<i>Allium vineale</i>	1	1	1	0	1
	NT	<i>Muscari racemosum</i>	1	1	1	1	0
	LC	<i>Ornithogalum umbellatum</i>	0	0	0	0	1
Malvaceae	LC	<i>Malva neglecta</i>	0	0	0	1	0
Papaveraceae	LC	<i>Chelidonium majus</i>	0	0	1	0	0
	LC	<i>Papaver rhoeas</i>	1	0	1	1	1
Plantaginaceae	LC	<i>Plantago lanceolata</i>	1	1	1	1	1
	LC	<i>Plantago major</i>	1	0	0	0	1
Poaceae	LC	<i>Arrhenaterum elatius</i>	1	1	1	1	1
	LC	<i>Bromus erectus</i>	1	1	1	1	1
	LC	<i>Festuca rubra</i>	0	1	0	1	0
	LC	<i>Poa annua</i>	1	0	0	0	0
	LC	<i>Poa trivialis</i>	0	1	0	0	0
Polygonaceae	LC	<i>Rumex acetosa</i>	0	1	0	0	1
	LC	<i>Rumex crispus</i>	0	0	1	0	0
Ranunculaceae	LC	<i>Clematis vitalba</i>	0	0	0	1	0
	LC	<i>Ranunculus bulbosus</i>	1	0	1	0	1
	LC	<i>Ranunculus repens</i>	1	1	1	1	1
Rosaceae	LC	<i>Fragaria vesca</i>	1	1	0	0	1
	LC	<i>Potentilla anserina</i>	1	0	0	0	0
	LC	<i>Potentilla reptans</i>	1	1	0	0	1
	LC	<i>Rosa canina</i>	0	1	0	0	1
	LC	<i>Rubus idaeus</i>	1	1	0	1	1
	LC	<i>Sanguisorba minor</i>	0	0	1	0	1
Rubiaceae	LC	<i>Galium album</i>	1	1	1	1	1
	LC	<i>Galium aparine</i>	1	1	1	1	1
Scrophulariaceae	LC	<i>Veronica arvensis</i>	1	1	1	0	1
	LC	<i>Veronica persica</i>	1	1	1	1	1
Solanaceae	LC	<i>Solanum nigrum</i>	0	0	0	1	0
Uricaceae	LC	<i>Urtica dioeca</i>	1	1	1	0	1
Valerianaceae	LC	<i>Valerianella locusta</i>	1	1	1	1	1

Appendix S2. Presence and absence of grasshopper species in each of the five treatments. RedL indicates the threat status from the Red List of endangered grasshopper species in Switzerland (Monnerat et al., 2007): LC denotes “not threatened”, NT “nearly threatened” and VU “vulnerable”.

Family	RedL	Name	mowed/ manual	mowed/ helicopter	mulched/ manual	mulched/ helicopter	organic
Acrididae	LC	<i>Chorthippus biguttulus</i>	1	1	1	1	1
	LC	<i>Chorthippus brunneus</i>	1	1	1	1	1
	LC	<i>Mecostethus parapleurus</i>	0	1	0	1	0
	NT	<i>Oedipoda caerulescens</i>	0	1	0	0	0
Gryllidae	LC	<i>Gryllus campestris</i>	1	1	1	1	1
Tetrigidae	LC	<i>Tetrix tenuicornis</i>	0	1	1	1	1
Tettigoniidae	NT	<i>Platycleis albopunctata</i>	1	1	1	1	1
	VU	<i>Phaneroptera falcata</i>	0	0	0	1	0
	LC	<i>Pholidoptera griseoaptera</i>	0	0	0	0	1
	LC	<i>Tettigonia viridissima</i>	0	0	1	1	0

Appendix S3. Spider individuals captured in each of the five treatments. N indicates the number of published species lists from Central European literature where the respective species has been found (Hänggi et al. 1995). Numbers in boldface (< 21 citations) indicate species, which can be considered rare (Hänggi et al. 1995). Two species (*Amaurobius similis*, *Dysdera crocata*) with <21 citations were not considered as being rare, because they are known to be common, but cannot be easily caught with pitfall traps.

Family	N	Name	mowing/ manual	mowing/ helicopter	mulching/ manual	mulching/ helicopter	organic
Amaurobiidae	4	<i>Amaurobius similis</i>	0	0	1	0	0
Atypidae	21	<i>Atypus piceus</i>	0	1	0	0	0
Dictynidae	42	<i>Argenna subnigra</i>	0	0	5	2	0
Dysderidae	5	<i>Dysdera crocata</i>	0	0	0	0	1
Gnaphosidae	157	<i>Drassodes lapidosus</i>	10	19	11	7	12
	71	<i>Drassyllus praeficus</i>	10	5	4	5	5
	126	<i>Drassyllus pusillus</i>	2	10	11	15	8
	196	<i>Haplodrassus signifer</i>	12	3	15	11	5
	1	<i>Micaria formicaria</i>	0	0	0	1	0
30	<i>Micaria fulgens</i>	0	1	0	0	0	

	11	<i>Phaeoedus braccatus</i>	1	0	1	0	1
	15	<i>Zelotes aeneus</i>	0	0	1	0	0
	6	<i>Zelotes exiguus</i>	2	0	11	7	7
	98	<i>Zelotes petrensis</i>	7	4	2	4	8
Hahniidae	88	<i>Hahnia nava</i>	0	3	4	1	12
Linyphiidae	8	<i>Acartauchenius scurrilis</i>	0	0	1	0	0
	78	<i>Centromerus incilium</i>	1	0	0	0	0
	467	<i>Centromerus sylvaticus</i>	1	0	0	0	0
	146	<i>Cnephalocotes obscurus</i>	23	21	18	19	17
	255	<i>Diplocephalus picinus</i>	1	0	0	0	0
	10	<i>Erigonoplus globipes</i>	85	173	243	196	120
	406	<i>Meioneta rurestris</i>	4	1	7	2	1
	na	<i>Mermessus trilobatus</i>	4	5	6	4	6
	360	<i>Palliduphantes pallidus</i>	4	1	1	2	2
	79	<i>Pelecopsis parallela</i>	5	3	2	2	6
	18	<i>Porrhomma lativelum</i>	0	1	0	0	0
	170	<i>Stemonyphantes lineatus</i>	1	0	1	0	0
	431	<i>Tenuiphantes tenuis</i>	48	44	41	18	49
	na	<i>Trichoncus saxicola</i>	0	0	1	0	1
Liocranidae	198	<i>Phrurolithus festivus</i>	7	6	6	1	16
	68	<i>Phrurolithus minimus</i>	8	4	2	28	0
Lycosidae	158	<i>Alopecosa cuneata</i>	272	353	174	225	184
	102	<i>Arctosa lutetiana</i>	9	12	0	16	10
	175	<i>Aulonia albimana</i>	299	306	51	102	157
	135	<i>Pardosa agrestis</i>	0	0	1	0	0
	348	<i>Pardosa amentata</i>	1	0	0	0	0
	64	<i>Pardosa hortensis</i>	29	37	63	57	41
	255	<i>Pardosa palustris</i>	0	0	1	1	0
	372	<i>Pardosa pullata</i>	1	1	1	0	0
	410	<i>Pardosa saltans</i>	1	4	8	3	2
	29	<i>Trochosa robusta</i>	4	11	15	15	7
	280	<i>Trochosa ruricola</i>	1	2	0	1	0
	530	<i>Trochosa terricola</i>	0	1	0	0	0
	58	<i>Xerolycosa miniata</i>	1	1	64	19	0
	118	<i>Xerolycosa nemoralis</i>	11	56	108	57	28
Pisauridae	172	<i>Pisaura mirabilis</i>	1	0	1	0	1
Salticidae	178	<i>Euophrys frontalis</i>	0	2	0	0	0
	8	<i>Heliophanus auratus</i>	1	1	1	2	0
	57	<i>Heliophanus cupreus</i>	5	0	0	8	3
	51	<i>Heliophanus flavipes</i>	0	0	0	1	0
	79	<i>Phlegra fasciata</i>	0	1	1	0	0
	26	<i>Salticus scenicus</i>	1	0	0	2	0
	48	<i>Sibianor aurocinctus</i>	0	0	0	1	0
	9	<i>Sitticus pubescens</i>	0	1	0	0	0
	81	<i>Talavera aequipes</i>	3	6	3	12	4
	3	<i>Talavera aperta</i>	0	1	0	5	4
Tetragnathidae	454	<i>Pachygnatha degeeri</i>	0	0	2	0	0
Theridiidae	21	<i>Dipoena coracina</i>	2	2	0	0	0
	89	<i>Enoplognatha thoracica</i>	4	0	2	3	5
	33	<i>Episinus truncatus</i>	1	0	1	0	0
Thomisidae	133	<i>Ozyptila atomaria</i>	1	2	3	4	4
	64	<i>Ozyptila claveata</i>	1	6	1	1	9
	115	<i>Ozyptila praticola</i>	0	0	0	0	1
	20	<i>Xysticus acerbus</i>	6	6	4	16	8

	360	<i>Xysticus cristatus</i>	0	1	2	0	0
	172	<i>Xysticus kochi</i>	8	11	14	27	7
Zodariidae	21	<i>Zodarion italicum</i>	52	28	24	47	57

References

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