

Supplementary Material

Supplementary Tables

Table S1. The importance values of plant species surveyed in experimental plots T1 through T5.

Functional group	Species	T1	T2	T3	T4	T5
Poaceae	<i>Leymus chinensis</i>	0.681	0.3	0.6	0.7	0.04
Poaceae	<i>Poaceae hierochloeglabra</i>	0.004	0.02			0.1
Poaceae	<i>Stipa Baicalensis</i>	0.005	0.02	0.01	0.02	0.01
Poaceae	<i>Poa sphondylodes</i>	0.01	0.01	0.01		0.01
Poaceae	<i>Achnatherum sibiricum</i>		0.02			0.06
Poaceae	<i>Achnatherum sibiricum</i>		0.01	0.01		0.05
Poaceae	<i>Koeleria cristata</i>		0.02	0.02		0.05
Poaceae	<i>Helictotrichon schellianum</i>					0.01
Poaceae	<i>Festuca ovina</i>		0.01	0.03		0.09
Sedge	<i>Carex spp</i>	0.33	0.13	0.09	0.06	0.16
Sedge	<i>Carex pediformis</i>		0.17			0.06
Legume	<i>Vicia amoena</i>	0.01				
Legume	<i>Astragalus melilotoides</i>	0.17	0.03			
Legume	<i>Gueldenstaedtia verna</i>		0.03			0.01
Legume	<i>Oxytropis myriophylla</i>					0.01
Legume	<i>Astragalus adsurgens</i>					0.02
Legume	<i>Thermopsis lanceolata</i>	0.02	0.01	0.02		
Forb	<i>Artemisia commutata</i>	0.02				0.01
Forb	<i>Potentilla bifurca</i>	0.04	0.02	0.01		0.01
Forb	<i>Galium verum</i>		0.04			0.03
Forb	<i>Potentilla tanacetifolia</i>	0.02	0.02	0.01		0.03
Forb	<i>Fallopia convolvulus</i>	0.04				
Forb	<i>Taraxacum mongolicum</i>	0.01		0.01		0.04
Forb	<i>Axyris amaranthoides</i>	0.02				
Forb	<i>Heteropappus altaicus</i>				0.07	
Forb	<i>Scorzonera divaricata</i>	0.01				0.01
Forb	<i>Tephroseris kirilowii</i>		0.01			
Forb	<i>Artemisia frigida</i>		0.01	0.01	0.02	0.02
Forb	<i>Artemisia laciniata</i>		0.07	0.09	0.06	0.17
Forb	<i>Serratula komarovii</i>		0.03			0.02
Forb	<i>Iris ventricosa</i>		0.03			0.02
Forb	<i>Adenophora stricta</i>		0.03			0.01
Forb	<i>Allium bidentatum</i>		0.04	0.06	0.05	0.06
Forb	<i>Pulsatilla turczaninovii</i>		0.09	0.01		0.07
Forb	<i>Allium tenuissimum</i>		0.02	0.02	0.04	0.02

Forb	<i>Artemisia dracunculus</i>	0.04			
Forb	<i>Thalictrum squarrosum</i>	0.09			0.03
Forb	<i>Cymbaria daurica</i>		0.02		
Forb	<i>Lepidium apetalum</i>		0.04	0.02	0.01
Forb	<i>Sibbaldia adpressa</i>		0.01		
Forb	<i>Chenopodium acuminatum</i>		0.01		0.03
Forb	<i>Dianthus chinensis</i>		0.01		
Forb	<i>Orostachys fimbriatus</i>	0.02	0.04	0.05	0.01
Forb	<i>Lychnis sibirica</i>		0.02		
Forb	<i>Dontostemon micranthus</i>		0.01		0.02
Forb	<i>Allium ramosum</i>		0.03	0.03	0.02
Forb	<i>Convolvulus ammannii</i>		0.03	0.04	
Forb	<i>Thalictrum petaloideum</i>				0.03
Forb	<i>Bupleurum scorzonerifolium</i>				0.01
Forb	<i>Iris tigridia</i>				0.02
Forb	<i>Carpesium abrotanoides</i>				0.01
Forb	<i>Ixeris polycephala</i>				0.01
Forb	<i>Potentilla verticillaris</i>				0.01
Forb	<i>Filifolium sibiricum</i>				0.01
Forb	<i>Potentilla acaulis</i>				0.07

Table S2. Single linear regression models fitted to plant aboveground biomass in response to plant diversity index under field treatments. NS means not significant.

Treatment	Index	Intercept	Slope	R^2	Significance
T1	Alatalo	316.63	-126.28	0.11	NS
T1	Margalef	284.69	-36.08	0.05	NS
T1	Patrick	284.35	-4.6	0.03	NS
T1	Pielou	306.56	-156.82	0.26	NS
T1	Shannon	292.36	-61.8	0.17	NS
T1	Simpson	275.24	-52.93	0.07	NS
T2	Alatalo	487.19	-384.53	0.21	NS
T2	Margalef	384.85	-49.6	0.21	NS
T2	Patrick	447.98	-11.88	0.34	NS
T2	Pielou	542.82	-407.04	0.7	**
T2	Shannon	472.59	-109.47	0.62	**
T2	Simpson	546.99	-386.05	0.64	**
T3	Alatalo	-24.26	368.34	0.37	NS
T3	Margalef	126.29	20.44	0.14	NS
T3	Patrick	120.14	3.47	0.16	NS
T3	Pielou	55.99	176.99	0.17	NS
T3	Shannon	90.69	49.49	0.23	NS
T3	Simpson	66.87	156.44	0.31	NS
T4	Alatalo	225.97	-94.63	0.06	NS
T4	Margalef	240.91	-57.27	0.39	NS
T4	Patrick	251.89	-9.25	0.35	NS
T4	Pielou	225.34	-84.71	0.26	NS
T4	Shannon	225.25	-41.26	0.36	NS
T4	Simpson	221.46	-86.25	0.31	NS
T5	Alatalo	101.2	-24.29	0.02	NS
T5	Margalef	56.74	7.48	0.04	NS
T5	Patrick	11.35	3.51	0.12	NS
T5	Pielou	122.64	-45.64	0.03	NS
T5	Shannon	91.06	-2.54	0	NS
T5	Simpson	101.24	-18.97	0	NS