

**Table S1.** Species (synonymy used inside brackets), families, type of photoblasty, percentage of germination of diaspores in diffuse white light (Ld) or under plant canopy (Lp), result of significance tests (SIG) for the difference between Ld and Lp (\* significant, and *ns* not significant at  $P=0.05$ ), and source of germination data. Length (L), width (W), thickness (T), volume (VOL), departure from sphericity (VAR), relative amplitude of volume (AMP), and diaspore type.

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Achillea compacta</i> (= <i>A. coarctata</i> )	Asteraceae	Positive	85	22	*	5	1.0	0.4	0.2	0.048	0.109	1.735	Fruit
<i>Achillea millefolium</i>	Asteraceae	Indifferent	90	32	*	4	1.8	0.5	0.3	0.143	0.133	3.614	Seed
<i>Achillea ptarmica</i>	Asteraceae	Positive	73	0	*	5	2.1	1.0	0.6	0.687	0.089	0.431	Fruit
<i>Ageratum houstonianum</i>	Asteraceae	Indifferent	65	65	<i>ns</i>	4	1.8	0.4	0.3	0.108	0.147	2.119	Fruit
<i>Agropyron repens</i> (= <i>Elymus repens</i> / <i>Elytrigia repens</i> )	Poaceae	Indifferent	90	4	*	4	4.2	1.0	0.7	1.499	0.143	23.033	Fruit
<i>Agrostemma githago</i>	Caryophyllaceae	Indifferent	73	61	*	4	1.4	1.1	0.7	0.545	0.045	43.999	Seed
<i>Agrostis alba</i> (= <i>A. canina</i> / <i>A. gigantea</i> / <i>A. stolonifera</i> / <i>Poa nemoralis</i> )	Poaceae	Indifferent	79	27	*	5	0.9	0.3	0.2	0.024	0.125	19.189	Fruit
<i>Allium cepa</i>	Liliaceae	Indifferent	95	95	<i>ns</i>	5	2.8	1.8	0.8	2.221	0.082	1.274	Seed
<i>Allium fistulosum</i>	Liliaceae	Indifferent	72	70	<i>ns</i>	5	2.6	1.7	1.3	2.843	0.044	0.850	Seed
<i>Allium flavum</i>	Liliaceae	Indifferent	83	87	<i>ns</i>	5	3.0	1.5	1.1	2.652	0.073	0.047	Seed
<i>Allium montanum</i> var. <i>petraeum</i> (= <i>A. montanum</i> / <i>A. lusitanicum</i> )	Liliaceae	Indifferent	85	81	<i>ns</i>	5	2.5	1.7	0.8	1.769	0.078	0.661	Seed
<i>Allium porrum</i> (= <i>A. ampeloprasum</i> )	Liliaceae	Negative	37	34	<i>ns</i>	3	2.3	1.5	1.1	1.918	0.050	1.007	Seed
<i>Allium schoenoprasum</i>	Liliaceae	Negative	36	34	<i>ns</i>	4	2.7	1.2	0.8	1.370	0.091	0.756	Seed
<i>Alopecurus pratensis</i>	Poaceae	Indifferent	38	37	<i>ns</i>	5	2.4	1.2	0.8	1.197	0.081	3.636	Fruit
<i>Althaea rosea</i> (= <i>Alcea rosea</i> )	Malvaceae	Indifferent	84	83	<i>ns</i>	3	2.4	2.4	1.1	3.362	0.063	1.427	Seed
<i>Alyssum maritimum</i> (= <i>Lobularia maritima</i> )	Brassicaceae	Indifferent	96	96	<i>ns</i>	4	1.3	0.9	0.5	0.329	0.057	1.042	Seed
<i>Amaranthus caudatus</i>	Amaranthaceae	Negative	26	0	*	4	0.9	0.9	0.5	0.224	0.038	3.442	Seed
<i>Anthirrinum maius</i> / <i>A. majus</i>	Scrophulariaceae	Indifferent	96	40	*	4	0.9	0.6	0.4	0.115	0.062	0.337	Seed
<i>Apera spica-venti</i>	Poaceae	Indifferent	83	12	*	4	2.1	0.3	0.1	0.039	0.183	0.838	Fruit
<i>Aquilegia vulgaris</i>	Ranunculaceae	Indifferent	45	20	*	4	2.3	0.7	0.4	0.404	0.126	2.732	Seed
<i>Arabidopsis thaliana</i>	Brassicaceae	Positive	45	2	*	4	0.4	0.3	0.2	0.011	0.055	2.122	Seed
<i>Arabis albida</i> (= <i>A. alpina</i> / <i>A. caucasica</i> / <i>A. pieninica</i> )	Brassicaceae	Indifferent	93	80	*	4	1.1	1.0	0.6	0.344	0.039	1.361	Seed
<i>Arabis allionii</i> (= <i>A. sudetica</i> )	Brassicaceae	Positive	26	4	*	4	1.7	1.3	0.8	0.971	0.043	0.673	Seed
<i>Arabis alpina</i> (= <i>A. albida</i> / <i>A. caucasica</i> / <i>A. pieninica</i> )	Brassicaceae	Positive	90	62	*	4	1.1	1.0	0.6	0.344	0.039	1.361	Seed
<i>Arabis bellidifolia</i> (= <i>A. jacquinii</i> / <i>A. soyeri</i> )	Brassicaceae	Indifferent	65	13	*	4	1.5	1.0	0.6	0.478	0.059	2.805	Seed
<i>Arabis hirsuta</i>	Brassicaceae	Positive	98	10	*	4	1.0	0.6	0.3	0.109	0.072	2.510	Seed
<i>Arabis jacquinii</i> (= <i>A. bellidifolia</i> / <i>A. soyeri</i> )	Brassicaceae	Indifferent	30	14	*	4	1.5	1.0	0.6	0.478	0.059	2.805	Seed
<i>Arabis pieninica</i> (= <i>A. albida</i> / <i>A. alpina</i> / <i>A. caucasica</i> )	Brassicaceae	Indifferent	94	70	*	5	1.1	1.0	0.6	0.344	0.039	1.361	Seed
<i>Arabis procurrens</i>	Brassicaceae	Positive	70	32	*	5	1.0	0.6	0.3	0.109	0.072	1.362	Seed
<i>Arabis vochinensis</i> (= <i>A. procurrens</i> )	Brassicaceae	Indifferent	72	8	*	4	1.0	0.6	0.3	0.109	0.072	1.362	Seed
<i>Arctium lappa</i>	Asteraceae	Positive	72	2	*	5	4.1	1.7	0.8	2.910	0.115	5.829	Fruit

Table S1 (continued)

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Arenaria grandiflora</i> (=Cernohorskyia grandiflora)	Caryophyllaceae	Indifferent	97	40	*	4	1.1	0.8	0.5	0.205	0.058	7.498	Seed
<i>Artemisia absinthium</i>	Asteraceae	Positive	67	0	*	4	0.7	0.4	0.2	0.028	0.084	3.703	Fruit
<i>Artemisia vulgaris</i>	Asteraceae	Positive	30	0	*	4	1.5	0.5	0.3	0.114	0.124	6.556	Fruit
<i>Asparagus officinalis</i>	Liliaceae	Negative	62	38	*	4	2.8	2.8	1.3	5.377	0.063	2.034	Seed
<i>Aster alpinus</i>	Asteraceae	Indifferent	83	73	ns	4	3.1	1.1	0.7	1.339	0.111	1.074	Fruit
<i>Avena fatua</i>	Poaceae	Indifferent	72	26	*	4	6.1	1.3	0.6	2.643	0.159	38.720	Fruit
<i>Avena sativa</i> cv. Romulus (=A. sativa)	Poaceae	Indifferent	97	95	ns	4	5.0	1.0	0.7	1.772	0.154	69.089	Fruit
<i>Beta vulgaris</i> ssp. cicla (=B. vulgaris)	Chenopodiaceae	Indifferent	82	85	ns	4	1.5	1.3	0.8	0.845	0.035	16.366	Fruit
<i>Beta vulgaris</i> ssp. esculenta (=B. vulgaris)	Chenopodiaceae	Indifferent	83	85	ns	4	1.5	1.3	0.8	0.845	0.035	16.366	Fruit
<i>Bidens cernuus</i>	Asteraceae	Positive	25	7	*	5	4.7	0.9	0.6	1.261	0.160	10.556	Fruit
<i>Brassica oleracea</i> var. gemmifera	Brassicaceae	Indifferent	99	88	*	4	2.3	2.0	0.9	2.253	0.065	0.691	Seed
<i>Brassica oleracea</i> var. gongylodes	Brassicaceae	Indifferent	90	92	ns	4	1.7	1.5	1.0	1.345	0.029	0.239	Seed
<i>Bromus secalinus</i>	Poaceae	Indifferent	88	65	*	4	4.5	1.5	0.7	2.396	0.133	2.459	Fruit
<i>Calendula officinalis</i>	Asteraceae	Indifferent	84	70	*	3	8.0	2.0	0.9	7.841	0.151	30.487	Seed
<i>Callistephus chinensis</i>	Asteraceae	Indifferent	45	39	*	4	3.8	1.7	0.8	2.689	0.110	0.566	Fruit
<i>Campanula alliariifolia</i>	Campanulaceae	Positive	94	80	*	5	1.8	1.0	0.6	0.581	0.075	0.865	Seed
<i>Campanula carpatica</i>	Campanulaceae	Positive	41	29	*	5	0.9	0.4	0.2	0.043	0.100	0.922	Seed
<i>Campanula carpatica</i> var. turbinata (=C. carpatica)	Campanulaceae	Positive	70	27	*	5	0.9	0.4	0.2	0.043	0.100	0.922	Seed
<i>Campanula cochleariifolia</i>	Campanulaceae	Positive	77	7	*	5	1.0	0.3	0.2	0.027	0.133	1.144	Seed
<i>Campanula glomerata</i> var. superba (=C. glomerata)	Campanulaceae	Indifferent	80	80	ns	5	0.9	0.6	0.3	0.089	0.070	4.851	Seed
<i>Campanula lactiflora</i>	Campanulaceae	Positive	81	8	*	5	1.0	0.6	0.3	0.109	0.072	0.000	Seed
<i>Campanula latifolia</i>	Campanulaceae	Positive	90	24	*	5	0.9	0.8	0.5	0.176	0.042	7.175	Seed
<i>Campanula patula</i>	Campanulaceae	Positive	77	7	*	5	0.4	0.3	0.2	0.011	0.055	2.122	Seed
<i>Campanula persicifolia</i>	Campanulaceae	Positive	80	48	*	5	0.7	0.4	0.2	0.033	0.077	6.070	Seed
<i>Campanula rotundifolia</i> (=C. moravica)	Campanulaceae	Positive	100	3	*	5	0.8	0.2	0.1	0.010	0.146	5.046	Seed
<i>Celosia cristata</i> (=C. argentea)	Amaranthaceae	Indifferent	98	97	ns	4	1.3	1.0	0.6	0.411	0.048	1.610	Seed
<i>Centaurea cyanus</i> (=C. segetum)	Asteraceae	Indifferent	70	6	*	4	2.8	1.0	0.6	0.944	0.114	4.045	Fruit
<i>Centaurea kotschyana</i> (=Cyanus heuffeliana)	Asteraceae	Indifferent	42	19	*	5	5.5	2.4	1.1	7.763	0.112	0.381	Fruit
<i>Centaurea macrocephala</i> (=Grossheimia macrocephala)	Asteraceae	Indifferent	95	86	ns	5	8.0	2.8	1.3	15.382	0.128	0.471	Fruit
<i>Centaurea rhenana</i> (=Acosta rhenana/C. biebersteinii/C. stoebe)	Asteraceae	Indifferent	88	38	*	5	2.3	0.8	0.5	0.475	0.119	3.713	Fruit
<i>Cerastium arvense</i>	Caryophyllaceae	Positive	92	13	*	4	0.7	0.6	0.3	0.069	0.043	8.470	Seed
<i>Cerastium vulgatum</i> (C. caespitosum/C. glomeratum)	Caryophyllaceae	Positive	98	3	*	4	0.4	0.4	0.2	0.019	0.041	10.749	Seed
<i>Cheiranthus cheiri</i> (=Erysimum cheiri)	Brassicaceae	Indifferent	96	92	ns	4	2.0	1.5	1.0	1.625	0.039	4.429	Seed

Table S1 (continued)

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Chelidonium majus</i>	Papaveraceae	Negative	80	1	*	4	1.1	0.7	0.4	0.141	0.073	6.281	Seed
<i>Chenopodium album</i>	Chenopodiaceae	Positive	47	28	*	4	1.4	0.6	0.3	0.148	0.099	13.498	Fruit
<i>Chrysanthemum parthenium</i> (=Pyrethrum parthenium/Tanacetum parthenium)	Asteraceae	Indifferent	95	82	*	3	1.4	0.4	0.2	0.067	0.136	1.782	Fruit
<i>Cichorium intybus</i>	Asteraceae	Indifferent	95	76	*	3	1.7	0.7	0.4	0.259	0.107	9.223	Fruit
<i>Cineraria maritima</i> (=Senecio cineraria)	Asteraceae	Indifferent	35	40	ns	3	2.0	0.7	0.4	0.305	0.119	0.679	Fruit
<i>Cirsium oleraceum</i>	Asteraceae	Positive	67	0	*	5	4.8	1.5	0.7	2.645	0.137	0.472	Fruit
<i>Cirsium palustre</i>	Asteraceae	Positive	75	0	*	5	3.0	1.2	0.8	1.549	0.100	1.067	Fruit
<i>Cucumis sativus</i> *	Cucurbitaceae	Indifferent	98	20	*	3	8.7	3.9	0.9	16.275	0.136	3.170	Seed
<i>Dactylis glomerata</i>	Poaceae	Positive	91	20	*	3	2.5	0.8	0.5	0.512	0.125	5.254	Fruit
<i>Daucus carota</i> var. <i>carota</i> (=D. <i>carota</i> ) *	Apiaceae	Indifferent	80	85	ns	4	2.2	1.0	0.6	0.631	0.100	22.788	Fruit
<i>Dianthus barbatus</i>	Caryophyllaceae	Indifferent	96	95	ns	4	2.0	1.4	0.9	1.383	0.047	0.491	Seed
<i>Dianthus carthusianorum</i>	Caryophyllaceae	Indifferent	88	78	ns	5	2.0	1.5	1.0	1.625	0.039	0.172	Seed
<i>Dianthus caryophyllus</i>	Caryophyllaceae	Indifferent	84	84	ns	4	2.8	1.8	0.8	2.221	0.082	0.761	Seed
<i>Dianthus compactus</i>	Caryophyllaceae	Positive	86	63	*	5	2.8	2.1	1.0	3.024	0.071	0.493	Seed
<i>Dianthus deltoides</i>	Caryophyllaceae	Indifferent	96	83	*	5	1.1	0.7	0.4	0.164	0.067	2.114	Seed
<i>Dianthus gratianopolitanus</i>	Caryophyllaceae	Indifferent	98	101	ns	5	2.7	1.8	0.8	2.142	0.079	0.715	Seed
<i>Dianthus kitaibelii</i> (=D. <i>petraeus</i> )	Caryophyllaceae	Positive	83	32	*	5	2.9	1.2	0.8	1.489	0.097	0.690	Seed
<i>Dianthus petraeus</i>	Caryophyllaceae	Indifferent	84	68	*	5	2.9	1.2	0.8	1.489	0.097	0.690	Seed
<i>Dianthus plumarius</i> (=D. <i>lumnitzeri</i> )	Caryophyllaceae	Indifferent	90	97	ns	5	3.0	2.4	1.1	4.232	0.068	0.543	Seed
<i>Dianthus sinensis</i> (=D. <i>chinensis</i> /D. <i>versicolor</i> )	Caryophyllaceae	Indifferent	98	93	*	3	0.5	0.4	0.2	0.024	0.059	139.000	Seed
<i>Dianthus spiculifolius</i>	Caryophyllaceae	Indifferent	99	87	*	5	3.0	1.8	0.8	2.380	0.087	0.543	Seed
<i>Digitalis purpurea</i>	Plantaginaceae	Indifferent	98	97	ns	3	0.6	0.4	0.2	0.027	0.063	2.189	Seed
<i>Dimorphotheca aurantiaca</i>	Asteraceae	Indifferent	37	27	*	4	4.7	1.6	0.7	2.809	0.131	27.511	Fruit
<i>Elsholtzia patrini</i> (=E. <i>ciliata</i> )	Lamiaceae	Positive	98	2	*	5	1.1	0.6	0.3	0.120	0.081	1.315	Fruit
<i>Epilobium montanum</i>	Oenotheraceae	Positive	94	0	*	5	1.0	0.4	0.2	0.048	0.109	0.728	Fruit
<i>Erigeron alpinus</i>	Asteraceae	Indifferent	90	10	*	4	2.6	0.5	0.3	0.199	0.161	0.576	Fruit
<i>Erigeron canadensis</i> (=Conyza canadensis)	Asteraceae	Indifferent	45	43	ns	4	1.1	0.3	0.2	0.030	0.139	7.109	Fruit
<i>Eschscholzia californica</i>	Papaveraceae	Negative	28	14	*	4	1.5	1.4	0.9	1.081	0.028	0.309	Seed
<i>Festuca duriuscula</i> (=F. <i>cinerea</i> /F. <i>nigrescens</i> / F. <i>rubra</i> )	Poaceae	Indifferent	95	92	ns	5	2.4	0.6	0.4	0.268	0.144	10.252	Fruit
<i>Festuca pallens</i>	Poaceae	Indifferent	38	28	*	5	3.3	0.8	0.5	0.691	0.145	0.473	Fruit
<i>Festuca rubra</i> (=F. <i>cinerea</i> /F. <i>duriuscula</i> /F. <i>nigrescens</i> )	Poaceae	Positive	81	70	*	3	2.4	0.6	0.4	0.268	0.144	10.252	Fruit
<i>Festuca sulcata</i> (=F. <i>rupicola</i> )	Poaceae	Indifferent	26	15	*	4	2.4	0.7	0.4	0.369	0.133	0.506	Fruit
<i>Festuca varia</i> (=F. <i>esikia</i> /F. <i>versicolor</i> )	Poaceae	Indifferent	32	25	*	4	2.7	0.9	0.6	0.718	0.121	1.327	Fruit
<i>Galinsoga parviflora</i>	Asteraceae	Positive	66	3	*	4	1.3	0.5	0.3	0.100	0.113	11.221	Fruit
<i>Galinsoga quadriradiata</i>	Asteraceae	Positive	87	0	*	5	0.7	0.2	0.1	0.013	0.122	23.951	Fruit

Table S1 (continued)

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Gypsophila elegans</i>	Caryophyllaceae	Indifferent	86	80	ns	4	1.0	0.8	0.5	0.196	0.048	6.799	Seed
<i>Helichrysum bracteatum</i>	Asteraceae	Indifferent	96	93	ns	4	2.0	0.9	0.6	0.519	0.095	1.439	Fruit
<i>Hordeum jubatum</i>	Poaceae	Indifferent	93	88	ns	4	3.4	1.1	0.7	1.463	0.120	1.825	Fruit
<i>Hordeum vulgare</i> cv. Elgina (=H. distichon/H. vulgare)	Poaceae	Indifferent	62	68	ns	3	7.5	2.7	1.3	13.130	0.127	4.039	Fruit
<i>Hypericum perforatum</i>	Guttiferae	Positive	100	7	*	5	0.7	0.3	0.1	0.013	0.119	9.056	Seed
<i>Hypochoeris radicata</i>	Asteraceae	Positive	82	6	*	5	3.4	0.5	0.3	0.236	0.176	4.309	Fruit
<i>Impatiens balsamina</i>	Balsaminaceae	Indifferent	90	93	ns	3	1.8	1.5	1.0	1.437	0.032	8.611	Seed
<i>Ipomoea hederacea</i> (=I. nil) *	Convolvulaceae	Indifferent	97	97	ns	5	2.5	1.8	1.7	4.051	0.020	9.858	Seed
<i>Ipomoea purpurea</i>	Convolvulaceae	Indifferent	98	91	ns	5	4.0	2.0	0.9	3.919	0.101	6.474	Seed
<i>Ipomoea rubro-coerulea</i> (=I. tricolor/I. violacea)	Convolvulaceae	Indifferent	71	82	ns	5	6.0	3.6	1.7	18.597	0.087	0.631	Seed
<i>Juncus articulatus</i>	Juncaceae	Positive	53	0	*	5	0.5	0.3	0.1	0.008	0.080	1.400	Seed
<i>Juncus bufonius</i>	Juncaceae	Positive	53	0	*	5	0.3	0.2	0.1	0.004	0.064	19.076	Seed
<i>Juncus squarrosus</i>	Juncaceae	Positive	90	3	*	5	0.7	0.5	0.3	0.052	0.058	0.144	Seed
<i>Lactuca sativa</i> cv. Cud Vorburgu (=L. sativa)	Asteraceae	Indifferent	97	14	*	3	2.9	1.0	0.6	0.954	0.119	1.931	Fruit
<i>Lactuca serriola</i>	Asteraceae	Indifferent	100	10	*	4	2.7	0.8	0.5	0.545	0.133	6.013	Fruit
<i>Lapsana communis</i>	Asteraceae	Positive	58	0	*	5	2.8	0.7	0.4	0.435	0.144	4.163	Fruit
<i>Leontodon autumnalis</i>	Asteraceae	Indifferent	80	28	*	4	5.2	0.5	0.3	0.411	0.190	1.519	Fruit
<i>Leontodon hispidus</i>	Asteraceae	Positive	70	35	*	4	6.0	0.6	0.4	0.709	0.188	1.673	Fruit
<i>Lepidium sativum</i>	Brassicaceae	Indifferent	94	96	ns	4	1.8	0.9	0.5	0.462	0.084	5.743	Seed
<i>Lobelia erinus</i>	Lobeliaceae	Indifferent	92	72	*	4	0.5	0.3	0.2	0.013	0.073	1.138	Seed
<i>Lolium multiflorum</i>	Poaceae	Indifferent	93	70	*	5	5.1	1.4	0.6	2.277	0.147	2.444	Fruit
<i>Lolium perenne</i>	Poaceae	Indifferent	84	82	ns	5	3.8	0.7	0.4	0.507	0.165	14.470	Fruit
<i>Lupinus polyphyllus</i>	Fabaceae	Indifferent	37	22	*	5	4.2	3.0	1.4	9.264	0.074	2.730	Seed
<i>Lycopersicon esculentum</i> (=L. lycopersicum)	Solanaceae	Negative	48	6	*	3	2.9	2.2	1.0	3.424	0.071	1.752	Seed
<i>Matricaria inodora</i> (=M. perforata/Tripleurospermum inodorum/T. verforatum)	Asteraceae	Positive	50	14	*	4	1.3	0.5	0.3	0.098	0.112	30.763	Fruit
<i>Matthiola bicornis</i>	Brassicaceae	Positive	78	50	*	3	1.4	1.0	0.6	0.455	0.056	0.533	Seed
<i>Matthiola incana</i>	Brassicaceae	Indifferent	88	78	ns	4	1.9	1.8	0.8	1.505	0.063	3.688	Seed
<i>Melandrium album</i> (=Silene latifolia)	Caryophyllaceae	Indifferent	36	7	*	4	1.2	0.8	0.5	0.237	0.062	5.461	Seed
<i>Melandrium rubrum</i> (=Silene dioica)	Caryophyllaceae	Positive	37	0	*	4	1.4	0.9	0.5	0.356	0.064	2.277	Seed
<i>Melilotus albus</i> (=M. alba)	Fabaceae	Indifferent	57	50	ns	5	2.0	1.0	0.6	0.652	0.084	2.415	Seed
<i>Mesembryanthemum crystallinum</i> (=Cryophytum crystallinum)	Aizoaceae	Indifferent	99	98	ns	4	0.9	0.8	0.5	0.176	0.042	0.770	Seed
<i>Nemesia strumosa</i>	Scrophulariaceae	Negative	82	66	*	4	1.0	0.5	0.3	0.075	0.089	2.007	Seed

Table S1 (continued)

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Nicotiana rustica</i> cv. Pomorski (=N. <i>rustica</i> )	Solanaceae	Indifferent	79	61	*	3	0.8	0.6	0.3	0.087	0.054	4.504	Seed
<i>Nicotiana tabacum</i> cv. Kentucky 10 (=N. <i>tabacum</i> )	Solanaceae	Positive	98	45	*	3	0.6	0.4	0.2	0.029	0.064	2.027	Seed
<i>Nigella damascena</i>	Ranunculaceae	Negative	60	37	*	4	2.9	1.7	0.8	2.137	0.085	0.375	Seed
<i>Panicum crus-galli</i> (=Echinochloa <i>crus-galli</i> )	Poaceae	Indifferent	90	82	*	4	2.0	0.7	0.4	0.282	0.119	11.943	Seed
<i>Papaver orientale</i>	Papaveraceae	Indifferent	96	74	*	4	1.0	0.7	0.4	0.149	0.059	0.725	Seed
<i>Petasites hybridus</i>	Asteraceae	Indifferent	96	14	*	4	2.4	0.4	0.2	0.116	0.168	0.850	Fruit
<i>Petunia hybrida</i> (=P. $\times$ <i>hybrida</i> )	Solanaceae	Indifferent	70	39	*	3	0.7	0.6	0.3	0.076	0.046	0.566	Seed
<i>Phacelia tanacetifolia</i>	Boraginaceae	Negative	13	14	ns	3	3.2	1.0	0.7	1.097	0.124	1.418	Seed
<i>Phalaris arundinacea</i> (=Phalaroides <i>arundinacea</i> )	Poaceae	Negative	82	20	*	5	1.1	0.8	0.5	0.216	0.055	9.690	Fruit
<i>Phleum pratense</i> (=Phleum <i>rhaeticum</i> )	Poaceae	Indifferent	90	35	*	3	1.5	0.5	0.3	0.114	0.124	4.738	Fruit
<i>Phyteuma orbiculare</i>	Campanulaceae	Positive	97	0	*	5	1.2	0.1	0.0	0.001	0.205	231.310	Seed
<i>Phyteuma scheuchzeri</i>	Campanulaceae	Positive	83	62	*	5	0.8	0.3	0.2	0.021	0.115	1.007	Seed
<i>Plantago lanceolata</i>	Plantaginaceae	Indifferent	70	72	ns	4	2.0	0.8	0.5	0.404	0.107	12.763	Seed
<i>Plantago major</i>	Plantaginaceae	Positive	68	2	*	4	0.5	0.3	0.2	0.016	0.075	35.813	Seed
<i>Plantago media</i>	Plantaginaceae	Positive	30	1	*	4	1.8	0.8	0.5	0.362	0.098	1.846	Seed
<i>Plantago ramosa</i> (=P. <i>indica</i> /P. <i>scabra</i> )	Plantaginaceae	Indifferent	88	13	*	5	2.0	1.0	0.6	0.652	0.084	6.518	Seed
<i>Platycodon grandiflorus</i> (=P. <i>grandiflorum</i> )	Campanulaceae	Positive	87	63	*	5	2.2	1.0	0.6	0.723	0.093	0.735	Seed
<i>Poa alpina</i> (=P. <i>badensis</i> /P. <i>molinerii</i> )	Poaceae	Indifferent	40	42	ns	4	1.2	0.5	0.3	0.091	0.105	10.600	Fruit
<i>Poa alpina</i> var. <i>vivipara</i> (=P. <i>alpina</i> /P. <i>badensis</i> /P. <i>molinerii</i> )	Poaceae	Indifferent	95	84	*	4	1.2	0.5	0.3	0.091	0.105	10.600	Fruit
<i>Poa palustris</i>	Poaceae	Negative	35	20	*	5	1.4	0.4	0.2	0.067	0.136	2.853	Fruit
<i>Poa pratensis</i>	Poaceae	Positive	44	5	*	3	1.5	0.5	0.3	0.114	0.124	7.980	Fruit
<i>Poa trivialis</i>	Poaceae	Positive	80	0	*	5	1.5	0.4	0.2	0.072	0.141	6.621	Fruit
<i>Polygonum convolvulus</i> (=Fallopia <i>convolvulus</i> )	Polygonaceae	Indifferent	78	66	*	3	2.6	1.9	0.9	2.234	0.074	5.324	Fruit
<i>Polygonum nodosum</i> (=Persicaria <i>lapathifolia</i> )	Polygonaceae	Indifferent	50	49	ns	4	2.0	1.5	1.0	1.625	0.039	1.826	Fruit
<i>Polygonum tomentosum</i> (=Persicaria <i>lapathifolia</i> )	Polygonaceae	Positive	50	7	*	5	2.0	1.5	1.0	1.625	0.039	1.826	Fruit
<i>Prenanthes purpurea</i>	Asteraceae	Positive	45	4	*	4	5.0	1.1	0.8	2.317	0.146	0.179	Fruit
<i>Prunella vulgaris</i>	Lamiaceae	Positive	75	13	*	5	1.6	0.9	0.5	0.409	0.075	1.380	Fruit
<i>Quamoclit coccinea</i>	Convolvulaceae	Indifferent	83	90	ns	5	3.4	2.2	1.0	4.065	0.081	1.470	Seed
<i>Ranunculus acris</i>	Ranunculaceae	Positive	43	0	*	5	2.2	1.5	1.1	1.819	0.046	2.004	Fruit
<i>Ranunculus gramineus</i>	Ranunculaceae	Indifferent	62	31	*	5	3.5	1.8	0.8	2.777	0.099	0.665	Fruit
<i>Raphanus sativus</i> (=R. <i>raphanistrum</i> )	Brassicaceae	Indifferent	93	79	*	3	1.4	0.7	0.4	0.211	0.088	51.872	Seed



Table S1 (continued)

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Rheum rhaponticum</i>	Polygonaceae	Indifferent	98	17	*	3	7.5	6.0	2.8	66.626	0.067	1.396	Fruit
<i>Rudbeckia laciniata</i>	Asteraceae	Indifferent	81	30	*	3	4.0	1.1	0.8	1.771	0.132	1.464	Fruit
<i>Rumex acetosa</i>	Polygonaceae	Indifferent	93	78	*	4	2.2	1.4	1.0	1.546	0.055	0.054	Fruit
<i>Rumex alpinus</i>	Polygonaceae	Indifferent	80	3	*	5	2.5	1.4	1.0	1.797	0.066	0.735	Seed
<i>Rumex crispus</i>	Polygonaceae	Positive	87	0	*	4	0.6	0.3	0.2	0.021	0.077	1137.860	Fruit
<i>Rumex hydrolapathum</i>	Polygonaceae	Positive	93	0	*	5	2.8	1.8	0.8	2.221	0.082	0.556	Seed
<i>Rumex obtusifolius</i>	Polygonaceae	Positive	93	0	*	4	2.1	0.7	0.4	0.275	0.129	98.995	Fruit
<i>Salvia aethiopis</i>	Lamiaceae	Indifferent	68	27	*	5	1.7	1.5	1.0	1.345	0.029	1.039	Fruit
<i>Salvia horminum</i> (=S. <i>viridis</i> )	Lamiaceae	Indifferent	93	0	*	5	2.5	1.4	1.0	1.797	0.066	0.908	Fruit
<i>Salvia officinalis</i>	Lamiaceae	Indifferent	89	77	*	5	2.0	1.8	0.8	1.587	0.064	1.490	Fruit
<i>Salvia pratensis</i>	Lamiaceae	Indifferent	47	14	*	5	1.8	1.4	0.9	1.226	0.039	0.443	Fruit
<i>Salvia sclarea</i>	Lamiaceae	Indifferent	88	90	ns	5	2.2	1.5	1.1	1.819	0.046	0.346	Fruit
<i>Salvia splendens</i>	Lamiaceae	Indifferent	29	25	ns	4	3.0	1.8	0.8	2.380	0.087	0.482	Fruit
<i>Salvia verticillata</i>	Lamiaceae	Indifferent	60	8	*	5	1.6	1.1	0.7	0.629	0.055	1.588	Fruit
<i>Saxifraga decipiens</i> (=S. <i>rosacea</i> )	Saxifragaceae	Positive	95	43	*	5	0.6	0.4	0.2	0.022	0.076	0.935	Seed
<i>Saxifraga rotundifolia</i>	Saxifragaceae	Positive	72	10	*	5	0.5	0.3	0.2	0.013	0.073	1.497	Seed
<i>Saxifraga umbrosa</i>	Saxifragaceae	Positive	40	0	*	5	0.6	0.3	0.2	0.016	0.090	2.015	Seed
<i>Saxifraga umbrosa</i> var. <i>primuloides</i> (=S. <i>umbrosa</i> )	Saxifragaceae	Positive	57	0	*	5	0.6	0.3	0.2	0.016	0.090	2.015	Seed
<i>Scabiosa atropurpurea</i>	Dipsacaceae	Indifferent	42	32	*	4	5.0	4.0	1.9	19.630	0.068	0.879	Fruit
<i>Scabiosa ochroleuca</i>	Dipsacaceae	Positive	77	10	*	5	3.6	2.4	1.1	5.079	0.079	0.664	Fruit
<i>Secale cereale</i>	Poaceae	Indifferent	98	98	ns	4	5.7	2.2	1.0	6.940	0.121	1.705	Fruit
<i>Secale silvestre</i> (=S. <i>silvestre</i> )	Poaceae	Indifferent	80	77	ns	4	8.0	1.6	0.7	5.017	0.164	0.759	Fruit
<i>Senecio cruentus</i>	Asteraceae	Negative	74	83	ns	3	1.6	0.7	0.4	0.242	0.100	0.670	Fruit
<i>Senecio fuchsii</i>	Asteraceae	Positive	56	6	*	4	3.7	0.7	0.4	0.586	0.160	1.061	Fruit
<i>Senecio nemorensis</i>	Asteraceae	Positive	73	0	*	5	3.6	0.8	0.5	0.761	0.150	0.862	Fruit
<i>Senecio vulgaris</i>	Asteraceae	Positive	60	0	*	4	2.0	0.5	0.3	0.152	0.145	0.833	Fruit
<i>Setaria glauca</i> (=Pennisetum <i>glauca</i> /S. <i>pumila</i> )	Poaceae	Indifferent	85	83	ns	5	2.1	1.5	1.0	1.721	0.042	2.312	Fruit
<i>Setaria viridis</i>	Poaceae	Indifferent	94	86	*	3	2.0	0.9	0.6	0.519	0.095	5.100	Fruit
<i>Silene hayekiana</i> (=S. <i>saxifraga</i> )	Caryophyllaceae	Positive	90	47	*	5	1.0	0.8	0.5	0.196	0.048	1.093	Seed
<i>Silene inflata</i> (=S. <i>vulgaris</i> )	Caryophyllaceae	Indifferent	73	3	*	4	1.0	0.9	0.5	0.250	0.041	27.070	Seed
<i>Silene saxifraga</i>	Caryophyllaceae	Indifferent	95	10	*	5	1.0	0.8	0.5	0.196	0.048	1.093	Seed
<i>Silene viridiflora</i>	Caryophyllaceae	Indifferent	97	33	*	5	1.0	0.9	0.5	0.250	0.041	1.831	Seed
<i>Sinapis alba</i>	Brassicaceae	Indifferent	98	98	ns	4	1.6	1.3	0.8	0.885	0.039	9.941	Seed
<i>Sinapis arvensis</i>	Brassicaceae	Indifferent	62	37	*	4	1.1	1.0	0.6	0.344	0.039	6.306	Seed
<i>Solanum melongena</i>	Solanaceae	Negative	65	1	*	4	3.3	2.7	1.3	5.893	0.067	2.331	Seed
<i>Solidago virga aurea</i> (=S. <i>virgaurea</i> )	Asteraceae	Negative	60	67	ns	4	3.6	0.6	0.4	0.409	0.168	1.203	Fruit

Table S1 (continued)

Species	Family	Photoblasty	Ld	Lp	SIG	Source	L	W	T	VOL	VAR	AMP	Diaspore
<i>Sonchus arvensis</i>	Asteraceae	Indifferent	25	5	*	5	1.9	0.5	0.3	0.142	0.139	21.660	Fruit
<i>Sonchus oleraceus</i> *	Asteraceae	Positive	33	0	*	5	2.9	0.6	0.3	0.212	0.166	5.677	Fruit
<i>Spergula arvensis</i> (=S. maxima)	Caryophyllaceae	Indifferent	50	32	*	4	0.2	0.1	0.1	0.000	0.073	5450.105	Seed
<i>Tagetes erectus</i>	Asteraceae	Positive	87	36	*	3	7.0	0.8	0.6	1.641	0.181	1.396	Fruit
<i>Tanacetum vulgare</i>	Asteraceae	Positive	75	19	*	4	1.3	0.5	0.3	0.098	0.112	4.287	Fruit
<i>Taraxacum officinale</i>	Asteraceae	Positive	87	2	*	3	2.6	0.5	0.3	0.167	0.166	20.316	Fruit
<i>Tragopogon major</i> (=T. dubius)	Asteraceae	Negative	92	2	*	4	25.2	0.8	0.4	3.583	0.213	12.515	Fruit
<i>Tragopogon orientalis</i>	Asteraceae	Indifferent	90	0	*	4	10.0	1.5	0.7	5.512	0.177	0.542	Fruit
<i>Triticum vulgare</i> cv. Grana (=T. aestivum)	Poaceae	Indifferent	96	94	ns	4	6.0	2.8	1.3	11.531	0.106	3.412	Fruit
<i>Tussilago farfara</i>	Asteraceae	Indifferent	92	0	*	4	3.9	0.4	0.2	0.206	0.186	0.986	Fruit
<i>Urtica dioica</i>	Urticaceae	Positive	47	0	*	5	0.9	0.7	0.4	0.134	0.051	8.444	Fruit
<i>Veronica austriaca</i> (=V. jacquinii/V. sennenii/V. tenuifolia/V. teucrium/V. orsiniana)	Scrophulariaceae	Indifferent	90	28	*	5	0.9	0.3	0.2	0.024	0.125	111.683	Seed
<i>Veronica fruticans</i>	Scrophulariaceae	Positive	57	13	*	5	0.9	0.4	0.2	0.043	0.100	15.427	Seed
<i>Veronica gentianoides</i>	Scrophulariaceae	Positive	92	65	*	5	1.6	1.6	1.1	1.456	0.023	0.090	Seed
<i>Veronica incana</i> (=Pseudolysimachion incanum/P. spicatum/V. spicata)	Scrophulariaceae	Indifferent	75	70	ns	5	0.6	0.5	0.3	0.045	0.048	5.731	Seed
<i>Veronica longifolia</i> (=Pseudolysimachion longifolium)	Scrophulariaceae	Indifferent	78	23	*	5	0.8	0.4	0.2	0.039	0.085	5.095	Seed
<i>Veronica peduncularis</i>	Scrophulariaceae	Positive	68	29	*	5	1.7	1.2	0.8	0.813	0.051	0.604	Seed
<i>Veronica spicata</i> (=Pseudolysimachion incanum/P. spicatum/V. incana)	Scrophulariaceae	Positive	93	20	*	5	0.6	0.5	0.3	0.045	0.048	5.731	Seed
<i>Veronica teucrium</i> (=V. austriaca/V. jacquinii/V. sennenii/V. tenuifolia/V. orsiniana)	Scrophulariaceae	Indifferent	90	28	*	5	0.9	0.3	0.2	0.024	0.125	111.683	Seed
<i>Veronica triphyllos</i>	Scrophulariaceae	Indifferent	84	7	*	4	1.3	1.0	0.6	0.411	0.048	4.247	Seed
<i>Vicia faba</i> (=Faba bona)	Fabaceae	Negative	93	15	*	4	5.0	3.5	1.6	15.021	0.076	161.662	Seed
<i>Vicia hirsuta</i>	Fabaceae	Indifferent	33	28	ns	4	2.1	1.8	0.8	1.666	0.065	1.297	Seed
<i>Zea mays</i> (hybrid S54 x S72) (=Z. mays)	Poaceae	Indifferent	90	93	ns	4	6.5	3.5	1.6	19.538	0.095	32.766	Fruit

Synonymy from the Seed Volume Dataset (update 04) and World Flora Online (<http://www.worldfloraonline.org>, last accessed in 19 February 2020).

Source in the main text using the same number.

In species with \* thickness was estimated from length, width and volume (see reference [8] in the main text). L, W, T (in mm) and VOL (in mm<sup>3</sup>) from Seed Volume Dataset (update 04). For determinations of volumes see references [21,22], for departure from sphericity and diaspores type see reference [8], always in the main text.