

Table S1. The increasing species classified into six subgroups according to the main habitat preference on the islands. historic. = number of findings on the historic islands, recent = number of recent findings, incr. = total increase, ext. = number of extinctions, colon. = number of colonisations, McNem. = significance value of the McNemar test. p = perennial, a = annual species.

	historic.	recent	incr.	ext.	colon.	McNem.	
<b>Species of clay and muddy shores</b>							
<i>Bolboschoenus maritimus</i>	2	19	17	1	18	<0.001	p
<i>Phragmites australis</i>	97	207	110	4	114	<0.001	p
<i>Schoenoplectus tabernaemontani</i>	109	199	90	14	104	<0.001	p
<i>Typha angustifolia</i>	2	7	5	0	5	0.063	p
<i>Typha latifolia</i>	11	62	51	4	55	<0.001	p
<b>Species rocky, gravel, moraine and sandy shores</b>							
<i>Achillea ptarmica</i>	10	58	48	1	49	<0.001	p
<i>Allium schoenoprasum</i>	293	310	17	5	22	0.003	p
<i>Alopecurus arundinaceus</i>	51	96	45	6	51	<0.001	p
<i>Angelica archangelica</i> ssp. <i>litoralis</i>	215	295	80	9	89	<0.001	p
<i>Artemisia vulgaris</i> var. <i>coarctata</i>	7	107	100	0	99	<0.001	p
<i>Artemisia vulgaris</i> var. <i>vulgaris</i>	1	10	9	1	10	0.012	p
<i>Aster tripolium</i>	78	230	152	2	154	<0.001	p
<i>Atriplex littoralis</i>	5	38	33	4	37	<0.001	a
<i>Atriplex prostrata</i>	31	149	118	6	124	<0.001	a
<i>Centaurium littorale</i>	53	165	112	6	118	<0.001	a-2
<i>Centaurium pulchellum</i>	76	124	48	18	66	<0.001	a
<i>Cirsium arvense</i>	49	148	99	14	113	<0.001	p
<i>Cochlearia danica</i>	148	174	26	7	33	<0.001	a
<i>Crambe maritima</i>	34	80	46	6	52	<0.001	p
<i>Deschampsia bottnica</i>	194	224	30	21	51	0.001	p
<i>Elymus repens</i> ssp. <i>repens</i>	168	219	51	13	64	<0.001	p
<i>Equisetum arvense</i>	40	64	24	11	35	0.001	p
<i>Festuca arundinacea</i>	86	201	115	1	116	<0.001	p
<i>Glaux maritima</i>	298	318	20	2	22	<0.001	p
<i>Hieracium umbellatum</i>	89	162	73	1	74	<0.001	p
<i>Hierochloë odorata</i>	44	61	17	16	33	0.022	p
<i>Isatis tinctoria</i>	61	187	126	8	134	<0.001	a-2
<i>Juncus compressus</i>	14	28	14	5	19	0.007	p
<i>Leontodon autumnalis</i>	164	191	27	9	36	<0.001	p
<i>Leymus arenarius</i>	243	294	51	9	60	<0.001	p
<i>Linaria vulgaris</i>	24	35	11	9	20	0.063	p
<i>Odontites litoralis</i>	55	226	171	2	173	<0.001	p
<i>Ophioglossum vulgatum</i>	82	181	99	17	116	<0.001	p
<i>Phalaris arundinacea</i>	269	313	44	5	49	<0.001	p
<i>Plantago maritima</i>	134	171	37	14	51	<0.001	p
<i>Potentilla anserina</i> ssp. <i>egedii</i>	22	51	29	6	35	<0.001	p
<i>Puccinellia dist.</i> ssp. <i>borealis</i>	237	283	46	8	54	<0.001	p
<i>Ranunculus repens</i>	18	31	13	8	21	0.026	p
<i>Rhinanthus serotinus</i>	34	102	68	5	73	<0.001	a
<i>Rosa rugosa</i>	0	7	7	0	7	0.016	p
<i>Rumex crispus</i>	306	325	19	0	19	<0.001	p
<i>Silene uniflora</i>	215	261	46	15	61	<0.001	p
<i>Solanum dulcamara</i>	8	45	37	0	37	<0.001	p
<i>Spergularia salina</i>	67	96	29	26	55	0.002	a-2

<i>Stachys palustris</i>	13	83	70	1	71	<0.001	p
<i>Tanacetum vulgare</i>	291	317	26	6	32	<0.001	p
<i>Triglochin maritima</i>	208	229	21	18	39	0.008	p
<i>Tripleurospermum mar. ssp. mar.</i>	284	308	24	9	33	<0.001	p
<i>Valeriana sp.</i>	294	308	14	7	21	0.014	p
<i>Veronica longifolia</i>	223	268	45	18	63	<0.001	p
<i>Vicia cracca</i>	298	311	13	7	20	0.021	p

#### Species of mires, wetlands and ponds

<i>Eriophorum vaginatum</i>	83	126	43	15	58	<0.001	p
<i>Eleocharis mamillata</i>	67	104	37	18	55	<0.001	p
<i>Carex canescens</i>	271	291	20	16	36	0.008	p
<i>Carex rostrata</i>	8	22	14	0	14	<0.001	p
<i>Carex vesicaria</i>	51	104	53	3	56	<0.001	p
<i>Lemna gibba</i>	1	6	5	0	5	0.063	p
<i>Rubus chamaemorus</i>	97	158	61	5	66	<0.001	p
<i>Potentilla palustris</i>	130	197	67	13	80	<0.001	p
<i>Callitriche palustris</i>	88	116	28	22	53	0.001	a
<i>Hippuris vulgaris</i>	46	60	14	21	35	0.082	p
<i>Peucedanum palustre</i>	54	125	71	7	78	<0.001	a-2
<i>Cornus suecica</i>	95	118	23	17	40	0.004	p
<i>Vaccinium oxycoccus</i>	38	67	29	5	34	<0.001	p
<i>Lycopus europaeus</i>	41	84	43	16	59	<0.001	p
<i>Juncus effusus</i>	5	20	15	2	17	0.001	p
<i>Carex echinata</i>	12	27	15	3	18	<0.001	p
<i>Lysimachia thyrsifolia</i>	9	19	10	4	14	0.031	p
<i>Lemna minor</i>	15	35	20	4	24	<0.001	p
<i>Caltha palustris</i>	25	32	7	6	13	0.096	p
<i>Menyanthes trifoliata</i>	19	26	7	6	13	0.096	p
<i>Carex magellanica</i>	21	40	19	7	26	0.002	p
<i>Iris pseudacorus</i>	3	11	8	1	9	0.021	p
<i>Glyceria fluitans</i>	30	41	11	9	20	0.063	p
<i>Sparganium sp.</i>	31	51	20	9	29	0.002	p
<i>Cirsium palustre</i>	34	43	9	10	19	0.078	p

#### Species of slopes and thickets

<i>Alopecurus pratensis</i>	11	30	19	2	21	<0.001	p
<i>Arrhenatherum elatius</i>	84	102	18	15	33	0.014	p
<i>Artemisia campestris</i>	69	89	20	9	29	0.002	p
<i>Calystegia sepium</i>	6	15	9	2	11	0.022	p
<i>Carex disticha</i>	21	30	9	4	13	0.049	p
<i>Centaurea jacea</i>	46	62	16	11	27	0.003	p
<i>Danthonia decumbens</i>	103	118	15	24	39	0.078	p
<i>Epilobium adenocaulon</i>	0	29	29	0	28	<0.001	p
<i>Epilobium angustifolium</i>	197	284	87	9	96	<0.001	p
<i>Epilobium montanum</i>	29	47	18	15	33	0.014	p
<i>Erysimum cheiranthoides</i>	5	17	12	0	12	<0.001	a
<i>Erysimum strictum</i>	12	25	13	4	17	0.007	a-2
<i>Fallopia convolvulus</i>	9	24	15	3	18	0.001	a
<i>Fallopia dumetorum</i>	65	105	40	13	52	<0.001	a
<i>Filipendula ulmaria</i>	272	300	28	6	34	<0.001	p
<i>Fragaria vesca</i>	253	268	15	14	29	0.033	p
<i>Galium album</i>	0	10	10	0	10	0.002	p
<i>Galium aparine</i>	18	36	18	6	24	0.002	a
<i>Geranium robertianum</i>	70	95	25	8	33	0.001	a
<i>Geum urbanum</i>	78	91	13	11	24	0.043	p
<i>Hypericum perforatum</i>	225	241	16	13	29	0.021	p
<i>Lathyrus palustris</i>	1	12	11	1	12	0.003	p
<i>Lychmis flos cuculi</i>	4	14	10	3	13	0.021	p
<i>Platanthera bifolia</i>	78	112	34	9	43	<0.001	p
<i>Polygonatum odoratum</i>	71	102	31	8	39	<0.001	p
<i>Prunus padus</i>	98	127	29	7	36	<0.001	p
<i>Ribes nigrum</i>	175	192	17	32	49	0.075	p
<i>Rosa dumalis</i>	116	200	84	7	88	<0.001	p

<i>Rubus idaeus</i>	291	320	29	1	30	<0.001	p
<i>Salix caprea</i>	39	77	38	10	48	<0.001	p
<i>Salix cinerea</i>	35	45	10	5	15	0.045	p
<i>Salix repens</i>	5	12	7	2	9	0.065	p
<i>Scrophularia nodosa</i>	213	241	28	17	45	0.001	p
<i>Sedum telephium</i>	294	325	31	1	32	<0.001	p
<i>Senecio viscosus</i>	0	11	11	0	11	0.001	a
<i>Senecio vulgaris</i>	9	16	7	3	10	0.039	a
<i>Sonchus</i> sp.	0	10	10	0	10	0.002	a
<i>Taraxacum</i> sp.	143	220	77	20	96	<0.001	p
<i>Trifolium arvense</i>	5	15	10	1	11	0.006	a
<i>Trifolium fragiferum</i>	5	12	7	3	10	0.092	p
<i>Trifolium hybridum</i>	1	9	8	1	9	0.021	p
<i>Tussilago farfara</i>	1	26	25	0	25	<0.001	p
<i>Vincetoxicum hirundinaria</i>	208	250	42	9	51	<0.001	p
<b>Species of bare rock</b>							
<i>Epilobium ciliatum</i>	0	13	13	0	13	<0.001	p
<i>Pilosella officinarum</i>	59	77	18	14	32	0.012	p
<i>Poa compressa</i>	9	20	11	2	13	0.007	p
<i>Thlaspi arvense</i>	3	14	11	2	13	0.007	a
<i>Geranium sanguineum</i>	44	50	6	1	7	0.070	p
<i>Sedum album</i>	19	26	7	2	9	0.065	p
<b>Species of woods and overgrown areas</b>							
<i>Acer platanoides</i>	4	14	10	0	10	0.002	p
<i>Allium scorodoprasum</i>	10	18	8	2	10	0.039	p
<i>Alnus glutinosa</i>	234	270	36	0	36	<0.001	p
<i>Arctostaphylos uva-ursi</i>	10	15	5	0	5	0.063	p
<i>Athyrium filix-femina</i>	70	88	18	29	47	0.051	p
<i>Betula pendula</i>	119	176	57	8	65	<0.001	p
<i>Betula verrucosa</i>	13	45	32	2	34	<0.001	p
<i>Calamagrostis canescens</i>	8	20	12	3	15	0.008	p
<i>Campanula persicifolia</i>	42	55	13	10	23	0.037	p
<i>Convallaria majalis</i>	74	122	48	5	53	<0.001	p
<i>Corylus avellana</i>	18	32	14	0	14	<0.001	p
<i>Dactylorhiza maculata</i> ssp. <i>maculata</i>	20	30	10	6	16	0.052	p
<i>Dryopteris carthusiana</i>	257	285	28	5	33	<0.001	p
<i>Dryopteris dilatata</i>	91	127	36	19	55	<0.001	p
<i>Dryopteris filix-mas</i>	236	276	40	9	49	<0.001	p
<i>Elymus canina</i>	16	29	13	6	19	0.015	p
<i>Empetrum nigrum</i> (coll.)	276	304	28	5	33	<0.001	p
<i>Equisetum sylvaticum</i>	10	20	10	2	12	0.013	p
<i>Fraxinus excelsior</i>	46	116	70	4	74	<0.001	p
<i>Hepatica nobilis</i>	22	27	5	0	5	0.063	p
<i>Huperzia selago</i>	7	32	25	3	28	<0.001	p
<i>Juncus conglomeratus</i>	15	41	26	3	29	<0.001	p
<i>Juniperus communis</i>	313	322	9	2	11	0.022	p
<i>Luzula pilosa</i>	83	106	23	8	31	<0.001	p
<i>Lycopodium annotinum</i>	24	78	54	3	57	<0.001	p
<i>Maianthemum bifolium</i>	93	132	39	8	47	<0.001	p
<i>Malus sylvestris</i>	7	24	17	1	18	<0.001	p
<i>Melampyrum pratense</i>	43	60	17	4	21	<0.001	a
<i>Melampyrum silvaticum</i>	11	29	18	1	19	<0.001	a
<i>Melica nutans</i>	115	146	31	9	40	<0.001	p
<i>Milium effusum</i>	37	73	36	2	38	<0.001	p
<i>Moehringia trinervia</i>	111	182	71	7	78	<0.001	a
<i>Mycelis muralis</i>	2	34	32	0	32	<0.001	p
<i>Orthilia secunda</i>	4	20	16	2	18	<0.001	p
<i>Paris quadrifolia</i>	25	42	17	4	21	0.001	p
<i>Phleum pratense</i>	10	18	8	5	13	0.096	p
<i>Picea abies</i>	91	154	63	3	66	<0.001	p
<i>Pinus sylvestris</i>	144	227	83	3	86	<0.001	p
<i>Platanthera chlorantha</i>	17	39	22	6	28	<0.001	p
<i>Poa nemoralis</i>	125	144	19	14	33	0.009	p

<i>Polygonatum multiflorum</i>	23	43	20	4	24	<0.001	p
<i>Polypodium vulgare</i>	195	277	82	4	86	<0.001	p
<i>Populus tremula</i>	69	95	26	3	29	<0.001	p
<i>Quercus robur</i>	1	11	10	0	10	0.002	p
<i>Rhamnus frangula</i>	23	57	34	7	41	<0.001	p
<i>Ribes alpinum</i>	126	205	79	5	84	<0.001	p
<i>Rosa majalis</i>	81	113	32	5	37	<0.001	p
<i>Salix aurita</i>	54	90	36	8	43	<0.001	p
<i>Sorbus aucuparia</i>	228	296	68	3	71	<0.001	p
<i>Sorbus hybrida</i>	4	25	21	0	21	<0.001	p
<i>Vaccinium myrtillus</i>	120	187	67	4	71	<0.001	p
<i>Vaccinium uliginosum</i>	204	239	35	6	41	<0.001	p
<i>Vaccinium vitis-idaea</i>	147	168	21	13	34	0.004	p
<i>Viburnum opulus</i>	27	48	21	4	25	<0.001	p

Table S2. The decreasing species classified into two subgroups according to the main habitat preference on the islands. historic. = number of findings on the historic islands, recent = number of recent findings, incr. = total increase, ext. = number of extinctions, colon. = number of colonisations, McNem. = significance value of the McNemar test. p = perennial, a = annual species.

	historic.	recent	incr.	ext.	colon.	McNem.	
<b>Species of shore meadows</b>							
<i>Atriplex longipes</i> ssp. <i>praecox</i>	305	291	-14	26	12	0.035	a
<i>Blysmus rufus</i>	11	4	-7	8	1	0.039	p
<i>Carex glareosa</i>	17	3	-14	15	1	0.001	p
<i>Carex panicea</i>	202	158	-44	60	16	<0.001	p
<i>Crassula aquatica</i>	19	2	-17	18	1	<0.001	a
<i>Eleocharis palustris</i>	43	27	-16	30	14	0.024	p
<i>Eleocharis parvula</i>	18	1	-17	17	0	<0.001	p
<i>Eleocharis quinqueflora</i>	18	2	-16	17	1	<0.001	p
<i>Gentianella campestris</i>	4	0	-4	4	0	0.025	a-2
<i>Juncus ranarius</i>	70	22	-48	52	4	<0.001	a
<i>Juncus alpinoarticulatus</i> ssp. <i>nod.</i>	36	24	-12	22	10	0.052	p
<i>Linum catharticum</i>	184	163	-21	57	36	0.038	a-2
<i>Montia fontana</i>	100	51	-49	69	20	<0.001	a
<i>Myosotis laxa</i> ssp. <i>caespitosa</i>	109	55	-54	67	13	<0.001	a-2
<i>Myosurus minimus</i>	73	15	-58	64	6	<0.001	a
<i>Pedicularis palustris</i>	13	0	-13	13	0	<0.001	a-2
<i>Polygonum aviculare</i> var. <i>litorale</i>	284	264	-20	36	16	0.008	a
<i>Primula farinosa</i>	5	0	-5	5	0	0.063	p
<i>Ranunculus flammula</i>	75	62	-13	30	17	0.080	p
<i>Salicornia europaea</i>	7	2	-5	6	1	0.125	a
<i>Sesleria caerulea</i>	6	1	-5	5	0	0.063	p
<i>Stellaria media</i> , coll.	41	39	-2	57	36	0.038	a
<i>Suaeda maritima</i>	6	1	-5	6	1	0.125	a
<i>Thelypteris palustris</i>	7	1	-6	7	1	0.070	p
<i>Veronica serpyllifolia</i>	26	11	-15	19	4	0.003	p
<b>Species of meadows, pastures and heaths</b>							
<i>Alchemilla</i> sp.	14	5	-9	9	0	0.004	p
<i>Alopecurus geniculatus</i>	26	15	-11	15	4	0.019	p
<i>Antennaria dioeca</i>	115	48	-67	73	6	<0.001	p
<i>Anthoxanthum odoratum</i>	168	133	-35	50	15	<0.001	p
<i>Arenaria serpyllifolia</i>	62	50	-12	27	15	0.090	a
<i>Avenula pubescens</i>	123	110	-13	37	24	0.124	p
<i>Briza media</i>	39	29	-10	17	7	0.064	p
<i>Campanula rotundifolia</i>	56	43	-13	29	16	0.074	p
<i>Cardamine pratensis</i> ssp. <i>pratensis</i>	21	10	-11	17	6	0.035	p
<i>Carex pallescens</i>	104	73	-31	39	8	<0.001	p
<i>Carex pilulifera</i>	92	64	-28	44	16	<0.001	p
<i>Carum carvi</i>	15	4	-11	14	3	0.013	a-2
<i>Cerastium fontanum</i> ssp. <i>vulgare</i>	256	228	-28	45	16	<0.001	p

<i>Cerastium glutinosum</i>	45	26	-19	26	7	0.002	a
<i>Cerastium semidecandrum</i>	79	25	-54	55	1	<0.001	a
<i>Cirsium vulgare</i>	241	162	-79	95	16	<0.001	a-2
<i>Crepis tectorum</i>	123	99	-24	48	24	0.007	a
<i>Epilobium collinum</i>	105	82	-23	41	18	0.003	p
<i>Erigeron acer</i>	110	43	-67	81	14	<0.001	a
<i>Erophila verna</i>	109	56	-53	64	11	<0.001	a
<i>Euphrasia tenuis</i>	47	24	-23	37	20	<0.001	p
<i>Galium boreale</i>	81	65	-16	25	9	0.010	p
<i>Galium uliginosum</i>	76	35	-41	50	9	<0.001	p
<i>Galium verum</i>	284	270	-14	32	18	0.066	p
<i>Gentianella amarella</i>	13	1	-12	13	1	0.002	a-2
<i>Geum rivale</i>	93	71	-22	30	8	0.001	p
<i>Gnaphalium sylvaticum</i>	9	1	-8	9	1	0.021	p
<i>Leucanthemum vulgare</i>	26	16	-10	16	6	0.078	p
<i>Luzula campestris</i>	124	63	-61	69	8	<0.001	p
<i>Myosotis arvensis</i>	132	83	-49	73	24	<0.001	a-2
<i>Myosotis ramosissima</i>	254	210	-44	67	22	<0.001	a
<i>Myosotis stricta</i>	31	14	-17	24	7	0.004	a
<i>Nardus stricta</i>	122	70	-52	63	10	<0.001	p
<i>Origanum vulgare</i>	124	108	-16	28	12	0.018	p
<i>Pimpinella saxifraga</i>	103	76	-27	38	11	<0.001	p
<i>Poa angustifolia</i>	104	87	-17	38	21	0.037	p
<i>Poa pratensis</i>	206	186	-20	42	22	0.018	p
<i>Poa subcaerulea</i>	134	107	-27	57	30	0.005	p
<i>Polygala amarellum</i>	14	3	-11	11	0	0.001	p
<i>Potentilla crantzii</i>	76	44	-32	41	9	<0.001	p
<i>Prunella vulgaris</i>	75	50	-25	39	14	0.001	p
<i>Ranunculus acris</i>	158	101	-57	68	10	<0.001	p
<i>Ranunculus auricomus</i>	72	48	-24	31	7	<0.001	p
<i>Rumex acetosa</i>	245	227	-18	35	17	0.018	p
<i>Saxifraga tridactylites</i>	55	30	-25	30	4	<0.001	a
<i>Scutellaria hastifolia</i>	70	59	-11	27	16	0.127	p
<i>Spergularia rubra</i>	5	0	-5	5	0	0.063	a-2
<i>Veronica arvensis</i>	184	88	-96	109	13	<0.001	a
<i>Veronica chamaedrys</i>	158	128	-30	41	11	<0.001	p
<i>Veronica officinalis</i>	222	197	-25	35	10	0.002	p
<i>Veronica verna</i>	14	7	-7	12	5	0.143	a
<i>Woodsia ilvensis</i>	77	61	-16	29	13	0.021	p