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- Supporting information -

Implementing groundwater extraction in life cycle impact assessment: characterization factors based on plant species richness for the Netherlands

Rosalie van Zelm^{* †}, Aafke M. Schipper[†], Michiel Rombouts[†], Judith Snepvangers[‡], and Mark A.J. Huijbregts[†]

*Corresponding author phone: +31-24-3652923; e-mail: r.vanzelm@science.ru.nl

[†] Department of Environmental Science, Institute for Water and Wetland Research, Radboud University Nijmegen, P.O. Box 9010, 6500 GL, Nijmegen, the Netherlands

[‡] Deltares, Soil and Groundwater Systems, P.O. Box 85467, 3508 AL, Utrecht, the Netherlands

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24 **1. NHI modeling**

25
26 Figure S1 shows the NHI groundwater model extent and all 872 major groundwater wells in the
27 Netherlands.

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29

30 **Figure 1.** Overview of all 872 major groundwater wells in the Netherlands. The grey area
31 indicates the NHI groundwater model extent.

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34 **2. Terrestrial plant species**

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36 Table S1 shows the terrestrial plant species included in the effect factor calculations and their κ -
37 values, which express the probability of occurrence related to measured observations. It is
38 indicated whether a species is on the red list in the Netherlands and/or Belgium.

39

40 **Table S1.** All terrestrial plant species included in the effect factor calculations, with their κ -values.

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	Plant species	Scientific name	κ - value	Red list?
1	Sycamore (Sycamore Maple)	<i>Acer pseudoplatanus</i>	0.1	
2	Sneezewort	<i>Achillea ptarmica</i>	0.15	
3	Sweetflag (Flagroot)	<i>Acorus calamus</i>	0.15	
4	Baneberry	<i>Actaea spicata</i>	0.1	x
5	Moschatel	<i>Adoxa moschatellina</i>	0.25	
6	Ground Elder	<i>Aegopodium podagraria</i>	0.15	
7	Fool's Parsley	<i>Aethusa cynapium</i>	0.05	

8	Agrimony (Churchsteeples, Cocklebur, European Grovebur)	<i>Agrimonia eupatoria</i>	0.35	x
9	Velvet- + Brown Bent	<i>Agrostis canina + agrostis vinealis</i>	0.05	
10	Silver Hair-grass	<i>Aira caryophylla (subsp. multiculmis)</i>	0.15	
11	Bugleweed	<i>Ajuga reptans</i>	0.1	
12	Garlic Mustard	<i>Alliaria petiolata/officinalis</i>	0.2	
13	Field Garlic	<i>Allium oleraceum</i>	0.05	x
14	Bear's Garlic (Ramsons, Wild Garlic)	<i>Allium ursinum</i>	0.05	
15	Grey Alder	<i>Alnus incana</i>	0.1	
16	Orange Foxtail	<i>Alopecurus aequalis</i>	0.1	
17	Bulbous Foxtail	<i>Alopecurus bulbosus</i>	0.15	x
18	Blackgrass (Slender Meadow Foxtail, Mouse Foxtail, Slender Foxtail)	<i>Alopecurus myosuroides</i>	0.1	
19	Meadow Foxtail	<i>Alopecurus pratensis</i>	0.3	
20	Common Marsh Mallow	<i>Althaea officinalis</i>	0.25	x
21	Hybrid Marram	<i>Calammophila x baltica (Ammocalamagrostis x baltica)</i>	0.1	
22	Scarlet Pimpernel	<i>Anagallis arvensis subsp. arvensis (Anagallis phoenicea)</i>	0.05	
23	Bog Pimpernel	<i>Anagallis tenella</i>	0.1	x
24	Alkanet (Common Bugloss)	<i>Anchusa officinalis</i>	0.05	
25	Bog Rosemary	<i>Andromeda polifolia</i>	0.25	x
26	Wood Anemone	<i>Anemone nemorosa</i>	0.05	
27	Angelica Root	<i>Angelica archangelica</i>	0.1	
28	Mountain Everlasting	<i>Antennaria dioica</i>	0.05	x
29	Corn chamomile	<i>Anthemis arvensis</i>	0.05	x
30	Annual Vernal-grass	<i>Anthoxanthum aristatum/puelli</i>	0.1	x
31	Bur-chervil	<i>Anthriscus caucalis/scandicina</i>	0.1	
32	Cow Parsley (Wild Chervil, Bur Chervil, Keck)	<i>Anthriscus sylvestris</i>	0.15	
33	Kidney-vetch	<i>Anthyllis vulneraria</i>	0.05	x
34	Field parsley-piert	<i>Aphanes arvensis</i>	0.1	x
35	Slender parsley piert	<i>Aphanes australis/inexpectata/microcarpa</i>	0.05	
36	Celery	<i>Apium graveolens</i>	0.1	x
37	Fool's Water-cress	<i>Apium/helosciadium nodiflorum</i>	0.25	
38	Thale Cress	<i>Arabidopsis thaliana</i>	0.05	
39	Greater Burdock	<i>Arctium lappa/majus</i>	0.05	
40	Lesser Burdock	<i>Arctium minus/pubens</i>	0.05	
41	Thrift (Thrift Seapink, Sea Pink, Common/Sea/Western Thrift)	<i>Armeria maritima (Statice armeria elongata)</i>	0.4	x
42	Lamb Succory	<i>Arnoseris minima</i>	0.1	x
43	Field Wormwood	<i>Artemisia campestris subsp. maritima</i>	0.05	
44	Sea Wormwood	<i>Artemisia/Seriphidium maritima</i>	0.3	x
45	Mugwort	<i>Artemisia vulgaris</i>	0.1	
46	Lords-and-ladies (Cuckoo Pint, Adders Tongue, Calves Foot, Sweethearts)	<i>Arum maculatum</i>	0.4	
47	Asparagus (Garden-Asparagus)	<i>Asparagus officinalis (Asparagus prostratus)</i>	0.1	
48	Asparagus (Asparagus Fern, Wild Asparagus)	<i>Asparagus officinalis (Asparagus prostratus)</i>	0.05	
49	Sweetscented bedstraw	<i>Galium odoratum</i>	0.15	
50	Wall Rue	<i>Asplenium ruta-muraria</i>	0.15	
51	Grass-leaved Orache	<i>Atriplex littoralis</i>	0.2	
52	Black Horehound	<i>Ballota alba/nigra subsp. Meridionalis/foetida</i>	0.05	
53	Common Winter-cress	<i>Barbarea vulgaris</i>	0.1	

54	Barberry	<i>Berberis vulgaris</i>	0.15	
55	Hoary Alison	<i>Berteroa incana</i>	0.15	
56	Nodding Bur-marigold	<i>Bidens cernua</i>	0.1	
57	London bur-marigold	<i>Bidens connata</i>	0.2	
58	Beggar Ticks	<i>Bidens frondosa</i>	0.05	
59	Trifid Bur-marigold	<i>Bidens tripartita</i>	0.1	
60	Hard Fern (Deer Fern)	<i>Blechnum spicant</i>	0.05	x
61	Common Moonwort (Moonwort Grape-Fern, Moonwort Grapefern)	<i>Botrychium lunaria</i>	0.05	x
62	Tor-grass (Heath False Brome)	<i>Brachypodium pinnatum</i>	0.3	
63	(Slender) False-brome	<i>Brachypodium sylvaticum</i>	0.05	
64	Black Mustard	<i>Brassica nigra</i>	0.05	
65	Smooth Brome	<i>Bromopsis/Bromus inermis</i>	0.1	
66	Barren Brome	<i>Anisantha/Bromus sterilis</i>	0.05	
67	Drooping Brome	<i>Anisantha/Bromus tectorum</i>	0.05	
68	Slender Hare's-ear	<i>Bupleurum tenuissimum</i>	0.05	x
69	Sea Rocket	<i>Cakile maritima</i>	0.1	
70	Wood Small-reed (Chee Reed Grass, Feathertop)	<i>Calamagrostis epigeios</i>	0.2	
71	Narrow Small-reed	<i>Calamagrostis stricta/neglecta</i>	0.05	x
72	Heather	<i>Calluna vulgaris</i>	0.4	
73	Marsh Marigold	<i>Caltha palustris</i>	0.2	
74	Rampion bellflower	<i>Campanula rapunculus</i>	0.1	x
75	Harebell	<i>Campanula rotundifolia</i>	0.2	
76	Nettle-leaved Bellflower	<i>Campanula trachelium</i>	0.15	
77	Large Bitter-Cress, Cardamine amère	<i>Cardamine amara</i>	0.05	
78	Wavy Bitter-cress (Bittercress, Woodland Bittercress)	<i>Cardamine sylvatica/flexuosa/hirsuta subsp. Sylvatica</i>	0.05	
79	Nodding Thistle	<i>Carduus nutans</i>	0.1	
80	Slender Tufted-sedge	<i>Carex acuta/gracilis</i>	0.2	
81	Lesser Pond-sedge	<i>Carex acutiformis</i>	0.15	
82	Fibrous Tussock-sedge	<i>Carex appropinquata</i>	0.1	x
83	Water Sedge	<i>Carex aquatilis</i>	0.15	x
84	Spring Sedge	<i>Carex caryophyllea</i>	0.25	x
85	White Sedge	<i>Carex curta/canescens</i>	0.15	
86	Yellow Sedge	<i>Carex serotina/scandinavica/tumidicarpa/demissa/viridula/oederi subsp. oedocarpa</i>	0.1	
87	Distant Sedge	<i>Carex distans (vikingensis)</i>	0.15	
88	Brown Sedge	<i>Carex disticha</i>	0.25	
89	Elongated Sedge	<i>Carex elongata</i>	0.2	
90	Long-bracted Sedge	<i>Carex extensa</i>	0.2	
91	Hairy Sedge	<i>Carex hirta</i>	0.15	
92	Tufted Sedge	<i>Carex elata/hudsonii</i>	0.15	
93	Slender/Woolly-Fruit Sedge	<i>Carex lasiocarpa</i>	0.15	x
94	False Fox-sedge	<i>Carex otrubae/cuprina</i>	0.1	
95	Oval Sedge	<i>Carex ovalis/leporina</i>	0.1	
96	Pale Sedge	<i>Carex pallescens</i>	0.1	x
97	Greater Tussock Sedge	<i>Carex paniculata</i>	0.15	
98	Pill Sedge	<i>Carex pilulifera</i>	0.25	
99	Cyperus Sedge	<i>Carex pseudocyperus</i>	0.15	
100	Flea Sedge	<i>Carex pulicaris</i>	0.15	x
101	Remote Sedge	<i>Carex remota</i>	0.15	

102	Great Pond-sedge	<i>Carex riparia</i>	0.15	
103	Bottle Sedge	<i>Carex rostrata</i>	0.2	
104	Spiked/Prickly Sedge	<i>Carex spicata</i>	0.05	
105	Wood sedge (European Woodland Sedge)	<i>Carex sylvatica</i>	0.25	
106	Three-nerved Sedge	<i>Carex trinervis</i>	0.15	
107	Bladder Sedge	<i>Carex vesicaria</i>	0.1	
108	Carline Thistle	<i>Carlina vulgaris</i>	0.1	x
109	Hornbeam	<i>Carpinus betulus</i>	0.15	
110	Caraway	<i>Carum carvi</i>	0.05	x
111	Sweet Chestnut	<i>Castanea sativa</i>	0.05	
112	Whorl-grass	<i>Catabrosa aquatica</i>	0.05	
113	Cornflower	<i>Centaurea cyanus</i>	0.15	x
114	Greater knapweed	<i>Centaurea scabiosa</i>	0.3	x
115	Seaside Centaury	<i>Centaureum littorale</i>	0.1	
116	Common Centaury (European Centaury, Bitter Herb)	<i>Centaureum erythraea/minus</i>	0.1	
117	Branching Centaury	<i>Centaureum pulchellum</i>	0.15	
118	Chaffweed	<i>Centunculus minimus (Anagallis minima)</i>	0.1	x
119	Field/Mouse-Ear/Starry Chickweed	<i>Cerastium arvense</i>	0.2	
120	Sea Mouse-ear	<i>Cerastium diffusum/tetrandrum/atrovirens</i>	0.05	
121	Sticky Mouse-ear	<i>Cerastium glomeratum</i>	0.1	
122	Rough Chervil	<i>Chaerophyllum temulum/temulentum</i>	0.15	
123	Greater Celandine	<i>Chelidonium majus</i>	0.05	
124	Oak-leaved Goosefoot	<i>Chenopodium glaucum</i>	0.15	
125	Many-seeded Goosefoot	<i>Chenopodium polyspermum</i>	0.05	
126	Red Goosefoot	<i>Chenopodium rubrum</i>	0.1	
127	Oxeye/Field Daisy/Moon/Shasta Daisy (Marguerite)	<i>Leucanthemum vulgare (Chrysanthemum leucanthemum)</i>	0.2	
128	Corn Marigold/Chrysanthemum (Corndaisy)	<i>Glebionis/Chrysanthemum segetum</i>	0.05	
129	Opposite-leaved Golden-saxifrage	<i>Chrysosplenium oppositifolium</i>	0.05	
130	Yellow Centaury	<i>Cicendia filiformis</i>	0.1	x
131	Chicory	<i>Cichorium intybus</i>	0.1	
132	Enchanter's-nightshade	<i>Circaea lutetiana</i>	0.15	
133	Dwarf/Stemless/Picnic Thistle	<i>Cirsium acaule</i>	0.2	x
134	Creeping/Californian/Canadian/Field/Perennial Thistle	<i>Cirsium arvense</i>	0.25	
135	Meadow Thistle	<i>Cirsium dissectum</i>	0.1	x
136	Marsh thistle	<i>Cirsium palustre (Carduus palustris)</i>	0.25	
137	Great Fen-Sedge ((Swamp) Sawgrass)	<i>Cladium mariscus</i>	0.05	x
138	Spring Beauty	<i>Claytonia/Montia perfoliata</i>	0.1	
139	Danish scurvygrass (Early Scurvygrass)	<i>Cochlearia danica</i>	0.1	
140	Common Scurvygrass	<i>Cochlearia officinalis subsp. Officinalis</i>	0.15	x
141	Marsh Cinquefoil	<i>Comarum palustre (Potentilla palustris/comarum)</i>	0.2	x
142	Lily-of-the-Valley	<i>Convallaria majalis</i>	0.15	
143	Swine-cress	<i>Coronopus squamatus</i>	0.1	
144	Bird in a bush	<i>Corydalis solida</i>	0.05	
145	Hazel	<i>Corylus avellana</i>	0.15	
146	Grey Hair-grass	<i>Corynephorus canescens</i>	0.3	
147	Midland Hawthorn	<i>Crataegus oxyacantha/laevigata (Mespilum oxyacantha)</i>	0.15	
148	Rough Hawk's-beard	<i>Crepis biennis</i>	0.15	
149	Smooth Hawksbeard	<i>Crepis capillaris</i>	0.15	

150	Marsh Hawk's-beard	<i>Crepis paludosa</i>	0.1	x
151	Beaked Hawk's-beard	<i>Crepis polymorpha/vesicaria subsp. taraxacifolia/subsp. haensleri</i>	0.15	
152	Clover dodder	<i>Cuscuta epithymum</i>	0.05	x
153	Greater Dodder	<i>Cuscuta europaea</i>	0.05	
154	Bermuda grass	<i>Cynodon dactylon</i>	0.1	
155	Bog Hair-grass	<i>Deschampsia setacea</i>	0.1	x
156	Maiden Pink	<i>Dianthus deltoides</i>	0.2	x
157	Foxglove	<i>Digitalis purpurea</i>	0.05	
158	Smooth Finger-grass	<i>Digitaria ischaemum</i>	0.2	
159	Perennial Wall-rocket	<i>Diplotaxis tenuifolia</i>	0.1	
160	Wild Teasel	<i>Dipsacus fullonum/sylvestris</i>	0.15	
161	Broad Buckler-fern	<i>Dryopteris dilatata/austriaca</i>	0.2	
162	Male Fern	<i>Dryopteris filix-mas</i>	0.05	
163	Narrow Buckler-fern	<i>Dryopteris carthusiana/spinulosa</i>	0.25	
164	Marsh fern	<i>Thelypteris palustris (Dryopteris thelypteris)</i>	0.25	
165	Lesser Water-plantain	<i>Baldellia ranunculoides subsp. ranunculoides (Echinodorus/Alisma ranunculoides)</i>	0.15	x
166	Viper's bugloss	<i>Echium vulgare</i>	0.1	
167	Few-flowered Spike-rush	<i>Eleocharis quinqueflora/pauciflora (Scirpus quinqueflorus/pauciflorus)</i>	0.1	x
168	Slender Spike-rush	<i>Eleocharis uniglumis/palustris subsp. uniglumis)</i>	0.1	
169	Lyme-grass	<i>Leymus arenarius (Elymus arenarius)</i>	0.1	
170	Sea Couch	<i>Elytrigia atherica (Elymus athericus/pycnanthus, Agropyron littorale/pungens)</i>	0.2	
171	American willowherb	<i>Epilobium ciliatum/adenocaulon</i>	0.05	
172	Rosebay Willow-herb	<i>Chamerion angustifolium (Epilobium angustifolium/spicatum)</i>	0.1	
173	Dark-green Willow-herb	<i>Epilobium obscurum</i>	0.05	
174	Marsh Willowherb	<i>Epilobium palustre</i>	0.1	x
175	Hoary Willowherb	<i>Epilobium parviflorum</i>	0.1	
176	Broad Leaved Helleborine	<i>Epipactis helleborine/latifolia</i>	0.05	
177	Marsh Helleborine	<i>Epipactis/Helleborine palustris</i>	0.25	x
178	Shore Horsetail	<i>Equisetum litorale(x)/arvense x fluviatile</i>	0.05	
179	Variiegated Horsetail	<i>Equisetum variegatum</i>	0.2	x
180	Blue Fleabane	<i>Erigeron acer (Erigeron acris)</i>	0.1	
181	Canadian Horseweed	<i>Conyza/Erigeron canadensis</i>	0.1	
182	Common Cottongrass	<i>Eriophorum angustifolium/polystachion</i>	0.25	
183	Hare's-tail Cottongrass	<i>Eriophorum vaginatum</i>	0.25	x
184	Common Stork's-bill	<i>Erodium cicutarium subsp. cicutarium</i>	0.1	
185	Sticky Stork's-bill	<i>Erodium lebelii/glutinosum</i>	0.1	x
186	Common Stork's-bill	<i>Erodium cicutarium subsp. dunense</i>	0.2	
187	Common Whitlowgrass	<i>Erophila/Draba verna</i>	0.15	
188	Field eryngo	<i>Eryngium campestre</i>	0.15	
189	Sea Holly	<i>Eryngium maritimum</i>	0.1	
190	Treacle Mustard	<i>Erysimum cheiranthoides</i>	0.05	
191	Cypress Spurge	<i>Euphorbia cyparissias</i>	0.05	
192	Marsh spurge	<i>Euphorbia palustris</i>	0.05	x
193	Petty Spurge	<i>Euphorbia peplus</i>	0.05	
194	Red Bartsia	<i>Odontites vernus/litoralis/verna/rubra (Euphrasia odontites)</i>	0.05	x

195	Giant Fescue	<i>Festuca gigantea</i>	0.1	
196	Hybrid Fescue	<i>Festulolium x loliaceum/x braunii</i>	0.15	
197	Small Cudweed	<i>Filago/Logfia minima</i>	0.1	x
198	Wild Strawberry	<i>Fragaria vesca</i>	0.1	x
199	Snake's head fritillary	<i>Fritillaria meleagris</i>	0.05	x
200	Common Fumitory	<i>Fumaria officinalis</i>	0.05	
201	Snowdrop	<i>Galanthus nivalis</i>	0.1	
202	Bifid Hemp-nettle	<i>Galeopsis bifida/tetrahit subsp. Bifida</i>	0.1	
203	Large-flowered Hemp-nettle	<i>Galeopsis speciosa</i>	0.05	
204	Shaggy-soldier	<i>Galinsoga quadriradiata/ciliata</i>	0.05	
205	Crosswort	<i>Cruciata laevipes (Galium cruciata)</i>	0.05	x
206	Slender Bedstraw	<i>Galium pumilum</i>	0.35	x
207	Lady's Bedstraw	<i>Galium verum (subsp. maritimum)</i>	0.35	
208	Petty Whin	<i>Genista anglica</i>	0.1	x
209	Hairy Greenweed	<i>Genista pilosa</i>	0.15	x
210	Dyer's Greenweed	<i>Genista tinctoria</i>	0.1	x
211	Autumn Gentian	<i>Gentianella/gentiana amarella</i>	0.2	x
212	Chiltern Gentian	<i>Gentianella/gentiana germanica</i>	0.15	x
213	Marsh Gentian	<i>Gentiana pneumonanthe</i>	0.15	x
214	Cut-leaved Crane's-bill	<i>Geranium dissectum</i>	0.1	
215	Small-flowered Cranesbill	<i>Geranium pusillum</i>	0.05	
216	Herb-Robert	<i>Geranium robertianum</i>	0.2	
217	Wood Avens	<i>Geum urbanum</i>	0.2	
218	Sea-milkwort	<i>Glaux maritima/generalis</i>	0.2	
219	Small Sweet-grass	<i>Glyceria declinata (Glyceria notata/plicata subsp. declinata)</i>	0.05	
220	Reed Sweet Grass	<i>Glyceria maxima/aquatica</i>	0.2	
221	Plicate Sweet-grass	<i>Glyceria notata/plicata</i>	0.05	
222	Weedy cudweed	<i>Gnaphalium/Pseudognaphalium/Helichrysum luteo-album</i>	0.05	
223	Heath Cudweed	<i>Gnaphalium/Omalotheca sylvaticum</i>	0.05	x
224	Marsh Cudweed	<i>Gnaphalium uliginosum (Filaginella uliginosa)</i>	0.05	
225	Fragrant Orchid	<i>Gymnadenia conopsea</i>	0.2	x
226	Annual Sea Purslane	<i>Atriplex/Halimione/Obione pedunculata</i>	0.1	x
227	Bog Orchid	<i>Hammarbya/Malaxis paludosa</i>	0.05	x
228	Ivy	<i>Hedera helix</i>	0.25	
229	Downy Oat-grass	<i>Helictotrichon/Avenula pubescens</i>	0.2	
230	Smooth Rupturewort	<i>Herniaria glabra</i>	0.2	
231	Common Hawkweed	<i>Hieracium vulgatum/lachenalii/levicaule/maculatum/argillaceum/diaphanoides)</i>	0.05	
232	Smooth Hawkweed	<i>Hieracium laevigatum/tridentatum/rigidum)</i>	0.1	
233	New England Hawkweed	<i>Hieracium sabaudum</i>	0.05	
234	Leafy Hawkweed	<i>Hieracium umbellatum subsp. hollandiae)</i>	0.2	
235	Holy Grass	<i>Hierochloë odorata (Anthoxanthum nitens)</i>	0.1	x
236	Seabuckthorn	<i>Hippophae rhamnoides</i>	0.25	
237	Yorkshire-fog	<i>Holcus lanatus</i>	0.35	
238	Sea Sandwort	<i>Honkenya peploides</i>	0.05	
239	Sea Barley	<i>Hordeum marinum</i>	0.05	x
240	Wall Barley	<i>Hordeum murinum</i>	0.05	
241	Meadow Barley	<i>Hordeum secalinum/pratense/nodosum</i>	0.15	x
242	Hop	<i>Humulus lupulus</i>	0.2	

243	Marsh Pennywort	<i>Hydrocotyle vulgaris</i>	0.25	
244	Marsh St. John's-wort	<i>Hypericum elodes</i>	0.15	x
245	Trailing St. John's-wort	<i>Hypericum humifusum</i>	0.1	
246	Spotted St. John's-wort	<i>Hypericum maculatum</i>	0.05	x
247	St. John's wort	<i>Hypericum perforatum</i>	0.3	
248	Slender St John's-wort	<i>Hypericum pulchrum</i>	0.25	x
249	Square-stalked St. John's-wort	<i>Hypericum tetrapterum/quadrangulum</i>	0.05	
250	Common Holly	<i>Ilex aquifolium</i>	0.1	
251	Coral-necklace	<i>Illecebrum verticillatum</i>	0.1	x
252	Touch-me-not Balsam	<i>Impatiens noli-tangere</i>	0.15	
253	Small Balsam	<i>Impatiens parviflora</i>	0.1	
254	Meadow Fleabane	<i>Inula britannica</i>	0.15	
255	Ploughman's Spikenard	<i>Inula conyzae</i>	0.15	
256	Yellow Flag	<i>Iris pseudacorus</i>	0.25	
257	Sharp-flowered Rush	<i>Juncus acutiflorus</i>	0.2	
258	Jonc des grenouilles	<i>Juncus ambiguus (Juncus bufonius subsp. ambiguus/subsp. ranarius)</i>	0.1	
259	Northern Green Rush	<i>Juncus anceps/alpinoarticulatus subsp. atricapillus</i>	0.15	
260	Arctic rush	<i>Juncus balticus/arcticus subsp. Balticus</i>	0.15	
261	Toad Rush	<i>Juncus bufonius/minutulus)</i>	0.05	
262	Round-fruited Rush	<i>Juncus compressus</i>	0.1	
263	Compact Rush (Common Rush)	<i>Juncus conglomeratus/subuliflorus</i>	0.2	
264	Thread Rush	<i>Juncus filiformis</i>	0.1	x
265	Northern Green Rush	<i>Juncus alpinoarticulatus subsp. alpinoarticulatus</i>	0.15	x
266	Saltmarsh Rush	<i>Juncus gerardii</i>	0.2	
267	Hard Rush	<i>Juncus inflexus/glaucus</i>	0.1	
268	Sea Rush	<i>Juncus maritimus</i>	0.1	
269	Heath Rush	<i>Juncus squarrosus</i>	0.15	
270		<i>Juncus tenageia</i>	0.05	x
271	Slender Rush	<i>Juncus tenuis</i>	0.05	
272	Common Juniper	<i>Juniperus communis</i>	0.05	x
273	Field Scabious	<i>Knautia arvensis (Scabiosa arvensis)</i>	0.2	x
274	Crested Hair-grass	<i>Koeleria macrantha/albescens/gracilis/cristata</i>	0.25	
275	Prickly Lettuce	<i>Lactuca serriola/scariola</i>	0.05	
276	White Dead-nettle	<i>Lamium album</i>	0.1	
277	Hen-bit Dead-nettle	<i>Lamium amplexicaule</i>	0.2	
278	Yellow Archangel	<i>Lamiastrum/Lamium galeobdolon (Galeobdolon luteum)</i>	0.4	
279	Spotted Deadnettle	<i>Lamium maculatum</i>	0.15	
280	Red Dead-nettle	<i>Lamium purpureum</i>	0.1	
281	Nipplewort	<i>Lapsana communis</i>	0.1	
282	Marsh Pea	<i>Lathyrus palustris</i>	0.15	
283	Meadow Vetchling	<i>Lathyrus pratensis (Pisum pratense)</i>	0.15	
284	Tuberous Pea	<i>Lathyrus tuberosus</i>	0.05	
285	Rough Hawkbit	<i>Leontodon hispidus</i>	0.3	x
286	Lesser Hawkbit	<i>Leontodon saxatilis/taraxacoides/nudicaulus (Thrincia hirta)</i>	0.1	
287	Summer Snowflake	<i>Leucojum aestivum</i>	0.1	x
288	Wild Privet	<i>Ligustrum vulgare</i>	0.15	
289	Mudwort	<i>Limosella aquatica</i>	0.05	
290	Ivy-leaved Toadflax	<i>Cymbalaria muralis (Linaria/Antirrhinum cymbalaria)</i>	0.1	

291	Dwarf Snapdragon	<i>Chaenorhinum/Antirrhinum minus (Linaria minor)</i>	0.2	
292	Common Toadflax	<i>Linaria vulgaris</i>	0.1	
293	Fairy Flax	<i>Linum catharticum</i>	0.35	x
294	Fen Orchid	<i>Liparis loeselii</i>	0.1	x
295	Common Gromwell	<i>Lithospermum officinale</i>	0.1	
296	Shoreweed	<i>Littorella uniflora</i>	0.4	x
297	Italian Rye Grass	<i>Lolium multiflorum</i>	0.05	
298	Common honeysuckle	<i>Lonicera periclymenum</i>	0.2	
299	Narrow-leaved Bird's-foot Trefoil	<i>Lotus glaber/tenuis/corniculatus subsp. tenuifolius</i>	0.15	
300	Hairy Wood-rush	<i>Luzula pilosa</i>	0.15	
301	Great Wood-rush	<i>Luzula sylvatica</i>	0.1	
302	Marsh Clubmoss	<i>Lycopodiella inundata (Lycopodium inundatum)</i>	0.1	x
303	Annual Bugloss	<i>Anchusa/Lycopsis arvensis</i>	0.1	
304	Yellow Pimpernel	<i>Lysimachia nemorum</i>	0.1	
305	Creeping-Jenny	<i>Lysimachia nummularia</i>	0.15	
306	Purple Loosestrife	<i>Lythrum salicaria</i>	0.25	
307	May Lily	<i>Maianthemum bifolium</i>	0.15	
308	Common Mallow	<i>Malva neglecta</i>	0.2	
309	Common/High Mallow	<i>Malva sylvestris</i>	0.05	
310	Scentless Mayweed	<i>Tripleurospermum maritimum (Matricaria inodorata, Chamaemelum inodorum)</i>	0.1	
311	Spotted Medick	<i>Medicago arabica</i>	0.1	
312	Sickle medic	<i>Medicago falcata/sativa subsp. falcata</i>	0.35	
313	Lucerne	<i>Medicago sativa</i>	0.05	
314	Common Cow-wheat	<i>Melampyrum pratense</i>	0.05	
315	White Champion	<i>Silene pratensis/alba/latifolia subsp. alba (Melandrium album, Lychnis alba/vespertina)</i>	0.05	
316	Red Champion	<i>Silene dioica (Melandrium rubrum/dioicum)</i>	0.2	
317	Wood Melick	<i>Melica uniflora</i>	0.15	
318	White Melilot	<i>Melilotus alba</i>	0.2	
319	Whorled Mint	<i>Mentha x verticillata</i>	0.05	
320	Dog's Mercury	<i>Mercurialis perennis</i>	0.15	
321	Medlar	<i>Mespilus germanica</i>	0.05	
322	Wood millet	<i>Milium effusum</i>	0.2	
323	Three-nerved Sandwort	<i>Moehringia trinervia</i>	0.15	
324	Purple Moor-grass	<i>Molinia caerulea (subsp. arundinacea)</i>	0.35	
325	Wall Lettuce	<i>Mycelis/Lactuca muralis</i>	0.05	
326	Field Forget-me-not	<i>Myosotis arvensis/intermedia</i>	0.05	
327	Changing Forget-me-not	<i>Myosotis discolor</i>	0.1	
328	Early Forget-me-not	<i>Myosotis ramosissima/hispida</i>	0.2	
329	Water Forget-me-not	<i>Myosotis scorpioides/palustris</i>	0.2	
330	Wood Forget-me-not	<i>Myosotis sylvatica</i>	0.05	
331	Water Chickweed	<i>Myosoton/Stellaria aquaticum</i>	0.05	
332	Mousetail	<i>Myosurus minimus</i>	0.05	
333	Bog Myrtle	<i>Myrica gale</i>	0.1	x
334	Mat-grass	<i>Nardus stricta</i>	0.15	x
335	Bog Asphodel	<i>Narthecium ossifragum</i>	0.1	x
336	Water-cress	<i>Nasturtium officinale (Rorippa nasturtium-aquaticum)</i>	0.05	
337	Fine-leaved Water-dropwort	<i>Oenanthe aquatica</i>	0.1	
338	Tubular Water-dropwort	<i>Oenanthe fistulosa</i>	0.1	

339	Parsley Water-dropwort	<i>Oenanthe lachenalii</i>	0.05	x
340	Common Eveningprimrose	<i>Oenothera biennis</i>	0.05	
341	Common Restharrow	<i>Ononis repens</i> subsp. <i>repens</i>	0.15	
342	Spiny Restharrow	<i>Ononis repens</i> subsp. <i>spinosa</i> (<i>Ononis spinosa/campestris</i>)	0.15	x
343	Adder's Tongue	<i>Ophioglossum vulgatum</i>	0.05	
344	Early Marsh-Orchid	<i>Dactylorhiza incarnata</i>	0.1	x
345	Broad-leaved Marsh Orchid	<i>Dactylorhiza majalis</i> (<i>Orchis majalis/fistulosa/latifolia</i> , <i>Dactylorhiza fistulosa</i>)	0.05	x
346	Military orchid	<i>Orchis militaris</i>	0.05	x
347	Green-winged Orchid	<i>Anacamptis morio</i> (<i>Orchis morio</i>)	0.1	x
348	Southern Marsh-orchid	<i>Dactylorhiza praetermissa/majalis</i> subsp. <i>praetermissa</i>	0.15	
349	Wild Marjoram	<i>Origanum vulgare</i> (<i>Thymus origanum</i>)	0.4	
350	Star of Bethlehem	<i>Ornithogalum umbellatum</i>	0.1	
351	Bird's-foot	<i>Ornithopus perpusillus</i>	0.15	
352	Clove-scented Broomrape	<i>Orobanche caryophyllacea</i>	0.1	
353	Royal Fern	<i>Osmunda regalis</i>	0.4	
354	Wood-sorrel	<i>Oxalis acetosella</i>	0.1	
355	Upright Yellow-sorrel	<i>Oxalis stricta/fontana/europaea</i>	0.1	
356	Cranberry	<i>Vaccinium macrocarpon</i> (<i>Oxycoccus macrocarpos</i>)	0.35	
357	Prickly Poppy	<i>Papaver argemone</i>	0.05	
358	Long-headed Poppy	<i>Papaver dubium</i>	0.1	
359	Common Poppy	<i>Papaver rhoeas</i>	0.05	
360	Sea Hard-grass	<i>Parapholis strigosa</i>	0.25	
361	Herb-Paris	<i>Paris quadrifolia</i>	0.2	x
362	Grass of Parnassus	<i>Parnassia palustris</i>	0.2	x
363	Wild Parsnip	<i>Pastinaca sativa</i>	0.15	
364	Marsh Lousewort	<i>Pedicularis palustris</i> (subsp. <i>opsiantha</i>)	0.1	x
365	Lousewort	<i>Pedicularis sylvatica</i>	0.1	x
366	Water-purslane	<i>Lythrum/Peplis portula</i>	0.05	
367	Butterbur	<i>Petasites hybridus</i>	0.05	
368	Milk Parsley	<i>Peucedanum carvifolia</i>	0.1	x
369	Sand Cat's-tail	<i>Phleum arenarium</i>	0.15	
370	Black Rampion	<i>Phyteuma spicatum</i> subsp. <i>nigrum</i> (<i>Phyteuma nigrum</i>)	0.1	x
371	Oxtongue Hawkweed	<i>Picris hieracioides</i>	0.15	
372	Pillwort	<i>Pilularia globulifera</i>	0.05	
373	Greater Burnet-saxifrage	<i>Pimpinella major</i>	0.15	
374	Burnet Saxifrage	<i>Pimpinella saxifraga</i>	0.25	
375	Greater Plantain	<i>Plantago major</i> subsp. <i>intermedia</i>	0.05	
376	Greater Plantain	<i>Plantago major</i> subsp. <i>major</i>	0.1	
377	Sea Plantain	<i>Plantago maritima</i>	0.25	x
378	Hoary Plantain	<i>Plantago media</i>	0.2	x
379	Lesser Butterfly-Orchid	<i>Platanthera bifolia</i> (subsp. <i>bifolia</i>)	0.1	x
380	Flattened Meadow-grass	<i>Poa compressa</i>	0.1	
381	Wood Meadow-grass	<i>Poa nemoralis</i>	0.15	
382	Swamp Meadow-grass	<i>Poa palustris</i>	0.05	
383	Tufted Milkwort	<i>Polygala comosa</i>	0.2	x
384	Heath Milkwort	<i>Polygala serpyllifolia</i>	0.05	x
385	Angular Solomon's seal	<i>Polygonatum odoratum/officinale</i>	0.1	

386	Common Bistort	<i>Persicaria/Polygonum bistorta</i>	0.05	
387	Copse Bindweed	<i>Fallopia/Polygonum/Bilderdykia dumetorum</i>	0.05	
388	Water-pepper	<i>Persicaria/Polygonum hydropiper</i>	0.15	
389	Small Water-pepper	<i>Persicaria/Polygonum minor</i>	0.05	
390	Tasteless Water-pepper	<i>Persicaria/Polygonum mitis</i>	0.05	
391	White Poplar	<i>Populus alba</i>	0.1	
392	Grey Poplar	<i>Populus x canescens</i>	0.05	
393	Black Poplar	<i>Populus nigra</i>	0.05	
394	Aspen	<i>Populus tremula</i>	0.1	
395	Trailing Tormentil	<i>Potentilla anglica/procumbens</i>	0.1	
396	Silverweed	<i>Potentilla anserina</i>	0.15	
397	Hoary Cinquefoil	<i>Potentilla argentea</i>	0.15	
398	Barren Strawberry	<i>Potentilla sterilis/fragariastrum (Fragaria sterilis)</i>	0.05	x
399	Spreading Cinquefoil	<i>Potentilla supina</i>	0.1	
400	Spring Cinquefoil	<i>Potentilla tabernaemontani/verna/neumanniana</i>	0.1	
401	Oxlip	<i>Primula elatior</i>	0.2	
402	Cowslip	<i>Primula veris/officinalis</i>	0.2	x
403	Wild Cherry	<i>Prunus/Cerasus avium</i>	0.15	
404	Bird Cherry	<i>Prunus padus</i>	0.15	
405	Bracken	<i>Pteridium aquilinum</i>	0.15	
406	Reflexed Saltmarsh-grass	<i>Puccinellia distans</i>	0.1	
407	Borrer's Saltmarsh-grass	<i>Puccinellia fasciculata/pseudodistans</i>	0.1	x
408	Common Fleabane	<i>Pulicaria dysenterica</i>	0.1	
409	Round-leaved Wintergreen	<i>Pyrola rotundifolia</i>	0.15	x
410	Sessile oak	<i>Quercus petraea/sessilis</i>	0.1	
411	Allseed	<i>Radiola linoides</i>	0.15	x
412	Goldilocks Buttercup	<i>Ranunculus auricomus</i>	0.1	
413	Bulbous Buttercup	<i>Ranunculus bulbosus</i>	0.2	
414	Lesser Spearwort	<i>Ranunculus flammula</i>	0.2	
415	Greater Spearwort	<i>Ranunculus lingua</i>	0.1	
416	Hairy Buttercup	<i>Ranunculus sardous</i>	0.1	
417	Cursed Crowfoot	<i>Ranunculus sceleratus</i>	0.15	
418	Wild Radish	<i>Raphanus raphanistrum</i>	0.05	
419	Wild Mignonette	<i>Reseda lutea</i>	0.05	
420	Buckthorn	<i>Rhamnus cathartica</i>	0.05	
421	Greater Yellow Rattle	<i>Rhinanthus angustifolius/serotinus/major</i>	0.2	
422	Yellow Rattle	<i>Rhinanthus minor</i>	0.15	x
423	Black Currant	<i>Ribes nigrum</i>	0.15	
424	Red currant	<i>Ribes rubrum/sylvestre/vulgare</i>	0.05	
425	Gooseberry	<i>Ribes uva-crispa</i>	0.1	
426	Great Yellow-cress	<i>Rorippa amphibia (Sisymbrium amphibium)</i>	0.15	
427	Marsh Yellow-cress	<i>Rorippa palustris/islandica</i>	0.05	
428	Creeping Yellow-cress	<i>Rorippa sylvestris (Nasturtium sylvestre)</i>	0.05	
429	Burnet Rose	<i>Rosa pimpinellifolia/spinosissima</i>	0.15	
430	Ramanas Rose	<i>Rosa rugosa</i>	0.1	
431	Common Sorrel	<i>Rumex acetosa</i>	0.3	
432	Hybrid Dock	<i>Rumex pratensis(x)/x acutus/crispus x obtusifolius)</i>	0.15	
433	Sharp Dock	<i>Rumex conglomeratus</i>	0.05	
434	Curly Dock	<i>Rumex crispus</i>	0.15	
435	Golden Dock	<i>Rumex maritimus</i>	0.05	

436	Marsh Dock	<i>Rumex palustris</i>	0.05	
437	Wood Dock	<i>Rumex sanguineus</i>	0.1	
438	Narrow-leaved sorrel	<i>Rumex thyrsiflorus</i> (<i>Acetosa thyrsiflora</i> , <i>Rumex acetosa</i> subsp. <i>thyrsiflorus</i>)	0.15	
439	Annual Pearlwort	<i>Sagina apetala</i>	0.05	
440	Sea Pearlwort	<i>Sagina maritima</i>	0.3	
441	Knotted pearlwort	<i>Sagina nodosa</i>	0.15	x
442	Procumbent Pearlwort	<i>Sagina procumbens</i>	0.1	
443	Eared Willow	<i>Salix aurita</i>	0.05	
444	Goat Willow	<i>Salix caprea</i>	0.05	
445	Grey Willow	<i>Salix cinerea</i> subsp. <i>cinerea</i>	0.25	
446		<i>Salix dasyclados</i>	0.1	
447	Bay Willow	<i>Salix pentandra</i>	0.2	
448	Purple Willow	<i>Salix purpurea</i>	0.05	
449	Almond Willow	<i>Salix triandra/amygdalina</i>	0.1	
450	Basket willow	<i>Salix viminalis</i>	0.1	
451	Meadow Clary	<i>Salvia pratensis</i>	0.25	x
452	Common Elder	<i>Sambucus nigra</i>	0.3	
453	Red-berried Elder	<i>Sambucus racemosa</i>	0.05	
454	Brookweed	<i>Samolus valerandi</i>	0.1	
455	Salad Burnet	<i>Sanguisorba minor</i> subsp. <i>minor</i>	0.25	x
456	Great Burnet	<i>Sanguisorba officinalis</i>	0.15	
457	Sanicle	<i>Sanicula europaea</i>	0.1	x
458	Soapwort	<i>Saponaria officinalis</i>	0.05	
459	Scotch Broom	<i>Cytisus/Sarothamnus scoparius</i>	0.05	
460	Basil Thyme	<i>Clinopodium/Calamintha/Satureja/Thymus acinos</i> (<i>Acinos arvensis</i>)	0.05	x
461	Wild Basil	<i>Clinopodium vulgare</i> (<i>Satureja vulgaris</i> , <i>Calamintha clinopodium</i>)	0.15	x
462	Rue-leaved Saxifrage	<i>Saxifraga tridactylites</i>	0.1	
463	Pincushion Flower	<i>Scabiosa columbaria</i>	0.4	x
464	Bluebells	<i>Hyacinthoïdes non-scripta</i>	0.05	
465	Common Club-rush	<i>Schoenoplectus lacustris</i> (<i>Scirpus lacustris</i> subsp. <i>lacustris</i>)	0.05	
466	Sea Club-rush	<i>Bolboschoenus/Scirpus maritimus</i>	0.2	
467	Flat-sedge	<i>Blysmus compressus</i> (<i>Scirpus cariciformis/planifolius</i>)	0.15	x
468	Saltmarsh Flat-sedge	<i>Blysmus/Scirpus rufus</i>	0.15	x
469	Bristle Club-rush	<i>Isolepis setacea</i> (<i>Scirpus setaceus</i>)	0.05	
470	Wood Club-rush	<i>Scirpus sylvaticus/expansus</i>	0.05	
471	Grey Club-rush	<i>Schoenoplectus tabernaemontani</i> (<i>Scirpus lacustris</i> subsp. <i>tabernaemontani/glaucus</i>)	0.15	
472	Annual Knawel (German Knotgrass)	<i>Scleranthus annuus</i> subsp. <i>annuus</i>	0.05	
473	Perennial Knawel	<i>Scleranthus perennis</i>	0.25	x
474	Water Figwort	<i>Scrophularia auriculata/balbisii/aquatica</i>	0.15	
475	Common Figwort	<i>Scrophularia nodosa</i>	0.05	
476	Common Skullcap	<i>Scutellaria galericulata</i>	0.1	
477	White Stonecrop	<i>Sedum album</i>	0.15	
478	Reflexed Stonecrop	<i>Sedum rupestre/reflexum</i>	0.1	x
479	Tasteless Stonecrop	<i>Sedum sexangulare/boloniense</i>	0.25	
480	Marsh Ragwort	<i>Jacobaea aquatica</i> (<i>Senecio aquaticus</i>)	0.1	

481	Marsh fleawort	<i>Tephrosieris palustris</i> (<i>Senecio congestus/palustris/tubicaulis</i>)	0.05	
482	Broad-leaved Ragwort	<i>Senecio sarracenicus/fluviatilis</i>	0.05	
483	Wood Ragwort	<i>Senecio nemorensis/ovatus/fuchsii</i>	0.1	
484	Fen Ragwort	<i>Jacobaea paludosa</i> (<i>Senecio paludosus</i>)	0.15	
485	Sticky Groundsel	<i>Senecio viscosus</i>	0.1	
486	Green foxtail	<i>Setaria viridis</i>	0.05	
487	Sand Catchfly	<i>Silene conica</i>	0.05	
488	Nottingham Catchfly	<i>Silene nutans</i>	0.15	
489	Spanish Catchfly	<i>Silene otites</i>	0.1	x
490	Bladder Campion	<i>Silene vulgaris</i>	0.1	
491	Charlock	<i>Sinapis arvensis</i>	0.05	
492	Tall Rocket	<i>Sisymbrium altissimum</i>	0.05	
493	Hedge Mustard	<i>Sisymbrium officinale</i>	0.1	
494	Lesser Water-parsnip	<i>Berula erecta</i>	0.15	
495	Great Water-parsnip	<i>Great water-parsnip</i>	0.1	
496	Goldenrod	<i>Solidago virgaurea</i>	0.05	x
497	Marsh Sow-thistle	<i>Sonchus palustris</i>	0.05	
498	Least Bur-reed	<i>Sparganium natans/minimum</i>	0.1	x
499	Corn Spurrey	<i>Spergula arvensis</i>	0.15	
500	Pearlwort Spurrey	<i>Spergula morisonii</i>	0.25	
501	Greater Sea-spurrey	<i>Spergularia media</i> (<i>subsp. Angustata</i>) (<i>Spergularia marginata/maritima, Arenaria marina</i>)	0.2	
502	Sand Spurrey	<i>Spergularia rubra/campestris</i>	0.05	
503	Salt Sandspurry	<i>Spergularia salina/marina</i>	0.25	
504	Field Woundwort	<i>Stachys arvensis</i>	0.25	x
505	Bog Stitchwort	<i>Stellaria uliginosa/alsine</i>	0.05	
506	Lesser Stitchwort	<i>Stellaria graminea</i>	0.1	
507	Greater Stitchwort	<i>Stellaria holostea</i>	0.05	
508	Lesser Chickweed	<i>Stellaria pallida</i> (<i>Stellaria media subsp. pallida/subsp. apetala</i>)	0.15	
509	Marsh Stitchwort	<i>Stellaria palustris</i>	0.1	
510	Devil's-bit Scabious	<i>Succisa pratensis/praemorsa</i> (<i>Scabiosa succisa</i>)	0.2	x
511	Dandelion	<i>Taraxacum celticum</i>	0.05	x
512	Dandelion	<i>Taraxacum obliquum</i>	0.05	
513	Dandelion	<i>Taraxacum palustre</i>	0.05	
514	Yew	<i>Taxus baccata</i>	0.15	
515	Shepherd's Cress	<i>Teesdalia nudicaulis</i>	0.15	
516	Wild Thyme	<i>Thymus serpyllum</i>	0.15	x
517	Small-leaved Lime	<i>Tilia cordata/ulmifolia/parvifolia</i>	0.15	
518	Large-leaved Lime	<i>Tilia platyphyllos</i>	0.05	
519	Upright Hedge-parsley	<i>Torilis japonica</i>	0.05	
520	Hare's-foot Clover	<i>Trifolium arvense</i>	0.05	
521	Hop Trefoil	<i>Trifolium campestre</i>	0.1	
522	Strawberry clover	<i>Trifolium fragiferum</i>	0.15	
523	Swedish Clover	<i>Trifolium hybridum</i>	0.05	
524	Marsh Arrowgrass	<i>Triglochin palustris</i>	0.05	
525	Yellow Oat-grass	<i>Trisetum flavescens</i>	0.25	x
526	Coltsfoot	<i>Tussilago farfara</i> (<i>Tussilago generalis</i>)	0.05	
527	Small-leaved Elm	<i>Ulmus minor/campestris/carpinifolia/procera</i>	0.15	
528	Small Nettle	<i>Urtica urens</i>	0.1	

529	Bilberry	<i>Vaccinium myrtillus</i>	0.2	
530	Cowberry	<i>Vaccinium vitis-idaea</i>	0.2	
531	Marsh Valerian	<i>Valeriana dioica</i>	0.15	x
532	Common Cornsalad	<i>Valerianella locusta</i>	0.05	
533	Dark mullein	<i>Verbascum nigrum</i>	0.05	
534	Mullein	<i>Verbascum thapsus</i>	0.05	
535	Vervain	<i>Verbena officinalis</i>	0.05	
536	Green Field-speedwell	<i>Veronica agrestis</i>	0.1	
537	Blue Water Speedwell	<i>Veronica anagallis-aquatica</i>	0.05	
538	Wall Speedwell	<i>Veronica arvensis</i>	0.2	
539	Brooklime	<i>Veronica beccabunga</i>	0.05	
540	Pink Water-speedwell	<i>Veronica catenata (Veronica anagallis-aquatica subsp. aquatica)</i>	0.05	
541	Ivy-leaved Speedwell	<i>Veronica hederifolia</i>	0.1	
542	Long-Leaf Speedwell	<i>Veronica longifolia</i>	0.2	
543	Wood Speedwell	<i>Veronica montana</i>	0.1	
544	Marsh Speedwell	<i>Veronica scutellata</i>	0.05	
545	Thyme-leaved Speedwell	<i>Veronica serpyllifolia</i>	0.05	
546	Large speedwell	<i>Veronica austriaca subsp. teucrium</i>	0.05	x
547	Guelder Rose	<i>Viburnum opulus</i>	0.15	
548	Narrow-leaved Vetch	<i>Vicia sativa/angustifolia</i>	0.1	
549	Hairy Tare	<i>Vicia hirsuta</i>	0.1	
550	Spring Vetch	<i>Vicia lathyroides</i>	0.1	
551	Narrow-leaved Vetch	<i>Vicia sativa subsp. sativa</i>	0.05	
552	Smooth Tare	<i>Vicia tetrasperma subsp. tetrasperma</i>	0.05	
553	Dwarf Periwinkle	<i>Vinca minor</i>	0.1	
554	Field Pansy	<i>Viola arvensis (Viola tricolor subsp. arvensis)</i>	0.25	
555	Heath Dog-violet	<i>Viola canina</i>	0.15	x
556	Seaside Pansy	<i>Viola curtisii (Viola tricolor subsp. curtisii/subsp. maritima)</i>	0.15	
557	Hairy Violet	<i>Viola hirta</i>	0.15	
558	Marsh Violet	<i>Viola palustris</i>	0.15	
559	Early Dog-violet	<i>Viola reichenbachiana/sylvestris</i>	0.2	
560	Common Dog Violet	<i>Viola riviniana</i>	0.1	
561	Teesdale Violet	<i>Viola rupestris</i>	0.1	
562	Fen Violet	<i>Viola persicifolia/stagnina</i>	0.1	x
563	Heartsease	<i>Viola tricolor</i>	0.05	
564	Rat's-tail Fescue	<i>Vulpia myuros</i>	0.1	
565	Cat's tail	<i>Phleum nodosum/hubbardii/bertolonii/pratense subsp. serotinum/subsp. Nodosum</i>	0.05	
566	Marsh Marigold	<i>Caltha palustris</i>	0.1	x
567	Common Mouse-ear	<i>Cerastium holosteoides/fontanum subsp. holosteoides/subsp. Glabrescens</i>	0.05	x
568	Blue fescue (Hard fescue)	<i>Festuca brevipila/trachyphylla/cinerea/ovina subsp. cinerea</i>	0.1	
569	Narrow-leaved Meadow-grass	<i>Poa angustifolia (Poa pratensis subsp. angustifolia)</i>	0.1	
570	Velvet Bent	<i>Agrostis canina</i>	0.25	
571	Brown Bent	<i>Agrostis vinealis/stricta/pusilla/coarctata/canina subsp. montana/var. arida</i>	0.25	
572		<i>Carex x timmiana</i>	0.15	
573	Smooth Brome	<i>Bromus racemosus</i>	0.1	x
574	Blackberry	<i>Rubus fruticosus</i>	0.35	

575	Common Glasswort	<i>Salicornia europaea/ramosissima/brachystachya</i>	0.15	
576	Saltwort	<i>Salicornia procumbens/stricta/dolichostachya</i>	0.15	
577	Broad-leaved Marsh Orchid	<i>Dactylorhiza fistulosa/majalis subsp.majalis (Orchis majalis/fistulosa/latifolia)</i>	0.15	x
578	Square-stalked Willowherb	<i>Epilobium tetragonum/adnatum/lamyi</i>	0.05	
579	Sweet Briar	<i>Rosa rubiginosa/eglantaria</i>	0.1	
580	Narrow-leaved Ragwort	<i>Senecio inaequidens</i>	0.1	
581	Oat	<i>Avena sativa</i>	0.15	
582	Rape	<i>Brassica napus</i>	0.1	
583	Barley	<i>Hordeum vulgare</i>	0.2	
584	Rye	<i>Secale cereale</i>	0.1	
585	Wheat	<i>Triticum</i>	0.05	
586	Norway Maple	<i>Acer platanoides</i>	0.05	
587	Horse Chestnut	<i>Aesculus hippocastanum</i>	0.05	
588	Red Oak	<i>Quercus rubra/borealis</i>	0.15	
589	Locust tree	<i>Robinia pseudoacacia</i>	0.05	
590	Common Elder	<i>Sambucus nigra cv. laciniata</i>	0.05	
591	Wych Elm	<i>Ulmus glabra</i>	0.05	
592	Common Spike-rush	<i>Eleocharis palustris (Scirpus palustris)</i>	0.1	
593	Common Stork's-bill	<i>Erodium cicutarium</i>	0.05	
594	Tufted Forget-me-not	<i>Myosotis laxa subsp. cespitosa</i>	0.05	
595	Toad Rush/ Frog Rush	<i>Juncus bufonius/minutulus+Juncus ambiguus</i>	0.05	
596	Heath Wood-rush	<i>Luzula multiflora/pallescens</i>	0.25	
597	Crab Apple	<i>Malus sylvestris/domestica/acerba (Pyrus malus)</i>	0.05	
598	Lesser Meadow-rue	<i>Thalictrum minus</i>	0.1	x
599	Purple Chokeberry	<i>Aronia x prunifolia/floribunda/atropurpurea)</i>	0.05	
600	Early Dog-violet/ Common Dog Violet	<i>Viola reichenbachiana/sylvestris+Viola riviniana</i>	0.05	
601		<i>Rubus corylifolius</i>	0.05	
602	Rhododendron	<i>Rhododendron ponticum</i>	0.05	
603	Snowberry	<i>Symphoricarpus albus</i>	0.05	
604	Little Green Sedge	<i>Carex serotina/scandinavica/tumidicarpa/demissa/oederi/ viridula</i>	0.1	
605	Bifid Hemp-nettle / Common Hemp-nettle	<i>Galeopsis bifida/tetrahit subsp. Bifida+Galeopsis tetrahit</i>	0.25	
606		<i>Larix decidua</i>	0.15	
607		<i>Larix kaempferi</i>	0.25	
608		<i>Picea abies</i>	0.05	
609		<i>Picea sitchensis</i>	0.05	
610		<i>Pinus nigra</i>	0.15	
611	Black Poplar	<i>Populus x canadensis</i>	0.15	
612	Douglas Fir	<i>Pseudotsuga menziesii</i>	0.1	
613	Potato	<i>Solanum tuberosum</i>	0.1	
614	Corn	<i>Zea mays</i>	0.05	
615	Rigid Eyebright	<i>Euphrasia stricta/stricta-stricta/arctica/curta/micrantha/nemorosa/borealis</i>	0.2	x
616	Red Bartsia	<i>Odontites vernus/litoralis/verna/rubra (Euphrasia odontites)</i>	0.15	x
617	Greater Plantain	<i>Plantago major subsp. major</i>	0.1	
618	Hairy Rock-cress	<i>Arabis hirsuta subsp. hirsuta</i>	0.05	
619	Thyme-leaved Sandwort	<i>Arenaria serpyllifolia</i>	0.15	
620	Yellow-wort	<i>Blackstonia perfoliata/acuminata (Chlora</i>	0.1	

621	Deergrass	<i>perfoliata</i>) <i>Trichophorum cespitosum</i> subsp. <i>germanicum</i> (<i>Scirpus cespitosus</i> (subsp. <i>germanicus</i>))	0.15	x
622	Marsh Bedstraw	<i>Galium palustre/elongatum</i>	0.3	
623	Leafy spurge	<i>Euphorbia esula/waldsteinii/x pseudovirgata</i>	0.15	
624	Green Figwort	<i>Scrophularia umbrosa/aquatica</i>	0.05	
625	Goat's-beard	<i>Tragopogon pratensis</i> subsp. <i>pratensis</i>	0.1	

43 **2. Physical-geographical regions and vegetation types included**

44
45 **Table S2.** Combinations of physical geographical regions and vegetation types included in the effect factor
46 calculations.

	nutrient poor grassland	pine forest	spruce forest	deciduous forest	heath
North Sea area	x	x			
Tidal area	x				
Closed estuaries	x				
Rivers	x	x		x	
Hills	x			x	
Urban area	x				
Sea clay	x			x	
Peat	x			x	
Higher sand grounds south	x	x		x	x
Higher sand grounds north	x	x	x	x	x
Dunes	x	x		x	x

47