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Article

Systematic randomised sampling along three landscape transects in the Netherlands reveals the geographically structured variation in *Rubus* scrubs

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with 3 figures and 3 tables and 1 electronic appendix

Abstract: *Rubus* scrubs belong to the least known and understood vegetation types in Europe. At least in part this is due to the complicated taxonomy and species richness of the main genus in these scrubs. In this study, we explored the regional diversity of *Rubus* scrubs in the Netherlands. In order to get a clear picture on their species composition free from personal preferences, we used a systematic-randomised sampling scheme to collect data in the three main *Rubus* regions in the Netherlands along three 100 km long transects. In 185 relevés we recorded 67 known (and three unknown) *Rubus* species. The relevés could be assigned to seven units described in the Dutch national vegetation classification: the Rubetum grati, Rubetum silvatici, Lonicero-Rubion silvatici, Dicrano-Juniperetum, Pruno-Rubetum vestiti, Pruno-Rubion radulae, and the Basal Community *Rubus armeniacus*. From our study we conclude that the regional variation in *Rubus* scrubs is substantial, and that only a part of this variation was described in the Dutch national vegetation overview. Especially within the Rubetum silvatici and the *Pruno-Rubion radulae* regionally distributed types can be distinguished, which seem to be confined to old landscapes, whereas younger landscapes only harbour common types, or are even devoid of bramble scrubs. The density of relevés made in this study emphasize the importance of bramble scrubs in the landscape of north-western Europe, and we advocate more awareness of the value represented by bramble dominated communities. The vast number of *Rubus* species, many of which having a (very) restricted distribution area, complicate the classification of these scrubs, and can easily lead to the description of countless vegetation types with only a regional distribution. On the other hand, such regionally distributed communities can be of importance for nature conservation because they can harbour rare species, and they add to the regional identity and γ-diversity, and therefore should be recognised at some level.

Keywords: apomicts, chorology, phytogeography, regional biodiversity, syntaxonomy, Rhamno-Prunetea, Lonicero-Rubetea plicati

Nomenclature: Van de Beek et al. (2013, in press) for Rubus, Van der Meijden (2005) for all other vascular plants, Siebel & During (2006) for the mosses and hepatics

Abbreviations: DNVC = Dutch national vegetation classification

Introduction

Bramble scrubs are among the least known and understood vegetation units in Europe with respect to both species composition and ecology. The major causes are to be found in the specialist knowledge that is required because of the species richness and taxonomical complexity of the most important taxon in these scrubs, *Rubus* L subgen. *Rubus* (Weber 1981). An estimated number of about 1000 native *Rubus* species exist in Europe, from which more than 240 can be found in the area of *Hegi's Flora from Mitteleuropa* alone (Weber 1995). The recently published *Rubus* volume of the *Atlas Florae Europaeae* treats 746 species (Kurtto et al. 2010), and the recent standard list of the bramble flora of the Netherlands comprises 191 species (Van de Beek et al. 2013, in press). Many of these species have wide distribution areas (> 500 km diameter), but at least as many are classified as 'regional species' ("Regionalarten" according to Weber 1985, Weber 1995) in modern *Rubus* taxonomy, having distribution areas of about 50–250 km in diameter. Taxa with distribution area diameters under 50 km are usually not treated taxonomically, and considered as irrelevant local or singular biotypes (see however Haveman & De Ronde 2012, and Loos 2008 for a critical evaluation of this so-called 'pragmatic species concept', Weber 2002).

For major parts of Central and Western Europe, bramble taxonomy has been clarified to a large extent (Kurtto et al. 2010, Weber 2002). The centre of diversity of subgen. *Rubus* in Europe is found in the lowlands and lower mountains of Atlantic and Subatlantic Northwest-Europe: northern Germany, the Netherlands, southern Britain, Belgium and (at least) the northern part of France, with up to 50 or even 60 species per 100 km² (unpublished data). Most of the species are found on loamy sands and loams (Kurtto et al. 2010, pp. 13, 42, Matzke-Hajek 1997). A recent inventory of the Netherlands (Van de Beek et al. 2013, in press) showed that the highest species diversity (> 40 species per 25 km²) is found in old woodland landscapes with cover sand, fluvial terrace de-

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posits or glacial deposits as well as loam, old river clay or loess.

In the centre of diversity of the genus in Europe, not only species numbers, but also the contribution of *Rubus* to the actual vegetation is high. Until now, a classification of scrubs in which the *Rubus* species are identified at species level is only made for parts of Germany (Weber 1998, 1999, 2003) and the Netherlands (Haveman et al. 1999a, 1999b, 2012, Haveman & Van Haperen 2009 ["2008"]).

In the classification scheme in the Dutch national vegetation classification (from here on abbreviated as DNVC; Haveman et al. 1999a, Haveman et al. 1999b), hardly any attention was paid to the influence of regionally distributed *Rubus* species on the classification. For Germany, next to the Rubetum silvatici Weber in Pott 1995 (Lonicero-Rubion silvatici Tüxen et Neumann ex Wittig 1977, Lonicero-Rubetea plicati) a more northern distributed Rubetum sciocharitis Weber in Pott 1995 was distinguished on the basis of regionally distributed *Rubus* species (Weber 1998, 1990). Such regionally distributed bramble communities can be of high importance for nature conservation, since they add to γ-diversity and regional identity of the landscape, and often host species with a very limited distribution (Weeda et al. 2005, p. 77). Besides, unravelling the regional variation of these bramble scrubs is a first necessary step to a better understanding and a possible comparative ecological study of *Rubus* communities.

Concerning the classification of *Rubus* scrubs, there are two problems associated with the high species diversity of the genus. Most *Rubus* species are able to dominate the vegetation, thus forming independent (almost) mono-dominant scrub. It is easy to distinguish dozens of vegetation types which have no *Rubus* species in common with other such types on the basis of such mono-dominant scrubs (see Passarge 1982 for examples from eastern Germany), leading to an unwieldy and devaluated syntaxonomical system without internal coherence (Haveman 1997). On the other hand, in mixed stands the high species diversity could easily cause a random (or continuous) variation by the virtually endless gradual replacement of bramble species. For a sensible classification, we need to know how the main floristic variation in the *Rubus* scrubs is structured, discarding the 'noise' of rare combinations and mono-dominant stands. Once the main floristic variation is known, an evaluation of the existing classification scheme is possible, and a good solution can be found for the possible regional bramble scrub types.

In this paper we will explore the regional diversity of the *Rubus* scrubs in the Netherlands. Our question is two-fold: 1.) how is the main variation in *Rubus* scrubs structured, and 2.) does the classification of *Rubus* scrubs in the DNVC (Haveman et al. 1999a, Haveman et al. 1999b) reflect the main variation of these scrubs adequately? To answer these questions, we developed a sampling scheme in which the relevés were unbiased by personal preferences, and which detects the main variation in species composition, *viz.* a systematic-randomised sampling in landscape transects.

Study area

We sampled the bramble scrubs in three regions in the Netherlands, roughly between the towns of Heerenveen and Almelo in the north-eastern part, Maarsbergen and Winterswijk in the central part, and Breda and Venlo in the southern part of the country, covering the three main sand landscapes and major centres of *Rubus* distribution in the Netherlands (Fig. 1). The climate in the main meteorological station in De Bilt (near the western end of the central study region) is Subatlantic, with a mean annual temperature of 10.1° C, a mean annual precipitation of 832 mm, and a mean annual precipitation surplus of 273.6 mm (Sluijter 2011). In all three transects, the substrate consists of sands mainly (Fig. 1), which were pushed by the glaciers during the Saale glaciation especially in the central part of the country. In the northern part, till is found near the surface on many places. In the southern part, which was never covered by the glaciers during the Pleistocene, cover sand is the main substrate. Locally, especially along rivers and brooks, other substrates (especially clay and peat) are predominant, and in larger parts of the central transect the soil consists of old river clay. Land-use is mainly agricultural in all three transects (pastures as well as agricultural fields), but the central transects crosses the extensive forests of the 'Veluwe' sand massive.

Methods

Transects and relevés

For the compilation of a database of relevés of *Rubus* scrubs unbiased by personal preferences, we developed a GIS-based systematically randomised method in which the location of relevés was dictated by three unidimensional transects of about 100 km. Each start- and endpoint of these transects was chosen randomly within an area of 25 km^2 using the function 'random points' (Hawth Tools) in ArcGIS 9, making sure that the three main *Rubus* areas in the Netherlands (the northern, central and southern sand areas) were covered (Fig. 1). The transects were exported as maps to TurbovegCE (Hennekens & Dirkse 2008) to be used during the collection of data.

Relevés were collected by the first author (assisted by each one of the co-authors, A. van der Berg or M. van Ravensberg on various field days) between August 4th and August 9th 2008 in the northern transect, October

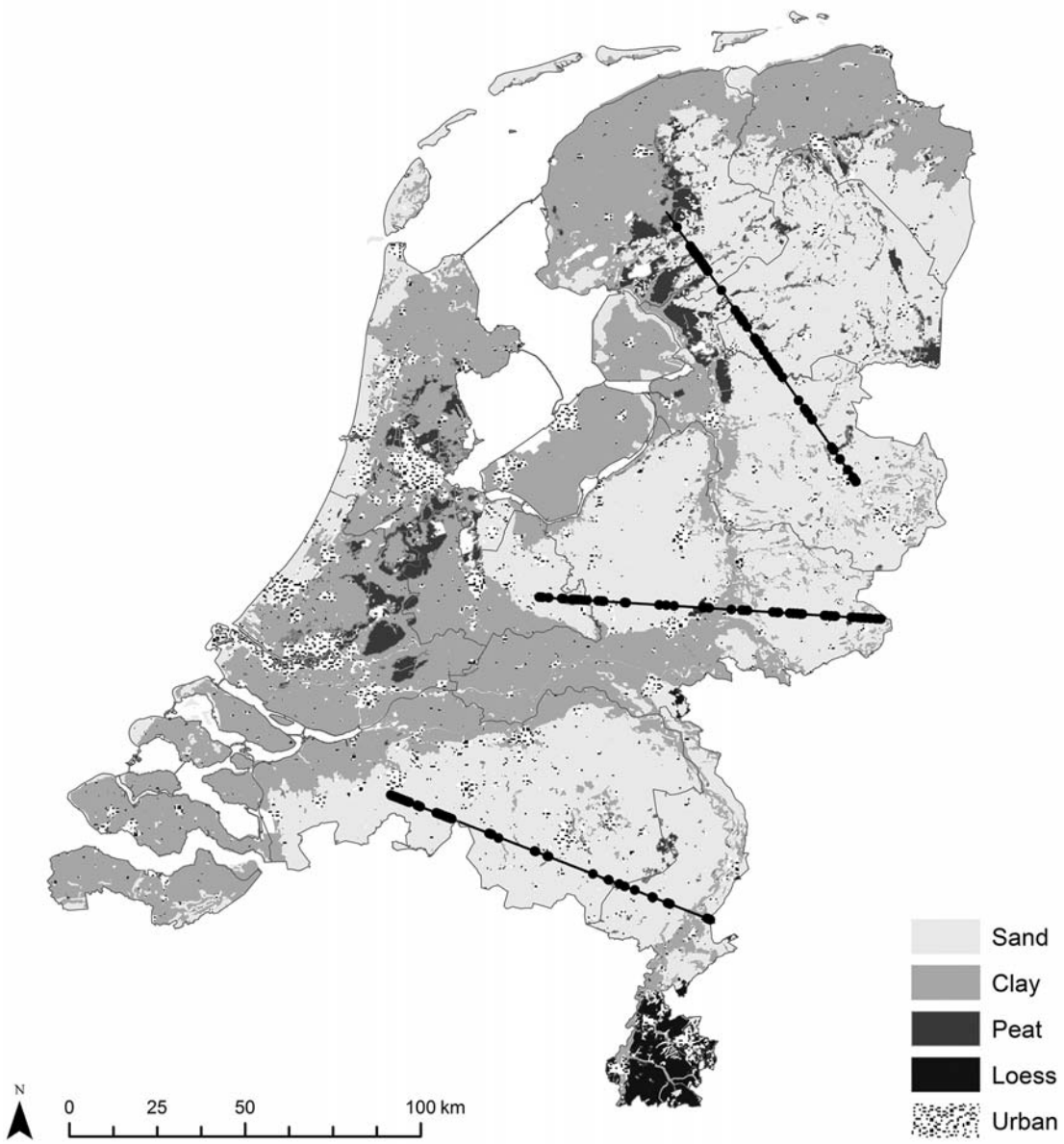

Fig. 1. Location of the three randomised transects and 185 relevés of *Rubus* scrubs. Each dot represents one relevé site. Soil map after Kemmers et al. (2002, simplified).

17th and November 9th 2009 in the southern transect, and August 11th and October 29th 2010 in the central transect, using TurbovegCE (Hennekens & Dirkse 2008). Relevés were made where the transects intersected (floristic and structural homogeneous) bramble scrubs of at least 30 m², being the area used for the relevés. Smaller scrubs, inhomogeneous stands, and scrubs just aside the transects were skipped. Plot shape varied from 6x5 m² to 30x1 m². In the first year, a HP iPAQ handheld computer with a separate Adapt AD-750 Bluetooth GPS receiver was used, in the second and third year the relevés were recorded with the help of a Trimble Juno SB field computer with internal GPS. In the relevés, layers were distinguished when appropriate (tree, shrub, lower shrub (bramble), herb, and moss layer), and all plant species were recorded in all these layers. Abundance was estimated using the (modified) scale of Braun-Blanquet in which the '2' was subdivided in 2m, 2a, and 2b (Barkman et al. 1964, Westhoff et al. 1995, p. 72). Herbarium specimens were collected whenever *Rubus* species couldn't be identified in the field, and stored in the herbarium of the first author (5 gatherings in total). The relevés were stored in the Dutch National Vegetation Database (Schaminée et al. 2012), using TurboVeg (Hennekens & Schaminée 2001).

Classification

The relevés were exported to JUICE (Tichý 2002) to perform a guided classification. Since the main objective in this study was a regional classification on the basis of *Rubus* species and species in the shrub layer, we omitted all the species in tree, herb, and moss layer from the analysis. The relevés were assigned manually to the units in the DNVC (Haveman et al. 1999a, Haveman et al. 1999b) on the basis of the occurring *Rubus* species and species in the shrub layer, and clustered accordingly. The relevés that couldn't be assigned to one of the existing associations were classified on alliance, order, or class level subsequently. Within these broad clusters (representing the associations in the DNVC, or alliances in case of the absence of character species of the associations) we manually clustered the relevés on the basis of the (co-) occurrence of *Rubus* species. For the distinguished clusters, distribution maps were made using ArcGIS 9. For the synoptic and full table, the shrub species were ordered according their diagnostic value in the DNVC (Haveman et al. 1999a, Haveman et al. 1999b), or the *Synopsis* (Weber 1998, Weber 1999) and the *Hegi* (Weber 1995) insofar the species were not mentioned in the DNVC.

Results

Relevés and species

In total, 185 relevés were made in the three transects: 68 in the northern, 66 in the central, and 51 in the southern transect (Fig. 1). The relevés were not evenly distributed in the landscape, as is clear from Fig. 1. We identified 67 *Rubus* species, and three more species remained unnamed. The frequency-distribution of the *Rubus* species in the dataset follows a reversed J-curve as expected (Fig. 2), with few species with high frequencies, and a long tail of species with only one or few occurrences. The 15 *Rubus* species occurring in ten or more relevés are listed in Table 1. *Rubus gratus* is the most frequent species in the data set, occurring in 149 of the 185 relevés; according to Van de Beek et al. (2013, in press), *R. gratus* is the most frequent *Rubus* species in the Netherlands. A remarkable species is *R. euryanthemus*, which was found for the first time in the Netherlands during this study (in the westernmost relevé of the central transect). This species is common in the British Isles, Belgium, and Schleswig-Holstein and Lower-Saxony in Germany (Kurtto et al. 2010, Newton & Randall 2004).

In Table 2 the bramble diversity per region is given. In all three transects the number of bramble species per

Tab. 1. *Rubus* species found in 10 or more relevés (n = 185) along the three transects.

Species	Frequency
Rubus gratus	119
Rubus plicatus	49
Rubus affinis	32
Rubus nessensis	31
Rubus integribasis	28
Rubus macrophyllus	27
Rubus idaeus	24
Rubus ammobius	20
Rubus nemoralis	18
Rubus adspersus	16
Rubus glandithyrsos	12
Rubus pyramidalis	11
Rubus scissus	11
Rubus calvus	10
Rubus sprengelii	10

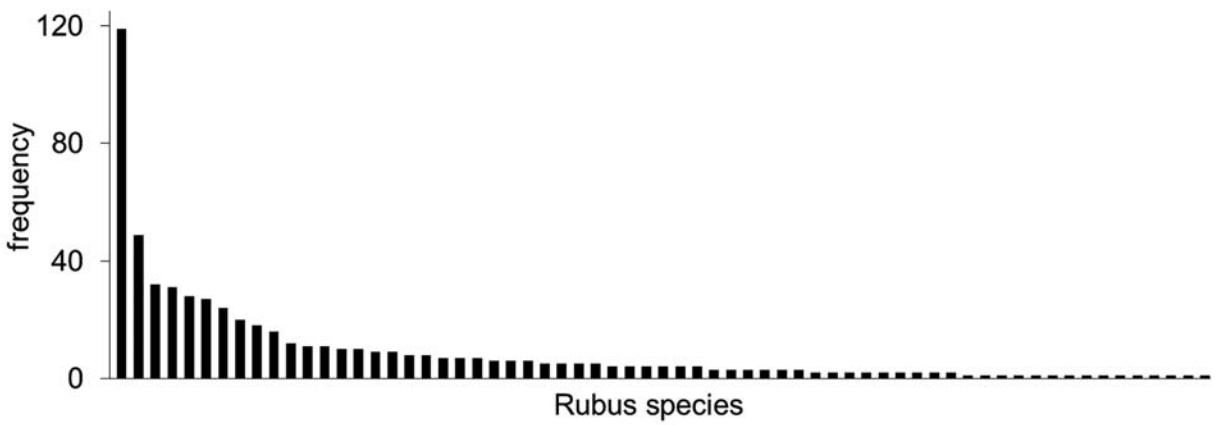

Fig. 2. Frequency distribution of the 67 *Rubus* species which were found in the relevés.

Tab. 2. Bramble diversity in the three transects (N = North, C = Central, S = South). Given are the total number of *Rubus* species for the transects (between brackets the number of unidentified species), the minimum and maximum number of *Rubus* species per relevé for each transect, and the average number of *Rubus* species (and standard deviation) per relevé for each transect.

	N	C	S
total # species	33 (+1)	43 (+2)	33 (+1)
min. # species/relevé	1	1	1
max. # species/relevé	7	7	7
avg. # species/relevé (+ sd)	3.3 (1.5)	3.0 (1.5)	3.2 (1.5)

relevé ranges from 1 to 7. The total number of bramble species is highest in the Central transect, although the average number of species per relevé tends to be lower in the Central transect than in the other two transects (not significant).

Classification

The classification of the relevés is given in Table 3 (see also Appendix 1). The relevés in our dataset could be assigned to 7 different vegetation units as circumscribed in the DNVC (indicated with capitals in Table 3): the Rubetum grati (A), the Rubetum silvatici (B), the Lonicero-Rubion silvatici (C), the Dicrano-Juniperetum (D), the Pruno-Rubetum vestiti (E), the Pruno-Rubion radulae (F), and the basal community of Rubus armeniacus of the Galio-Urticetea (G) (Haveman et al. 1999a, 1999b, Hommel et al. 1999, Weeda et al. 1999). In total, 107 of the 185 relevés could be assigned to one of the mentioned associations, whereas the remaining 78 could only be assigned at the level of alliance or higher.

Most of these units, except the Dicrano-Juni-peretum (1 relevé), the Pruno-Rubetum vestiti (2 relevés), and the Rubus armeniacus community (2 relevés), could be subdivided on the basis of the (co-)occurrence of *Rubus* species, so that eventually 22 clusters were distinguished (Table 3).

Distribution

The uneven distribution of the bramble scrubs in the landscape is clearly shown in the map with the distribution of relevés (Fig. 1). Also the distribution of the various clusters is uneven, with some being present along most of the length of all three transects, but other clusters being restricted to relatively small parts of only one transect (Fig. 3). Cluster 1 is found along the northern transect only, the other two clusters of group A (2 & 3) are recorded along most of the length of all three transects. Cluster 5, 7, and 8 (group B) all have very limited distribution, being present along certain parts of one transect only, and the same holds true for cluster 11 and 12 (group C). Cluster 4 and 18 are rarely recorded along all three transects, and cluster 17 was frequently found along the central, but not along the north and only once along the southern transect (group E+F). Group F, the Pruno-Rubion radulae was frequently recorded along the central transect, whereas it is rare in the north and south.

Discussion

Methodology

The results show a clear regional variation in species composition in *Rubus* scrubs. Because the use of random or randomised-systematic relevés is questioned by several authors especially for classification purposes (Dierschke 1994, Glavac 1997), we will examine this approach a bit further. Dierschke (1994, p. 150) mentioned two drawbacks: randomly placed relevés are often not homogeneous in their floristic content, and therefore not suitable for classification purposes, and rare community types are easily missed, unless a huge number of relevés is made. The first drawback doesn't hold for this study, because our sampling scheme required homogeneous stands. The second drawback, the underrepresentation of rare community types, might be a serious problem in overviews or mapping projects in which all vegetation types are to be described, but it is considered less important in our study, which aimed to reveal the major spatial structure in the bramble communities. In a separate study, missing types could be looked for, but probably these will be of less importance on the landscape level (see further in the paragraph 'syntaxonomic considerations'). We therefore conclude that the used method is perfectly suited to detect the main floristic variation in the *Rubus* scrubs.

The classification presented here is based on the presence of species in the shrub layer only. This is justified from the growth form of the *Rubus* species, which plays an important role in the succession from other early successional stages to *Rubus* scrubs. *Rubus* polycorms easily invade surrounding vegetation, either by rhizomes (subsection *Rubus*) or by rooting tops of the first years primocanes (turiones; subsection *Hiemales*). Although the herb and moss layer under bramble scrubs is often only very scarce (Weber 1998), the undergrowth of the scrubs can be very diverse and shows succession history more than other things. The undergrowth of a Rubetum grati in the edge of a woodland consists of other species than the undergrowth of a Rubetum grati along a meadow. The delimitation of such ecologically defined vegetation (sub-)types was not the scope of this paper.

The use of randomised-systematic relevés in this study guaranteed a sample free of personal bias, but in the

Tab. 3. Synoptic table (strongly shortened) of the 21 distinguished *Rubus* scrub clusters, with the frequency in percentages. Only the *Rubus* species and the diagnostic shrub species of the Rhamno-Prunetea are included. The first column comprises the synsystematic place of the species according to the Dutch national vegetation classification (Haveman et al. 1999a, Haveman et al. 1999b, Hommel et al. 1999, Weeda et al. 1999): Rg = Rubetum grati s.l., Rs = Rubetum silvatici s.l., L–R = Lonicero-Rubion silvatici, P–Rv = Pruno-Rubetum vestiti, P–R = Pruno-Rubion radulae, R–P = Rhamno-Prunetea/Prunetalia, BC Ra = Basal community *Rubus armenicus*, DJ = Dicrano-Juniperetum. * indicates that the species is not included in the tables in the Dutch national vegetation classification, syntaxon between brackets indicates that the species is mentioned in German literature only. Freq. = absolute frequency. See electronic appendix 1 for the full table.

		Group	**A**	**A**	**A**	**B**	**B**	**B**	**B**	**B**	**B**	**C**	**C**	**C**	**C**	**C**	**D**	**E**	**F**	**F**	**F**	**F**	**F**	**G**
		Cluster	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
		# relevés	**13**	**37**	**7**	**11**	**18**	**1**	**10**	**6**	**1**	**30**	**2**	**3**	**8**	**7**	**1**	**2**	**7**	**5**	**10**	**4**	**1**	**2**
Synt.		**Freq.**																						
Rg	*Rubus ammobius*	20	100	3	.	.	11	.	.	.	.	.	.	33	12	14	.	.	.	.	10	.	.	.
Rs	*Rubus pyramidalis*	11	.	.	.	73	.	.	.	.	.	.	50	.	.	.	.	50	.	20	.	.	.	.
Rs	*Rubus silvaticus*	6	.	.	.	27	11	.	.	17	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rs	*Rubus flexuosus*	8	.	.	.	9	22	.	.	.	.	.	.	100	.	.	.	.	.	.	.	.	.	.
Rs	*Rubus glandithyrsos*	12	.	.	.	.	61	.	.	.	.	.	.	.	.	.	.	.	.	20	.	.	.	.
Rs+Rp	*Rubus erinulus*	9	.	.	.	.	50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rs	*Rubus sprengelii*	10	.	3	.	.	39	.	.	17	.	.	.	.	.	.	.	.	.	20	.	.	.	.
Rs	*Rubus schlechtendalii*	1	.	.	.	.	.	100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rs	*Rubus taxandriae*	7	.	.	.	.	.	.	70	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rubus campaniensis	4	.	.	.	.	.	.	40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rubus insectifolius	6	.	.	.	.	.	.	50	.	.	.	.	.	.	.	.	.	.	20	.	.	.	.
	Rubus baronicus	1	.	.	.	.	.	.	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rubus ceratus	4	.	.	.	.	.	.	.	67	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rs	*Rubus lasiandrus*	4	.	.	.	.	.	.	.	50	.	.	.	.	.	.	.	.	14	.	.	.	.	.
	Rubus longior	1	.	.	.	.	.	.	.	.	100	.	.	.	.	.	.	.	.	.	.	.	.	.
S-S	*Rubus iuvenis*	2	.	.	.	.	.	.	.	.	.	.	100	.	.	.	.	.	.	.	.	.	.	.
Rs	*Rubus adspersus*	16	.	.	.	.	.	.	.	17	.	.	.	.	.	100	.	.	100	.	10	.	.	.
R-Rv	*Rubus vestitus*	3	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	100	.	.	.	.	.	.
P-R	*Rubus geniculatus*	9	.	.	.	.	6	.	.	.	.	.	.	.	.	.	.	.	.	.	80	.	.	.
	Rubus caesius	5	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40	.	.	.
	Rubus dumetorum	7	.	3	.	.	.	.	.	17	.	3	.	.	.	.	.	.	14	.	30	.	.	.
	Rubus lucticola	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30	.	.	.
(P-R)	*Rubus confusidens*	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20	.	.	.
P-R	*Rubus macrophyllus*	27	.	.	.	9	.	.	.	17	.	.	100	100	100	14	.	50	14	.	50	100	.	.
(P-R)	*Rubus chloocladus*	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	25	.	.

		Group	A	A	A	B	B	B	B	B	B	C	C	C	C	C	D	E	F	F	F	F	F	G
		Cluster	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		# relevés	13	37	7	11	18	1	10	6	1	30	2	3	8	7	1	2	7	5	10	4	1	2
Synt.		Freq.																						
(P-R)	*Rubus lindebergii*	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	25	.	.
(P-R)	*Rubus stereacanthos*	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	.
(Rs)	*Rubus foliosus*	2	.	.	.	.	.	.	10	.	.	.	.	.	.	.	.	50	.	.	.	.	.	.
BC Ra	*Rubus armeniacus*	4	.	.	.	.	.	.	.	.	.	3	.	33	.	.	.	.	.	.	.	.	.	100
Rg	*Rubus gratus*	119	62	100	100	73	89	100	70	50	100	23	50	33	100	57	100	50	57	40	10	25	.	.
L-R	*Rubus plicatus*	49	38	49	.	18	17	100	40	.	100	37	.	.	12	.	100	.	29	.	.	.	.	.
L-R	*Rubus integribasis*	28	.	24	.	9	.	.	30	.	.	33	50	.	12	29	.	.	.	.	10	.	.	.
L-R	*Rubus affinis*	32	54	24	.	9	11	.	.	.	.	23	.	.	.	.	.	.	14	20	40	.	.	.
L-R	*Rubus nessensis*	31	15	27	.	.	28	.	30	17	100	10	100	33	12	14	.	50	.	.	.	.	.	.
	Rubus idaeus	24	15	8	.	18	11	100	10	33	.	10	.	67	.	14	.	50	.	40	20	.	.	.
L-R	*Rubus nemoralis*	18	8	14	.	18	.	.	.	.	.	13	.	.	.	29	.	.	14	20	10	25	.	.
Rg	*Rubus scissus*	11	.	8	.	.	6	.	20	.	.	13	.	.	.	.	.	.	.	20	.	.	.	.
L-R*	*Rubus calvus*	10	.	5	14	9	6	.	.	17	.	3	.	33	.	14	.	.	.	20	.	.	.	.
R-P	*Crataegus monogyna*	26	8	3	.	9	.	.	.	.	.	7	.	.	.	14	.	50	43	100	80	50	100	.
R-P	*Corylus avellana*	26	.	3	14	27	17	100	.	33	.	10	.	.	12	.	.	.	71	40	40	.	.	.
R-P	*Prunus padus*	20	8	.	.	9	11	100	10	33	.	7	.	.	.	14	.	.	43	40	30	25	.	.
R-P	*Humulus lupulus*	19	23	3	.	9	11	.	.	.	100	3	50	67	25	.	.	.	.	40	20	.	.	50
R-P	*Rosa canina*	12	15	3	.	.	.	100	.	.	.	7	.	.	.	.	.	.	29	.	30	.	.	50
R-P	*Prunus spinosa*	9	.	.	.	.	11	.	.	.	.	7	.	.	.	.	.	50	29	.	20	.	.	.
(R-P)	*Prunus avium*	7	.	3	.	.	.	.	.	.	.	.	.	33	.	.	.	.	29	20	20	.	.	.
R-P	*Fallopia dumetorum*	6	.	.	.	.	.	.	.	17	.	.	.	.	.	.	.	.	29	.	20	25	.	.
R-P	*Acer campestre*	5	.	.	.	.	.	.	.	.	.	3	.	.	.	14	.	.	29	.	.	.	100	.
D-J	*Juniperus communis*	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	100	.	.	.	.	.	.	.

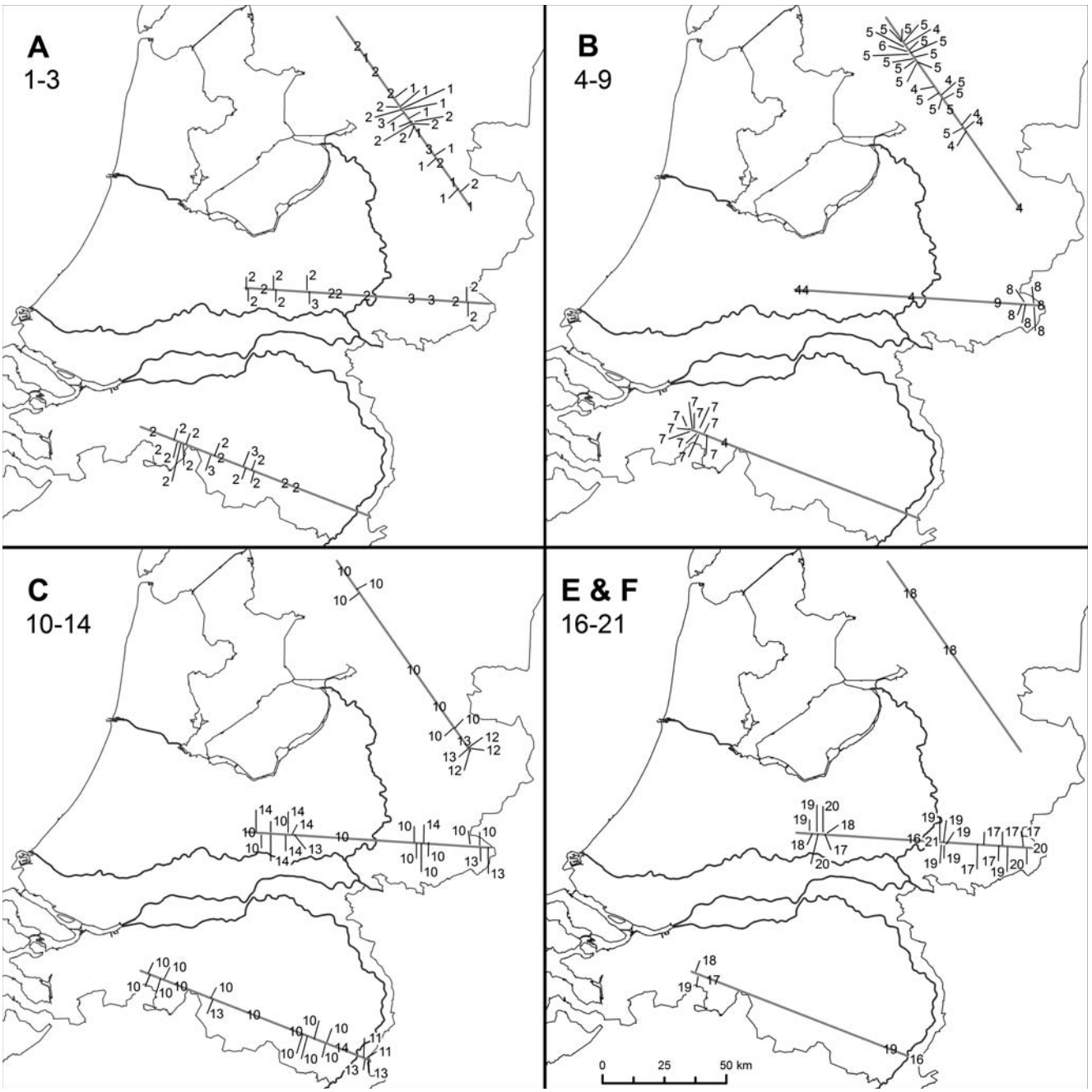

Fig. 3. Distribution of the clusters along the transects. Numbers in the maps refer to the clusters in the classification, capitals to the principal groups. A = Rubetum grati s.l., B = Rubetum silvatici s.l., C = Lonicero-Rubion silvatici, E+F = Pruno-Rubetum vestiti + Pruno-Rubion radulae; groups D (Dicrano-Juniperetum) and G (basal community of *Rubus armeniacus*) are not shown.

synthetic phase we chose to apply a highly subjective classification method. We think this is justified by one of the major questions in this study, the evaluation of the classification given in the DNVC. By 'rebuilding' the classification given in the DNVC it was possible to evaluate the remaining variation, and compare our classification with the one in the DNVC.

Rubus diversity

The average number of *Rubus* species per relevé, as well as the minimum and maximum number of *Rubus* species per relevé, were similar in all three transects. The total number of *Rubus* species in the central transect was considerably higher than in the other two transects though, implying that the turnover in the central transect (β-diversity) is higher than in the other two transects.

Most probably this is the consequence of the medium-scale diversity in geology, which is larger in the central than in the other two transects. Especially on the old river clay of the 'Oude Ijssel' region many species are found which are absent in the rest of the central transect (e.g. *R. luticola*, *R. loehrii*, and *R. stereacanthus*).

Regional diversity

This study was done to explore the regional diversity in *Rubus* scrubs in the Netherlands, and from the results we conclude that it is possible to distinguish regionally distributed bramble scrub types on the basis of randomised-systematic relevés. Most of the relevés could be assigned to rather well defined clusters. Some clusters however consist of only a few relevés and they probably can be considered 'noise' in the light of a nation-wide or international classification.

All three transects have their own 'character', with one or more community types restricted to or predominantly along one of the transects. Apart from the clusters with only one or two relevés, the clusters 1, 5, 7, 8, and 17 represent regional *Rubus* scrub types. The main areas with regionally distributed *Rubus* scrub types are the Drenthian-Frisian border area (the northern part of the northern transect), the Winterswijk region (the easternmost part of the central transect), and the Baronie/Campine area (the westernmost end of the southern transect). The regionally distributed clusters coincide fairly well with the *Rubus* 'florulae' described by Veeken & Haveman (2008): regions with a more or less coherent *Rubus* flora (Newton 1980, Newton & Randall 2004). A more detailed study of these florulae should be carried out to reveal whether the characteristic species of the florulae and these regional distributed vegetation types are the same. The cause of these *Rubus* florulae might be the historical isolation of these regions, from which the young *Rubus* species were not able to disperse yet after they evolved.

Most of the *Rubus* species characterising the regionally distributed clusters are either species with a wide distribution, like *R. glandithyrsos*, *R. sprengelii*, *R. campaniensis*, and *R. insectifolius*, or regionally distributed species with a tendency to a wider distribution (the supraregional species (R1) as given by Van de Beek et al. 2013, in press), like *Rubus taxandriae*, *R. baronicus*, and *R. lasiandrus* (cf. Kurtto et al. 2010 for the distribution areas of these species). Only two of the differential taxa don't reach this status: *Rubus erinulus*, a regional species of Drenthe in the northern part of the Netherlands, and *Rubus ceratus* ined., a local biotype along the German border near Winterswijk. The *Rubus* species characterising the widespread clusters (e.g. cluster 2, 3 and 4), like *Rubus gratus*, *R. plicatus*, and *R. integribasis*, are in fact really widespread species, and regionally distributed species are lacking in these clusters.

Our results show (Fig. 3) that regionally distributed vegetation types as such are only present along some parts of the transects, and that large parts of the transects are devoid of regionally distributed clusters, like the large central part of the southern transect, large parts of the central transect and, to certain extent, the southern part of the northern transect (although cluster 1 is found along almost all the length of this transect). Although we didn't study this in detail, we have the strong impression that the regionally distributed shrub types are only found in older landscapes, but absent in young landscapes. Such young landscapes are mostly represented by heathland and raised bog reclamation areas which were cultivated in the first decennia of the 20th century, especially in the 1920's and 1930's (Diemont 1996). Apparently most regional *Rubus* species, which arose and spread as a result of human impact on the landscape (Matzke-Hajek 1997), have a restricted dispersion capacity in comparison to the widespread species forming *Rubus* scrubs in these younger landscapes. A similar positive correlation between age and plant species diversity was shown for instance for calcareous (alvar) grasslands (Pärtel et al. 2007), and forest patches and afforested sunken roads (Deckers et al. 2005, Honnay et al. 1999). The mechanisms in both systems are different though: old grassland areas and forest patches are thought to accumulate widely distributed grassland or forest species invading the landscape over ages, but the accumulation of endemic *Rubus* species most probably is at least in part the result of speciation *in loco* in suitable 'landscape islands' (followed by subsequent regional dispersion). Both mechanisms were mentioned by Eriksson (1993) already as possible causes for larger species pools.

Other parts of the landscape, the 'blank areas' in Figure 1, seem to be completely unsuitable for bramble scrubs, but the causal factors are not yet clear. Possible causes are intensive grazing, like in parts of the central transect (viz. Oates 1946), or land reclamation activities resulting in young landscapes which are not yet invaded by brambles or which are devoid of suitable habitats (as was suggested by Haveman et al. 2012). A comprehensive study of *Rubus* diversity in the landscape and the causal factors determining the species richness has to shed light on this question.

Syntaxonomical considerations

The treatment of the *Rubus* scrubs in the Dutch national vegetation classification (Haveman et al. 1999a, Haveman et al. 1999b) relies heavily on the classification of bramble scrubs in Germany by Weber (Pott 1995, Weber 1977, Weber 1981, Weber 1985), with one major difference: the three accepted associations on nutrient and base poor soils are not included in the Franguletea Doing ex Westhoff 1969 but in the Lonicero-Rubetea plicati Haveman,

Schaminée & Stortelder 1999, as proposed some years before by Haveman (1997, see also Haveman et al. 2012 for a discussion). Within the Rhamno-Prunetea Rivas Goday & Borja Carbonell ex Tüxen 1962, comprising the scrub vegetations on nutrient rich and/or base rich soils, Haveman et al. (1999b) distinguished two bramble associations, which were placed in the Pruno-Rubion radulae Weber 1974. Other scrub types in which brambles play an important role are the Roso-Juniperetum Tüxen 1974 (Haveman et al. 1999b), and the later successional stages of *Hippophae rhamnoides* scrubs in the coastal dunes (Haveman & Van Haperen 2009 ["2008"], Van Haperen 2009).

The question remains whether the treatment of the *Rubus* scrubs in the DNVC (Haveman et al. 1999a, Haveman et al. 1999b) adequately reflects the existing variation we found in this study? To evaluate this question, we will make some syntaxonomical remarks for every principal group in Table 2 and Appendix 1 (indicated by a capital).

A. Rubetum grati (column 1–3, Table 3)

Column 1 in the table comprises relevés in which *Rubus ammobius* is (sub-)dominant. Weber (1998) assigns mixed stands of *Rubus ammobius* and *R. gratus* to the Rubetum grati rubetosum ammobii Weber 1976, a scrub type which in Germany is restricted to the western part of Lower-Saxony and the north-western part of Westphalia. The Rubetum grati rubetosum ammobii, like the subassociation typicum (represented by columns 2 and 3), is characteristic for dry and nutrient poor, sandy soils. This community was not included in the DNVC, because only a few relevés from a very restricted area were available at the time of writing (Haveman et al. 1999a, p. 98). Although a number of the relevés made in this study can be assigned to this community, *Rubus ammobius* has its optimum in the transition zone between sandy soils and the lower peat lands in the northern part of the country. Here, the species forms a ruricolous (= with its main presence outside woodlands, see Weber 1985) community along ditches and roads, typically with *Alnus glutinosa* in the tree layer, and moisture-indicating species in the field layer. A further analysis of this community has to reveal whether it can be distinguished as a separate association, or should be included in the Rubetum grati rubetosum ammobii.

The other two columns of group A comprise the classical Rubetum grati, described in the DNVC.

B. Rubetum silvatici (column 4–9, Table 3)

Column 4 represents the 'classical' Rubetum silvatici, with three of the four character species mentioned by Weber (1998): *Rubus silvaticus*, *R. pyramidalis*, and *R. flexuosus*. In several publications, Weber (1985, 1995) mentioned many other species growing in the Rubetum silvatici, and this was interpreted by Haveman et al. (1999a) as species being character species of this association: *Rubus glandithyrsos*, *R. drenthicus*, *R. schlechtendalii*, *R. mucronulatus*, *R. lasiandrus*, *R. rubercadaver*, *R. taxandriae*, and *R. adspersus*. In this study, these species are characteristic for separate communities in different parts of the country (columns 5–9, Table 3). On the basis of the results in this study and complementary observations during vegetation mapping projects, cluster 7 can best be considered as a separate association with a restricted regional distribution, the Rubetum taxandriae Haveman et al. 2012 (Haveman et al. 2012). The status of the other clusters is not yet clear, but probably they can be best considered as geographical races (cf. Dierschke 1994, p. 312–320) of the *Rubetum silvatici*. Especially the *R. glandithyrsos–R. erinulus* form (column 5, Table 2) is entangled with the classical Rubetum silvatici, although the area of the latter is extending more to the south, where the *R. glandithyrsos–R. erinulus* form is lacking.

Two of the clusters belonging to this principal group could not be assigned to an already described association, *viz.* cluster 6 and 9. They both consist of one relevé each, with a dominant *Rubus* species with an yet unknown sociological preference: *R. schlechtendalii* and *R. longior* respectively. More detailed studies of the bramble scrubs in the regions where these species occur have to shed light on the synsystematic place of these scrubs.

C. Lonicero-Rubion silvatici (column 10–14, Table 3)

Column 10 in Table 3 comprises those relevés in which characters species of associations are lacking, but in which character species of the Lonicero-Rubion silvatici are dominating, like *Rubus plicatus*, *Rubus integribasis*, *R. affinis* or *R. nemoralis*. This column could be split up in several different clusters to reflect the variation in the abundance of *Rubus* species, but this variation is not geographically structured (not shown). Probably such species poor stands can be included in the Rubetum grati, which classically consists of rather dense scrubs with *Rubus gratus* as the dominant species (Pott 1995, Weber 1977, Weber 1998). According to our table, *Rubus gratus* is not at all restricted to this kind of scrubs though, but can be found in almost all bramble scrubs on nutrient poor soils in the Netherlands (and most probably in most of the bramble scrubs in the Northwest-European lowlands). Therefore, *Rubus gratus* could better be concerned as a character species of the alliance Lonicero-Rubion silvatici. As a consequence, the Rubetum grati could at best be regarded the central association (Dierschke 1997) of this alliance. This amended Rubetum grati consequently has to include the other communities of the alliance without own character species in which the species of the alliance are abundant, like our community 10. We abstain from a final decision here until more is clear about

the ecology of the different forms of such an amended Rubetum grati.

Clusters 11 to 13 are characterised by the abundant occurrence of *Rubus macrophyllus*. Usually, this species is considered as character species of the Pruno-Rubion radulae (Weber 1995, Weber 1990), and in the Netherlands, this species is common in Pruno-Rubion radulae scrubs. However, as Haveman et al. (1999b, p. 162) have pointed out, this species lost his diagnostic character for any of the Rhamno-Prunetea commu-nities to a large extent, due to the spread in formerly nutrient poor regions as a result of atmospheric deposition of nitrogen. In this respect, *R. macrophyllus* resembles *Sambucus nigra* (Weber 2003, Weber 1999). In the DNVC, communities dominated by *R. macrophyllus* were mentioned, but not documented with tables. Cluster 11 differs from the other two clusters by the dominance of *R. iuvenis*, a species that is thought to be characteristic for the Senecioni-Rubetum ignorati Weber 1985 prov. (Sambuco racemosae-Salicion capreae Tx. et Neumann in Tx. 1950; Weber 1985). The Sambuco-Salicion was discussed by Haveman et al. (1999b, p. 128-129), but relevés were lacking at the time, so it was not treated in detail in the DNVC. Recent studies in the Sauerland and South-Limburg, where the Senecioni-Rubetum ignorati is common, have shown that our cluster 11 cannot be assigned to this association (not published).

Cluster 14 comprises *Rubus adspersus*-rich stands of the Lonicero-Rubion silvatici. Although this species was considered to be characteristic for the Rubetum silvatici in the DNVC, there is hardly any connection between this community and the clusters which were unequivocally assigned to the Rubetum silvatici (4-9). *Rubus adspersus* can be common in certain forms of the Pruno-Rubion radulae too (e.g. cluster 13).

D. Dicrano-Juniperetum (column 15, Table 3)

Cluster 11, isn't a *Rubus* scrub as such, but a *Rubus*-rich (late successional) stage of the Dicrano-Juniperetum Barkman 1985. Such stadia were not accounted for in the DNVC.

E.–F. Pruno-Rubetum vestiti & Pruno-Rubion radulae (columns 16–21, Table 3)

Clusters 16–21 can unequivocally be assigned to the alliance Pruno-Rubion radulae, on the basis of the species in the higher shrub layer, such as *Crataegus monogyna*, *Prunus spinosa*, and *Rosa canina*. Clusters 17, with *Rubus adspersus*, and sparse *Crataegus monogyna*, *Prunus spinosa*, and *Rosa canina*, and cluster 18, with these spiny scrub species and *Rubus* species with their optimum in the Lonicero-Rubion silvatici, belong to the Pruno-Rubetum sprengelii. Surprisingly, the Pruno-Rubetum sprengelii was recorded in all three transects, in the vicinity of lowland rivulets and – in the northern transect – in areas with base rich bolder clay, although this association was not described by Haveman et al. (1999b). It was mentioned as being probably present (Haveman et al. l.c., p. 133), but at the time of publication, relevés were lacking.

The assignment of the clusters 19–21 to one of the associations of the Pruno-Rubion is unclear. Comparison of the descriptions of the associations of the Pruno-Rubion radulae in various publications (e.g. Preising et al. 2003, Weber 1999) makes clears that the species compositions of the associations are remarkably differing between regions. More relevés and an supra-regional treatment of the alliance have reveal which associations can be recognised eventually.

G. BC *Rubus armeniacus*

The lack of species from both the Lonicero-Rubion and the Pruno-Rubion in cluster 22, with the dominant invasive neophyte *Rubus armeniacus*, make the placement of this scrub type in one of these alliances problematic. Pott (1995) considered similar thickets as communities without syntaxonomic position, Weeda et al. in the DNVC (1999) included them as a derived community of the Galio-Urticetea.

From the above, it is clear that only a part of the observed diversity is covered by the DNVC (Haveman et al. 1999a, Haveman et al. 1999b), and that several regional, undescribed *Rubus* scrub types can be distinguished. Their formal description would be contrary to the trend to recognise only over-regional associations, which was described by Dierschke (1994, p. 301–302) already. This trend is intensified by the availability of databases with hundreds of thousands of digitised relevés, making international overviews on the basis of original material possible for the first time (see e.g. Botta-Dukát et al. 2005, Bruelheide & Chytry 2000, Illyés et al. 2007). The recognition of vegetation types with limited distribution is to some extent given with the specific structure of the genus though, with many regionally distributed species. Our results show that the major variation in bramble scrubs is not random, but formed by regular occurring combinations of species, and which we believe should be recognised in a formal classification system at some level.

Notes on nature conservation

The density of relevés in this study (Fig. 1) emphasizes the importance of *Rubus* scrubs in the sand landscapes of north-western Europe. Despite the late discovery as independent communities, they form a characteristic element in large parts of the landscape, and they add to the regional biodiversity and regional landscape identity.

Due to practical problems concerning the complex taxonomy and recognition of apomicts and the ignorance of nature conservation practitioners, apomict lineages are often not considered in either nature conservation practice nor policy (Gregor & Matzke-Hajek 2002, Haveman et al. 2002), although several German 'Länder' have included *Rubus* species in their Red Lists (Frank et al. 2004, Jansen 2006). In contrast to Britain, where special conservation action plans are developed for rare *Rubus* species (Randall & Rich 2001, Randall & Rich 2000), brambles are considered a nuisance and an indication of environmental deterioration in the Netherlands in most cases (see for some discussion on this topic Bijlsma 2004). Especially bramble scrubs on loamy soils can harbour rare and only regionally distributed (endemic) *Rubus* species though (Matzke-Hajek 1997, Weeda et al. 2005, p. 77), as was shown in this paper too. Other places of special interest for *Rubus* diversity are margins of ancient forest remnants and old wooded banks. Already in the early fifties of last century, Beijerinck & Ter Pelkwijk (1952) noted that amongst the woodland dwelling bramble species several are confined to old forests. As such, communities in which brambles play an important role deserve more attention in nature conservation than until now is given.

Conclusion

From this study we conclude that the regional variation in *Rubus* scrubs is substantial. The high number of *Rubus* species doesn't lead to a random variation with countless combinations of species: with the help of a systematically-randomised sampling scheme we were able to show that regular combinations of *Rubus* species form distinct scrub types, several of which have a regional distribution.

Only a part of the observed diversity is covered by the treatment of the bramble scrubs in the DNVC (Haveman et al. 1999a, Haveman et al. 1999b). Especially within the Lonicero-Rubion silvatici, the regional diversity is high. Surprisingly, Pruno-Rubion radulae communities were found at a rather high density in the central transect; these scrub types are largely overlooked in the DNVC. More relevés are needed before a final decision can be made on the status of most of the regionally distributed scrub types and the types belonging to the Pruno-Rubion radulae. The same holds true for the scrubs with dominant rare species. Several regions seem to be devoid of *Rubus* scrubs, but the specific causes for this are not yet clear (landscape history and heavy grazing are hypothesised as causes in this paper). The density of relevés made in this study emphasize the importance of bramble scrubs in the landscape of north-western Europe, and we advocate more awareness of the value represented by bramble dominated communities.

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Electronic appendix

App. 1. Full structured table with the relevés of *Rubus* scrubs along three landscape transects (Haveman et al., Systematic randomised sampling along three landscape transects in the Netherlands reveals the geographically structured variation in *Rubus* scrubs).

Appendix data associated with this article can be found in the online version at
www.schweizerbart.de/journals/phyto

Table number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Principal group	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Cluster	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Inclination (degrees)	45	0	60	45	0	80	60	45	45	45	45	10	0	3	0	0	45	5	60	30	0	0	5	5	20	0	80	0	0	0	0	50	45	0	0	45	0	20	45	0	45	45	0	2	80	5	3	5	0
Total cover (%)	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	90	96	96	95	80	99	99	99	99	99	99	99	99	99	99	99	95	96	96	95	90	96	96	96	96	96	96	96	96
Cover tree layer (%)	60	10		80	96	50		70		85	50	70	80	96	96	96	96		50	90	40	70	96	5	30	10	80			10	70	2	99	5	15	70	70	5	15	60	60	10	50	96		96	15	50	90
Cover shrub layer (%)	80	96	96	95	96	96	90	80	96	90	96	96	80	90	80	80	90	96	90	70	70	80	96	95	70	95	90	80	99	96	80	50	60	90	95	90	80	96	80	80	70	80	90	70	80	60	70	80	90
Cover herb layer (%)	60	10	30	30	30	20	40	40	3	20	20	5	30	30	5	20	20	20	5	2	30	20	5	2	20	1	30	80	20	10	1	80	30	30	5	20	1	10	40	1	30	90	3	5	40	80	60	20	20
Cover moss layer (%)																				2			1	5	1		60				1	1			10	2	5	10	5	50			1					1	
Height tree layer (m)	15	18	8	9	15	15		15		7	12	20	15	15	15	10	12		18	10	25	8	15	15	12	18	18			12	20		10	20	12	12	18	8	18	15	20	10	20	22		18	8	18	22
Height shrub layer (m)		3,5		2,5	3,0	5,0		2,5	2,5	3,5	3,0	3,0	4,0	3,0	4,0	3,0	3,0	2,5	5,0	3,0	2,0		3,0	3,0	5,0	4,0	2,5	2,5		4,5	4,0		1,0	4,0	6,0	3,0	3,5		5,0	4,0	2,5		2,5	2,0		2,0		4,0	2,0
Height bramble layer (m)	0,8	1,5	0,8	1,0	1,0	0,6	1,0	1,0	1,0	1,0	1,0	1,5	1,0	0,5	1,5	1,2	1,0	1,0	1,0	1,0	1,0	1,2	1,5	1,5	1,3	1,0	1,0	1,5	1,5	1,8	1,0	1,0		1,0	1,2	1,5	1,2	1,0	1,0	1,0	0,8	0,8	1,0	0,8	1,0	0,8	1,0	1,5	1,0
Height high herb layer(cm)	40	80	40	30	30	10	40	50	20	60	20	10	30	20	10	40	40	1	40	30	30	40	40	30	30	30	30	60	30	30	30	60	30	30	30	1	20	60	20	20	40	40	20	30	30	20	30	30	40
Height low herb layer (cm)		10																																		30			5										
Maximum height herb layer(cm)	80			60	100	60	80		80	180	150	80	60	80	60	80	80	1	80	60	30	80	60	80	120	40	60	80	60	60	60	120	60	60	60	180	20	200	60	20	100	80	30	60	120	60	60		100
# *Rubus* species	4	5	2	1	2	5	3	2	6	3	5	3	3	7	4	2	4	3	4	2	3	2	2	3	2	4	2	3	5	4	2	2	4	4	4	3	4	5	3	3	2	3	4	2	4	4	3	5	2
Bramble species																																																	
Rubus ammobius	4	3	3	4	2a	1	3	3	3	2a	2a	2a	2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus gratus	.	.	.	.	.	2a	2b	2b	3	3	3	4	3	2b	2a	2a	2a	4	2a	2b	2b	4	5	4	3	3	4	2a	3	3	4	2a	3	2b	3	4	3	2a	2a	3	3	2b	2a	2a	2a	2b	3	1	3
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus plicatus	.	2a	4	.	2b	.	3	.	.	.	.	.	2b	+	.	.	.	.	.	.	3	2b	.	2a	3	2b	.	+	3	r	.	4	.	.	.	.	3	.	.	2a	.	4	2b	.	4	2a	3	1	.
Rubus integribasis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	4	3	3	2a	.	3	2b	.	2a	.	.	.	.	.	.	.	.	.	+	.	.	.
Rubus affinis	2a	3	.	.	.	+	.	.	3	3	2a	+	.	2b	+	3	2b	+	3	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	3	.
Rubus nessensis	.	2b	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	3	.	3	.	.	.	+	.	+	+	.	2a	.	.	.	+	.	+	3	.	.	.	.	.	.	.	.	.	.	.	2a	.
Rubus idaeus	+	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	+	.	.	.	.	.	.	.	.	.	4
Rubus nemoralis	.	.	.	.	.	+	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	+	4	4	.	.	.	.	.
Rubus scissus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	2a	4	.	.	.	.	.	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.
Rubus grisiae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus foliosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calvus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Principal group	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Cluster	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Rubus ferocior	.	.	.	.	.	.	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus phoenicacanthus	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus bertramii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindleianus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus frederici	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus mus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nemorosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus passionis	.	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus discors	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus divaricatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus planus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus poliothyrsus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.
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Rubus arrheniiformis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.
Rubus canduliger	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.
Rubus dejonghii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus drenthicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus euryanthemus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.
Rubus incisior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nemoralis f. laciniatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus platyacanthus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus speculans	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.
Rubus tubanticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vespicum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rhamno catharticae-Prunetea spinosae																																																	
Crataegus monogyna	.	.	.	r	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Corylus avellana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.
Prunus padus	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Humulus lupulus	.	.	.	2b	5	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.
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Prunus spinosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Prunus avium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fallopia dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Acer campestre	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cornus sanguinea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Crataegus laevigata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Euonymus europaeus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Juniperus communis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Viburnum opulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tree layer																																																	
Quercus robur	2a	+	.	.	5	3	.	4	.	2m	+	+	5	4	5	5	5	+	3	5	.	.	5	+	+	.	2m	.	.	2a	4	+	+	+	4	2m	4	2a	2a	2a	4	2a	.	5	.	.	2b	+	.
Betula pendula	.	+	.	.	.	2b	.	.	.	.	.	.	+	.	+	.	.	.	.	2b	.	.	+	+	+	.	+	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	3	.	.	+	.	+	.
Alnus glutinosa	3	3	.	5	.	+	+	2b	3	5	3	4	.	3	.	.	.	.	4	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.
Betula pubescens	2b	.	.	.	.	.	.	.	.	.	2b	3	.	.	+	+	.	+	.	.	.	.	.	+	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.
Populus tremula	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Quercus rubra	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	5	2m	.	.	+	.	.	.	1	.	+	.	.	2m	.	.	.	.	.	.	.	.	+
Fagus sylvatica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	+	.	.	.	+	.	.	.	.	+
Pinus sylvestris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	4	.	.	.	.	.	.	.	.	.
Acer pseudoplatanus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fraxinus excelsior	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Shrub layer																																																	
Sorbus aucuparia	.	.	.	+	.	2b	.	2a	+	2a	2b	+	2a	2a	2a	2a	3	.	.	2b	.	.	+	+	+	+	2a	+	.	2a	+	.	+	.	.	.	.	.	.	3	.	.	+	.	.	.	.	2a	+
Sambucus nigra	.	2a	.	.	2b	.	.	.	.	.	.	.	2a	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	+	.
Prunus serotina	.	.	.	+	.	2b	.	2a	.	+	.	.	2a	.	+	.	.	.	.	+	.	+	.	+	+	.	2a	.	.	.	.	.	+	.	+	.	3	.	.	2b	+	.	+	.	.	.	.	.	2b
Lonicera periclymenum	.	.	.	.	.	+	.	+	+	.	2a	.	.	2a	.	3	2a	.	.	2m	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	+	3	.	+	.	.	.	.	.	+
Rhamnus frangula	.	+	.	.	.	+	.	+	.	+	.	.	.	.	+	.	2a	.	.	+	.	.	2a	+	.	2b	2a	2m	.	.	+	.	.	.	2a	.	.	.	.	2a	.	.	+	.	.	.	.	.	.
Salix caprea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	.	.	.	+	.	.	2a	.	.	.	.	.	.	.	.	.	.

Table number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Principal group	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Cluster	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Hedera helix	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
Amelanchier lamarckii	.	.	.	.	.	.	.	.	.	.	.	2a	2b	.	.	2a	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	+	.	.	.	+	.	.	.	.	.
Ilex aquifolium	.	.	.	.	.	.	.	.	.	.	.	r	.	2b	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	r	+
Salix cinerea	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	.	3	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.
Salix aurita	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Salix alba	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.
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Taxus baccata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Carpinus betulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sambucus racemosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	+	.	.	.
Salix x multinervis	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Aronia x prunifolia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.
Prunus cerasifera	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Salix aurita x caprea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Salix fragilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sorbus spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Viburnum lantana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Herb layer																																																	
Agrostis capillaris	2m	.	1	2b	.	2m	2b	2a	+	2a	2a	.	2a	2b	2a	+	+	2m	2m	2m	.	2b	1	2m	1	.	1	.	.	2a	.	.	2a	.	2m	2a	+	.	.	+	2a	.	1	+	1	.	+	1	2m
Holcus mollis	3	2a	2b	2b	.	1	2m	2m	2m	1	1	2a	2b	2a	2m	.	.	2m	1	1	.	2b	2m	2m	2m	.	.	2m	1	+	.	.	.	.	.	2m	.	1	.	.	2m	4	1	.	1	.	2b	1	+
Urtica dioica	2a	.	+	.	2b	.	.	.	.	.	2a	.	.	.	.	+	+	2a	.	.	.	.	+	.	2a	.	+	.	1	.	.	3	r	2b	+	2a	.	+	.	.	+	+	1	.	.	+	.	.	+
Elytrigia repens	2b	.	2m	+	2a	+	2b	.	1	.	2a	.	.	2a	1	1	2a	.	+	.	.	.	.	.	.	.	.	.	.	.	.	2b	3	2b	2a	.	.	1	.	.	.	1	.	.	.	.	3	.	.
Dactylis glomerata	r	.	+	+	.	.	+	.	1	+	1	.	.	.	.	.	+	.	.	.	.	.	1	.	+	.	.	.	.	.	.	2b	1	.	.	.	.	.	+	.	+	.	.	.	+	.	2b	.	1
Holcus lanatus	1	.	.	1	.	2m	+	.	1	1	.	.	+	.	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.
Dryopteris dilatata	.	+	.	.	.	2b	.	2a	+	+	.	+	.	.	.	.	+	.	.	+	2b	.	.	+	.	.	.	2a	.	.	.	.	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	+	.
Juncus effusus	.	+	+	.	.	+	.	.	+	.	.	.	.	+	.	.	.	1	.	+	.	.	.	.	.	.	.	2a	.	.	.	.	r	.	.	.	.	.	.	.	.	.	+	.	.	.	.	1	.
Glechoma hederacea	.	.	.	.	.	.	+	.	+	.	+	.	.	+	.	.	1	.	.	+	.	.	.	+	.	.	.	.	.	r	.	.	.	.	.	.	.	1	3	.	.	.	.	.	.	.	.	.	.
Anthriscus sylvestris	r	.	+	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	+	+	.	.	.
Festuca rubra	.	.	.	2m	.	.	.	.	.	.	1	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	+	.	.	.	.	.	2a	.	.	.	1	.	1	.	.
Lysimachia vulgaris	.	.	1	.	.	.	r	1	+	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.
Molinia caerulea	.	.	.	.	.	.	.	2a	.	.	.	+	.	.	.	+	.	.	.	.	.	.	r	.	.	.	.	3	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Galium aparine	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	2m	r	.	+	+	.	.	.	.	.	.	.
Chamerion angustifolium	2a	.	2a	.	+	1	.	1	+	.	.	.	.	.	+	1	1	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.	.	.	.	.	.	.	.
Galeopsis tetrahit	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	1	.	.	.	.	.
Arrhenatherum elatius subsp. *elatius*	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	2a	.	.
Phragmites australis	1	.	.	+	.	.	.	.	1	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Stellaria media	+	.	.	.	.	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	+	.	.
Calystegia sepium	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	2a	.	.	.	.	+	.	.	.	.	.	.
Ranunculus repens	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	+	.	.	.	.	.	.
Cirsium arvense	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.
Deschampsia flexuosa	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	+	.	+	2b	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.
Equisetum arvense	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	2m	.	.	.	+	.	.	+	.	.	.	.
Rumex acetosa	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	+	.	.	1	.	.	.	.
Achillea millefolium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	+	r	.	.	1	.	.	1	.	.	.	.	.	.	.	.	1	.	1	.	.
Rumex obtusifolius	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.
Pteridium aquilinum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.
Phalaris arundinacea	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Taraxacum spec.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
Dryopteris carthusiana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.
Artemisia vulgaris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

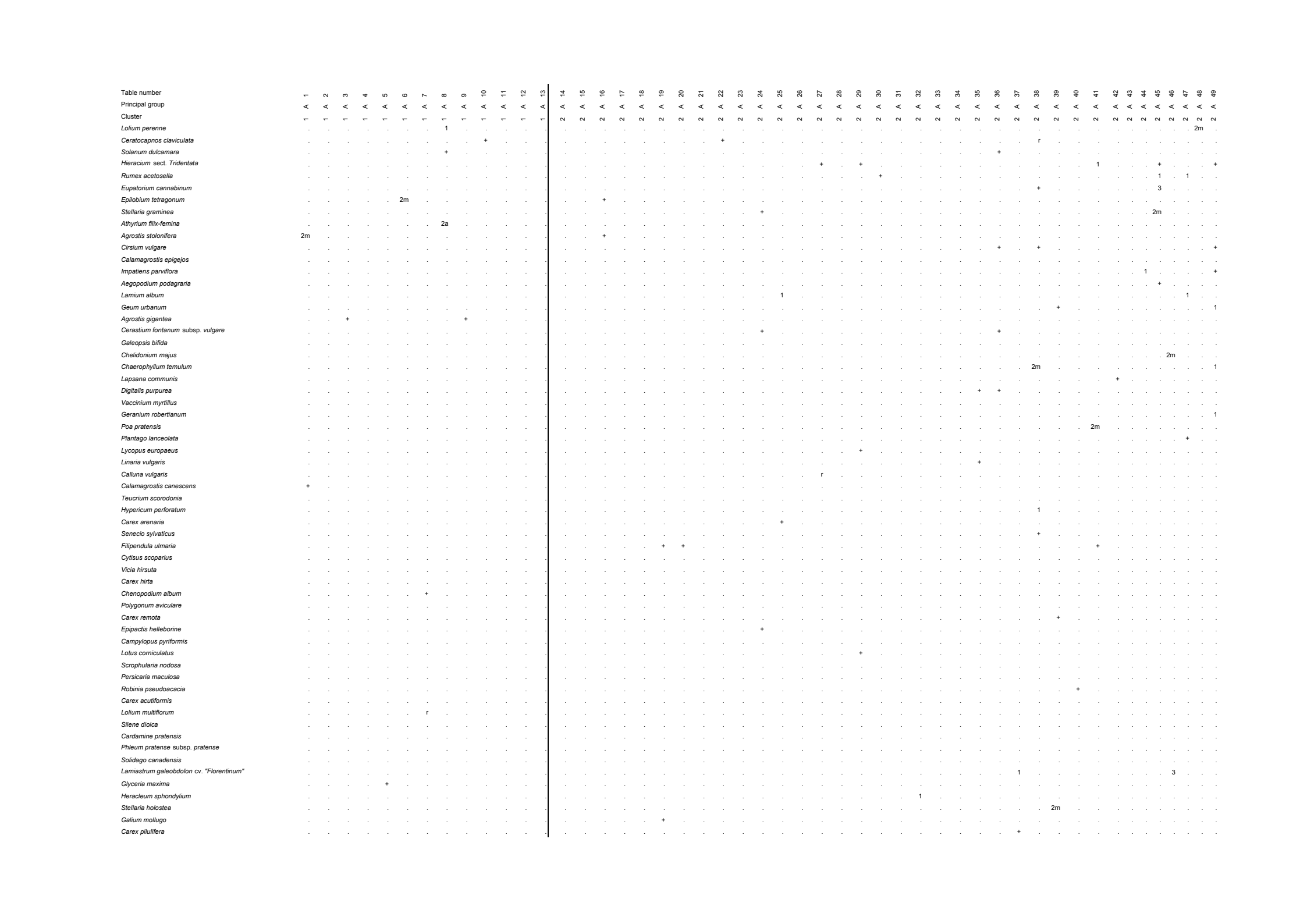
Table number
Principal group
Cluster
Lolium perenne
Ceratocapnos claviculata
Solanum dulcamara
Hieracium sect. Tridentata
Rumex acetosella
Eupatorium cannabinum
Epilobium tetragonum
Stellaria graminea
Athyrium filix-femina
Agrostis stolonifera
Cirsium vulgare
Calamagrostis epigejos
Impatiens parviflora
Aegopodium podagraria
Lamium album
Geum urbanum
Agrostis gigantea
Cerastium fontanum subsp. vulgare
Galeopsis bifida
Chelidonium majus
Chaerophyllum temulum
Lapsana communis
Digitalis purpurea
Vaccinium myrtillus
Geranium robertianum
Poa pratensis
Plantago lanceolata
Lycopus europaeus
Linaria vulgaris
Calluna vulgaris
Calamagrostis canescens
Teucrium scorodonia
Hypericum perforatum
Carex arenaria
Senecio sylvaticus
Filipendula ulmaria
Cytisus scoparius
Vicia hirsuta
Carex hirta
Chenopodium album
Polygonum aviculare
Carex remota
Epipactis helleborine
Campylopus pyriformis
Lotus corniculatus
Scrophularia nodosa
Persicaria maculosa
Robinia pseudoacacia
Carex acutiformis
Lolium multiflorum
Silene dioica
Cardamine pratensis
Phleum pratense subsp. pratense
Solidago canadensis
Lamiastrum galeobdolon cv. "Florentinum"
Glyceria maxima
Heracleum sphondylium
Stellaria holostea
Galium mollugo
Carex pilulifera

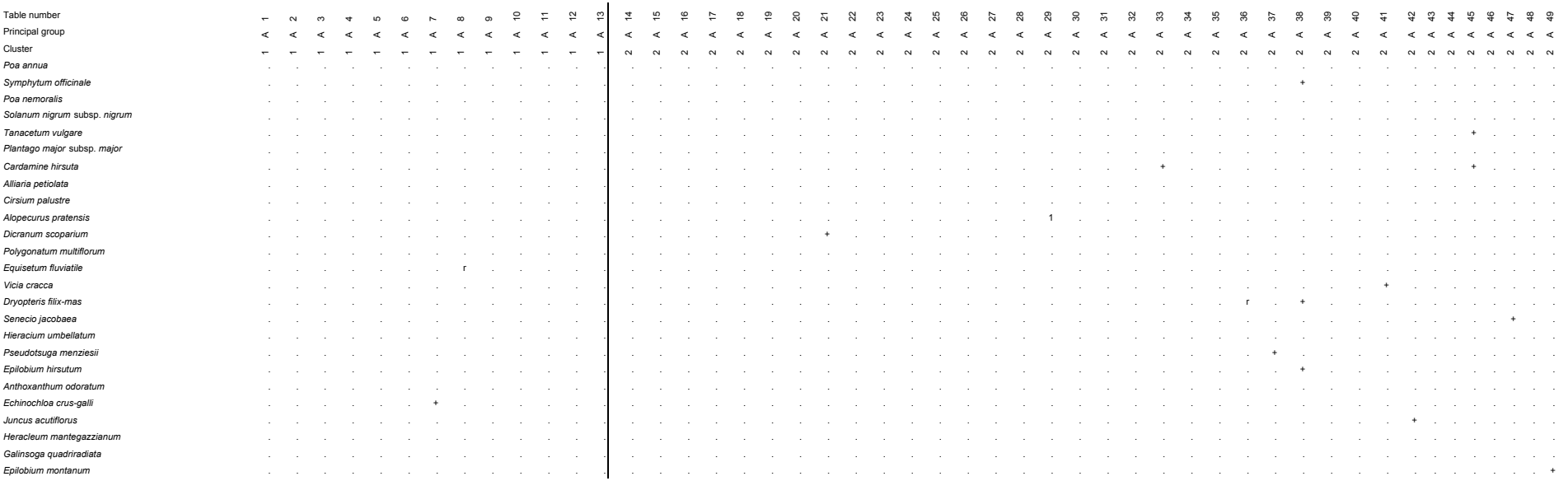
Table number
Principal group
Cluster
A 1 A 2 A 3 A 4 A 5 A 6 A 7 A 8 A 9 A 10 A 11 A 12 A 13 A 14 A 15 A 16 A 17 A 18 A 19 A 20 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 30 A 31 A 32 A 33 A 34 A 35 A 36 A 37 A 38 A 39 A 40 A 41 A 42 A 43 A 44 A 45 A 46 A 47 A 48 A 49
1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Poa annua
Symphytum officinale
Poa nemoralis
Solanum nigrum subsp. nigrum
Tanacetum vulgare
Plantago major subsp. major
Cardamine hirsuta
Alliaria petiolata
Cirsium palustre
Alopecurus pratensis
Dicranum scoparium
Polygonatum multiflorum
Equisetum fluviatile
Vicia cracca
Dryopteris filix-mas
Senecio jacobaea
Hieracium umbellatum
Pseudotsuga menziesii
Epilobium hirsutum
Anthoxanthum odoratum
Echinochloa crus-galli
Juncus acutiflorus
Heracleum mantegazzianum
Galinsoga quadriradiata
Epilobium montanum
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	Table number	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	A 17	A 18	A 19	A 20	A 21	A 22	A 23	A 24	A 25	A 26	A 27	A 28	A 29	A 30	A 31	A 32	A 33	A 34	A 35	A 36	A 37	A 38	A 39	A 40	A 41	A 42	A 43	A 44	A 45	A 46	A 47	A 48	A 49
	Principal group	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	A 17	A 18	A 19	A 20	A 21	A 22	A 23	A 24	A 25	A 26	A 27	A 28	A 29	A 30	A 31	A 32	A 33	A 34	A 35	A 36	A 37	A 38	A 39	A 40	A 41	A 42	A 43	A 44	A 45	A 46	A 47	A 48	A 49
	Cluster	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Hypericum dubium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
	Senecio inaequidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rumex crispus	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Glyceria fluitans x notata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Osmunda regalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Sedum telephium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Equisetum palustre	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Juncus bufonius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Lamium purpureum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Moehringia trinervia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
	Luzula campestris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
	Luzula multiflora subsp. *multiflora*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.
	Lophocolea bidentata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Lysimachia nummularia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Festuca arundinacea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Festuca gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Lythrum salicaria	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Luzula pilosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.
	Agrostis vinealis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Carex disticha	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.
	Poa palustris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
	Cardamine flexuosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Asparagus officinalis subsp. *officinalis*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Anisantha sterilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Achillea ptarmica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Trifolium pratense	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Sisymbrium officinale	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Solanum nigrum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ranunculus acris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Valeriana officinalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Vicia sativa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Persicaria hydropiper	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
	Persicaria lapathifolia subsp. *Lapathifolia*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Polypodium vulgare	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.
	Plantago major susbsp. *intermedia*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Moss layer																																																			
	Brachythecium rutabulum	+	.	.	.	.	.	.	+	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	2m	.	.	.	.	.	+	.	2a	2m	.	2a	.	1	+	.	.	.	+	.	.	.	.
	Eurhynchium praelongum	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	3	.	.	.	.	.	.	.	2m	.	1	+	.	.	.	.	.	.	.	.
	Dicranella heteromalla	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	2m	.	1	.	.	2m	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Mnium hornum	.	.	.	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Hypnum cupressiforme	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	+	.	1	.	.	.	.	.
	Polytrichum formosum	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	2a	.	2a	2a	.	.	1	.	.	.	.	.
	Castanea sativa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pseudoscleropodium purum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	2a	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.
	Hypnum jutlandicum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	2a	2m	.	.	.	.	+	.	.	.	.	.	.	.	.	+	.	.	.	.	.
	Ceratodon purpureus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
	Rhytidiadelphus squarrosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	+	.
	Atrichum undulatum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	+	.
	Pohlia nutans	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Cladonia caespiticia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pseudotaxiphyllum elegans	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Orthodontium lineare	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Aulacomnium androgynum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pohlia species	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pleurozium schreberi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Bryum species	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
	Campylopus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Polytrichum commune	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Plagiothecium laetum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Plagiomnium affine	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.

Table number	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
Principal group	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B
Cluster	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
Inclination (degrees)	0	60	30	45	0	3	0	20	0	45	5	45	0	45	0	45	45	45	5
Total cover (%)	96	90	96	99	99	96	96	96	96	96	96	96	96	96	96	96	96	95	96
Cover tree layer (%)	60		96	40	70		80	90	96	10	96	30	90	70	96	90	96	90	96
Cover shrub layer (%)	96	90	70	70	80	96	96	96	90	96	90	95	90	90	90	80	90	95	90
Cover herb layer (%)	2	20	40	80	1	10	60	2	20	10	2	1	5	10	2	60	30	60	5
Cover moss layer (%)					20							1		1		20	5		1
Height tree layer (m)	25		15	10	10		8	10	10	10	15	10	20	15	20	15	15	7	15
Height shrub layer (m)	5,0			2,0	4,0	5,0		3,0	2,5		4,0	5,0	6,0	4,0	2,5	2,5	4,0		4,0
Height bramble layer (m)	2,0	1,5	0,8	1,0	1,0	1,8	1,5	1,5	1,2	1,0	1,0	2,0	1,0	1,0	1,8	0,8	1,0	1,5	1,0
Height high herb layer(cm)	30	60	30	30	30	60	50	30	50	70	30	30	60	40	10	30	60	60	40
Height low herb layer (cm)										20									
Maximum height herb layer(cm)	120	150	80	60	60	100	120	60	80	80	60	80	100	80	30	60	100	100	60
# *Rubus* species	3	1	1	2	1	1	1	1	1	3	4	4	3	4	2	4	4	2	3
Bramble species																			
Rubus ammobius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus gratus	2b	5	4	4	4	5	5	5	.	2b	2a	.	.	2b	2a	2b	2a	4	2a
Rubus pyramidalis	.	.	.	.	.	.	.	.	5	4	2a	4	2b	3	5	3	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	2a	4
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus erinulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus plicatus	.	.	.	.	.	.	.	.	.	.	2b	2a	.	.	.	.	.	.	.
Rubus integribasis	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.
Rubus affinis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.
Rubus nessensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus idaeus	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.
Rubus nemoralis	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	2a	.	.
Rubus scissus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
Rubus grisiae	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus caesius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lucticola	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calvus	.	.	.	1	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table number	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
Principal group	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Cluster	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6
Inclination (degrees)	0	0	60	10	3	2	2	45	5	5	45	5	0	60	0	10	30	0	0
Total cover (%)	96	96	96	96	96	90	96	96	96	96	96	96	96	96	95	96	96	96	96
Cover tree layer (%)	60	96	96	20	90	80	96	10	90	96		60	40	20	80	40	96	70	80
Cover shrub layer (%)	90	90	95	96	96	50	70	96	95	96	96	96	80	80	70	96	95	90	96
Cover herb layer (%)	20	10	40	20	1	20	15	5	5	5	20	5	1	40	15	20	10	5	1
Cover moss layer (%)						1									5				
Height tree layer (m)	8	20	12	20	18	18	8	8	12	10		20	20	10	18	20	15	10	12
Height shrub layer (m)	3,0	5,0	3,0	3,0	2,0	4,0		3,5	4,0		3,5	3,0	5,0	2,0	4,0	3,0	3,0	4,0	4,0
Height bramble layer (m)	1,5	1,0	1,0	1,0	1,5	1,0	1,2	1,0	1,5	1,5	1,0	1,0	0,8	0,8	1,0	1,0	1,0	1,5	1,5
Height high herb layer(cm)	40	40	40	60	20	5	60	30	40	40	60	20	10	40	60	60	60	20	20
Height low herb layer (cm)				10							20				5	10	20		
Maximum height herb layer(cm)	80	120	80	80		5	80	60	80	60	80	60	120	80	60	80	50	50	50
# *Rubus* species	6	4	5	5	4	3	1	4	2	3	6	5	5	2	4	3	5	5	5
Bramble species																			
Rubus ammobius	.	2b	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.
Rubus gratus	2b	2b	+	4	2a	.	.	4	+	2a	2a	2b	2a	3	2a	4	2b	+	2a
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus silvaticus	2b	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus flexuosus	2b	2a	2a	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus glandithyrsos	2a	4	+	.	5	2b	5	2b	4	5	+	2b	.	.	.	.	.	.	.
Rubus erinulus	.	.	r	2b	1	2a	.	.	.	.	2a	.	.	.	3	2b	2b	2a	.
Rubus sprengelii	2b	.	.	2a	.	.	.	.	.	.	1	2b	4	3	.	3	.	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus plicatus	.	.	.	2a	.	.	.	.	.	r	2b	.	.	.	.	.	.	.	r
Rubus integribasis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus affinis	.	.	.	.	.	.	.	r	.	.	.	.	2a	.	.	.	.	.	.
Rubus nessensis	+	.	.	.	.	.	.	.	.	.	.	2b	.	.	2b	.	+	+	.
Rubus idaeus	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	+	.	.	.	r
Rubus nemoralis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus scissus	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	+	+
Rubus grisiae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus caesius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lucticola	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calvus	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table number	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
Principal group	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Cluster	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	9
Inclination (degrees)	2	2	0	3	2	0	2		3	1	45	0	5	45	45	0	
Total cover (%)	99	99	90	99	80	99	99	99	95	99	96	96	96	96	96	96	96
Cover tree layer (%)	30	40	20	20	10	95		90	50	20		96	96	96	96	96	96
Cover shrub layer (%)	80	99	70	85	80	30	90	60	70	90	96	90	80	80	90	96	96
Cover herb layer (%)	30	5	20	20	5	80	20	5	30	5	5	40	60	30	30	20	2
Cover moss layer (%)	99						2			5	5		1				
Height tree layer (m)	20	15	15		22	18		10	15	10		25	22	25	25	25	25
Height shrub layer (m)	2,5		2,5	2,0	2,0	4,0	3,0	3,5	6,0	5,0	2,0	3,5	3,0	4,0	5,0	5,0	3,0
Height bramble layer (m)	1,0	1,5	0,8	0,8	1,0	0,8	1,2	1,0	1,0	2,0	0,8	1,0	0,8	1,0	1,0	1,2	1,0
Height high herb layer(cm)	50	50	60	60	60	20	50	30	30	30	30	80	30	30	30	20	30
Height low herb layer (cm)																	
Maximum height herb layer(cm)	80	80	120	180	80	60	80	100	60	120	80	120	120	60	60	30	60
# *Rubus* species	3	3	4	4	7	3	5	1	6	4	7	4	4	3	3	2	4
Bramble species																	
Rubus ammobius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus gratus	.	.	+	2b	+	1	+	.	+	+	2a	3	+	.	.	.	+
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus erinulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	+	.	5	4	.	r	+	.	3	2a	.	.	.	.	.	.	.
Rubus campaniensis	4	2a	.	.	+	.	.	.	+	.	.	.	.	.	.	.	.
Rubus insectifolius	+	.	.	.	5	3	2a	4	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	2b	.	.	3	4	4	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	2a	+	3	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
Rubus plicatus	.	2b	.	+	+	.	.	.	+	.	.	.	.	.	.	.	+
Rubus integribasis	.	.	+	+	.	.	.	.	2b	.	.	.	.	.	.	.	.
Rubus affinis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nessensis	.	.	+	.	+	.	.	.	+	.	2b	.	.	.	.	.	+
Rubus idaeus	.	.	.	.	.	.	.	.	.	1	2b	.	3	.	.	.	.
Rubus nemoralis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus scissus	.	.	.	.	+	.	2b	.	.	.	.	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus grisiae	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus caesius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.
Rubus lucticola	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calvus	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table number	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
Principal group	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Cluster	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Inclination (degrees)	0	0	45	0	10	5	0	45	5	5	0		0	10	0
Total cover (%)	96	96	99	96	99	99	99	99	99	99	99	99	99	96	96
Cover tree layer (%)	70	20		80		5	10		60	99		60	5	50	10
Cover shrub layer (%)	95	70	90	96	60	99	90	90	90	80	40	90	99	96	60
Cover herb layer (%)	5	40	80	2	80	20	80	30	10	60	80	30	2	20	60
Cover moss layer (%)	1			20	10										15
Height tree layer (m)	8	6		20		8	7		10	20		8	6	7	10
Height shrub layer (m)	4,0	2,0		2,5	2,0	2,5		3,0	5,0			4,0		2,0	
Height bramble layer (m)	1,0	0,8	1,0	1,2	1,0	1,0	1,5	1,5	1,8	0,8	1,5	1,5	1,5	0,8	1,8
Height high herb layer(cm)	20	30	30	50	30	30	30	30	30	120	100	60	30	30	70
Height low herb layer (cm)										30	30				
Maximum height herb layer(cm)		120	60	120	60	60	60	120	60	180	120	120	120	120	150
# *Rubus* species	2	1	1	4	5	3	2	1	2	6	2	3	2	2	2
Bramble species															
Rubus ammobius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus gratus	.	.	.	+	+	.	.	.	.	+	+	+	.	.	.
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus erinulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus plicatus	4	4	5	5	2b	5	2b	.	.	.	.	.	.	4	.
Rubus integribasis	.	.	.	.	2a	2b	4	4	4	2a	4	3	4	.	.
Rubus affinis	.	.	.	.	.	.	.	.	.	.	.	.	2b	3	.
Rubus nessensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus idaeus	.	.	.	+	.	.	.	.	.	.	.	.	.	.	3
Rubus nemoralis	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
Rubus scissus	.	.	.	+	.	1	.	.	.	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus grisiae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calothemnus	.	.	.	.	1	.	.	.	.	2b	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus caesius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lucticola	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calvus	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table number	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
Principal group	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Cluster	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Rubus ferocior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus phoenicacanthus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	+	.	.	.	.	.
Rubus bertramii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindleianus	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.
Rubus frederici	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus passionis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus discors	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus divaricatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus planus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus poliothyrsus	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus winteri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus arrheniiformis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus canduliger	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dejonghii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus drenthicus	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus euryanthemus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus incisior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nemoralis f. laciniatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus platyacanthus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sect. *Subidaei*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus speculans	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus tubanticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
Rubus vespicum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rhamno catharticae-Prunetea spinosae																																					
Crataegus monogyna	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Corylus avellana	.	.	.	.	.	.	.	2a	.	.	.	.	.	r	.	.	+	+	.	.	.	.	.	.	2a	.	.	2a	.	.	r	.	.	.	.	.	.
Prunus padus	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	+	.	.	.	.	.
Humulus lupulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	+	.	.
Rosa canina	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Prunus spinosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	+	.	.	.	.	.
Prunus avium	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fallopia dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Acer campestre	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cornus sanguinea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Crataegus laevigata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Euonymus europaeus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Juniperus communis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Viburnum opulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tree layer																																					
Quercus robur	+	+	5	2m	3	.	2a	5	2b	2a	5	+	2b	2b	3	5	5	.	5	2a	5	5	2b	5	5	.	2a	5	5	2m	3	2b	2b	5	2b	4	2b
Betula pendula	.	.	.	3	2a	.	.	.	2a	.	.	.	4	.	.	.	2a	.	.	.	2a	2b	.	.	.	.	.	.	.	.	2a	.	.	.	.	2a	3
Alnus glutinosa	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	3	2b	+	.	.	2b	.	.	.	+	.	.	.	2a	3	.
Betula pubescens	.	.	.	.	+	.	.	.	4	.	2a	.	.	.	2a	.	.	.	.	.	2a	.	2a	.	.	.	+	.	.	.	3	+	.	.	2a	.	2b
Populus tremula	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	5	.	.	.	.	3	.	.	.	.	.	2b
Quercus rubra	+	.	.	.	2b	.	.	.	.	.	.	2a	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	+	.	.	.
Fagus sylvatica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	+	.	.	.
Pinus sylvestris	.	.	.	.	.	.	.	.	.	.	.	.	.	4	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Acer pseudoplatanus	.	.	.	.	.	.	.	.	.	.	.	2m	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.
Fraxinus excelsior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Shrub layer																																					
Sorbus aucuparia	3	.	.	.	.	.	.	.	2b	.	+	2a	.	2m	+	2a	2a	.	2b	2b	3	+	2a	+	+	.	+	+	+	.	.	.	.	+	2m	+	2m
Sambucus nigra	.	.	.	.	.	.	2a	+	.	.	.	.	.	.	.	2b	.	.	+	.	2a	.	.	.	.	+	.	.	.	2b	.	.	.	.	.	2a	2a
Prunus serotina	+	.	.	+	.	2b	.	.	.	.	.	.	.	+	.	.	2b	.	.	.	.	.	.	.	+	2a	2a	2a	.	.	.	2a	.	.	.	.	.
Lonicera periclymenum	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	+	2b	2a	2a	1	.	1	.	+	2a	.	.	.	.	.	.	+	.	2m
Rhamnus frangula	.	.	.	.	+	.	.	.	2a	.	2b	+	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	+	+	.	2a	+	.	.	.	.	.	.
Salix caprea	.	.	.	.	.	.	.	.	3	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.

Table number	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
Principal group	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Cluster	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Rubus ferocior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus phoenicacanthus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus bertramii	.	.	.	.	.	.	.	.	.	.	.	4	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindleianus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus frederici	.	.	1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus nemorosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus passionis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus discors	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus divaricatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adulans	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus planus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.
Rubus poliothyrsus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus winteri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus arrheniiformis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus canduliger	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dejonghii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus drenthicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus incisior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nemoralis f. laciniatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
Rubus platyacanthus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus tubanticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vespicum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rhamno catharticae-Prunetea spinosae																																	
Crataegus monogyna	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
Corylus avellana	+	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Prunus padus	2a	.	.	.	.	.	.	.	+	.	.	.	2a	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Humulus lupulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.
Rosa canina	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
Prunus spinosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Prunus avium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fallopia dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Acer campestre	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.
Cornus sanguinea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Crataegus laevigata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Euonymus europaeus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Juniperus communis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Viburnum opulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tree layer																																	
Quercus robur	+	.	3	2b	+	2a	2a	2b	5	4	.	.	.	2b	5	4	5	.	2b	2b	+	+	+	2a	.	+	+	3	+	4	.	.	2a
Betula pendula	5	.	+	+	2b	.	4	+	+	2a	.	.	.	3	.	.	.	2a	3	.	.	.	.	.	2a	+	.	.	.	.	.	.	.
Alnus glutinosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	+	.	.
Betula pubescens	.	.	.	.	+	.	.	+	.	.	2b	+	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Populus tremula	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	2a	.	.	.	.	.	.	.
Quercus rubra	.	.	.	2a	.	2m	2a	+	.	.	+	.	.	2b	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fagus sylvatica	.	.	.	.	.	.	2a	.	.	.	.	.	.	+	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Pinus sylvestris	.	.	.	+	+	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Acer pseudoplatanus	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fraxinus excelsior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.
Shrub layer																																	
Sorbus aucuparia	+	.	.	r	.	.	2a	.	+	+	.	+	+	2a	.	.	3	2a	3	.	.	2a	.	.	.	.	.	+	.	2a	.	.	.
Sambucus nigra	+	.	.	.	.	.	.	.	+	.	2b	.	.	.	2b	2a	.	.	.	.	.	.	.	.	.	.	+	.	.	2b	+	.	.
Prunus serotina	.	.	+	.	.	.	.	.	2b	.	2b	.	+	.	+	.	.	.	.	+	.	+	r	.	.	.	2a	.	.	.	.	2b	.
Lonicera periclymenum	.	.	.	.	.	.	.	+	.	1	.	.	2a	4	+	1	+	2a	.	.	.	1	.	.	.	.	.	+	.	.	.	.	.
Rhamnus frangula	.	.	.	+	+	.	.	2a	.	.	.	.	.	2b	.	.	.	.	.	.	+	.	+	.	.	.	.	.	.	.	.	.	.
Salix caprea	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	2a	.	2b	2a

	Table number	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
	Principal group	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	Cluster	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Hedera helix	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	2b	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	2a	2b	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Amelanchier lamarckii	.	.	.	.	.	.	.	.	+	.	.	.	.	2a	+	.	.	.	.	.	.	.	.	.	.	.	.	2a	2b	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	+	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.
	Ilex aquifolium	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	2a	.	2b	.	.	.	.	.	2a	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.
	Salix cinerea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	2a	.	2a	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	2b	.	.	.	.	.	.	.	.
	Salix aurita	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	2b	.	+	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Salix alba	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	Salix x multinervis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Cotoneaster spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Aronia x prunifolia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Prunus cerasifera	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rosa multiflora	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Salix aurita x caprea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	Sorbus spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Viburnum lantana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Herb layer																																																																																		
	Agrostis capillaris	+	.	2m	3	2m	.	+	2m	2a	.	+	.	1	+	+	2m	.	.	.	2b	2m	2b	1	1	.	.	2a	2m	2m	2m	+	.	2m	.	2m	2a	2m	1	.	.	.	1	1	+	.	1	+	+	2a	2m	2m	2b	1	.	+	+	3	2b	.	4	2a	1	2a	1	.	1	+	.	2a	.
	Holcus mollis	.	.	.	1	.	1	.	2m	.	1	.	.	+	.	.	2a	.	+	2m	2a	2m	2m	2b	2m	.	2b	2a	2m	2m	2m	+	+	2m	.	2b	2a	2m	1	.	2m	.	1	.	+	.	.	+	.	.	.	1	1	.	+	2a	.	+	.	1	2a	.	+	2a	2b	+	1	2m	.	1
	Urtica dioica	2b	1	.	.	2a	3	+	.	2a	.	+	2a	+	.	2a	.	2a	.	2a	2a	2a	1	.	+	.	.	.	.	2a	.	+	.	+	.	.	.	.	.	.	.	.	.	.	+	.	+	.	+	3	+	+	+	.	.	.	.	+	2b	2a	.	2m	4	+	2m	2a	2b
	Elytrigia repens	.	1	.	.	.	2m	2m	2m	2m	.	.	.	2m	.	.	.	.	.	2m	.	.	2a	.	2m	.	.	2a	1	.	.	+	.	.	2b	.	2m	2m	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	1	2m	2m	2b	2b	.	.	2a	1	.	2b	2m
	Dactylis glomerata	.	+	+	.	.	.	.	.	+	.	.	.	+	.	.	.	.	.	+	+	+	.	+	+	.	.	.	.	+	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	1	1	.	.	.	1	1	.	+	.	.	+	.	.	.	.	+	.	.	2b	2a	+	+	.
	Holcus lanatus	.	.	2a	.	.	1	.	.	1	+	.	.	1	.	.	1	.	.	1	1	1	1	.	.	.	.	.	.	.	.	.	1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	2b
	Dryopteris dilatata	.	.	.	.	r	.	.	.	.	.	.	1	.	2a	+	2b	2b	.	.	.	.	.	.	.	+	2a	.	.	.	.	+	.	.	.	r	.	2a	.	.	.	2a	2a	.	+	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.
	Juncus effusus	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	1	.	.	.	.	.	2a	.	.	.	+	2a	.	.	1	.	.	.	+	.	.	.	.	+	.	.	2a	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.
	Glechoma hederacea	+	.	.	.	.	.	.	.	.	.	.	.	r	2a	.	.	.	.	2m	r	.	+	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Anthriscus sylvestris	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	+	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Festuca rubra	.	.	2a	2a	.	.	.	.	2m	+	.	.	.	.	.	.	.	.	+	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	2b	4	.	.	.	3	.	.	1	.	.	.	.	.
	Lysimachia vulgaris	.	.	+	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	+	.	.	.	.	.	+	+	+	.	.	.	.	.	.	.	.	2a	.	+	2m	.	.	.	.	.	+	.	.	.	+	.	.	+	.	.	.	.	.	.	.
	Molinia caerulea	.	.	.	.	.	.	.	.	.	.	.	.	+	.	r	.	.	.	.	.	.	2b	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	2a	+	+	2b	2a	.	2a	.	.	+	.	+	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Galium aparine	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.
	Chamerion angustifolium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	+	.	.	+	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Galeopsis tetrahit	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	+	.	.	+	.	.	.	.	.	.	+	+	.	.	.
	Arrhenatherum elatius subsp. *elatius*	.	1	.	.	.	.	.	1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	2a	.	.	.	.
	Phragmites australis	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.
	Stellaria media	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	r	.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.
	Calystegia sepium	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ranunculus repens	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a
	Cirsium arvense	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
	Deschampsia flexuosa	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	1	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Equisetum arvense	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.
	Rumex acetosa	.	.	r	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.
	Achillea millefolium	.	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	2m	.	.	.	.	.	.	.	.	.	.	.
	Rumex obtusifolius	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	+
	Pteridium aquilinum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	5	.	.	.	.	.	.	+	2a	.	.	.	.	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Phalaris arundinacea	.	+	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Poa trivialis	.	.	.	.	.	2a	.	.	+	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Taraxacum spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Dryopteris carthusiana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Artemisia vulgaris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	.	.

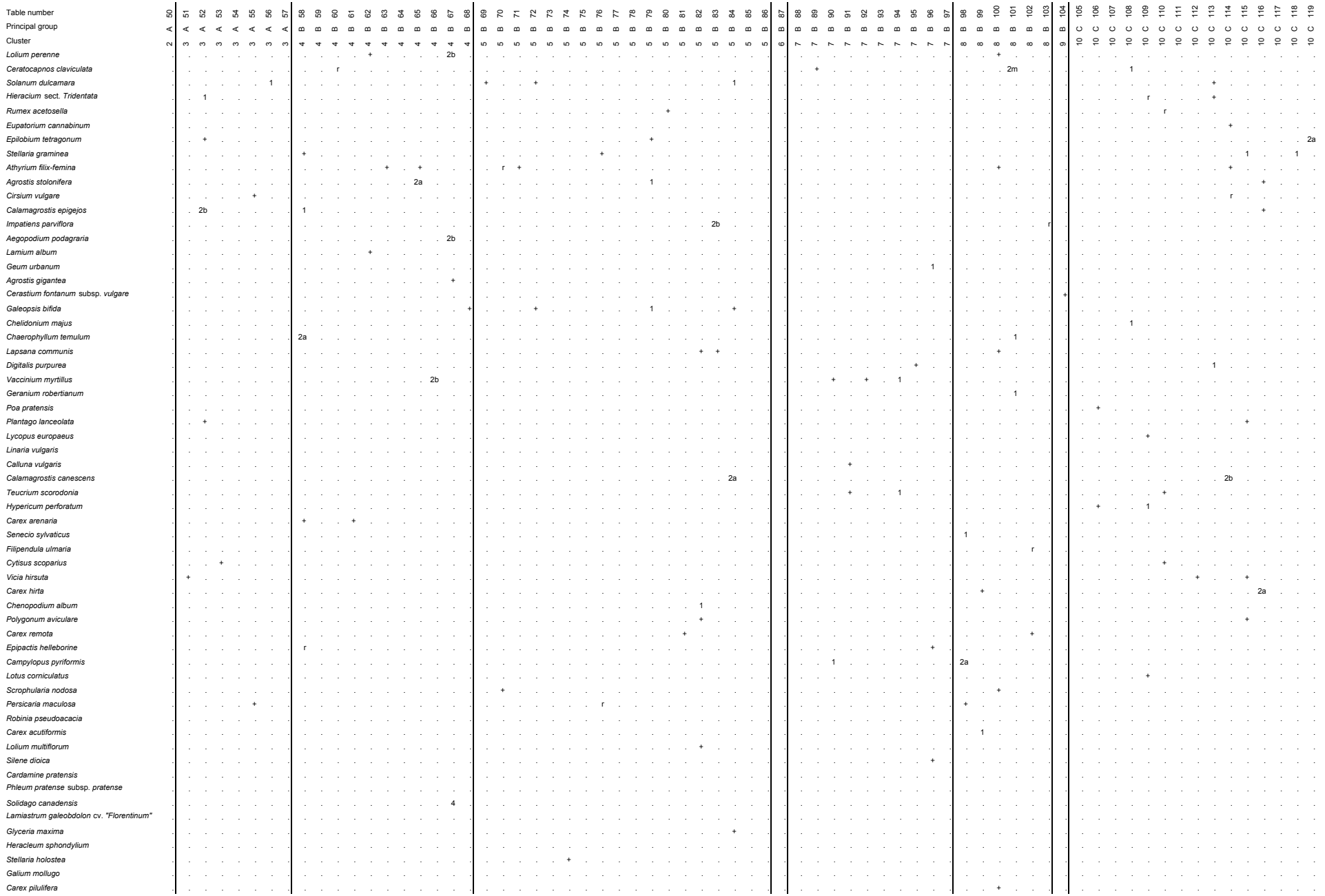
Table number
Principal group
Cluster
Lolium perenne
Ceratocapnos claviculata
Solanum dulcamara
Hieracium sect. Tridentata
Rumex acetosella
Eupatorium cannabinum
Epilobium tetragonum
Stellaria graminea
Athyrium filix-femina
Agrostis stolonifera
Cirsium vulgare
Calamagrostis epigejos
Impatiens parviflora
Aegopodium podagraria
Lamium album
Geum urbanum
Agrostis gigantea
Cerastium fontanum subsp. vulgare
Galeopsis bifida
Chelidonium majus
Chaerophyllum temulum
Lapsana communis
Digitalis purpurea
Vaccinium myrtillus
Geranium robertianum
Poa pratensis
Plantago lanceolata
Lycopus europaeus
Linaria vulgaris
Calluna vulgaris
Calamagrostis canescens
Teucrium scorodonia
Hypericum perforatum
Carex arenaria
Senecio sylvaticus
Filipendula ulmaria
Cytisus scoparius
Vicia hirsuta
Carex hirta
Chenopodium album
Polygonum aviculare
Carex remota
Epipactis helleborine
Campylopus pyriformis
Lotus corniculatus
Scrophularia nodosa
Persicaria maculosa
Robinia pseudoacacia
Carex acutiformis
Lolium multiflorum
Silene dioica
Cardamine pratensis
Phleum pratense subsp. pratense
Solidago canadensis
Lamiastrum galeobdolon cv. "Florentinum"
Glyceria maxima
Heracleum sphondylium
Stellaria holostea
Galium mollugo
Carex pilulifera

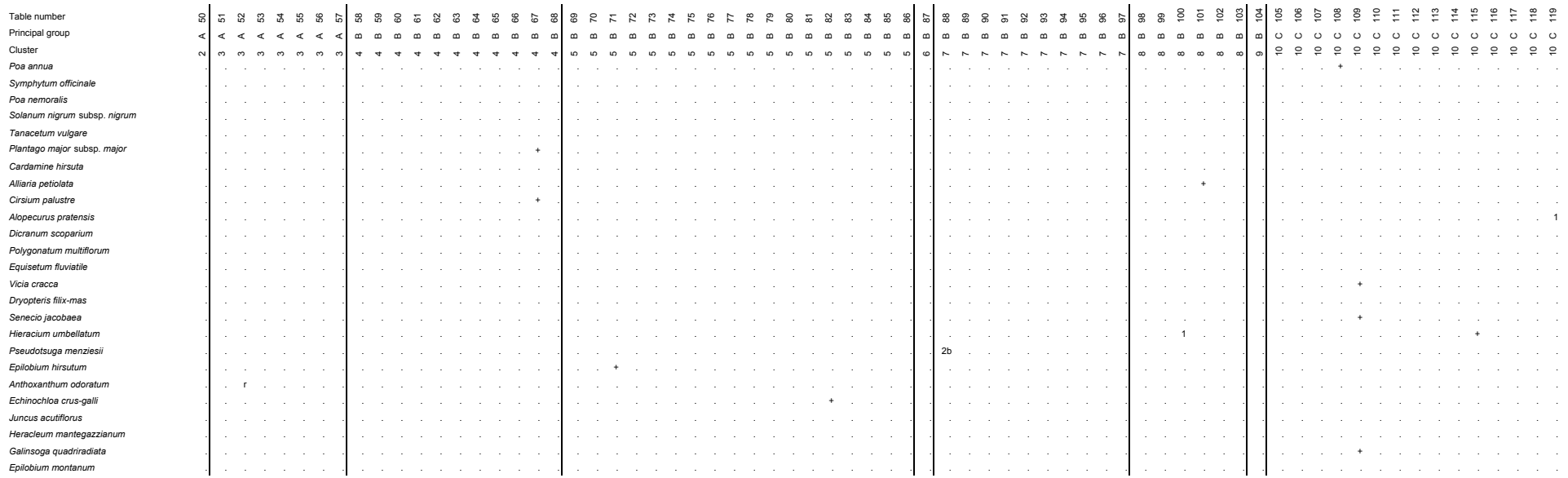
Table number
Principal group
Cluster
Poa annua
Symphytum officinale
Poa nemoralis
Solanum nigrum subsp. nigrum
Tanacetum vulgare
Plantago major subsp. major
Cardamine hirsuta
Alliaria petiolata
Cirsium palustre
Alopecurus pratensis
Dicranum scoparium
Polygonatum multiflorum
Equisetum fluviatile
Vicia cracca
Dryopteris filix-mas
Senecio jacobaea
Hieracium umbellatum
Pseudotsuga menziesii
Epilobium hirsutum
Anthoxanthum odoratum
Echinochloa crus-galli
Juncus acutiflorus
Heracleum mantegazzianum
Galinsoga quadriradiata
Epilobium montanum

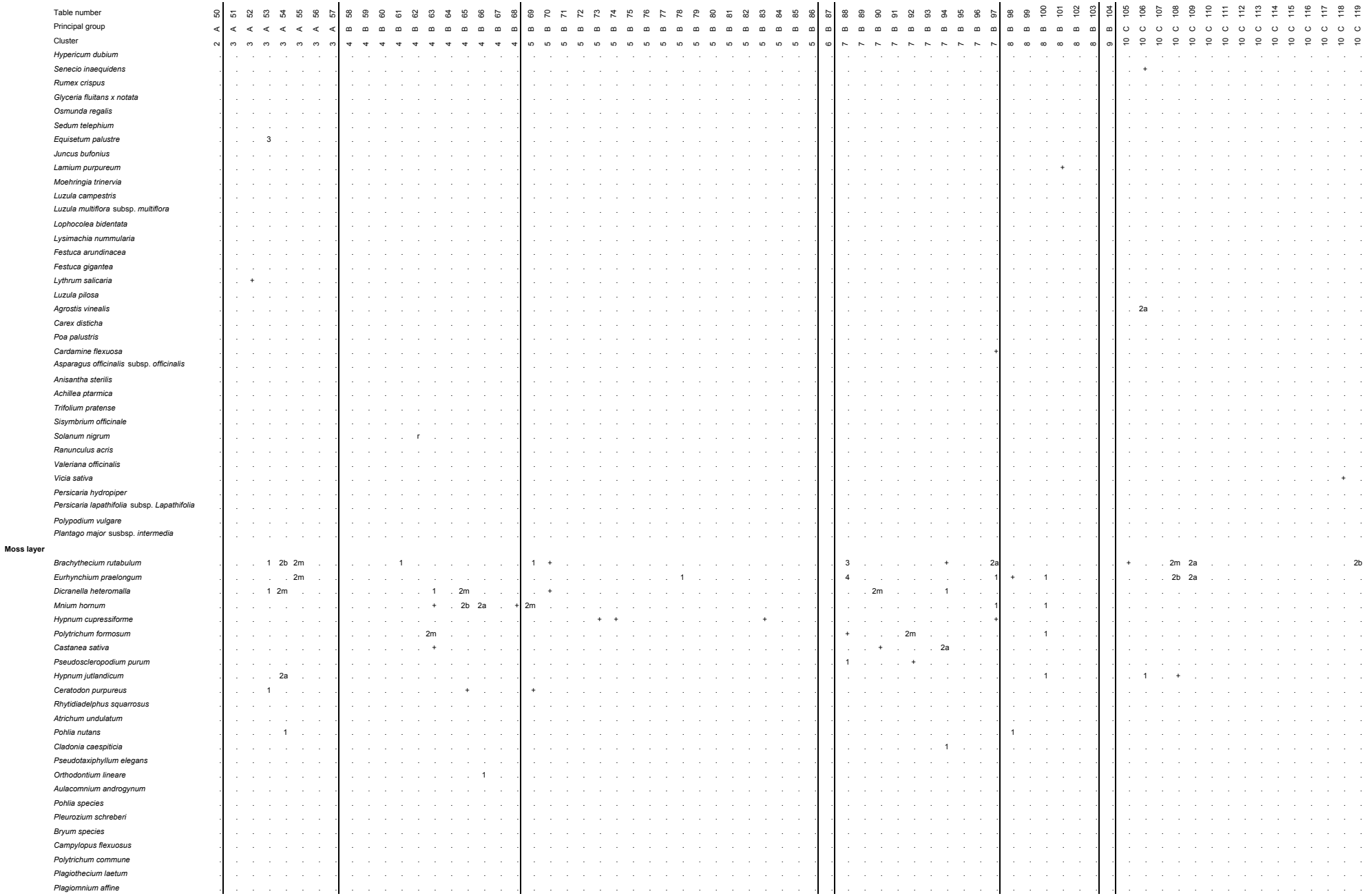
Table number
Principal group
Cluster
Hypericum dubium
Senecio inaequidens
Rumex crispus
Glyceria fluitans x notata
Osmunda regalis
Sedum telephium
Equisetum palustre
Juncus bufonius
Lamium purpureum
Moehringia trinervia
Luzula campestris
Luzula multiflora subsp. multiflora
Lophocolea bidentata
Lysimachia nummularia
Festuca arundinacea
Festuca gigantea
Lythrum salicaria
Luzula pilosa
Agrostis vinealis
Carex disticha
Poa palustris
Cardamine flexuosa
Asparagus officinalis subsp. officinalis
Anisantha sterilis
Achillea ptarmica
Trifolium pratense
Sisymbrium officinale
Solanum nigrum
Ranunculus acris
Valeriana officinalis
Vicia sativa
Persicaria hydropiper
Persicaria lapathifolia subsp. Lapathifolia
Polypodium vulgare
Plantago major susbsp. intermedia
Moss layer
Brachythecium rutabulum
Eurhynchium praelongum
Dicranella heteromalla
Mnium hornum
Hypnum cupressiforme
Polytrichum formosum
Castanea sativa
Pseudoscleropodium purum
Hypnum jutlandicum
Ceratodon purpureus
Rhytidiadelphus squarrosus
Atrichum undulatum
Pohlia nutans
Cladonia caespiticia
Pseudotaxiphyllum elegans
Orthodontium lineare
Aulacomnium androgynum
Pohlia species
Pleurozium schreberi
Bryum species
Campylopus flexuosus
Polytrichum commune
Plagiothecium laetum
Plagiomnium affine

Table number	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146
Principal group	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Cluster	10	10	10	10	10	10	10	10	10	10	10	10	10	10	11	11	12	12	12	13	13	13	13	13	13	13	13
Inclination (degrees)	45	0	0	30	45	0	45	5	0	45	5	45	30		3		0	0	0	0	30	0	0	3		45	20
Total cover (%)	96	96	96	96	96	96	96	96	96	80	95	96	96	99	99	99	96	96	96	96	96	99	96	96	99	96	95
Cover tree layer (%)		96	96	30	96			30	80	10	20	96	60	80	80	60	50	70	85		96	70	96	85	5	80	80
Cover shrub layer (%)	96	96	70	96	80	96	50	80	90	70	90	96	96	90	99	80	96	90	80	96	96	99	96	60	99	90	90
Cover herb layer (%)	1	20	60	30	5	30	70	60	30	20	20	20	20	90	5	70	30	10	10	10	60	5	1		1	30	2
Cover moss layer (%)	1		10			20		1		30								1								5	
Height tree layer (m)	8	22	15	22	18			18	15	12	25	18	20	10	20	20	20	15	20		22	18	20	8	15	15	20
Height shrub layer (m)		5,0	3,0	5,0	2,0			5,0	4,0	3,0	2,5	4,0		5,0	6,0	4,0	2,0	4,0	3,0	5,0	4,0	4,0	6,0	4,0	2,5	4,0	4,5
Height bramble layer (m)	0,8	1,2	1,0	1,8	1,0	1,5	1,5	1,5	1,0	1,5	1,0	0,6	1,5	2,0	1,5	1,0	1,0	1,0	0,8	1,8	1,0	2,0	1,0	1,2	1,5	1,0	1,8
Height high herb layer(cm)	40	30	80	40	30	40	40	100	30	30	30	30	80	30	60	30	120	40	40	60	30	60	30		30	40	30
Height low herb layer (cm)								20						5		10	30				10						
Maximum height herb layer(cm)		120	100	80	60	100	80	180	80	60	30	60	200	80	80	80	120	100	60	100	60	80	80		80	80	60
# *Rubus* species	1	2	1	2	2	3	1	1	3	3	4	3	1	2	5	5	6	5	3	2	3	3	3	3	2	4	4
Bramble species																											
Rubus ammobius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	2b	.
Rubus gratus	.	.	.	.	.	.	.	.	.	.	.	r	.	+	.	+	.	+	.	2a	2a	2b	+	2b	2a	3	3
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	4	3	.	.	.	.	.	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus erinulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus plicatus	.	2b	.	.	.	.	.	.	.	2b	3	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
Rubus integribasis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	2a
Rubus affinis	.	4	.	.	2a	.	4	.	3	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nessensis	.	.	.	.	.	.	.	.	+	3	3	.	.	.	2b	2a	+	.	.	.	.	.	.	3	.	.	.
Rubus idaeus	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	3	2a	.	.	.	.	.	.	.	.	.
Rubus nemoralis	.	.	4	4	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus scissus	5	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus grisiae	.	.	.	.	.	.	.	.	.	.	.	4	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus caesius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lucticola	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3	3	2a	2b	5	4	5	4	3	5	3	2b
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.
Rubus calvus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	+	.	.	.	.

Table number	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168
Principal group	C	C	C	C	C	C	C	D	E	E	F	F	F	F	F	F	F	F	F	F	F	F
Cluster	14	14	14	14	14	14	14	15	16	16	17	17	17	17	17	17	17	18	18	18	18	18
Inclination (degrees)		45	5	0	45	20	0	5	10		0	0			2	30	30	0	2	0	30	45
Total cover (%)	96	96	96	96	96	96	99	96	96	99	96	90	96	96	96	96	96	96	96	96	99	96
Cover tree layer (%)	96	10	70	70	30	20	60	5		40	96	80	96	96	80		15		80	96	30	96
Cover shrub layer (%)	60	96	80	96	96	96	70	90	96	95	96	60	96	96	96	96	60	70	80	80	85	80
Cover herb layer (%)	5	30	5	5	5	20	2	20	10	1	10	10	10	20	20	5	60	5	5	80	20	40
Cover moss layer (%)							80	60	3													
Height tree layer (m)	22	12		4	20	4	12	12		20	22	8	12	25	25		8		8	15	20	22
Height shrub layer (m)	1,5	4,0	5,0		5,0		3,5	4,0	5,0	6,0	5,0	4,0	4,0	4,0	5,0	4,0	2,5	4,0	4,0	5,0	6,0	5,0
Height bramble layer (m)	0,8	1,0	1,5	2,0	2,0	1,2	1,5	1,0	1,5	1,0	1,8	1,2	1,0	1,5	2,0	2,0	0,6	2,0	1,0		1,5	1,8
Height high herb layer(cm)	20	30	30	60	60	60	30	30	60	30	40	30	30	60	60	30	20	100	40	50	20	40
Height low herb layer (cm)																						
Maximum height herb layer(cm)	80	60	100	80	80	80	50	60	100	80	80	60	60	120	120	60		200	60	70	100	80
# *Rubus* species	5	4	4	1	2	1	4	4	3	7	2	2	2	2	7	4	6	4	4	1	1	2
Bramble species																						
Rubus ammobius	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus gratus	2b	2a	+	.	.	.	2b	+	.	2b	.	.	3	.	2a	+	+	+	2a	.	.	.
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	2a	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.
Rubus erinulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.
Rubus longior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	3	4	2b	5	2a	5	3	.	.	.	3	3	2a	5	3	3	2a	.	.	.	.	.
Rubus plicatus	.	.	.	.	.	.	.	3	.	.	.	2a	.	.	+	.	.	.	.	.	.	.
Rubus integribasis	.	.	4	.	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus affinis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	4	.	.	.	.
Rubus nessensis	.	.	.	.	.	.	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
Rubus idaeus	2b	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	2b	+	.	.	.
Rubus nemoralis	+	.	2a	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	3
Rubus scissus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus grisiae	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus geniculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus caesius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.
Rubus lucticola	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	.	.	.	.	2b	.	.	3	.	.	.	.	2b	.	.	.	.	.	.	.
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	2b	3	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calvus	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.
Rubus camptostachys	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	r	.	.	.	.	.	.	2a	.	3	.	.	.	.	.

Table number	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185
Principal group	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G
Cluster	19	19	19	19	19	19	19	19	19	19	20	20	20	20	21	22	22
Inclination (degrees)	45	3	0	0	45	45	0		10	5	0	0	45	0	20	0	0
Total cover (%)	96	96	96	96	99	90	96	99	96	96	96	96	96	96	96	96	96
Cover tree layer (%)	60	96	96		70	96	96	60	96	96	96	96	30	96	70	40	80
Cover shrub layer (%)	96	90	96	96	95	60	90	90	96	96	96	90	96	90	96	96	96
Cover herb layer (%)	5	40	1	1	20	5	60	10	20	10	5	1	10	10	20	5	10
Cover moss layer (%)						1											
Height tree layer (m)	12	22	18		12	20	22	8	22	18	25	25	22	20	10	6	15
Height shrub layer (m)	6,0	6,0	4,0	4,0	4,0	1,8	6,0	5,0	4,0	4,0	5,0		6,0	6,0	5,0		2,5
Height bramble layer (m)	3,0	1,0	2,0	1,5	1,5	0,6	1,0	2,0	1,0	1,5	0,8	1,2	2,0	0,8	1,5	2,0	1,5
Height high herb layer(cm)	60	80	20	80	30	20	40	30	40	80	60	80	30	60	40	60	60
Height low herb layer (cm)							5										
Maximum height herb layer(cm)	200	120	80	120	50	80	80	100	80	120	80	120	80	120	80	120	80
# *Rubus* species	5	4	5	6	4	2	4	2	5	6	1	1	5	3	1	1	1
Bramble species																	
Rubus ammobius	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus gratus	2b	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.
Rubus pyramidalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus silvaticus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus glandithyrsos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus erinulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sprengelii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus schlechtendalii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus taxandriae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus campaniensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus insectifolius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus baronicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus ceratus nom.prov.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lasiandrus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus longior	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus iuvenis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus adspersus	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus plicatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus integribasis	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
Rubus affinis	.	+	2a	2a	.	.	+	.	.	.	.	.	.	.	.	.	.
Rubus nessensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus idaeus	.	.	.	2a	.	.	.	.	.	+	.	.	.	.	.	.	.
Rubus nemoralis	.	.	.	.	.	2b	.	.	.	.	.	.	2a	.	.	.	.
Rubus scissus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus laevicaulis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus grisiae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus calothemnus	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.
Rubus geniculatus	2b	2a	.	5	4	2b	.	3	2a	2a	.	.	.	.	.	.	.
Rubus caesius	.	2a	.	2b	.	.	.	.	2a	+	.	.	.	.	.	.	.
Rubus dumetorum	.	.	.	.	.	.	+	.	+	1	.	.	.	.	.	.	.
Rubus lucticola	.	.	.	+	.	.	2b	.	4	.	.	.	.	.	.	.	.
Rubus confusidens	.	.	3	.	.	.	.	.	.	3	.	.	.	.	.	.	.
Rubus macrophyllus	.	.	2b	+	2a	.	.	.	+	3	5	5	3	2a	.	.	.
Rubus chloocladus	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.
Rubus lindebergii	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.
Rubus stereacanthos	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.
Rubus vestitus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus foliosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus armeniacus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	5
Rubus calvus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus camptostachys	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
Rubus sect. *Corylifolii*	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.

Table number	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185
Principal group	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	E	E	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G
Cluster	10	10	10	10	10	10	10	10	10	10	10	10	10	10	11	11	12	12	12	13	13	13	13	13	13	13	13	14	14	14	14	14	14	14	15	16	16	17	17	17	17	17	17	17	18	18	18	18	18	19	19	19	19	19	19	19	19	19	19	20	20	20	20	21	22	22
Rubus ferocior	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus phoenicacanthus	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus bertramii	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus lindleianus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.
Rubus frederici	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus mus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus nemorosus	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
Rubus passionis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus discors	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus divaricatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus planus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus poliothyrsus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus winteri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus arrheniiformis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus canduliger	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus dejonghii	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rubus drenthicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Rubus platyacanthus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Corylus avellana	.	.	.	2b	.	.	.	.	.	.	.	5	.	2a	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	3	2a	.	3	2b	.	.	.	.	2a	3	+	.	.	+	.	.	2a	.	5	.	.	.	.	.	.	.	.
Prunus padus	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	2a	.	+	.	3	.	.	.	.	+	.	+	.	.	.	.	.	.	+	2b	2a	.	.	.	.	2b	.	.	.
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Prunus spinosa	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	r	.	.	.	.	.	+	.	.	.	.	.	.	.	4	.	.	.	.	.	+	.	.	.	.	.	.	.	.
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Crataegus laevigata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Betula pendula	.	.	+	.	.	.	.	.	.	2a	3	2b	.	.	.	.	.	+	+	.	.	.	2b	.	.	.	2b	2m	.	.	.	+	.	.	.	.	.	.	.	5	.	.	.	.	.	+	4	+	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	2b	.	.	.
Alnus glutinosa	.	.	2b	.	5	.	.	.	4	.	.	.	.	.	.	.	.	.	3	.	.	2a	2a	4	.	.	.	.	2a	.	4	2a	2b	.	.	.	.	.	.	.	.	.	.	2a	.	.	3	.	.	2a	.	.	.	.	2a	2a	.	.	2a	.	.	.	.	.	.	.
Betula pubescens	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.
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Pinus sylvestris	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	2b	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Acer pseudoplatanus	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	+	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	2b	.
Fraxinus excelsior	.	.	3	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	2b	.	.	.	4	.	.	.	.	.	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Shrub layer																																																																		
Sorbus aucuparia	.	2a	.	.	.	.	.	.	.	2a	.	2a	.	2a	2b	2a	+	3	+	+	.	2a	2b	3	+	2m	3	+	.	.	.	+	.	2a	.	.	4	2m	.	.	.	.	.	+	.	3	.	.	.	+	.	.	.	.	+	2m	.	.	.	.	.	+	.	.	.	.
Sambucus nigra	.	3	2a	.	+	.	.	.	.	r	.	.	.	2a	.	.	2a	.	.	2a	5	.	.	.	.	r	.	+	2a	.	.	+	2a	.	.	.	.	2b	.	.	2a	2a	+	.	.	.	.	.	2a	.	2a	2b	.	.	.	2m	.	+	3	2b	.	2a	2a	3	.	.
Prunus serotina	.	.	.	.	.	+	.	.	.	.	.	.	.	.	2a	2a	.	.	.	.	2b	.	+	2a	.	.	.	.	.	.	.	2a	.	.	.	+	.	.	2a	.	.	.	.	.	.	.	2a	.	.	2b	.	.	.	.	2a	+	.	.	.	2a	.	.	.	.	.	.
Lonicera periclymenum	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	+	+	.	.	1	.	.	+	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	.	.	.	.	+	.	+	.	+	.	.	.	.	.	.
Rhamnus frangula	.	.	.	.	.	+	.	.	.	.	3	.	.	.	.	.	.	+	.	.	.	.	3	.	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	.	.	.	.	.	.	2a	2b	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.
Salix caprea	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.

	Table number	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185
	Principal group	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	E	E	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G
	Cluster	10	10	10	10	10	10	10	10	10	10	10	10	10	10	11	11	12	12	12	13	13	13	13	13	13	13	13	14	14	14	14	14	14	14	15	16	16	17	17	17	17	17	17	17	18	18	18	18	18	19	19	19	19	19	19	19	19	19	19	20	20	20	20	21	22	22
	Hedera helix	.	.	.	.	.	.	.	.	.	.	.	2a	.	5	+	4	.	.	.	.	3	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	2b	2m	.	1	.	.	.	.	3	2b	2m	.	.	.	.	3	.	.
	Amelanchier lamarckii	.	.	.	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	Salix cinerea	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	2a	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	Pinus spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Larix spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Tilia cordata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.
	Taxus baccata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Carpinus betulus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Sambucus racemosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Salix x multinervis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Cotoneaster spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Aronia x prunifolia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Prunus cerasifera	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rosa multiflora	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Salix aurita x caprea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Salix fragilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
	Sorbus spec.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Viburnum lantana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Herb layer																																																																												
	Agrostis capillaris	+	.	.	.	+	2a	2a	.	.	2m	.	2a	.	1	.	.	2m	1	2m	.	2a	+	2m	.	.	.	.	.	2m	2a	.	.	.	1	.	+	.	.	1	2m	.	.	3	.	2m	2m	1	2a	.	.	.	2m	2a	+	2b	.	.	.	+	2a	1	.	.	.
	Holcus mollis	2m	.	.	2a	.	1	2m	.	2b	2m	.	1	.	1	.	.	.	2m	1	.	.	.	+	.	.	3	.	.	.	.	1	.	.	2a	2m	.	.	.	2a	2a	2m	.	.	+	+	.	2m	2b	1	1	.	.	.	2b	2m	.	+	.	.	2m	.	.	.	.	.
	Urtica dioica	+	+	2b	+	+	2a	3	3	.	+	.	.	2a	.	+	2a	+	.	.	+	.	.	.	.	2a	+	+	.	.	.	1	.	1	2a	.	.	2a	+	2a	.	1	+	.	+	1	2b	.	.	2a	.	2b	+	2m	1	.	+	.	1	2a	2a	.	+	2a	2a	1	.
	Elytrigia repens	2m	2b	2a	2b	2m	2m	.	2m	2b	.	.	2b	2m	+	.	.	.	.	2m	2a	2a	.	.	.	.	.	.	.	.	1	.	1	2m	.	.	2m	.	.	.	1	2m	.	2a	.	.	.	2a	.	1	.	2a	.	.	1	.	+	+	.	.	.	+	2a	1	1
	Dactylis glomerata	.	+	.	+	+	+	.	1	.	+	.	+	.	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	.	1	.	.	.	+	.	.	+	.	+	1	.	+	.	.	+	+	.	.	+	+	.	.	.	.	.	.	.	.
	Holcus lanatus	+	.	2a	.	2m	+	2a	.	.	.	.	.	.	.	.	.	+	.	.	1	1	.	1	.	.	+	.	.	.	.	.	.	.	+	.	+	.	.	.	.	.	.	2m	.	.	.	.	+	+	.	1	.	.	.	+	.	.	.	.	.	.	+	.	.	.
	Dryopteris dilatata	.	.	.	.	.	+	.	.	.	.	2a	.	.	.	+	.	.	.	.	2a	.	.	2b	.	.	2a	.	.	.	+	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.
	Juncus effusus	.	.	.	.	.	.	.	+	2a	+	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	2a	.	1	+	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
	Glechoma hederacea	.	.	1	.	.	2m	.	.	.	.	.	1	.	.	.	.	.	.	.	.	1	+	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	+	.	.	2b	.	.	.	.	.	.	.	.	.	2m	1	.	.	2a	.	+	.	.
	Anthriscus sylvestris	1	.	.	.	.	+	.	.	+	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	+	.	.	.	.	+	.	.	.	+	1	.	2a
	Festuca rubra	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	+	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	+	.	.	3	.	.	.	.	2m	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.
	Lysimachia vulgaris	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Molinia caerulea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Galium aparine	.	.	.	.	+	+	1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	1	.	+	.	.	.	.	.	.	.	1	.	.	.	.	1	.	+	.	.	.	.	.	1	1	.	.	.	.	.	1
	Chamerion angustifolium	.	.	.	2a	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
	Galeopsis tetrahit	.	.	.	+	+	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	+	+	+	+	.	.	.
	Arrhenatherum elatius subsp. *elatius*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	2m	.	.	.	.	.	.	2a	.	.	.	.	+	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	1	+	.	.
	Phragmites australis	.	.	.	.	.	.	.	.	1	.	.	.	+	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	2a	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Stellaria media	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.	.	.	+	.	.	.	.	.
	Calystegia sepium	.	.	2b	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	2a	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	1	.	2a	.	1	.	.	.	.	.	.	.	.	.	1	.	.
	Ranunculus repens	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Cirsium arvense	.	.	+	.	+	.	.	+	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Deschampsia flexuosa	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Equisetum arvense	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
	Rumex acetosa	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Achillea millefolium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rumex obtusifolius	.	.	.	.	.	+	.	.	.	r	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
	Pteridium aquilinum	.	.	.	.	.	.	.	.	.	.	.	.	2a	4	.	2b	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Phalaris arundinacea	.	.	+	.	.	+	.	+	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Poa trivialis	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	+	.	.
	Taraxacum spec.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
	Dryopteris carthusiana	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Artemisia vulgaris	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.

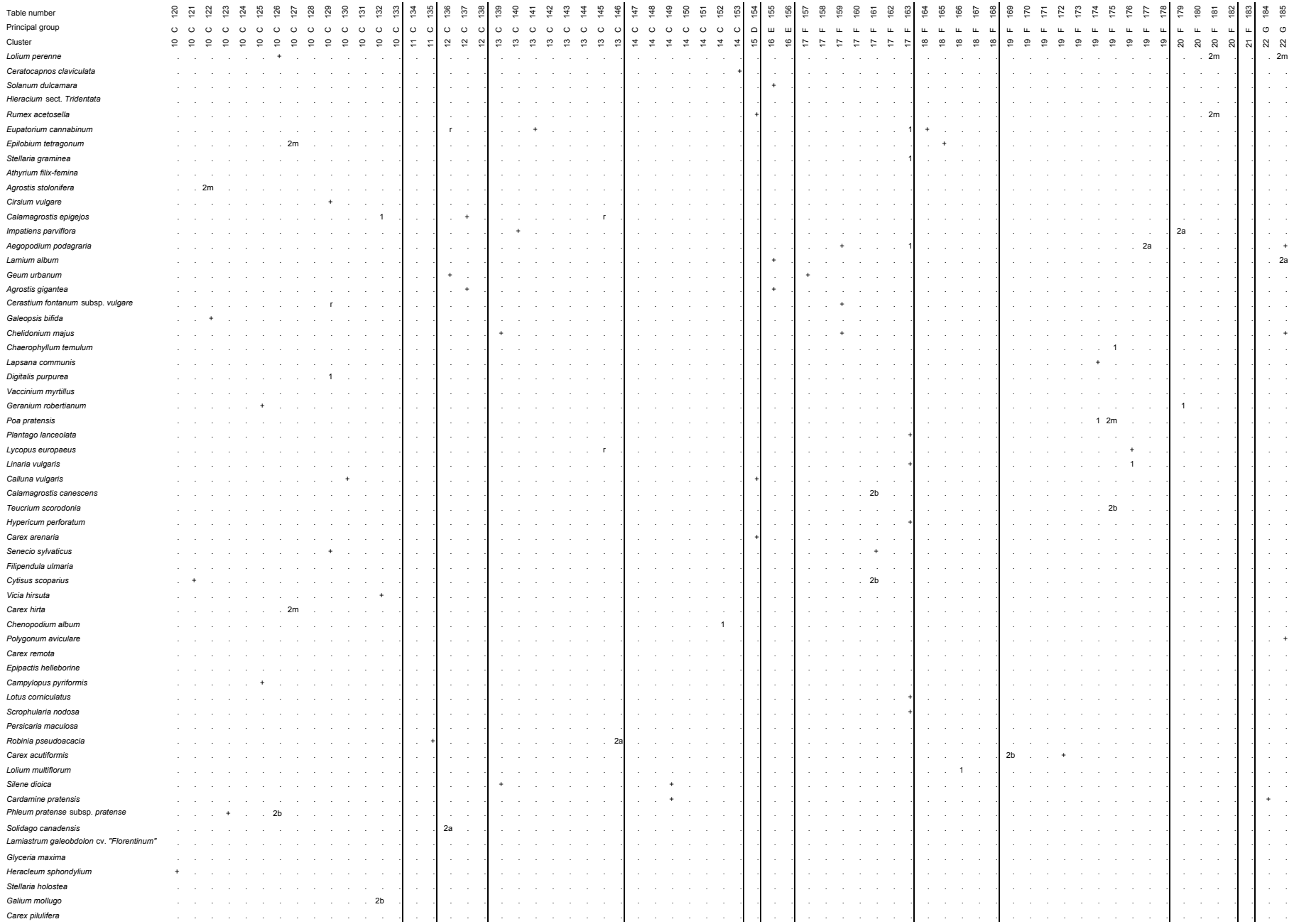
Table number
Principal group
Cluster
Lolium perenne
Ceratocapnos claviculata
Solanum dulcamara
Hieracium sect. Tridentata
Rumex acetosella
Eupatorium cannabinum
Epilobium tetragonum
Stellaria graminea
Athyrium filix-femina
Agrostis stolonifera
Cirsium vulgare
Calamagrostis epigejos
Impatiens parviflora
Aegopodium podagraria
Lamium album
Geum urbanum
Agrostis gigantea
Cerastium fontanum subsp. vulgare
Galeopsis bifida
Chelidonium majus
Chaerophyllum temulum
Lapsana communis
Digitalis purpurea
Vaccinium myrtillus
Geranium robertianum
Poa pratensis
Plantago lanceolata
Lycopus europaeus
Linaria vulgaris
Calluna vulgaris
Calamagrostis canescens
Teucrium scorodonia
Hypericum perforatum
Carex arenaria
Senecio sylvaticus
Filipendula ulmaria
Cytisus scoparius
Vicia hirsuta
Carex hirta
Chenopodium album
Polygonum aviculare
Carex remota
Epipactis helleborine
Campylopus pyriformis
Lotus corniculatus
Scrophularia nodosa
Persicaria maculosa
Robinia pseudoacacia
Carex acutiformis
Lolium multiflorum
Silene dioica
Cardamine pratensis
Phleum pratense subsp. pratense
Solidago canadensis
Lamiastrum galeobdolon cv. "Florentinum"
Glyceria maxima
Heracleum sphondylium
Stellaria holostea
Galium mollugo
Carex pilulifera

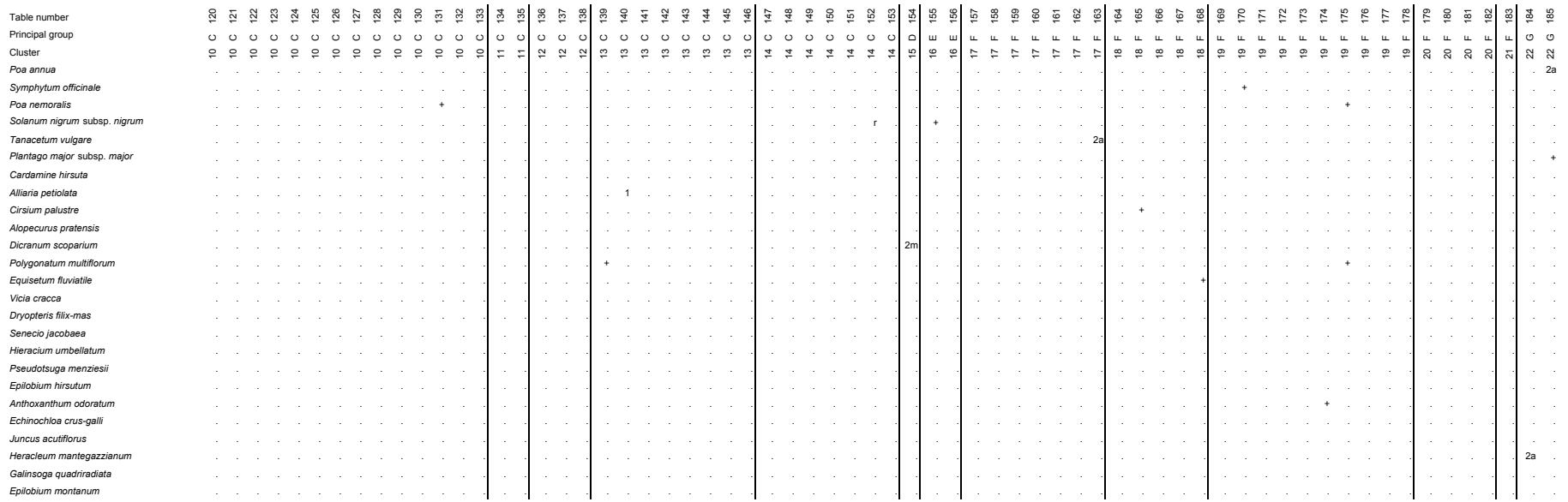
Table number
Principal group
Cluster
Poa annua
Symphytum officinale
Poa nemoralis
Solanum nigrum subsp. nigrum
Tanacetum vulgare
Plantago major subsp. major
Cardamine hirsuta
Alliaria petiolata
Cirsium palustre
Alopecurus pratensis
Dicranum scoparium
Polygonatum multiflorum
Equisetum fluviatile
Vicia cracca
Dryopteris filix-mas
Senecio jacobaea
Hieracium umbellatum
Pseudotsuga menziesii
Epilobium hirsutum
Anthoxanthum odoratum
Echinochloa crus-galli
Juncus acutiflorus
Heracleum mantegazzianum
Galinsoga quadriradiata
Epilobium montanum

	Table number	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185
	Principal group	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	E	E	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G
	Cluster	10	10	10	10	10	10	10	10	10	10	10	10	10	10	11	11	12	12	12	13	13	13	13	13	13	13	13	14	14	14	14	14	14	14	15	16	16	17	17	17	17	17	17	17	18	18	18	18	18	19	19	19	19	19	19	19	19	19	19	20	20	20	20	21	22	22
	Hypericum dubium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Senecio inaequidens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Rumex crispus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Glyceria fluitans x notata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Osmunda regalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Sedum telephium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
	Equisetum palustre	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Juncus bufonius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
	Lamium purpureum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Moehringia trinervia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Luzula campestris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Luzula multiflora subsp. *multiflora*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Lophocolea bidentata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Lysimachia nummularia	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Festuca arundinacea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Festuca gigantea	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.
	Lythrum salicaria	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Luzula pilosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Agrostis vinealis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Carex disticha	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Poa palustris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Cardamine flexuosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Asparagus officinalis subsp. *officinalis*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
	Anisantha sterilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Achillea ptarmica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Trifolium pratense	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Sisymbrium officinale	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Solanum nigrum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ranunculus acris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Valeriana officinalis	.	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Vicia sativa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Persicaria hydropiper	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Persicaria lapathifolia subsp. *Lapathifolia*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Polypodium vulgare	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Plantago major susbsp. *intermedia*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.
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	Eurhynchium praelongum	.	.	.	.	.	2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Dicranella heteromalla	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	2a	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
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	Hypnum cupressiforme	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.
	Polytrichum formosum	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Castanea sativa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pseudoscleropodium purum	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Hypnum jutlandicum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ceratodon purpureus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	+	.	.	.	.	.	.	.	.	.
	Rhytidiadelphus squarrosus	.	.	.	.	.	2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Atrichum undulatum	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pohlia nutans	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Cladonia caespiticia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pseudotaxiphyllum elegans	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Orthodontium lineare	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Aulacomnium androgynum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
	Pohlia species	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Pleurozium schreberi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Bryum species	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Campylopus flexuosus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Polytrichum commune	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Plagiothecium laetum	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Plagiomnium affine	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.