

Succession in two plots
at “Kungsmarken” between 1952 and 2005
with different historical management

Master Thesis in Nature Conservation

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Photo: Ulla-Beth Mariscal

Abstract

The main influences on growing conditions in pastures and hayfields are grazing and mowing, which regulate the species struggle for space and resources. If the management ceases, this will contribute to a change of the vegetation. A succession starts where the plant cover gradually will change according to a specific pattern. After some time a few competitive species, previously disfavoured by management regime, will be dominant.

My aim with this study was to reinventory two already existing plots at “Kungsmarken”, in an attempt to examine how succession has proceeded in the plots since management regime stopped in 1952. One of the plots, plot A, had been grazed and the other, plot B, had been mown and then grazed.

Prior inventories have been done at “Kungsmarken” in 1952, 1955, 1968 and 1976. During my inventory in the summer of 2005, the same plots were inventoried and the same method was used as has been used in the area since 1952. Eight lines 11 meters apart were put up in each plot. Fourteen subplots of one square meter were placed on each line 6 meters apart, starting with the first subplot 5 meters from the starting point.

The number of species has continuously decreased between 1952 and 2005 in both plots. The decrease of vascular plants was 30 % in plot A and 26 % in plot B. Almost half of the species went extinct and a considerable number immigrated in both plots between 1952 and 1976 as well as 1976 and 2005, indicating that the turnover of species was large. The species' frequency and diversity have decreased in both plots between 1976 and 2005, implying that the within-patch spatial heterogeneity of species has decreased. Both the proportion and composition of indicator species differed between the inventories of 1976 and 2005. Besides that, the percentage of indicator species was higher in both plots in the inventory of 1976 than 2005, as well as all species noted at the inventory of 1976 are typical for pastures and hayfields found in unfertilized and managed areas. Furthermore, a big part of the indicator species found in 2005 are either ruderal species, mostly occurring in disturbed fields, or forest species. When categorizing all species found at the inventories in 1952, 1976 and 2005 in succession connected groups, there seems to be a trend. Late successional species has, in accordance with the “intermediate disturbance hypothesis”, to some extent gradually replaced early successional species in both plots A and B between 1952 to 1976, and 1976 to 2005.

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1 Introduction

Hundred years ago the agriculture landscape in Sweden consisted of two million hectare “semi-natural grasslands” (Edman & Hagman, 1988). Today only a fraction, about two hundred thousand hectare, of the pastures and hayfields remains (Naturvårdsverket, 1997).

During recent centuries the former patchy landscape has become much more homogenous. The Scanian agricultural practices have developed to the most modern in Sweden (Schmitz, 1993).

1.1 Management regime regulates the struggle of space and recourses

The conditions of life for plants are partly the same on pastures and hayfields. For example species on both places have to withstand certain kinds of disturbances (Bernes, 1994).

The main influence on growing conditions in these places are grazing and mowing, which regulate the species’ struggle for space and resources (Ekstam & Forshed, 1996). Grazing and mowing affect various species to a different degree of biomass loss, “loss rate”, depending on the species character of growth. Tall species with a big part of their growing point high over the soil will lose a big part of their biomass, in contrast to short growing species that are favored by producing creeping shoots, tillers and a basal leaf rosette, giving them a good chance to recover and continue to grow after being cut. This means that many of the non competitive species, through management regime, gets a bigger share of nutrients, water and warmth than they would otherwise and thereby have increased opportunities to survive. It also means that the recourses, even in cases when they are insufficient, will be enough for more species to coexist. Since competitive species are disfavored while uncompetitive ones are favored, the result of management regime will be a plant community where the species richness and density is high, without any (or at least few) species expanding at the expense of others (Ekstam & Forshed, 1996).

1.2 Differences between grazing and mowing

Despite the fundamental similarity in disturbance that grazing and mowing mean for the species richness and density on pastures and hayfields, there are some important differences.

First of all, grazing is selective, meaning that the animal itself decides which species to eat, implying that it always chooses the best tasting part of the plant cover (Aronsson et al. 1988). As a result, some plant species have evolved defenses, for example thorns or bitter substances giving them competitive advantages over species without such protection (Bernes, 1994).

Depending on the disturbance, such as grazing pressure, extent of tramping, grazing rhythm, as well as the type of animal used, grazing can influence an area to a different degree (Ekstam & Forshed, 1996). Most often there is “harvest” throughout the whole growing season (Regnéll, 1982), meaning that the hooves of the animals cause strong pressure on certain areas (Aronsson et al. 1988). Ground disturbance by livestock results in exposed calcareous mineral soil which, to a certain degree, creates good conditions for many species’ seeds to germinate (Ekstam & Forshed, 1996).

Compared to grazing, the tool used for mowing is unselective in cutting. The development of defenses is worthless since the scythe and mower cuts everything, meaning that competition benefits that a certain species has evolved by growing in a pasture with grazing animals is of little use in a hayfield (Ekstam & Forshed, 1996).

Mowing usually means a longer, undisturbed growth with only one single occasion for removal of biomass (Ekstam & Forshed, 1996). The best method is to wait until as many species as possible have flowered and produced seeds, since the annual seeds underlie upcoming growing seasons. Furthermore, late harvested hay is poor in protein and the hayfield does not lose significant part of its nutrient supply since the nutrients are stored in the root system and buds near the soil for the growing seasons to come (Aronsson et al. 1988).

Hayfields can be grazed for some time after the harvest since this favors its production capacity. Shadowing woodplants will be removed to some extent and ground disturbance by livestock will contribute to regeneration by facilitating seeds to germinate (Aronsson et al. 1988).

1.3 Management regime causes adaptation to nutrient poor conditions

A big part of the Nordic wild flora has, during thousands of years, been adapted to nutrient poor conditions (Edman & Hagman, 1988). The reason is the historically one-way flow of nutrients removed with the hay. Since the manure received from the animals was not enough to fertilize the agricultural fields, it was very unusual that the hayfields received any of the shares. A prolonged use of the same fields resulted in leach, leading to productive species eventually becoming rarer as a result of malnutrition. On the contrary, a significant part of the nutrients are returned to the area through dung and urine, during grazing (Aronsson et al. 1988).

The supply of nitrogen is a very important factor in the growing regulation (Aronsson et al. 1988). Today there is nitrogen leak to the surroundings from agricultural areas and airborne deposition originated from industries and motor vehicles has increased. Between the 1940s and 1980s the nitrogen fall-out quadrupled in Sweden. The enrichment of nitrogen affects the diversity of the vegetation negatively as the dominant species increases (Edman & Hagman, 1988).

1.4 Lack of management regime contributes to succession

If the management stops or if the disturbance regime changes, this will contribute to a change in vegetation. A succession starts where the plant cover gradually will change according to a specific pattern. Over time a few competitive species, disfavoured by management regime, will be dominant (Ekstam & Forshed, 1996). All the uncompetitive species, favoured by management regime, will sooner or later decrease or go extinct as the area returns to forest, wet forest or reed (Ekstam & Forshed, 1992).

To get an image of the pattern that species follow at regressive changes in pastures and hayfields, the species can be categorized in succession connected groups (Ekstam & Forshed, 1992). The species that exhibit a similar pattern during succession are categorized in the same group. There are three regression phases dominated by species favoured by management regime, the grassland phases, and one phase dominated by forest or reed species.

The grassland phases are called; “early phase”, “middle phase” and “late phase” (A, B and C in figure 1). The forest or reed phase (D in figure 1) is not an end point but a beginning of the succession belonging to the forest (Ekstam & Forshed, 1992), (figure 1).

Figure 1 shows how population changes can underlie the basis for a categorization of the species.

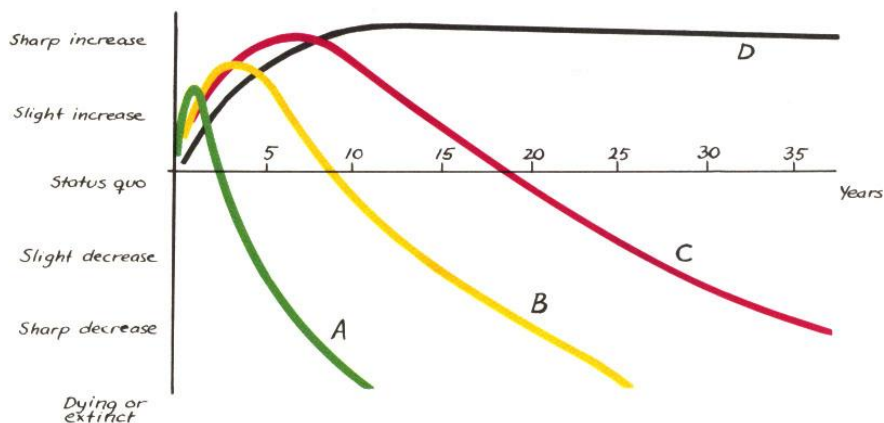


Figure 1: Diagram illustrating how the succession connected groups A, B, C and D behave after management regime ceases. The species that exhibit a similar pattern during succession are categorized in the same group. The groups A, B and C constitute “the grasslands phases” while group D constitute the “forest and reed phase” (Ekstam & Forshed, 1992).

Species in category A have their strongest populations (containing the most individuals) in an early regression phase. In the example showed in figure 1, category A consists of species that increase or stay unchanged during the first one to two years after the management regime ceases, but then decrease or go extinct after three to five years. Category A consists of light-dependent small-growing herbs and grasses.

Species in category B have their strongest populations in a middle phase. In the example shown, species increase or stay unchanged during the first five years after the management regime ceases, but then decrease or go extinct after ten to fifteen years. Category B consists, just like category A, of light-dependent small-growing herbs and grasses.

Species in category C have their strongest populations in a late phase. In figure 1, category C consists of species that normally increase or stay unchanged during the first fifteen years after the management ceases, but then decrease or go extinct after twenty five to thirty five years. Category C is characterised by light-dependent bushes and tall-growing herbs and grasses that manage to survive in growing litter.

Species in category D have their strongest populations in a forest phase. The species in this category increase in an early as well as a middle and late phase. In figure 1, it can be seen that there is still an increase twenty five to thirty five years after the management ceases. Category D consists of trees and shadow-tolerant herbs, grasses and bushes (Ekstam & Forshed, 1992).

The time duration for each phase, of course, depends on external circumstances. The example in figure 1 illustrates a situation where trees and bushes take over relatively slowly. Regardless of the specific situation, the order and behaviour of phases is usually the same (Ekstam & Forshed, 1992).

The increase of species right after the management regime ceases (figure 1), can cause problems, since this can give a misleading picture of the management's importance (Ekstam & Forshed, 1992).

1.5 The speed of succession

The speed of the succession development can vary a lot. To a large extent it depends on which competitive species are present when the management regime stops, and on the growing conditions of the area. If the conditions of growth are favourable, competitive species can take over the area very fast. This process can be so quick when trees and bushes are involved, that the different phases in the succession become discernable. In such situations all the species in category A, B and C practically disappear at the same time. On the other hand, if the conditions of growth are adverse due to, for example, scarce resources, competitive species are not able to expand that quickly. Uncompetitive species are favoured, since they manage to grow under nutrient-poor conditions. If trees and bushes are not established, it can take a very long time before the D phase in the succession begins, making the C phase long (Ekstam & Forshed, 1992).

1.6 Intermediate disturbance hypothesis

One of the most interesting questions concerning management regime is, "Which degree of disturbance will result in the highest diversity of species?"

The "intermediate disturbance hypothesis", IDH, predicts that the maximum diversity of species will exist at intermediate levels of disturbance (Connell, 1978). Disturbance levels are measured by frequency or intensity of disturbance or by the time since the disturbance occurred (Li et al. 2004). Even the size of the area disturbed is of importance for the species diversity (Connell, 1978), (figure 2).

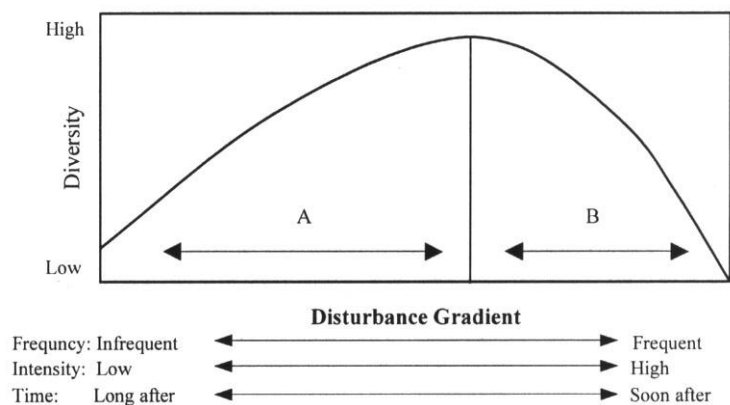


Figure 2: "Intermediate disturbance hypothesis", predicting that the maximum diversity of species will exist at intermediate level of disturbance. A corresponds low to moderate levels of the disturbance gradient, while B corresponds moderate to high levels of the disturbance gradient (Li et al. 2004).

Connell & Slatyer (1977) predicted that if the interval between disturbances is too short, diversity will be low because only those species that either happen to produce propagules or are within a suitable dispersal range will have the opportunity to colonize the current area. If the disturbance regime continues to be frequent, the community will only consist of those few species that reach maturity quickly. If the time between disturbances increases, diversity will increase, since the time for colonization, germination, growth and maturation is prolonged. But if the interval between disturbances is too long, diversity will decrease, since the most competitive species, the ones that are most efficient in exploiting limited resources and the most effective in interfering with other species, as well as being the most resistant to damage, will eliminate the rest.

Species diversity is also highest when disturbance is intermediate in intensity. When this is the case not all individuals will be killed or even damaged, meaning that the recolonization will consist partly of the survivors and their offspring and partly of species with the ability to disperse over great distances (Connell, 1978).

When the area that is disturbed gets extreme, either too small or too big, the diversity decreases. If disturbance, for example, kills all individuals over a large area, recolonization in the center of this area is only possible for organisms that both have developed “great distance dispersal” and that manage to establish in open areas. Since far from every species has this skill, the diversity will get low. If on the other hand, the opening after disturbance is very small, the ability to establish and grow in the presence of already existing competitive species is difficult. The most likely in this situation is that propagules from species already established near this area will colonize it, resulting in a remained low diversity. The optimal is when intermediate-size openings are created, since both already existing species and species with the ability to disperse great distances are able to colonize the area (Connell, 1978).

One essential assumption of the “intermediate disturbance hypothesis” is that a trade-off exists between the ability of a species to tolerate disturbance and its potential to compete against other species (Collins et al. 1995). In contrast to what Egler (1954) predicted with the “initial floristic composition model”, indicating that both early and late seral species were present at the beginning of succession, the “intermediate disturbance hypothesis” is based on the theory that late successional species, through competition, will displace early successional species, resulting in lower species diversity late in succession.

1.7 Spatial variations

As mentioned above, IDH predicts that there is a quadratic relationship between disturbance frequency and species diversity. Furthermore, there is a positive correlation between species diversity and spatial heterogeneity, meaning that within-patch spatial heterogeneity of different species will be highest at intermediate frequencies of disturbance (Whittaker & Levin, 1977 through Collins, 1992). Collins (1992) describes “spatial heterogeneity” as the degree of dissimilarity in species composition from one point to another in a community. The term “patch” is defined by Whittaker and Levin (1977) as an island, characterized by local habitat parameters, successional age, size and biological characteristics, such as species densities and litter levels.

If management regime ceases, the within-patch spatial heterogeneity of different species will decrease (Whittaker & Levin, 1977 through Collins, 1992). The reason for this is that competitive species with the ability to reproduce vegetative can expand during succession, since they are no longer restrained as in the yearly management regime (Falińska, 1991).

One single individual of a species can create a clone so big that it covers several square meters. This is why the mosaic pattern of vegetation increases with the progress of succession, resulting in a higher patchiness (Falińska, 1991).

As will be explained in the chapter “Material and Methods”, one square meter frames were used at the inventories in “Kungsmarken” (creating the subplots), situated in two plots, A and B, being 90*90 m² respectively. Since one single individual of a certain species can cover more than one subplot after expanding during succession, the term patch is probably bigger than one square meter. I think that it is more likely that each plot, A and B, can be defined as a patch in this study. The whole area in each plot has, for example, been managed in the same way during a very long time, the soil type was almost identical in each plot (figure 5), and the successional age was alike in the entire plot.

1.8 The aim with this study

My aim with this study was to reinventory two already existing plots at “Kungsmarken”, in an attempt to examine how succession has proceeded in the plots since management regime ceased in 1952. One of the plots, plot A, had been grazed and the other, plot B, had been mown and then grazed.

My main question was, “How has succession changed the plots concerning species composition?” I wanted to investigate if the species richness had decreased in respective plots during the time between the inventories. I was also interested in the turnover of species. How many species had gone extinct and immigrated between the inventories? Furthermore, I wished to examine how the frequency and diversity of species had changed in the plots during the latest part of the succession, between 1976 and 2005. Finally, I wanted to find out which species were indicator species in the plots at the latest inventories, 1976 and 2005. This part made it possible, through succession connected groups, to get an idea of in which stadium the succession was.

After answering these questions, I hoped to be able to speculate if the historical differences in management regime still were reflected in the plots.

2 Materials and Methods

2.1 Study area

“Kungsmarken”, which is situated approximately five kilometers east of Lund (figure 3), is the only larger conserved meadow area on calcareous moraine in southern and western Sweden, with the original floral species diversity still fairly intact some centuries ago (Mattiasson, 1970). Big parts of “Kungsmarken” have been managed through grazing and mowing for a very long time, probably since the end of the 13th century (Nordholm, 1937). Today the open area mainly consists of golf course and mowing and grazing areas.

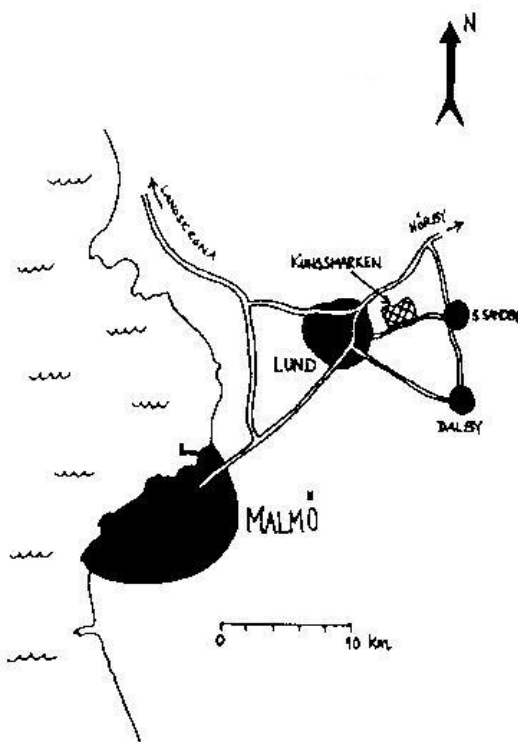


Figure 3: Map showing the location of “Kungsmarken” (Kuhlmann et al. 2001).

A creek with a lake called “Glomssjön” runs through the area, and east of the creek the terrain raises to a plateau (figure 4). A stonewall, 1 100 meter in length, divides “Kungsmarken” into two parts (figure 5). The area northwest of the wall is called “Hästhagen” (the Horses pasture) and the area southeast of the wall is called “Kungsängen” (the King’s meadow), (Mattiasson, 1970). These areas have been managed in different ways, “Hästhagen” through grazing, at least since the 17th century, and “Kungsängen” through mowing, starting about the same time and continuing until the beginning of the 20th century (Nordholm, 1937). “Kungsängen” was thereafter also grazed (Mattiasson, 1970).



Figure 4: "Ekonomiska kartan" showing how the terrain rises to a plateau (Ekonomiska kartan, sep 1972).

The bedrock consists of silurian shales, overlaid by till deposited from the northern icestream (Ekström, 1947). The soil types are glacial/postglacial clay, sandy clayey till, clayey sandy till, and dyey sand (Persson, 1984). The variation in soil and topography makes the area's hydrological status hard to estimate. The big areas at the plateau gradually have become dryer during the 20th century, probably because of the general groundwater lowering, but also due to the effective drainage of the fields (Larsson, 1989).

In 1952, when the whole area was still grazed, fences were put up around two areas to prevent further grazing. The squares created, called plot A and plot B+C, were 90*90 and 120*90 square meters, respectively, and situated on each side of the stonewall. Two squares with the same size and form were planned from the beginning. But when it was found that the soil in the southern part of plot B contained big parts of coarse sand and less silt and clay in the upper ten centimeters, it was decided that this square would be extended further, and it came to be called plot C (figure 5), (Persson, 1984).

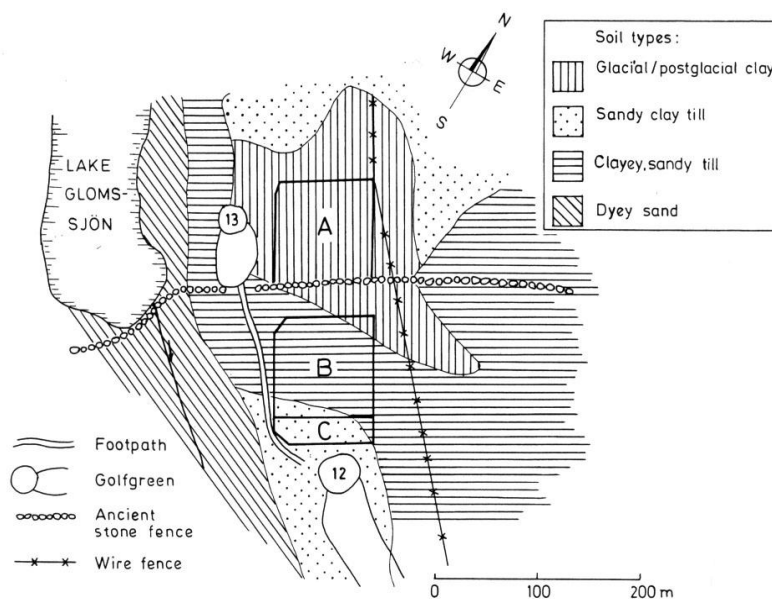


Figure 5: The location of plots A and B+C (Persson, 1984).

In 1953 grazing stopped outside the plots as well, and in 1955 work started in order to extend the golf course, already established west of the creek (Persson, 1984). LAGK, Lund's academic golf course, has leased land in the area since 1936 (figure 6). "Naturvårdsverket" (corresponding to EPA, Environmental Protection Agency) in an early stage announced that the contract, due to cease in 2004, would not be prolonged as far as it concerned the areas east of the creek. Thus, hole numbers ten to eighteen would have to be moved to a place outside the reserve (Yttrande Naturvårdsverket, Dnr; 352-1689-01). Eventually "Naturvårdsverket" did extend the contract and LAGK still has the right to continue their activity (pers. com. Regnéll, 2005).

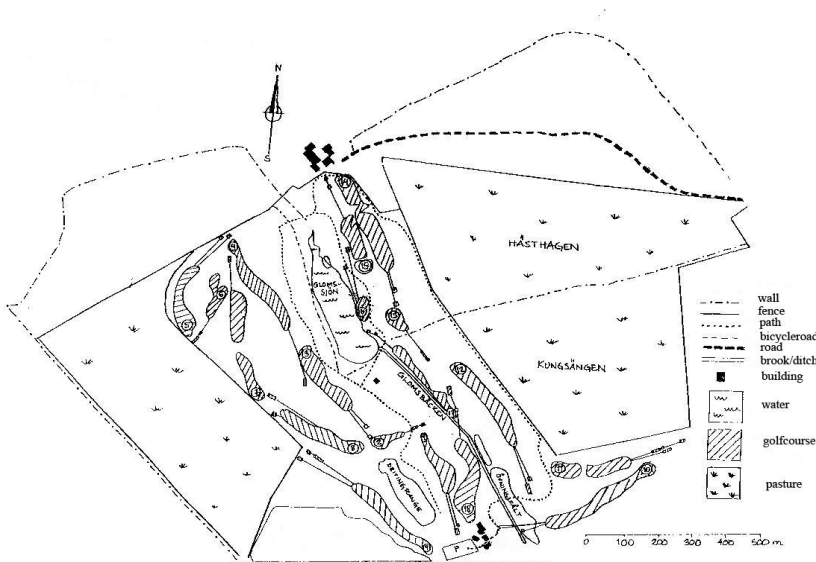


Figure 6: "Kungsmarken" showing "Hästhagen", "Kungsängen" and the golf course (Kuhlmann et al. 2001).

"Kungsmarken" has been a nature reserve since the 27th of June, 1974 and has its own management plan, which was lately renewed in June, 1989 (Larsson, 1989). The area is also a "Natura 2000-område" (Yttrande Länsstyrelsen, Dnr; 201-34636-01)

A birch population of *Betula verrucosa* (syn. *Betula pendula*) spontaneously established in 1955 (Persson, 1984). During a study of tree biomass in January of 1967, 13 of 90 individuals were cut down in plot A and 30 of 94 individuals in plot B (Mattiasson, 1970). Eventually, during the spring of 2005, "Skogsvårdsstyrelsen" cut down the whole population.

2.2 Inventory

Prior inventories have been done at "Kungsmarken" in 1952, 1955, 1968 and 1976 (Persson, 1976).

My inventory started on the 11th of July and proceeded to the 10th of August, 2005. The same plots were inventoried and the same method was used as has been done in the area since 1952. Eight lines, 11 meters apart, were put up in each plot. Fourteen subplots of one square meter were placed on each line 6 meters apart, starting with the first subplot 5 meters from the

starting point. Line number one in both plots A and B, only hold thirteen subplots (appendix 1 and 2), (Mattiasson, 1970).

In order to help me, I had a map that Stefan Persson sent me with data from 1976 showing where each line should be put up. The first line in each plot was put up according to the points of the compass and the distances to the plot marks consisting of permanent poles. The direction of the line was checked frequently so that it would agree with the given point. The lines were put up one at the time so that the influence on the vegetation and animal life would be as small as possible, but the previous one was always saved as a safety precaution in case the line, for example, would “disappear” during nighttime. A single one square meter frame was moved along the line as the inventory progressed (figures 7 and 8). There should have been 111 subplots inventoried in each plot, making it 222 altogether (it was shown during the inventory that plot B+C had become smaller because land probably had been taken to the golf course, resulting in a reduced amount of subplots).



Figure 7: The one square meter frame used at the inventory (Mariscal, 2005).



Figure 8: Inventory of a subplot along one of the lines in plot B (Mariscal, 2005).

The different vascular plants (identified according to Mossberg & Stenberg, 1992, 2003) and their contribution ratio were noted in every subplot. The estimation of contribution ratio was, as in previous inventories, done according to the Hult-Sernander-Du Rietz´ scale (table 1). The contribution ratio states how big part of a given surface that is covered by the projection of the species vegetative parts on to the ground, ranging from + (1-2 shoots) to 6 (24/32 to 32/32 of the subplot), (Mattiasson, 1970). Table 1 also contains translations into percentage cover, which were used when processing the data. Just like Mattiasson (1970), but unlike Persson (1976), who used a five degree scale (see Malmer, 1974), I used a scale with six degrees apart from the contribution ratio called “plus”.

Table 1: Estimation of contribution ratio according to the Hult-Sernander-Du Rietz´ scale and translations into percentage cover. A six degree scale was used.

Contribution ratio	Covered part of the plot	Mean contribution ratio class	Percentage cover
6	24/32 - 32/32	28/32	87.5
5	16/32 - 24/32	20/32	62.5
4	8/32 - 16/32	12/32	37.5
3	4/32 - 8/32	6/32	18.8
2	2/32 - 4/32	3/32	9.4
1	0 - 2/32	1/32	3.1
+	1 - 2 shoot	-	0.5

Plot A, which is the northern of the two, was inventoried first. This was done from the 11th to the 25th of July 2005. Line eight was inventoried first since it is situated next to the stonewall separating plots A and B, making it easier and more practical to begin. It was very important to get the first line right due to the fact that the rest of the lines were set up dependent on this one. The starting point of line eight was situated 5.3 meters from the pole marking the NNE corner. This pole is situated 5.7 meters from the stonewall. The endpoint of line eight was situated 3.0 meters from the wall, nearly exactly at the same point as the pole that marks the SSE corner. The lines in plot A had a compass direction of 235° NNW to SSW and the starting points of line eight to one had a compass direction of 331° NNW to NNE (appendix 1).

The inventory of plot B started on the 25th of July and proceeded to the 10th of August 2005. The NNW and the SSW corners of plot B are situated some 60 meters from the stonewall. According to Stefan Persson's map, the starting point of line one was situated 11 meters from the NNW corner and 9 meters from the SSW corner. But when this line was put up, it appeared that it would be concave if those instructions were to be followed. To get the given compass direction of 242° NNW to SSW for the line, the distances to the poles in both the starting point and the endpoint had to be changed. As a result of this the line was measured to be situated approximately 15 meters from a marking pole that is situated 40 meters down the NNW corner of plot B. The explanation to this problem could be that one or several of the poles, had been moved a bit by accident from their original place when replaced by new ones (appendix 2).

The intention was to do an inventory of plot C as well, but after the inventory had been done of plot B there was no space left for plot C. When line number eight in plot B had been inventoried, it only remained 5.6 meters to the golf course in NNE direction and 7.3 meters in SSE direction. To do an inventory of plot C consisting of two lines, there needed to remain at least 22 meters. Even though line number one in plot B had to be dislocated some meters to get it straight, there should be no problem since plot B+C ought to be 120 meters long in NNW to NNE direction (as mentioned before, plot B+C was 120*90 square meters). According to the drawings there should remain 10 meters in NNE direction ($120 - (11 * 10)$) and 12 meters in SSE direction ($120 - (9 + (11 * 9))$) after putting up all lines, giving the buffer that was needed in this case to straighten line number one (appendix 2).

Apart from this it was noted that lines number six, seven and eight in plot B were shorter than the others. The three last lines in plot B only hold thirteen subplots. To have place for fourteen subplots, every line needed to be at least 84 meters (subplot number one was put 5 meters along the line and there were 6 meters between each subplot). All the lines measured in plot B, except for the three last ones, were about 86 meters. It was noted that lines six, seven and eight within the last 30 meters before the golf course in SSE direction only were 79 meters, about 7 meters too short (appendix 2).

One thing that would have been interesting to examine is the acidity of the soil, since the acid-base status and soil chemical relationships (nutrient status) have an important meaning for the diversity of plant species in the area (Regnéll, 1982). Unfortunately, it would have meant too much work within the scope of this project.

Because of limited knowledge about mosses and lichens, and since they can be really hard to identify, I decided not to include them in the inventory of 2005.

At last the area was rambled to find species that were not identified during the inventory. Each plot was examined for about fifteen minutes. This part is important since one, for example, might find rare species that otherwise would be missed and thereby suspected to have gone extinct. No similar rambling that I know of was done in the previous inventories.

2.3 Analysis of data

All the data from the inventories of 1952 to 1976 were available in tables that I got from Stefan Persson (1976), where a special system, used for handling ecological field and laboratory data called RUBIN (Kodlista B3, 1975), was used to note the species. By using those tables it was possible to do a sum up, in which subplots on a certain line, a certain species was found, and its contribution ratio according to the Hult-Sernander-Du Rietz' scale.

Since it is very time-consuming to do complete sum ups of the species and their contributions in both plots A and B, for the years 1952, 1955, 1968 and 1976, this was done only for the year 1976 (appendix 4 and 5). To be able to analyse the data from 1976 together with the data from 2005 (appendix 6 and 7), the data from 1976 was arranged in the same way as the data from 2005. The species composition for the first inventoried year 1952 was also translated from RUBIN and arranged in a list, partly to follow the changes, but no further treatment of the data was done for this year (appendix 3). Yet it was possible to compare the number of species in both plots during the whole period, 1952 to 2005, since this data was easily accessible in publications (Mattiasson, 1970, Persson, 1976 and Persson, 1984).

Because species sometimes change their scientific name, some of the species had one name in the inventories of 1952 and 1976 and another in the inventory of 2005. For example, *Betula verrucosa* came to be called *Betula pendula*. To facilitate for myself and others to look into the original inventory data, when for example tracing one species present in a certain subplot, I decided to use the scientific name that was used at the respective occasion. To make it easier for me to handle the species, I wrote the Swedish name after the scientific name (appendix 3, 5 and 7). One single species changed the Swedish name between the inventories of 1976 and 2005. *Selinum carvifolia* was called "krussilja" at the inventory of 1976 but at the time for the inventory of 2005, it was called "krusfrö".

Even though mosses and lichens were not included in the inventory of 2005, they had to be taken into account in this project, since they were included in the previous inventories, thus making them a part of those results. Since the lists with the data from the inventories 1952 to 1976 did not include mosses and lichens, neither does the analysis of the data based on these lists.

The succession analysis in this study was divided into two different parts. The first part, called "Change in species richness and turnover 1952 - 2005", is rather overall and concentrates on the species at a plot (A and B) level, while the second part, called "Vegetation dynamics 1976 - 2005", is more detailed and takes into account the change at subplot level.

2.3.1. Change in species richness and turnover 1952 - 2005

The first part includes comparisons of species richness, the number of species found in plots A and B at the different inventories, in order to see if there had been a general net decrease of species since management regime stopped in 1952.

This part also includes comparisons of species turnover, where the net changes of species going extinct and immigrating to the plots were calculated for the periods between the inventories. Because many years progressed between all the inventories, species hypothetically could have immigrated and gone extinct without being noted. Therefore, it is important to remember that the values of species turnover show the net changes, not necessarily the complete changes.

2.3.2. Vegetation dynamics 1976 - 2005

In the second part of the analysis, there was a more in-depth processing of the data. Here I focused on the inventories of 1976 and 2005, using the sum-ups that were made, which means that no mosses and lichens were included.

First, a frequency analysis of the species commonness was done since it was of interest to find out the total number of subplots in which a certain species existed. The subplots were divided into groups of ten, with eleven groups altogether. *Achillea ptarmica* was, for example, found in 38 subplots in plot A in the inventory of 1976 and, therefore, belonged to the same group as species found between 31 and 40 subplots in plot A 1976 (table 5). By doing this one can reveal if many species were found in few subplots, or if few species were found in many subplots.

Second, Shannon's diversity index, H , was used to measure the diversity in plots A and B in the inventories 1976 and 2005, respectively. Shannon's index usually takes into consideration both the relative abundance of individuals among the species, species evenness, and the number of species, species richness. Since I used the contribution ratio of a given species in each subplot instead of the number of individuals, I calculated the relative frequency (the sum off subplots in which a specific species was found divided by the total number of subplots) instead of the relative abundance. The proportion of subplots i containing a specific species relative to the total number of subplots, p_i , is calculated and then multiplied by the natural logarithm of this proportion, $\log p_i$. The resulting product is summed across species and multiplied by -1. S is the total number of subplots in each plot (Begon et al. 2006).

$$H = -\sum_{i=1}^s (p_i)(\log p_i)$$

Third Dufrêne and Legendre's method of calculating species indicator values was used to find out which species were indicator species in each plot for the inventories 1976 and 2005. A function called "Indicator Species Analysis" was used in the program "Pcord4".

The indicator value, $INDVAL$, was calculated for each species i in each group (year) j , by multiplying A_{ij} , which is the relative mean contribution ratio of species i in the sites (subplots) of group j , compared to both groups, with B_{ij} , which is the relative frequency of occurrence of species i in the sites of group j .

$$\text{INDVAL}_{ij} = A_{ij} * B_{ij} * 100$$

$$A_{ij} = \text{Contribution ratio}_{ij} / \text{Contribution ratio}_i$$

$$B_{ij} = \text{Nsites}_{ij} / \text{Nsites}_j$$

Contribution ratio $_{ij}$, is the mean contribution ratio of species i across sites of group j and Contribution ratio $_i$, is the sum of the mean contribution ratios of species i over both groups.

(The mean numbers of individuals in each group were used instead of summing the individuals, because this removes any effect of the number of sites in the various site groups and of the differences in abundance among sites belonging to the same group.)

Nsites_{ij} , is the number of subplots in cluster (year) j where species i is present and Nsites_j , is the total number of sites in that cluster.

A_{ij} and B_{ij} have to be multiplied since they symbolize independent information about the species distribution. To get the value in per cent, everything was multiplied with hundred.

The indicator values range from zero, which means no indication, to hundred, which means perfect indication. Hypothetically, when the contribution ratio of species i is observed in all subplots of only one year, the indicator value is 100 % (Dufrêne & Legendre, 1997).

The Monte Carlo test is used in this program to see if there is any statistical significance in the maximum indicator value for a given species. If this is the case, the species is indicator species.

Monte Carlo is used to compute features of probability distributions and involves mathematical approximations instead of statistically estimations. Simulation can estimate the numerical value of the quantity of interest to any degree of precision, in this case 1000 permutations were used. The basic idea is to take random samples of the parameters of interest from the given probability distribution and averaging to approximate the mean, taking the standard deviation for the standard error and so on (King, 1997).

The indicator species has the highest indicator values and are thus the most characteristic species, found mostly in one of the plots and present in the majority of the subplots belonging to that plot.

In contrast to many other methods, which give symmetrical indicators, Dufrêne and Legendre's method gives asymmetrical indicators. The difference is that other methods only take into account distribution of abundances in various groups (years), while Dufrêne and Legendre's method looks into each and every site (subplot) of the group (Dufrêne & Legendre, 1997).

Lastly, the species were categorized in succession connected groups, depending on the pattern with which they change during succession. I found it interesting to focus a little extra on the indicator species, since those are characteristic species both in space and time. Even though I focused on the indicator species, all the species found in each plot at the inventories 1952, 1976 and 2005 were categorized (appendix 3, 5 and 7).

As mentioned in the introduction, the groups were categorized as A, B, C and D (fig 1). Some few species were categorized in more than one group, represented by A+B and B+C

(appendix 3 and 5). The group represented by a line contains species that were not categorized by Ekstam & Forshed (1992). Those species, mostly ruderal and forest species, were also categorized (pers. com. Waldemarson, 3/9 2006), since the results otherwise would be misleading. In these cases the lines are followed by the letters A, B, C, D or the word ruderal in brackets. Ruderal species mostly occur in disturbed fields (Lawrence, 2000), (appendix 3, 5 and 7).

3 Results

3.1 Change in species richness and turnover 1952 - 2005

There are two parallel comparisons in this part, one including mosses, lichens and vascular plants (1952-1976) and one only including vascular plants (1952-2005).

3.1.1 Species richness

The number of species found in plots A and B in the different inventories are presented in table 2. The values put in brackets include mosses and lichens (Mattiasson, 1970, Persson, 1976 and Persson, 1984).

Table 2: Number of species found in plots A and B at the different inventories (in brackets; including mosses and lichens).

Number of sps.*	1952	1955	1968	1976	2005
Plot A	89 (114)	80 (104)	77 (84)	78 (89)	62
Plot B	110 (133)	98 (120)	95 (112)	85 (99)	82

* sps. = species.

Since the data for 1976 in this study originates from the lists that Stefan Person (1976) sent to me, I had to utilize the species number (vascular plants) for plot A in 1976 (78 instead of 75 species) from these lists and not from the articles by Mattiasson (1970) and Persson (1984), that I used as sources for the species numbers the other inventoried years (1952, 1955 and 1968).

It is important to note that this shows a small increase of species in plot A between 1968 and 1976 (figure 10). If the data of 75 vascular plants had been used instead, this would have pictured a net decrease of two species in plot A.

In plot B the number of species was 85, both according to the list (Persson, 1976) and the article by Stefan Person (1984).

To easier notice the changes of species richness, diagrams were made illustrating the number of species in each plot in respective inventories. Since the number of species in plots A and B in the inventories 1952 to 1976 did include mosses and lichens, while the number of species in the inventory of 2005 did not, two different diagrams were made. The x-axis has an even graduation with twenty years apart, because the inventories were not performed with a certain

number of years in between. The quadrates on the lines illustrate the years in which the inventories were done (figures 9 and 10).

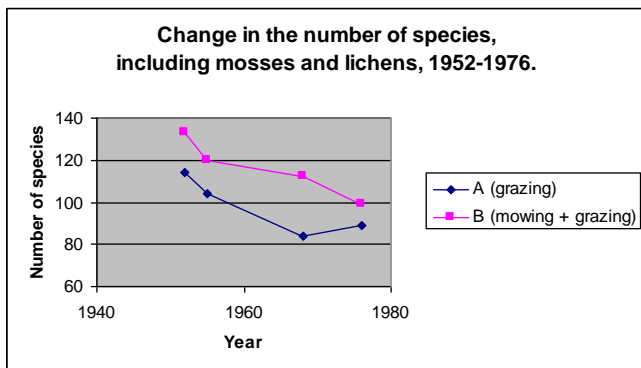


Figure 9: The change in species richness, including mosses and lichens, plots A and B, 1952 to 1976.

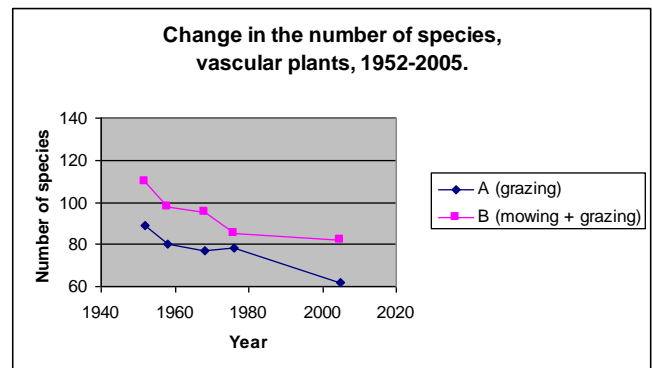


Figure 10: The change in species richness, vascular plants, plots A and B, 1952 to 2005.

The net changes in percentage for the number of species in plots A and B, including mosses and lichens and vascular plants, between 1952 to 1955, 1955 to 1968, 1968 to 1976, 1952 to 1976, 1952 to 2005 and 1976 to 2005 are presented in table 3.

Table 3: Net changes in percentage for the number of species, including mosses and lichens and vascular plants, between the different inventories.

Between year:	Plot A		Plot B	
	vas.* plants	incl.* mosses & lichens	vas. plants	incl. mosses & lichens
1952-1955 (3 yrs.*)	- 10	- 8.8	- 11	- 12
1955-1968 (13 yrs.)	- 3.8	- 19	- 3.1	- 6.7
1968-1976 (8 yrs.)	+ 1.3	+ 6.0	- 11	- 12
1952-1976 (14 yrs.)	-12	-22	-23	-26
1952-2005 (53 yrs.)	-30	-	-26	-
1976-2005 (29 yrs.)	-21	-	-3.5	-

* yrs. = years, vas. = vascular, incl. = including.

There had almost been a net decrease of species in both plots during the whole period (figures 9 and 10 and table 3). The exception is plot A, where there apparently had been a small increase (five species including mosses and lichens and one species of vascular plants) between 1968 and 1976. As mentioned above, if the data of 75 vascular plants had been used instead, there would have been a decrease of two species in plot A between 1968 and 1976, meaning that the only net increase in plot A, for the same period (1968-1976), had been including mosses and lichens (table 2).

3.1.2 Species turnover

The number of species involved in the turnover in plots A and B between the inventories of 1952 and 1976 and 1976 and 2005, vascular plants, are presented in table 4.

Table 4: Number of species, vascular plants, involved in the turnover in plots A and B between 1952 to 1976 and 1976 to 2005.

	Nu.* iden.* sps.* 52 & 76	Nu. sps. exist. * 52, not 76	Nu. sps. exist. 76, not 52	Nu. iden. sps. 76 & 05	Nu. sps. exist. 76, not 05	Nu. sps. exist. 05, not 76
Plot A	52	37	26	40	38	22
Plot B	63	47	22	49	36	33

* Nu. = number, iden. = identical, sps = species, exist = existing.

- In plot A 37 species (42 %) went extinct between the inventories of 1952 and 1976. During the same time 26 new species (33 %) immigrated. In plot B 47 species (43 %) went extinct between the two inventories and 22 new species (26 %) immigrated (table 4 and appendix 8).
- In plot A 38 species (49 %) went extinct between the inventories of 1976 and 2005. During the same time 22 new species (35 %) immigrated. In plot B 36 species (42 %) went extinct between the two inventories and 33 new species (40 %) immigrated (table 4 and appendix 8).

3.2 Vegetation dynamics 1976 - 2005

Because complete sum ups of the old inventory data were only done for the year 1976, the following comparisons only consider 1976 and 2005. Since the lists with the data from the inventories of 1952 and 1976 did not include mosses and lichens, neither do the following calculations.

3.2.1 Frequency of species

The number of species found in a certain number of subplots, in each plot at the different inventories, are presented in table 5. To know the number of subplots in which a specific species existed in the inventory of 1976 or 2005, see appendix 9.

Table 5: Number of species, in plots A and B, found in a certain number of subplots in the inventories of 1976 and 2005. To easier see a pattern of how common the species were, the subplots are divided in groups of ten.

Nu.* of subp.* present in	Plot A		Plot B	
	1976	2005	1976	2005
1 to 10	46	47	43	57
11 to 20	4	7	14	11
21 to 30	8	2	4	7
31 to 40	7	3	7	5
41 to 50	1	0	4	1
51 to 60	1	2	3	0
61 to 70	4	1	2	1
71 to 80	2	0	5	0
81 to 90	2	0	2	0
91 to 100	1	0	1	0
101 to 110	2	0	0	0

* Nu. = number, subp. = subplot, sps. = species.

There is a clear difference in the number of subplots in which the species were found in the different inventories (table 5). No species, neither in plot A nor B, existed in more than 70 subplots during the inventory of 2005. In 1976, on the other hand, species were found in 100 subplots, both in plots A and B (table 5 and appendix 9).

Many species existed within 1 to 10 subplots, in both plots A and B, in both the inventories of 1976 and 2005.

- 46 of the 78 species (59 %) in plot A and 43 of the 85 species (51 %) in plot B were found in 1 to 10 subplots 1976.
- 47 of the 62 species (76 %) in plot A and 57 of the 82 species (70 %) in plot B were found in 1 to 10 subplots 2005.

3.2.2 Shannon's diversity index

The diversity index for plots A and B in the inventories of 1976 and 2005 is presented in table 6.

Table 6: Diversity index for plots A and B, 1976 and 2005.

Year	Plot A	Plot B
1976	6,03	7,36
2005	3,88	5,63

The diversity index was higher in 1976 than in 2005 in both plots A and B. Furthermore, the diversity index was higher in plot B than A in both the inventories.

3.2.3 Indicator species

The following species had a maximum indicator value that was significant ($0.001 < P \leq 0.01$) in plots A and B in the inventories of 1976 and 2005. This makes them indicator species for the plots in the respective years. The species are sorted in table 7 after the size of the maximum indicator value, which is noted in brackets after each species. The species with the highest maximum indicator value is uppermost in the table.

Table 7: Species with a maximum indicator value that was significant in plots A and B, 1976 and 2005. The species are sorted after the size of the maximum indicator value, which is noted in brackets after each species.

Plot A		Plot B	
1976	2005	1976	2005
<i>Galium boreale</i> (93)	<i>Deschampsia caespitosa</i> (56)	<i>Galium boreale</i> (76)	<i>Deschampsia caespitosa</i> (60)
<i>Festuca rubra</i> (82)	<i>Filipendula ulmaria</i> (37)	<i>Serratula tinctoria</i> (68)	<i>Holcus lanatus</i> (42)
<i>Galium verum</i> (71)	<i>Dactylis glomerata</i> (31)	<i>Festuca rubra</i> (61)	<i>Rubus idaeus</i> (32)
<i>Poa pratensis</i> (70)	<i>Epilobium montanum</i> (31)	<i>Agrostis tenuis</i> (59)	<i>Galeopsis bifida</i> (30)
<i>Rumex acetosa</i> (64)	<i>Cirsium arvense</i> (28)	<i>Vicia cracca</i> (55)	<i>Agrostis stolonifera</i> (28)
<i>Achillea millefolium</i> (58)	<i>Crataegus sp</i> (25)	<i>Poa pratensis</i> (47)	<i>Equisetum arvense</i> (28)
<i>Vicia cracca</i> (47)	<i>Rubus idaeus</i> (25)	<i>Scorzonera humilis</i> (46)	<i>Filipendula ulmaria</i> (26)
<i>Potentilla erecta</i> (46)	<i>Prunus spinosa</i> (15)	<i>Potentilla erecta</i> (45)	<i>Hypericum perforatum</i> (24)
<i>Serratula tinctoria</i> (44)	<i>Geranium robertianum</i> (14)	<i>Achillea ptarmica</i> (41)	<i>Cirsium arvense</i> (19)
<i>Lathyrus pratensis</i> (38)		<i>Trollius europaeus</i> (37)	<i>Crataegus sp</i> (17)
<i>Achillea ptarmica</i> (32)		<i>Geum rivale</i> (33)	<i>Epilobium montanum</i> (16)
<i>Centaurea jacea</i> (30)		<i>Lathyrus pratensis</i> (33)	<i>Taraxcum sekt. Ruderalia</i> (8)
<i>Festuca pratensis</i> (26)		<i>Centaurea jacea</i> (32)	
<i>Arrhenatherum pubescens</i> (24)		<i>Hypericum maculatum</i> (32)	
<i>Filipendula vulgaris</i> (23)		<i>Betula verrucosa</i> (31)	
<i>Betula verrucosa</i> (21)		<i>Galium verum</i> (31)	
<i>Scorzonera humilis</i> (21)		<i>Achillea millefolium</i> (24)	
<i>Hypericum maculatum</i> (19)		<i>Molinia caerulea</i> (24)	
<i>Stellaria graminea</i> (13)		<i>Filipendula vulgaris</i> (18)	
		<i>Arrhenatherum pubescens</i> (15)	
		<i>Stellaria graminea</i> (15)	
		<i>Viola riviniana</i> (14)	
		<i>Veronica chamaedrys</i> (13)	
		<i>Hieracium umbellatum</i> (11)	
		<i>Carex hartmanii</i> (10)	
		<i>Carex Montana</i> (7)	

Both the number and percentage of indicator species were highest in plots A and B in the inventory of 1976.

- In plot A 19 of 78 species (24 %) of 1976 and 9 of 62 species (15 %) of 2005 were indicator species.
- In plot B 26 of 85 species (31 %) of 1976 and 12 of 82 species (15 %) of 2005 were indicator species.

Galium boreale had the highest maximum indicator value in both plots A and B in the inventory of 1976 and *Deschampsia caespitosa* had the highest maximum indicator value in both plots in the inventory of 2005 (table 7).

3.2.4 Categorization in succession connected groups

In table 8 the indicator species are categorized in succession connected groups depending on the pattern with which they change during succession.

Table 8: Categorization of the indicator species in succession connected groups, depending on the pattern with which they change during succession (categorization from Ekstam & Forshed, 1992).

Plot A		Plot B	
1976	2005	1976	2005
B <i>Festuca rubra</i> <i>Scorzonera humilis</i> <i>Serratula tinctoria</i>	C <i>Crataegus sp</i> <i>Dactylis glomerata</i> <i>Deschampsia caespitosa</i> <i>Prunus spinosa</i>	B <i>Festuca rubra</i> <i>Scorzonera humilis</i> <i>Serratula tinctoria</i> <i>Veronica chamaedrys</i>	A <i>Taraxcum sekt. Ruderalia</i>
C <i>Achillea millefolium</i> <i>Achillea ptarmica</i> <i>Arrhenatherum pubescens</i> <i>Centaurea jacea</i> <i>Festuca pratensis</i> <i>Filipendula vulgaris</i> <i>Galium boreale</i> <i>Galium verum</i> <i>Hypericum maculatum</i> <i>Lathyrus pratensis</i> <i>Poa pratensis</i> <i>Potentilla erecta</i> <i>Rumex acetosa</i> <i>Stellaria graminea</i> <i>Vicia cracca</i>	D <i>Epilobium montanum</i> <i>Filipendula ulmaria</i>	C <i>Achillea millefolium</i> <i>Achillea ptarmica</i> <i>Agrostis tenuis</i> <i>Arrhenatherum pubescens</i> <i>Carex hartmanii</i> <i>Carex montana</i> <i>Centaurea jacea</i> <i>Filipendula vulgaris</i> <i>Galium boreale</i> <i>Galium verum</i> <i>Geum rivale</i> <i>Hieracium umbellatum</i> <i>Hypericum maculatum</i> <i>Lathyrus pratensis</i> <i>Molinia caerulea</i> <i>Poa pratensis</i> <i>Potentilla erecta</i> <i>Stellaria graminea</i> <i>Trollius europaeus</i> <i>Vicia cracca</i>	B <i>Agrostis stolonifera</i> <i>Hypericum perforatum</i>
D <i>Betula verrucosa</i>	Ruderal <i>Cirsium arvense</i> <i>Geranium robertianum</i> <i>Rubus idaeus</i>	D <i>Betula verrucosa</i> <i>Viola riviniana</i>	C <i>Crataegus sp</i> <i>Deschampsia caespitosa</i> <i>Holcus Lanatus</i>
			D <i>Epilobium montanum</i> <i>Filipendula ulmaria</i>
			Ruderal <i>Cirsium arvense</i> <i>Equisetum arvense</i> <i>Galeopsis bifida</i> <i>Rubus idaeus</i>

A big part of the indicator species found both in plots A and B 1976 belonged to category C (table 8).

- In plot A 15 of 19 species (79 %) belonged to category C.
- In plot B 20 of 26 species (77 %) belonged to category C.

Both in plots A and B a considerable part of the indicator species found in the inventory of 2005 were ruderal species.

- In plot A 3 of 9 species (33 %) belonged to the category “ruderal species”.
- In plot B 4 of 12 species (33 %) belonged to the category “ruderal species”.

In table 9 all the species found in plots A and B in the inventories of 1952, 1976 and 2005 are categorized in succession connected groups.

Table 9: The number of species belonging to each succession connected group found in plots A and B in the inventories of 1952, 1976 and 2005 (categorization from Ekstam & Forshed, 1992).

	1952		1976		2005	
	A	B	A	B	A	B
A	22	21	3	3	2	6
A+B	1	2	2	2	-	-
B	29	38	22	22	8	14
B+C	2	2	-	2	-	-
C	33	42	37	44	28	37
D	2	4	7	8	13	13
Ruderal	0	1	6	4	8	9
-	0	0	1	0	3	3

Most species found in 1952 in both plots A and B belonged to category A (25 % in plot A and 19 % in plot B), B (33 % in plot A and 35 % in plot B), and C (37 % in plot A and 38 % in plot B).

In the inventory of 1976 most species in the plots belonged to category B (28 % in plot A and 26 % in plot B) and C (47 % in plot A and 52 % in plot B). A considerable part of the species was categorized as forest species, group D (8.9 % in plot A and 9.4 % in plot B), and a few as ruderal species (7.7 % in plot A and 4.7 % in plot B).

In the inventory of 2005 most species belonged to category C (45 % in both plots A and B) and D (21 % in plot A and 16 % in plot B). In this inventory a considerable part of the species found was ruderal (13 % in plot A and 11 % in plot B).

3.3 Additional information

Concerning plot B+C being too small, calculations show that 1485 m² were missing, 27*7 meters (189 m²) in SSE direction and 16.4*79 meters (1296 m²) in NNE to SSE direction (appendix 1 and 2).

In the rambling the following species were found in plot A that were not found in the inventory of 2005: *Argentina anserina*, *Campanula rotundifolia*, *Centaurea jacea*, *Dryopteris carthusiana*, *Fragaria vesca*, *Hieracium pilosella* (*Pilosella officinarum* ssp. *pilosella*), *Linaria vulgaris*, *Lysimachia vulgaris*, *Myosotis sylvatica*, *Pimpinella saxifraga*, *Polypodium vulgare*, *Solanum dulcamara*, *Solidago virgaurea* and *Viola hirta*. In plot B the following species were found in the rambling that were not found in the inventory: *Hypericum maculatum*, *Lysimachia vulgaris* and *Solanum dulcamara*. This means that those species obviously have not gone extinct even though it might appear like that in the inventory results. I think that this is a typical “source of error” in these kinds of investigations and depends on

the fact that only a selected part of the areas are inventoried because of the limitation of money and time.

The reason I did not include the species found in the rambling in the list of species found in 2005 is, as mentioned above, that no similar rambling that I know of was done at the previous inventories.

4 Discussion

4.1 Change in species richness and turnover 1952 - 2005

4.1.1 Species richness

The obvious decrease of species richness in both plots during the period 1952 to 2005 (tables 2 and 3 and figures 9 and 10) indicates that the lack of management regime, as expected, has a negative effect on the number of species. This is because, as mentioned in the introduction, a few competitive species expand and become dominant, at the cost of uncompetitive species.

The highest net decrease per time unit in both plots occurred right after management regime ceased, between 1952 and 1955 (table 3 and figures 9 and 10). According to the model illustrated in figure 1, there should always be a net increase of species in all succession connected groups right after management regime ceases. The only group consisting of species that starts to decrease and go extinct during the first three to five years after management ceases is category A. Because of this, one could expect the species disappearing between the inventories of 1952 and 1955 belonged to this category. Since I did not do sum ups of the inventory results from 1955, I can not examine if the species concerned, in fact, belongs to category A.

The small increase of species in plot A (mostly including mosses and lichens), between 1968 and 1976 is interesting (table 2 and figures 9 and 10). Upon reflection, I thought about the cut of birches that occurred during the study of biomass in January of 1967, which is the only interaction that I know of in the area during this time. My first thought was that the possible disturbance, for example trampling, could interfere with the ongoing succession, resulting in that the dominant species were killed and more light came into the litter. But since there was no increase of species in subplot B (where a larger proportion of the birches were cut) during the same period, I think that the species causing the net increase may have been missed when the plots were inventoried the previous time, rather than that they had immigrated. Furthermore, I do not think that the spread of dominant species was considerable in 1967, since the indicator species in the inventory of 1976 (9 years after) mostly consisted of species typical in pastures and hayfields (table 8).

4.1.2 Species turnover

I think that the result showing that almost half of the species went extinct and a considerable number immigrated in both plots A and B between the inventories of 1952 and 1976, as well as 1976 and 2005, indicates that the turnover of species was large (table 4 and appendix 8).

Since the species richness decreased gradually between 1952 and 2005 (tables 2 and 3), it is reasonable to conclude that the number of immigrating species was smaller than the number of species going extinct (table 4).

According to the model illustrated in figure 1, succession will result in a change of species composition, which explains the turnover. The three regression phases dominated by species favored by management regime will decrease, as the one phase dominated by species disfavored by management regime will increase.

4.2 Vegetation dynamics 1976 - 2005

4.2.1 Frequency of species

Since no species were found in more than 70 subplots in the inventory of 2005, while some species were found in at least 100 subplots of 1976, and since the proportion of species that were found in one to ten subplots increased with about twenty percent between 1976 and 2005 in both plots A and B, one might suspect that the vegetation pattern has become more heterogeneous with a higher patchiness in both plots between 1976 and 2005 (table 5 and appendix 9).

As mentioned in the introduction, within-patch spatial heterogeneity will be highest at intermediate frequencies of disturbance, meaning that a ceased management regime will result in decreased within-patch spatial heterogeneity. The vegetation pattern on the other side shall become more heterogeneous. The reason is that competitive species with the ability to reproduce vegetative can expand during succession, since they are no longer restrained as in the yearly management regime.

During the inventory of 2005 I noticed that some species, for example *Cirsium arvense*, *Deschampsia caespitosa* and *Rubus idaeus*, grew in big patches where they almost were the only species existing. All these species have a vegetative reproduction which I think is one of the reasons they have managed to capture such big areas.

4.2.2 Shannon's diversity index

The fact that the diversity has decreased both in plots A and B between the inventories of 1976 and 2005 might point to (in conformance with Connell's (1978) "intermediate disturbance hypothesis") that the lack of management regime has a negative effect on species diversity, since disturbance has been infrequent, low, and has not been performed for a very long time (figure 2).

But since the forest of *Betula verrucosa* (syn. *Betula pendula*) was cut during the spring of 2005, the workers and the machines caused a lot of damage to the litter. This disturbance could have been the source, or at least influenced the negative decrease of species diversity.

Similar to what Whittaker and Levin (1977) predicted through Collins (1992), I think that my results show that there is a positive correlation between diversity and within-patch spatial heterogeneity at "Kungsmarken". The species diversity has decrease, and decreased within-patch spatial heterogeneity will, according to Falińska (1991), result in a more heterogeneous vegetation pattern, something that I believe is indicted by my results (table 5).

4.2.3 Indicator species

The higher percentage of indicator species in plots A and B in the inventory of 1976 in regard to 2005 (table 7) depends, in part, on the decrease of that species' frequencies (table 5 and appendix 9). Since one of the parameters in the "Indicator Species Analysis" is the relative frequency of species, this is noticed in the result as lower indicator values giving fewer indicator species. The other parameter in the "Indicator Species Analysis" is the relative mean contribution ratio, which for some (dominant) species was much higher in 2005 than in 1976 but was generally lower in 2005 than in 1976. This is also reflected in the result as fewer indicator species in 2005 than in 1976.

The fact that the relative mean contribution ratio for many species was lower but was higher for a few species, further indicates that the within-patch spatial heterogeneity has decreased. As written in the introduction, a few competitive species, disfavoured by management regime, seems to have expanded at the cost of less competitive species, thus becoming dominant after management regime ceased.

When looking at the indicator species at respective plots in 1976 and in 2005, the composition of species was different.

In the inventory of 1976 almost all indicator species are typical for pastures and hayfields, found in unfertilized and managed areas. For example, *Achillea millefolium*, *Arrhenatherum pubescens*, *Centaurea jacea*, *Festuca rubra*, *Filipendula vulgaris*, *Galium boreale*, *Galium verum*, *Hypericum maculatum*, *Potentilla erecta*, *Scorzonera humilis* and *Stellaria graminea* are some of the species found in both plots A and B in the inventory of 1976. Another species typical for pastures and hayfield found in plot A in the inventory of 1976 is *Serratula tinctoria*, and in plot B *Trollius europaeus* and *Veronica chamaedrys* was found (table 8), (Aronsson et al. 1988).

In the inventory of 2005 a big part of the species found are either ruderal species, mostly occurring in disturbed fields, or forest species belonging to category D (table 8). In plot A typical ruderal species found are *Cirsium arvense*, *Geranium robertianum* and *Rubus idaeus*, and in plot B typical ruderal species found are *Cirsium arvense*, *Equisetum arvense*, *Galeopsis bifida* and *Rubus idaeus*. *Filipendula ulmaria* and *Epilobium montanum* are typical forest species found in both plots in this inventory. Even though forest species belonging to category D was also found in both plots A and B in the inventory of 1976, these species did not constitute as big a part of the total number of indicator species as they did in the inventory of 2005 (table 8), (Aronsson et al. 1988).

It is clear that the succession has progressed in both plots between the inventories of 1976 and 2005. In the inventory of 1976 obvious remains of the species composition that once occurred in plots A and B at "Kungsmarken" still existed.

4.2.4 Categorization in succession connected groups

Most of the species belonging to the succession connected group A was found in the inventory of 1952, right after management regime ceased. This is understandable, since this category has its strongest populations in an early regression phase (figure 1). On the other hand, I find it strange that such a big part of the species found in both plots A and B in the same inventory belonged to categories B and C, noting that the area where the plots are situated had been managed continually for a long time (table 9 and appendix 3).

According to figure 1, which illustrates how succession connected groups behave after management regime ceases, almost all species categorized in groups A and B should have disappeared after the 24 years that passed between the inventories of 1952 and 1976. By the time of the inventory of 1976, most species should belong to categories C and D. The species richness in group D seems to start increasing only some years after management regime stopped (figure 1). An indicator that this is the case, even at “Kungsmarken”, is the fact that a birch population spontaneously established in 1955. But when studying the results, most of the species found in the inventory of 1976 belonged to categories B and C (table 9 and appendix 5).

According to figure 1, almost all species found in the inventory of 2005, 53 years after the management regime ceased, ought to belong to category D. This is not the case; the biggest part of the species both in plots A and B found in 2005 belonged to category C (table 9 and appendix 7).

I find it interesting that the distribution of species in the succession connected groups has similarities when comparing all the species found 1976 and 2005 (table 9) with the “indicator species” (table 8) found in the same inventories, respectively.

Most of the indicator species found in both plots A and B in 1976 belonged to the succession connected groups B and C. As mentioned above, a big part of all the species found in both plots A and B in the same inventory belonged to the same groups.

In the inventory of 2005, most of the indicator species found in plot A belonged to groups C and D, just as a big part of all the species found in plots A and B in the same inventory. In plot B on the other hand, the spread of indicator species was fairly evenly divided between all the groups A, B, C and D.

The biggest proportions of ruderal species, both concerning indicator species and all species found, were noted in 2005 in the same year the forest was cut. Ruderal species are first to colonize a disturbed land, and since the machines used during the cutting caused big open areas in both plots, the results seem rational.

The similarities in the distribution of species suggest that the most characteristic species, the indicator species, are included in the groups of species that constituted the biggest part of the species composition in 1976 and 2005 (table 8 and 9).

It seems like the succession at “Kungsmarken” is slower than in the model illustrated in figure 1. I think the reason might be that, as mentioned in the introduction, “the time and duration for each phase depends on external circumstances”. One external circumstance affecting the succession is probably the management regime that has been going on for several hundred years, resulting in a nutrient leach.

Despite this, I believe that the change in the composition of the succession connected groups indicates in which direction the succession is heading (table 9), especially when looking at the “indicator species”, since they are the most characteristic species (found mostly in one of the plots and present in the majority of the subplots belonging to that plot).

4.3 Additional information

Unfortunately, I could not do an inventory of plot C as was my intention from the beginning. I think that the golf course has expanded into land, decided not to be used for this purpose. This is really sad, since plot C, as mentioned in “Materials and Methods”, has a soil with different composition than plots A and B, indicating that it could grow other species.

According to Persson (1984), some of the meadow species *Succisa pratensis*, *Agrostis canina* and *Helictotrichon pratensis* (syn, *Arrhenatherum pratensis*) were very common in all the subplots in 1952 and 1955 and were more or less evenly distributed. In 1976, on the other hand, they were only found in a few subplots in both plots A and B, and were mostly restricted to plot C, as if they were in a refuge. In 2005 only one of these species, *Succisa pratensis*, was found in plot B. Since a refuge is an area that stays unaffected when there are environmental changes in the surroundings, the previous flora, therefore, has a chance to survive (Lawrence, 2000). If this refuge still had existed, it might have been easier for the species to immigrate to plots A and B after the cutting of the trees.

As mentioned in the introduction, I decided not to include mosses and lichens in the inventory of 2005 because of limited knowledge. This appeared to be a wise decision, since most of the mosses that I found in the inventory were dry and in really bad condition. I think that the reason for this is that the machines used at the cutting during the spring of 2005 damaged the litter significant in some parts of the subplots.

As mentioned in “Materials and Methods”, I used a six degree scale just like Mattiasson (1970), as opposed to the five degree scale used by Persson (1976). Since the calculations made on the data from the inventory of 1976 originated from Persson’s (1976) tables where a five degree scale was used, and my data from the inventory of 2005 was based on a six degree scale in order to express the contribution ratios, one could speculate that the comparisons of the results would be misleading. This is true to some degree, but one has to remember that different persons readily estimate the contribution ratio of a certain species in different classes, which I think is a greater source of error. Furthermore, the mean contribution ratio of class number 5 (24/32) in the five degree scale does not differ much from the mean contribution ratio of class number 5 (20/32) in the six degree scale. Besides, if a certain species is classified in the highest class in the different degree scales, 5 (24/32) in the five degree scale and 6 (28/32) in the six degree scale, the difference would only be 4/32 (28/32 – 24/32).

Since the inventory of the subplots within the different plots were done one month apart (the first subplot in plot A was inventoried on the 11th of July and the last subplot in plot B was inventoried on the 10th of August), there is a possibility that different species flowered during the inventory of plots A and B. The actual flower with its petals is an important part of species identifying, with the result that such information is partly lost if the plant is either flowering before or after the inventory.

4.4 Differences caused by historical management regime

It is hard for me to say with certainty if the historical differences in management regime are still reflected in the plots.

One indicator that this is the case is the result of Shannon’s diversity index, where the diversity of species was higher in plot B (the plot that has been mown for a very long time and then grazed) than in A (the plot that has only been grazed) in the inventory of 2005 (table 6). Also, the number of species found in the inventory of 2005 was significantly higher in plot B than in A (table 2).

On the contrary the net decrease of species (vascular plants) between 1952 and 2005 was almost as big in plot B (26 %) as in plot A (30 %), (table 3). Furthermore, plots A and B had the same species with the highest maximum indicator value in both the inventory of 1976 and 2005. *Galium boreale* had the highest maximum indicator value in both plots A and B in

the inventory of 1976, and *Deschampsia caespitosa* had the highest maximum indicator value in both plots A and B in the inventory of 2005 (table 7).

5 Conclusions

The trend is clear, since the management regime ceased in 1952, the number of species has continuously decreased (with one exception in plot A, 1968 to 1976) in both plots. Between the inventories that were more carefully revised (1976 and 2005), species frequency as well as the diversity of species has decreased in both plots, indicating a more heterogeneous vegetation pattern.

Furthermore, I believe that the results from these inventories, in accordance with the intermediate disturbance hypothesis, indicate that late successional species have replaced early successional species in both plots A and B partly because the turnover of species was large and partly because the succession connected groups seem to have been replaced according to the model illustrated in figure 1.

Regardless of the possible differences caused by the historical variance in management, one thing is obvious. Management regime in what ever shape seems to be necessary for a high species richness and diversity, at least in the plots at “Kungsmarken”. Since “Kungsmarken” (as mentioned in the introduction) is, or at least was, the only larger conserved meadow area on calcareous moraine in southern and western Sweden with the floral species diversity fairly intact, it is very important that the management regime continues.

I think that it would have been best if the golf course at “Kungsmarken” had never been established in the first place, since the frequent cutting of the tee, fairway and green means a very high level of disturbance. On the other hand, the rough is mown every year (in August) by the employees at the golf course, something that at least helps to conserve the species richness and diversity on this part.

During my inventory I was told (by one of the employees at the golf course) that plots A and B had to be included in the mowing now that the forest had been cut. Because of this it would have been interesting, for the purpose of study, to reinventory the plots during the coming seasons, in order to see if the diversity of species would increase again.

When I visited the area on the 16th of November, 2006, I noted that plots A and B had been mown this year, probably in August when the rest of the area usually is mown.

6 Acknowledgment

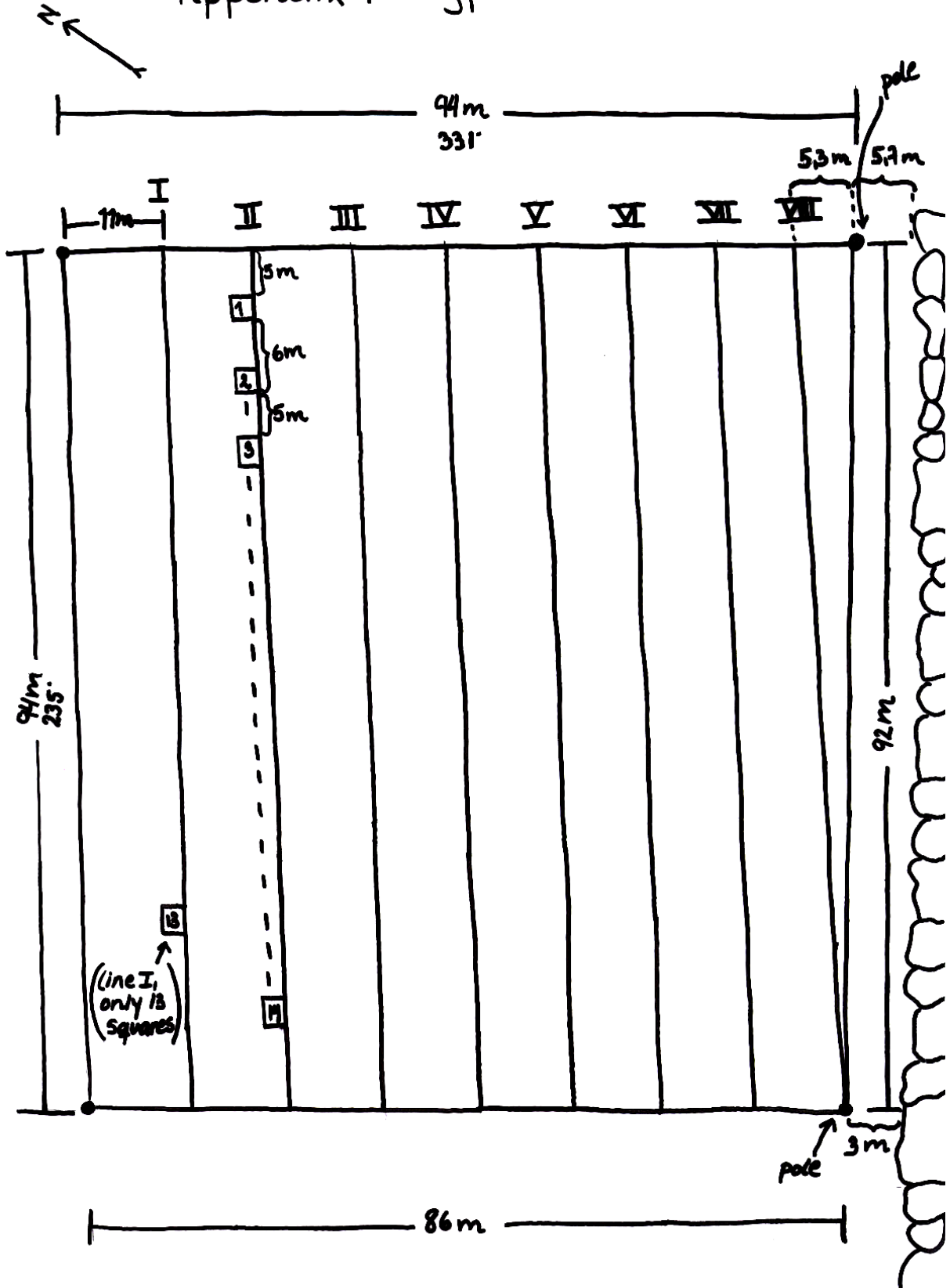
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7 References

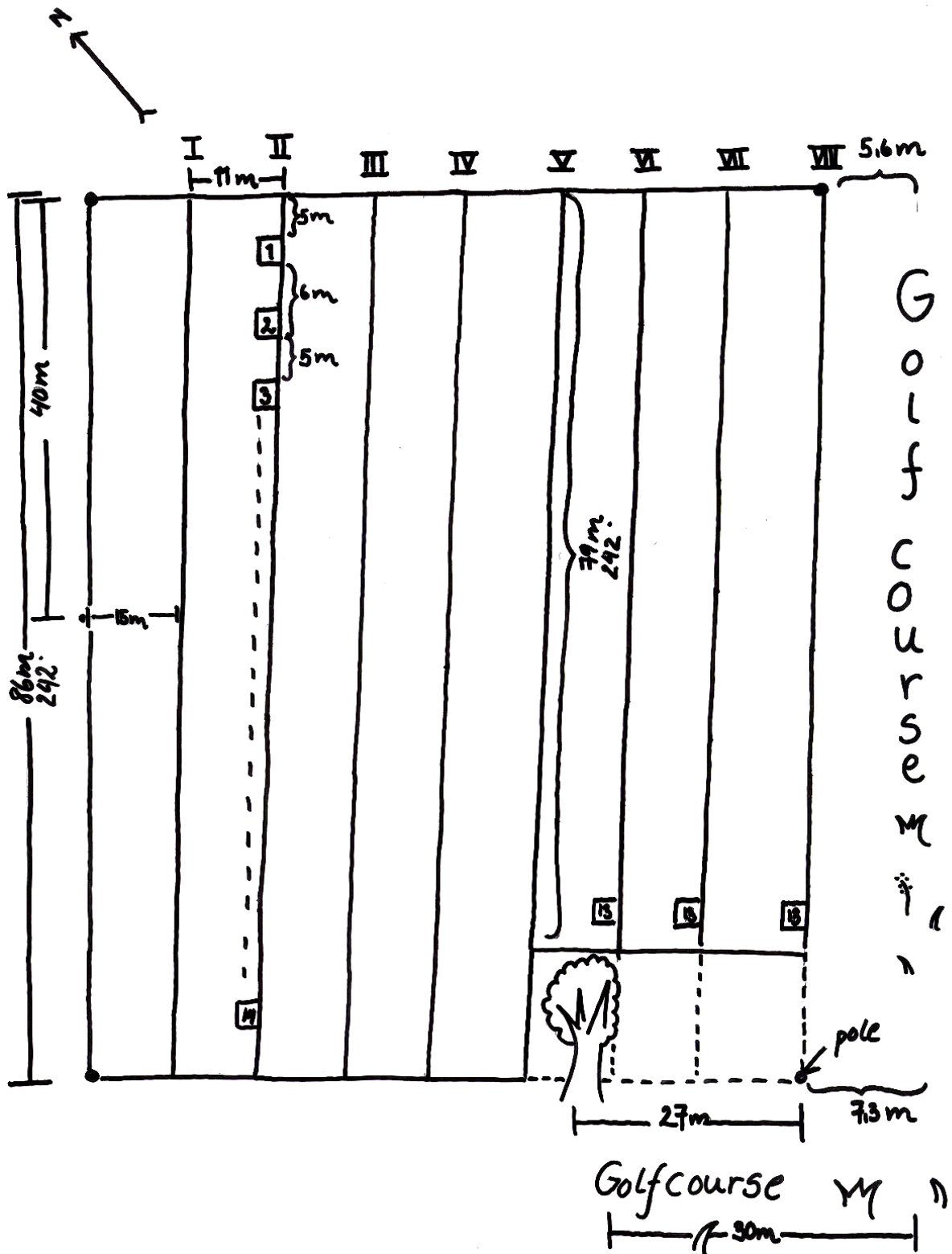
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Appendix 1 - Bigplot A



Appendix 2 ~ Bigplot B



Appendix 3; Species found in plots A and B in 1952.

The species are categorized in succession connected groups A, B, C and D. Species categorized in more than one group are marked A+B and B+C. The group represented by a line contains species that were not categorized by Ekstam & Forshed (1992). Those species were mostly ruderal- and forest species.

A	B
<i>Achillea millefolium</i> (röllika) C	<i>Achillea millefolium</i> (röllika) C
<i>Achillea ptarmica</i> (nysört) C	<i>Achillea ptarmica</i> (nysört) C
<i>Agrostis canina</i> (brunven) B	<i>Agrostis canina</i> (brunven) B
<i>Agrostis tenuis</i> (rödven) C	<i>Agrostis tenuis</i> (rödven) C
<i>Alchemilla glabra</i> (glatt daggkäpa) C	<i>Alchemilla glabra</i> (glatt daggkäpa) C
<i>Antennaria dioica</i> (kattfot) A	<i>Anemone nemorosa</i> (vitsippa) D
<i>Anthoxanthum odoratum</i> (vårbrodd) B	<i>Anemone pulsatilla</i> (backsippa) B
<i>Arrhenatherum pratensis</i> (ängshavre) C	<i>Antennaria dioica</i> (kattfot) A
<i>Arrhenatherum pubescens</i> (luddhavre) C	<i>Anthoxanthum odoratum</i> (vårbrodd) B
<i>Briza media</i> (darrgräs) A	<i>Arrhenatherum pratensis</i> (ängshavre) C
<i>Calluna vulgaris</i> (ljung) C	<i>Arrhenatherum pubescens</i> (luddhavre) C
<i>Campanula rotundifolia</i> (liten blåklocka) B	<i>Briza media</i> (darrgräs) A
<i>Cardamine pratensis</i> (ängsbräsma) C	<i>Calluna vulgaris</i> (ljung) C
<i>Carex caryophylla</i> (vårstarr) A	<i>Caltha palustris</i> (kabbleka) C
<i>Carex flacca</i> (slankstarr) B	<i>Campanula rotundifolia</i> (liten blåklocka) B
<i>Carex hirta</i> (grusstarr) B	<i>Cardamine pratensis</i> (ängsbräsma) C
<i>Carex hostiana</i> (ängsstarr) B	<i>Carex caryophylla</i> (vårstarr) A
<i>Carex leporina</i> (harstarr) B	<i>Carex disticha</i> (plattstarr) C
<i>Carex montana</i> (lundstarr) B+C	<i>Carex flacca</i> (slankstarr) B
<i>Carex nigra</i> (hundstarr) C	<i>Carex hirta</i> (grusstarr) B
<i>Carex pallescens</i> (blekstarr) B	<i>Carex hostiana</i> (ängsstarr) B
<i>Carex panicea</i> (hirsstarr) B	<i>Carex leporina</i> (harstarr) B
<i>Carex pulicaris</i> (loppstarr) A	<i>Carex montana</i> (lundstarr) B+C
<i>Centaurea jacea</i> (rödklint) C	<i>Carex nigra</i> (hundstarr) C
<i>Cerastium holosteoides</i> (hönsarv) A	<i>Carex pallescens</i> (blekstarr) B
<i>Chrysanthemum leucanthemum</i> (prästrage) B	<i>Carex panicea</i> (hirsstarr) B
<i>Cirsium acaule</i> (jordtistel) B	<i>Carex pilulifera</i> (pillerstarr) A+B
<i>Cynosurus cristatus</i> (kamäxing) A	<i>Carex pulicaris</i> (loppstarr) A
<i>Deschampsia caespitosa</i> (tuvtätel) C	<i>Centaurea jacea</i> (rödklint) C
<i>Festuca ovina</i> (fårsvingel) B	<i>Cerastium holosteoides</i> (hönsarv) A
<i>Festuca pratensis</i> (ängssvingel) C	<i>Chrysanthemum leucanthemum</i> (prästrage) B
<i>Festuca rubra</i> (rödsvingel) B	<i>Cirsium acaule</i> (jordtistel) B
<i>Filipendula ulmaria</i> (älgört) D	<i>Crepis praemorsa</i> (klasefibbla) B
<i>Filipendula vulgaris</i> (brudbröd) C	<i>Cynosurus cristatus</i> (kamäxing) A
<i>Galium boreale</i> (vitmåra) C	<i>Dactylorhiza maculata</i> (jungfru Marie nycklar) B
<i>Galium saxatile</i> (stenmåra) A	<i>Dactylorhiza sambucina</i> (Adam och Eva) C
<i>Galium verum</i> (gulmåra) C	<i>Deschampsia caespitosa</i> (tuvtätel) C
<i>Gentianella uliginosa</i> (sumppgentiana) A	<i>Deschampsia flexuosa</i> (krustätel) D
<i>Geum rivale</i> (humleblomster) C	<i>Equisetum arvense</i> (åkerfräken) - (ruderal)
<i>Hieracium piloselloidea /coll</i> (gråfibbla coll) - (B)	<i>Festuca ovina</i> (fårsvingel) B
<i>Hieracium pilosella</i> (gråfibbla) B	<i>Festuca pratensis</i> (ängssvingel) C
<i>Hieracium umbellatum</i> (flockfibbla) C	<i>Festuca rubra</i> (rödsvingel) B
<i>Holcus lanatus</i> (luddtätel) C	<i>Filipendula ulmaria</i> (älgört) D
<i>Hypericum maculatum</i> (fyrkantig johannesört) C	<i>Filipendula vulgaris</i> (brudbröd) C
<i>Juncus articulatus</i> (ryltåg) B	<i>Galium boreale</i> (vitmåra) C
<i>Juncus conglomeratus</i> (knappståg) C	<i>Galium saxatile</i> (stenmåra) A
<i>Lathyrus pratensis</i> (gulvial) C	<i>Galium verum</i> (gulmåra) C
<i>Leontodon autumnalis</i> (höstfibbla) A	<i>Geranium sanguineum</i> (blodnäva) C
<i>Linum catharticum</i> (vildlin) A	<i>Geum rivale</i> (humleblomster) C
<i>Lotus corniculatus</i> (kåringtand) B	<i>Hieracium piloselloidea /coll</i> (gråfibbla coll) - (B)
<i>Luzula campestris</i> (knippfryle) A+B	<i>Hieracium pilosella</i> (gråfibbla) B
<i>Mentha arvensis</i> (åkermynta) C	<i>Hieracium umbellatum</i> (flockfibbla) C
<i>Nardus stricta</i> (stagg) B+C	<i>Holcus lanatus</i> (luddtätel) C
<i>Phleum pratense</i> (timotej) C	<i>Hypericum maculatum</i> (fyrkantig johannesört) C
<i>Plantago lanceolata</i> (svartkämpar) A	<i>Hypochoeris maculata</i> (slätterfibbla) A

Plantago major (gårdsgroblad) A
Plantago media (rödkämpar) B
Poa annua (vitgröe) A
Poa pratensis (ängsgröe) C
Poa supina (trampgröe) A
Polygala vulgaris (jungfrulin) A
Potentilla anserina (gåsört) B
Potentilla erecta (blodrot) C
Prunella vulgaris (brunört) C
Ranunculus acris (vanlig smörblomma) C
Ranunculus auricomus (majsmörblomma) B
Rumex acetosa (ängssyra) C
Sagina nodosa (sydknutnarv) A
Sagina procumbens (krypnarv) A
Salix repens (krypvide) C
Saxifraga granulata (mandelblomma) B
Scorzonera humilis (svinrot) B
Serratula tinctoria (ängsskära) B
Sieglingia decumbens (knägräs) A
Stellaria graminea (grässtjärnblomma) C
Succisa pratensis (ängsvädd) B
Taraxacum sekt. *Ruderalia* (ogräsmaskros) A
Thalictrum simplex (vanlig backruta) B
Trifolium medium (skogsklöver) C
Trifolium pratense (rödklöver) B
Trifolium repens (vitklöver) A
Trollius europaeus (smörbollor) C
Valeriana dioica (småvänderot) B
Veronica chamaedrys (teveronika) B
Veronica officinalis (ärenpris) B
Veronica serpyllifolia (majveronika) A
Vicia cracca (kråkvicker) C
Viola canina (ängsviol) A
Viola riviniana (skogsviol) D

Hypochoeris radicata (rotfibbla) B
Juncus articulatus (ryltåg) B
Juncus conglomeratus (knappståg) C
Lathyrus montanus (gökärt) C
Lathyrus pratensis (gulvial) C
Leontodon autumnalis (höstfibbla) A
Leontodon hispidus (sommarfibbla) B
Linum catharticum (vildlin) A
Lotus corniculatus (kåringtand) B
Luzula campestris (knippfryle) A+B
Lychnis flos-cuculi (gökblomster) B
Mentha arvensis (åkermynta) C
Molinia caerulea (blåtåtel) C
Nardus stricta (stagg) B+C
Orchis morio (göknycklar) A
Persicaria amphibia (vattenpilört) B
Phleum pratense (timotej) C
Plantago lanceolata (svartkämpar) A
Plantago major (gårdsgroblad) A
Plantago media (rödkämpar) B
Poa annua (vitgröe) A
Poa pratensis (ängsgröe) C
Poa trivialis (kärrgröe) C
Polygala vulgaris (jungfrulin) A
Potentilla anserina (gåsört) B
Potentilla erecta (blodrot) C
Prunella vulgaris (brunört) C
Ranunculus acris (vanlig smörblomma) C
Ranunculus auricomus (majsmörblomma) B
Ranunculus polyanthemos (backsmörblomma) B
Rhinanthus minor (äkta ängsskallra) A
Rumex acetosa (ängssyra) C
Rumex thyrsiflorus (stor ängssyra) C
Sagina procumbens (krypnarv) A
Salix repens (krypvide) C
Saxifraga granulata (mandelblomma) B
Scorzonera humilis (svinrot) B
Serratula tinctoria (ängsskära) B
Sieglingia decumbens (knägräs) A
Stellaria graminea (grässtjärnblomma) C
Succisa pratensis (ängsvädd) B
Taraxacum sekt. *Ruderalia* (ogräsmaskros) A
Thalictrum simplex (vanlig backruta) B
Trifolium medium (skogsklöver) C
Trifolium montanum (backklöver) B
Trifolium pratense (rödklöver) B
Trifolium repens (vitklöver) A
Trollius europaeus (smörbollor) C
Valeriana dioica (småvänderot) B
Veronica chamaedrys (teveronika) B
Veronica officinalis (ärenpris) B
Vicia cracca (kråkvicker) C
Viola canina (ängsviol) A
Viola hirta (buskviol) C
Viola riviniana (skogsviol) D

<i>Luzula campestris</i> (knippfryle)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Pimpinella saxifraga</i> (vanlig bockrot)	0	0	0	0	1	0	0	0	0	0	0	0	0	1
<i>Poa pratensis</i> (ängsgröe)	1	1	1	1	1	1	1	1	1	0	1	1	0	0
<i>Potentilla erecta</i> (blodrot)	0	1	1	0	1	1	1	1	0	1	2	0	0	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	1	0	0	0	1	0	1	0	0	1	0	1
<i>Rumex acetosa</i> (ängssyra)	1	1	1	1	1	1	0	1	1	1	3	3	3	1
<i>Salix aurita</i> * <i>cinerea</i> (bindvide*gråvide)	0	0	0	0	0	0	0	0	0	0	0	0	5	0
<i>Scorzonera humilis</i> (svinrot)	0	1	0	0	1	0	0	0	0	0	0	0	0	0
<i>Selinum carvifolia</i> (krussilja)	1	1	0	1	2	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	1	1	2	0	3	1	1	1	0	1	1	0	0	1
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Thalictrum simplex</i> (vanlig backruta)	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	1	4	0	1	0	0	0	0	0	0	0	0	0	0
<i>Vicia cracca</i> (kråkvicker)	1	0	1	1	1	1	1	1	0	1	1	0	0	0
<i>Viola riviniana</i> (skogsviol)	0	0	0	0	0	0	0	0	0	1	0	0	0	0

A3

1 2 3 4 5 6 7 8 9 10 11 12 13 14

<i>Achillea millefolium</i> (röllika)	1	0	0	0	1	1	1	0	1	1	0	0	1	1
<i>Achillea ptarmica</i> (nysört)	1	0	0	0	0	1	0	0	0	0	0	0	0	1
<i>Agrostis tenuis</i> (rödven)	1	0	0	1	0	1	1	1	1	1	1	1	1	1
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Arrhenatherum pubescens</i> (luddhavre)	1	1	0	0	1	1	1	1	0	0	0	0	0	1
<i>Betula verrucosa</i> (vårtbjörk)	4	5	2	0	0	0	0	5	0	0	5	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	0	1	1	1	1	0	0	0	0	0	0	0	1
<i>Carex pallescens</i> (blekstarr)	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<i>Centaurea jacea</i> (rödclint)	0	0	0	0	0	0	0	1	1	0	0	0	0	0
<i>Cirsium acaule</i> (jordtistel)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	2	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Crataegus sp</i> (hagtom)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvatåtel)	0	1	0	0	0	0	0	2	1	0	1	1	0	1
<i>Festuca pratensis</i> (ängssvingel)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<i>Festuca rubra</i> (rödsvingel)	1	1	1	1	1	1	1	1	1	2	1	1	1	1
<i>Filipendula ulmaria</i> (älgört)	3	2	5	1	2	1	4	0	0	0	4	5	0	0
<i>Filipendula vulgaris</i> (brudbröd)	1	0	0	3	0	0	0	0	0	0	0	0	2	0

<i>Galium boreale</i> (vitmåra)	1	1	3	2	4	5	2	4	5	5	4	1	5	3
<i>Galium verum</i> (gulmåra)	2	1	0	1	0	1	0	0	0	1	0	1	2	0
<i>Geum rivale</i> (humleblomster)	2	4	1	1	2	2	4	4	1	0	0	0	1	4
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	0	0	0	0	1	0	0	2	1
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	2	0	1	0	0	0	0	0	1	4	2	0	4
<i>Inula salicina</i> (krissla)	0	0	0	2	0	0	0	0	0	0	0	0	0	0
<i>Juncus conglomeratus</i> (knappståg)	0	0	0	0	1	1	0	0	0	0	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	1	1	1	1	1	1	1	1	2	1	0	1	0	1
<i>Molinia caerulea</i> (blåtåtel)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Poa pratensis</i> (ängsgröe)	1	1	1	1	0	1	1	1	1	1	1	0	1	1
<i>Potentilla erecta</i> (blodrot)	1	0	1	3	3	1	1	0	1	0	0	0	0	2
<i>Ranunculus acris</i> (vanlig smörblomma)	1	0	0	1	0	1	0	1	0	1	1	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	1	0	0	1	1	0	0	0	0	0	1	1
<i>Rumex acetosa</i> (ängssyra)	1	0	0	1	1	1	1	1	1	1	1	1	1	1
<i>Salix repens</i> (krypvide)	0	0	0	0	0	0	0	1	1	0	0	0	0	0
<i>Scorzonera humilis</i> (svinrot)	0	1	0	1	0	0	1	0	0	0	0	0	0	0
<i>Selinum carvifolia</i> (krussilja)	0	0	0	1	1	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	0	1	1	0	0	0	0	1	1	0	0	0	0	0
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	0	1	0	0	0	1	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Trollius europaeus</i> (smörbollor)	0	0	0	1	0	0	0	0	0	0	0	0	0	3
<i>Valeriana dioica</i> (småvänderot)	0	0	0	1	1	0	0	0	0	0	0	0	0	0
<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	0	0	0	0	0	0	0	1	0	1
<i>Vicia cracca</i> (kråkvicker)	0	1	1	1	1	1	1	1	0	0	1	1	0	0

A4

1 2 3 4 5 6 7 8 9 10 11 12 13 14

<i>Achillea millefolium</i> (röllika)	0	1	1	0	1	1	1	0	1	0	0	0	0	1
<i>Achillea ptarmica</i> (nysört)	0	0	1	0	0	1	0	0	0	0	0	1	1	0
<i>Agrostis canina</i> (brunven)	0	0	0	0	0	0	0	1	0	0	0	0	0	0
<i>Agrostis tenuis</i> (rödven)	0	0	1	0	1	0	1	1	1	0	0	0	0	1
<i>Alchemilla acutiloba</i> (stjärndaggkäpa)	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Alopecurus pratensis</i> (ängskavle)	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	1	0	0	0	0	0	0	0	0	0	0	1
<i>Arrhenatherum pubescens</i> (luddhavre)	0	0	0	1	0	1	0	0	0	0	0	0	0	1
<i>Betula verrucosa</i> (vårtbjörk)	0	0	0	0	0	0	0	4	5	0	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	0	0	0	0	0	0	0	1	0	0	0	0	0

<i>Carex pallescens</i> (blekstarr)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Centaurea jacea</i> (rödsklint)	0	0	0	1	0	0	1	0	0	1	1	0	0	3
<i>Cirsium arvense</i> (åkertistel)	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvatåtel)	1	1	0	0	0	1	1	1	1	1	1	0	0	0
<i>Festuca pratensis</i> (ängssvingel)	0	0	0	0	1	0	0	0	1	0	1	0	0	0
<i>Festuca rubra</i> (rödsvingel)	1	2	2	1	1	1	1	2	1	1	3	1	3	1
<i>Filipendula ulmaria</i> (älgört)	1	4	1	1	4	4	0	3	3	5	0	5	3	0
<i>Filipendula vulgaris</i> (brudbröd)	0	1	1	1	0	1	0	0	0	0	1	0	1	0
<i>Galium boreale</i> (vitmåra)	5	5	5	4	5	4	5	5	4	3	5	2	1	4
<i>Galium verum</i> (gulmåra)	1	2	1	1	1	2	1	0	1	0	1	1	2	1
<i>Geum rivale</i> (humleblomster)	1	1	0	1	2	2	1	3	4	1	5	2	5	3
<i>Hieracium umbellatum</i> (flockfibbla)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	0	0	0	0	0	0	0	1	2
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	0	0	0	0	0	0	0	0	0	0	3	0
<i>Lathyrus pratensis</i> (gulvial)	1	1	1	1	1	3	2	0	0	0	1	0	1	1
<i>Molinia caerulea</i> (blåtåtel)	0	0	0	0	0	0	0	0	3	0	0	0	0	0
<i>Poa pratensis</i> (ängsgröe)	1	1	1	1	1	1	1	0	1	1	0	0	1	0
<i>Potentilla anserina</i> (gåsört)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Potentilla erecta</i> (blodrot)	1	1	0	1	1	1	0	1	0	0	1	1	1	0
<i>Ranunculus acris</i> (vanlig smörblomma)	1	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Ranunculus auricomus</i> (majsmörblomma)	0	1	0	0	0	0	0	0	1	0	0	1	0	0
<i>Rumex acetosa</i> (ängssyra)	1	1	1	1	1	1	1	0	0	0	1	1	1	0
<i>Scorzonera humilis</i> (svinrot)	0	1	1	1	1	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	1	1	1	4	1	0	0	0	0	1	0	0	0	1
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>Thalictrum simplex</i> (vanlig backruta)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	1	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Trollius europaeus</i> (smörbollor)	0	0	0	0	0	0	3	0	0	0	3	0	0	0
<i>Vicia cracca</i> (kråkvicker)	0	1	1	1	1	0	0	1	1	1	1	1	0	0

A5

<i>Achillea millefolium</i> (röllika)	1	1	0	0	1	1	1	1	1	0	1	1	1	1
<i>Achillea ptarmica</i> (nysört)	0	1	0	0	0	1	0	1	0	0	1	1	1	1
<i>Agrostis tenuis</i> (rödven)	1	1	1	0	0	0	0	0	0	1	1	1	1	1
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Arrhenatherum pubescens</i> (luddhavre)	0	1	1	0	1	0	0	0	0	0	1	1	1	1

<i>Briza media</i> (darrgräs)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Campanula rotundifolia</i> (liten blålocka)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
<i>Carex pallescens</i> (blekstarr)	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0
<i>Centaurea jacea</i> (rödsklint)	1	0	1	1	0	1	0	0	0	0	0	0	0	0	1
<i>Cerastium holosteoides</i> (hönsarv)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Cirsium acaule</i> (jordtistel)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Crepis praemorsa</i> (klasefibbla)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvatåtel)	1	0	1	0	1	0	1	0	0	1	0	1	1	1	1
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0
<i>Festuca ovina</i> (fårsvingel)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<i>Festuca pratensis</i> (ängssvingel)	1	1	0	1	0	0	1	0	0	0	1	1	1	1	1
<i>Festuca rubra</i> (rödsvingel)	1	1	3	1	1	2	1	1	0	0	1	1	1	1	1
<i>Filipendula vulgaris</i> (brudbröd)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Galium boreale</i> (vitmåra)	5	5	5	5	5	4	5	5	5	3	3	5	5	5	5
<i>Galium verum</i> (gulmåra)	1	1	1	1	1	2	3	1	1	2	1	0	1	1	1
<i>Geum rivale</i> (humleblomster)	3	0	0	4	4	0	2	4	1	0	1	1	1	0	0
<i>Hieracium umbellatum</i> (flockfibbla)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	0	1	0	0	0	3	1	0	0	0	0	0	0	0	0
<i>Luzula campestris</i> (knippfryle)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Pimpinella saxifraga</i> (vanlig bockrot)	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
<i>Poa pratensis</i> (ängsgröe)	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0
<i>Potentilla erecta</i> (blodrot)	2	0	1	1	1	1	0	1	0	0	1	2	3	1	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	1	0	0	0	1	0	1	1	1	1
<i>Ranunculus auricomus</i> (majsmörblomma)	1	1	0	1	1	1	1	1	0	1	1	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
<i>Salix repens</i> (krypvide)	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
<i>Selinum carvifolia</i> (krussilja)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	2	1	1	3	0	0	0	0	2	0	1	1	1	1	1
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0
<i>Succisa pratensis</i> (ängsvädd)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0

<i>Trollius europaeus</i> (smörbollar)	0	0	0	4	0	0	0	0	0	0	0	0	0	0
<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Vicia cracca</i> (kråkvicker)	1	0	1	1	1	0	0	1	0	1	1	1	1	1
A6	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	1	0	0	1	0	0	1	1	0	0	1	0	1	1
<i>Achillea ptarmica</i> (nysört)	0	0	0	0	1	1	1	0	1	0	0	1	0	0
<i>Agrostis canina</i> (brunven)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Agrostis tenuis</i> (rödven)	0	1	1	0	1	0	1	1	1	0	1	1	1	1
<i>Alopecurus pratensis</i> (ängskavle)	0	0	0	1	3	0	0	0	0	0	0	0	0	0
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	1	0	0	0	0	1	0	0	1	0
<i>Anthriscus sylvestris</i> (hundkåx)	0	0	4	0	0	0	0	0	0	0	0	0	0	0
<i>Arrhenatherum pubescens</i> (luddhavre)	0	1	0	0	0	0	1	0	0	0	0	0	0	0
<i>Betula verrucosa</i> (vårtbjörk)	5	4	0	4	5	0	1	0	0	0	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Centaurea jacea</i> (rödklint)	1	0	0	0	0	0	0	1	0	0	2	1	1	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvtåtel)	0	0	0	1	1	0	0	1	0	1	1	1	0	1
<i>Epilobium montanum</i> (bergdunört)	0	0	0	0	0	0	0	1	0	0	0	0	0	0
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	1	0	1	1	0	1	0	1
<i>Festuca ovina</i> (fårsvingel)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Festuca pratensis</i> (ängssvingel)	0	1	1	0	0	0	0	0	0	1	0	0	1	0
<i>Festuca rubra</i> (rödsvingel)	1	1	1	0	1	1	3	1	1	1	1	3	4	4
<i>Filipendula vulgaris</i> (brudbröd)	0	1	1	0	0	0	0	1	0	0	1	0	0	0
<i>Galium boreale</i> (vitmåra)	4	3	4	5	5	5	5	5	5	5	5	1	5	1
<i>Galium verum</i> (gulmåra)	1	1	1	3	1	0	2	3	0	1	1	3	1	3
<i>Geum rivale</i> (humleblomster)	5	2	4	2	3	3	3	0	4	4	3	2	0	0
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	1	0	1	0	1	1	1	0	2
<i>Juncus conglomeratus</i> (knapptåg)	0	0	0	0	0	0	0	1	0	0	0	0	0	0
<i>Lathyrus montanum</i> (gökärt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Lathyrus pratensis</i> (gulvial)	2	1	0	0	1	0	0	0	0	0	0	0	0	0
<i>Molinia caerulea</i> (blåtåtel)	0	0	2	0	0	0	0	0	0	0	0	0	0	0
<i>Pimpinella saxifraga</i> (vanlig bockrot)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Poa pratensis</i> (ängsgröe)	1	1	1	1	1	0	1	0	1	0	1	1	1	1
<i>Potentilla erecta</i> (blodrot)	0	0	1	0	1	0	0	0	1	1	1	2	1	0
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	0	1	0	0	1	0	1	1	1

<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	0	1	0	0	0	1	0	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	1	1	1	1	1	1	1	1	1	1	2	1	1	1
<i>Salix pentandra</i> (jolster)	0	0	0	0	0	0	0	5	0	0	0	0	0	0
<i>Scorzonera humilis</i> (svinrot)	1	1	0	1	0	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	0	0	1	0	0	0	0	0	0	0	0	0	0	1
<i>Stellaria graminea</i> (grässtjämblomma)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Succisa pratensis</i> (ängsvädd)	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<i>Thalictrum simplex</i> (vanlig backruta)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Tragopogon pratensis</i> (ängshaverrot)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	1	0	0	2	1	0	0	4	1	4
<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<i>Vicia cracca</i> (kråkvicker)	0	0	0	1	1	1	1	1	1	1	1	0	0	1
A7	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	0	1	0	0	0	1	0	0	1	1	0	0	1	1
<i>Achillea ptarmica</i> (nysört)	0	0	0	0	0	0	0	1	0	0	0	1	1	0
<i>Aegopodium podagraria</i> (kirsål)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Agrostis canina</i> (brunven)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Agrostis tenuis</i> (rödven)	0	1	1	1	1	1	1	1	0	0	1	1	1	1
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	1	0	0	0	0	1	1
<i>Betula verrucosa</i> (vårtbjörk)	5	3	0	5	5	4	0	5	0	4	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	1	0	0	0	1	0	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	1	0	1	1	0	0	0	0	0	0	0	0	0
<i>Carex hirta</i> (grusstarr)	1	1	0	0	0	0	1	1	0	0	0	0	1	0
<i>Centaurea jacea</i> (rödklint)	0	0	1	0	0	0	0	0	0	0	0	2	1	2
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvtåtel)	0	0	1	0	1	1	1	1	0	1	0	0	0	2
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	1	1	0	0	0	0	0
<i>Festuca pratensis</i> (ängssvingel)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<i>Festuca rubra</i> (rödsvingel)	1	1	1	1	3	1	1	1	2	1	3	1	1	1
<i>Filipendula ulmaria</i> (älgört)	0	3	4	4	0	0	0	0	0	0	0	0	0	0
<i>Filipendula vulgaris</i> (brudbröd)	1	2	1	0	0	0	0	0	0	0	0	0	0	0
<i>Galium boreale</i> (vitmåra)	1	1	4	2	1	5	4	2	5	4	5	4	2	5
<i>Galium verum</i> (gulmåra)	1	0	0	1	0	1	4	1	1	1	1	4	4	1
<i>Geum rivale</i> (humleblomster)	5	5	4	5	4	1	0	1	2	0	0	0	0	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	0	0	1	1	0	0	1	1	0

<i>Filipendula ulmaria</i> (älgört)	0	0	1	3	0	0	0	0	0	0	0	0	0	0
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	0	0	0	0	0	1	0	0	1	1	1
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<i>Galium boreale</i> (vitmåra)	3	5	4	4	4	2	5	1	4	4	3	1	1	2
<i>Galium verum</i> (gulmåra)	0	0	0	1	0	0	0	0	0	0	2	0	0	1
<i>Geranium sanguineum</i> (blodnäva)	0	0	0	0	0	0	0	0	0	0	0	1	0	1
<i>Geum rivale</i> (humleblomster)	2	4	5	4	4	5	3	5	4	3	4	2	5	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	0	0	0	0	0	1	5	4	4	4	0	0	0
<i>Holcus lanatus</i> (luddtätel)	0	0	0	0	0	0	1	1	1	1	0	1	0	0
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Inula salicina</i> (krissla)	0	0	0	0	0	0	0	0	0	0	0	0	3	1
<i>Juncus conglomeratus</i> (knapptåg)	0	0	1	0	0	0	1	0	0	0	0	0	0	0
<i>Lathyrus montanus</i> (gökärt)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	1	1	1	1	1	1	1	3	1	0	0	0	0	0
<i>Molinia caerulea</i> (blåtätel)	4	1	1	0	2	4	0	0	0	0	0	0	0	0
<i>Poa pratensis</i> (ängsgröe)	1	0	0	0	0	1	0	1	0	1	1	1	0	1
<i>Potentilla erecta</i> (blodrot)	3	1	1	1	3	1	0	1	1	0	1	1	0	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	1	1	1	0	0	0	0	0	0	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	1	0	1	0	0	0	1	0	1	0	0	0	1	0
<i>Rumex acetosa</i> (ängssyra)	0	0	1	0	1	1	1	0	1	1	1	1	1	1
<i>Salix repens</i> (krypvide)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Scorzonera humilis</i> (svinrot)	0	0	1	1	1	2	0	0	2	0	0	1	1	2
<i>Serratula tinctoria</i> (ängsskära)	0	0	0	0	1	1	0	2	1	4	1	0	2	2
<i>Stellaria graminea</i> (grässtjårnblomma)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	2	0	0	2	1	0	0	1
<i>Trollius europaeus</i> (smörbollär)	0	1	1	0	0	1	0	3	1	2	0	0	1	0
<i>Vicia cracca</i> (kråkvicker)	0	1	1	0	1	1	1	0	1	1	2	0	1	0
<i>Viola riviniana</i> (skogsviol)	0	0	0	0	0	0	0	1	1	0	0	0	0	0

B3

1 2 3 4 5 6 7 8 9 10 11 12 13 14

<i>Achillea millefolium</i> (röllika)	0	0	0	0	0	0	0	1	0	0	0	0	3	0
<i>Achillea ptarmica</i> (nysört)	0	0	1	0	0	1	1	1	1	1	1	1	4	0
<i>Agrostis tenuis</i> (rödven)	0	0	0	0	0	1	1	0	1	1	2	1	1	1
<i>Alopecurus pratensis</i> (ängskavle)	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Anthriscus sylvestris</i> (hundkäx)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Betula verrucosa</i> (vårtbjörk)	0	0	0	0	5	0	1	5	0	5	5	4	0	5

<i>Caltha palustris</i> (kabbleka)	2	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Carex caespitosa</i> (tuvstarr)	3	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	0	0	0	0	0	0	0	0	1	1	0	1	0
<i>Carex hartmanii</i> (hartmansstarr)	0	0	1	0	1	1	0	1	0	0	0	0	0	0
<i>Carex pallescens</i> (blekstarr)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Centaurea jacea</i> (rödklint)	0	0	1	0	0	4	0	1	0	0	0	0	1	1
<i>Cirsium arvense</i> (åkertistel)	3	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	1	0	0	0	1	1	0	0	1	0
<i>Deschampsia caespitosa</i> (tuvtätel)	0	0	0	0	0	0	1	1	0	0	1	0	1	1
<i>Equisetum arvense</i> (åkerfräken)	0	1	0	1	1	0	0	1	1	1	0	0	0	0
<i>Festuca rubra</i> (rödsvingel)	0	0	1	0	0	1	1	1	1	0	0	1	1	1
<i>Filipendula ulmaria</i> (älgört)	5	5	4	5	0	0	0	0	0	0	0	0	0	0
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	0	0	0	1	0	1	0	0	1	0	0
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	1	1	0	0	1	1	0	0
<i>Galium boreale</i> (vitmåra)	0	0	4	1	1	4	3	4	1	5	1	3	3	1
<i>Galium verum</i> (gulmåra)	0	0	0	0	0	0	0	1	0	0	0	1	0	0
<i>Geum rivale</i> (humleblomster)	0	0	4	1	4	3	1	4	5	1	0	0	0	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	0	0	0	1	2	2	4	0	2	0	0	0	0
<i>Holcus lanatus</i> (luddtätel)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	0	0	0	0	0	0	0	0	0	3	0	0
<i>Inula salicina</i> (krissla)	0	0	0	4	0	0	0	0	0	1	0	0	0	0
<i>Juncus conglomeratus</i> (knapptåg)	0	0	1	0	0	0	1	0	0	0	0	0	0	0
<i>Lathyrus montanus</i> (gökärt)	0	0	0	0	0	0	0	0	0	2	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	1	0	1	0	1	1	1	1	1	0	0	0	0	0
<i>Lysimachia vulgaris</i> (videört)	1	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Molinia caerulea</i> (blåtätel)	0	0	1	2	1	0	1	0	0	0	0	2	0	0
<i>Ononis repens</i> (puktörne)	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<i>Poa pratensis</i> (ängsgröe)	0	0	1	0	0	0	0	0	1	0	1	1	1	1
<i>Potentilla erecta</i> (blodrot)	0	0	3	0	1	1	1	1	1	1	1	1	1	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	1	1	1	1	1	1	0	1	1	0	0	0	1	0
<i>Rumex acetosa</i> (ängssyra)	0	0	1	0	0	0	2	0	1	1	1	1	1	1
<i>Salix repens</i> (krypvide)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Scorzonera humilis</i> (svinrot)	0	0	1	0	1	1	2	0	1	1	3	2	2	4
<i>Serratula tinctoria</i> (ängsskära)	0	0	1	0	1	2	4	1	3	0	2	3	3	1
<i>Stellaria graminea</i> (grässtjårnblomma)	0	0	0	0	0	1	0	0	1	0	0	0	0	0

<i>Succisa pratensis</i> (ängsvädd)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	1	1	4	2	3	2
<i>Trollius europaeus</i> (smörboll)	0	0	1	1	1	2	0	0	0	0	0	0	0	0
<i>Valeriana dioica</i> (småvänderot)	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Vicia cracca</i> (kråkvicker)	0	1	1	0	0	1	2	1	1	1	0	0	1	1
<i>Viola riviniana</i> (skogsviol)	0	0	0	0	0	0	0	1	0	0	0	0	0	1

B4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	1	1	2	0	1	0	0	0	0	1	0	0	0	1
<i>Achillea ptarmica</i> (nysört)	0	0	0	1	0	0	0	0	0	0	1	1	0	0
<i>Agrostis tenuis</i> (rödven)	1	1	0	1	0	0	0	0	0	1	1	1	1	1
<i>Anemone nemorosa</i> (vitsippa)	3	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	0	0	0	1	0	1
<i>Anthriscus sylvestris</i> (hundkåx)	0	0	0	0	0	0	0	0	2	2	0	0	0	0
<i>Arrhenatherum pubescens</i> (luddhavre)	0	0	1	0	0	0	0	0	0	1	0	0	0	0
<i>Betula verrucosa</i> (vårtbjörk)	1	0	0	1	0	0	0	0	0	1	5	5	0	5
<i>Caltha palustris</i> (kabbleka)	0	0	0	0	0	1	0	1	0	0	0	0	0	0
<i>Campanula rotundifolia</i> (liten blåklocka)	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<i>Carex caespitosa</i> (tuvstarr)	0	0	0	1	1	3	2	1	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	0	0	0	0	0	2	0	0	1
<i>Carex montana</i> (lundstarr)	1	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Carex pallescens</i> (blekstarr)	0	0	1	1	1	0	0	0	0	1	0	0	0	0
<i>Centaurea jacea</i> (rödklint)	0	0	0	0	0	0	0	0	1	0	0	0	1	1
<i>Deschampsia caespitosa</i> (tuvatåtel)	1	1	1	0	0	0	0	0	0	0	1	1	0	1
<i>Equisetum arvense</i> (åkerfräken)	0	0	1	1	0	1	0	1	0	1	0	1	0	0
<i>Festuca rubra</i> (rödsvingel)	1	1	1	1	2	0	0	0	0	1	1	1	1	2
<i>Filipendula ulmaria</i> (älgört)	0	0	0	1	5	5	5	5	3	0	0	0	0	0
<i>Filipendula vulgaris</i> (brudbröd)	1	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	0	0	0	0	1	1	1	0
<i>Galium boreale</i> (vitmåra)	4	5	3	4	2	0	0	1	0	1	4	2	5	4
<i>Galium verum</i> (gulmåra)	0	0	0	0	0	0	0	0	1	4	0	0	0	2
<i>Geum rivale</i> (humleblomster)	0	0	4	5	4	0	0	0	2	5	0	0	0	0
<i>Heracleum sphondylium</i> (vit björnlöka)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Holcus lanatus</i> (luddtåtel)	1	0	0	0	0	0	0	0	0	0	1	3	0	2

<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
<i>Inula salicina</i> (krissla)	0	0	0	0	0	0	0	0	1	1	4	2	3	2	
<i>Lathyrus montanus</i> (gökärt)	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	1	1	1	1	1	0	0	0	0	2	0	0	0	0	0
<i>Molinia caerulea</i> (blåtåtel)	3	0	2	1	0	0	0	1	1	0	3	0	0	0	0
<i>Poa pratensis</i> (ängsgröe)	1	0	0	1	0	0	0	0	0	0	1	1	1	0	0
<i>Potentilla erecta</i> (blodrot)	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	3	2	1	1	0	0	0	0	0	1	3	1	1	1	1
<i>Scorzonera humilis</i> (svinrot)	1	1	1	0	0	0	0	0	0	0	1	4	1	4	4
<i>Selinum carvifolia</i> (krussilja)	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	0	0	1	0	2	0	0	0	1	0	1	0	1	1	1
<i>Stellaria graminea</i> (grässtjämblomma)	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0
<i>Thalictrum simplex</i> (vanlig backruta)	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Trollius europaeus</i> (smörboll)	0	0	0	1	3	0	0	0	3	3	0	0	0	0	0
<i>Urtica dioica</i> (brännässla)	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
<i>Veronica chamaedrys</i> (teveronika)	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
<i>Veronica officinalis</i> (ärenpris)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Vicia cracca</i> (kråkvicker)	1	1	2	0	1	2	2	2	0	1	0	1	1	0	0

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	0	0	0	0	1	0	0	0	1	0	0	0	0	0
<i>Achillea ptarmica</i> (nysört)	1	1	1	0	1	1	1	1	1	2	1	1	1	1
<i>Agrostis tenuis</i> (rödven)	0	1	1	0	1	0	1	0	1	0	0	0	1	1
<i>Alopecurus pratensis</i> (ängskavle)	0	0	0	0	0	0	0	0	0	0	1	0	1	0
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	2	2	0	0	0	0	0	0	0
<i>Anthriscus sylvestris</i> (hundkåx)	0	0	0	0	0	1	2	1	1	0	0	0	0	1
<i>Betula verrucosa</i> (vårtbjörk)	0	4	1	5	0	0	5	0	0	0	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	3	0	0	0	0	0	1	0	0	0	0
<i>Carex montana</i> (lundstarr)	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Carex pallescens</i> (blekstarr)	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Centaurea jacea</i> (rödklint)	0	0	0	0	0	0	0	0	0	0	2	0	0	3
<i>Cirsium arvense</i> (åkertistel)	0	0	0	0	0	0	0	0	0	0	0	2	4	2
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<i>Deschampsia caespitosa</i> (tuvatåtel)	1	0	0	0	1	1	0	1	1	0	0	0	0	0

<i>Deschampsia flexuosa</i> (krustätel)	0	0	1	1	2	1	0	0	0	0	0	0	0	0
<i>Equisetum arvense</i> (åkerfräken)	1	0	0	1	1	0	1	1	1	1	0	0	0	0
<i>Festuca rubra</i> (rödsvingel)	1	1	0	0	1	1	0	1	1	1	0	0	0	1
<i>Filipendula ulmaria</i> (älgört)	0	0	0	0	0	0	0	0	1	0	4	5	0	1
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	0	0	0	0	0	1	0	1	0	1	0
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	1	0	1	2	1	1	1	1
<i>Galium boreale</i> (vitmåra)	1	1	5	2	1	5	3	1	2	1	2	0	0	1
<i>Galium verum</i> (gulmåra)	0	0	0	0	1	0	0	3	0	1	3	0	4	0
<i>Geum rivale</i> (humleblomster)	4	3	1	0	0	0	0	0	4	0	3	1	1	4
<i>Heracleum sphondylium</i> (vit björnloka)	0	0	0	0	0	0	0	0	0	0	0	0	2	1
<i>Hieracium umbellatum</i> (flockfibbla)	0	1	0	0	0	1	0	0	0	0	0	0	0	0
<i>Holcus lanatus</i> (luddtätel)	0	1	0	0	0	0	0	0	1	0	0	0	0	1
<i>Hypericum maculatum</i> (fyrkantig johannesört)	1	1	0	2	0	0	3	0	1	5	0	0	0	0
<i>Inula salicina</i> (krissla)	3	4	0	0	0	0	0	0	0	0	0	0	4	0
<i>Juncus conglomeratus</i> (knapptåg)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Lathyrus montanus</i> (gökärt)	0	0	1	3	1	1	3	1	1	0	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	1	0	0	0	0	0	0	0	0	1	1	1	0	1
<i>Molinia caerulea</i> (blåtätel)	1	0	0	3	4	4	5	1	0	0	0	0	0	3
<i>Poa pratensis</i> (ängsgröe)	1	1	1	1	0	1	1	0	1	0	1	0	0	1
<i>Poa trivialis</i> (kärrgröe)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Potentilla erecta</i> (blodrot)	1	1	1	1	3	2	1	0	1	0	0	0	0	1
<i>Ranunculus auricomus</i> (majsmörblomma)	1	1	0	0	0	0	0	1	1	1	0	0	1	1
<i>Rumex acetosa</i> (ängssyra)	1	1	1	1	1	1	1	1	1	1	1	0	0	1
<i>Salix repens</i> (krypvide)	0	0	0	1	1	0	0	0	0	0	0	0	0	0
<i>Scorzonera humilis</i> (svinrot)	0	0	0	0	4	3	1	1	1	0	1	0	1	0
<i>Selinum carvifolia</i> (krussilja)	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	5	1	0	0	1	1	0	5	4	0	3	0	1	4
<i>Sorbus aucuparia</i> (rönn)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	0	1	0	0	0	0	1	1	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	5	4	0	0	0	0	0	1	0	0	0	0	0
<i>Trollius europaeus</i> (smörbollar)	1	0	0	0	0	0	0	0	1	0	1	0	0	0
<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	1	1	0	0	0	0	0	0	0	0
<i>Vicia cracca</i> (kråkvicker)	1	2	0	1	0	0	1	0	1	0	0	1	0	0
B6	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	1	1	1	0	1	1	0	0	1	2	1	1	1	0
<i>Achillea ptarmica</i> (nysört)	1	0	0	0	0	1	1	0	1	1	1	0	0	1

<i>Agrostis canina</i> (brunven)	0	0	0	0	0	2	0	0	0	0	2	1	1	0
<i>Agrostis tenuis</i> (rödven)	1	0	0	0	1	1	1	1	2	1	1	1	1	1
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	1	0	0	1	0	0
<i>Anthriscus sylvestris</i> (hundkåx)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Arrhenatherum pubescens</i> (luddhavre)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Betula verrucosa</i> (vårtbjörk)	0	0	0	0	5	0	2	5	3	0	0	1	5	0
<i>Caltha palustris</i> (kabbleka)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Campanula rotundifolia</i> (liten blåklocka)	0	0	0	0	0	0	0	0	1	1	0	0	1	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Carex caespitosa</i> (tuvstarr)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Carex flacca</i> (slankstarr)	0	0	0	0	0	0	0	0	0	0	0	1	1	0
<i>Carex hirta</i> (grusstarr)	0	0	0	1	1	0	2	1	0	0	0	0	0	0
<i>Carex pallescens</i> (blekstarr)	0	0	0	0	1	0	0	0	1	0	0	0	0	0
<i>Centaurea jacea</i> (rödklint)	1	2	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cirsium arvense</i> (åkestistel)	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<i>Dactylis glomerata</i> (hundäxing)	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvatätel)	1	0	0	1	0	0	0	1	0	1	0	0	0	0
<i>Deschampsia flexuosa</i> (krustätel)	0	0	0	0	0	0	0	2	1	0	1	0	2	0
<i>Equisetum arvense</i> (åkerfräken)	1	0	1	1	1	1	1	0	1	0	0	0	1	1
<i>Festuca pratensis</i> (ängssvingel)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Festuca rubra</i> (rödsvingel)	1	1	0	1	3	0	0	0	0	3	0	1	0	4
<i>Filipendula ulmaria</i> (älgört)	1	1	5	5	0	0	0	0	0	0	0	0	0	1
<i>Filipendula vulgaris</i> (brudbröd)	0	1	1	0	0	0	0	0	0	0	0	0	0	0
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	0	1	0	1	1	0	0	0
<i>Galium boreale</i> (vitmåra)	1	1	3	1	2	2	0	0	2	1	0	5	3	2
<i>Galium uliginosum</i> (sumpmåra)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Galium verum</i> (gulmåra)	0	1	0	3	2	1	0	0	0	1	0	0	0	0
<i>Geum rivale</i> (humleblomster)	4	4	1	2	1	4	0	0	0	0	0	0	0	2
<i>Heracleum sphondylium</i> (vit björnloka)	0	3	0	0	0	0	0	0	0	0	0	0	0	3
<i>Hieracium umbellatum</i> (flockfibbla)	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<i>Holcus lanatus</i> (luddtätel)	1	0	1	0	1	1	0	0	1	0	0	0	0	0
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	0	0	1	0	5	1	0	5	3	0	0	0
<i>Juncus conglomeratus</i> (knapptåg)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Lathyrus montanus</i> (gökärt)	0	0	0	0	0	0	1	0	0	1	1	0	1	0
<i>Lathyrus pratensis</i> (gulvial)	1	1	1	1	1	0	0	0	0	0	0	1	0	1
<i>Molinia caerulea</i> (blåtätel)	0	0	0	0	0	0	0	0	3	0	0	0	0	1

<i>Nardus stricta</i> (stagg)	0	0	0	0	0	0	0	0	2	0	1	0	0	0
<i>Poa pratensis</i> (ängsgröe)	0	0	0	1	1	0	1	1	0	0	1	1	0	1
<i>Polygonum amphibium</i> (vattenpilört)	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Potentilla erecta</i> (blodrot)	1	0	0	0	1	2	0	0	2	1	1	1	1	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	1	0	0	1	0	0	0	0	0	0	0	0	1
<i>Ranunculus auricomus</i> (majsmörblomma)	0	1	1	0	1	0	0	0	0	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	1	1	0	1	1	1	2	1	1	1	1	1	1	1
<i>Scorzonera humilis</i> (svinrot)	0	0	0	0	1	1	1	3	4	4	5	4	5	0
<i>Selinum carvifolia</i> (krussilja)	0	0	0	0	0	0	0	0	0	0	0	1	1	0
<i>Serratula tinctoria</i> (ängsskära)	4	4	1	1	1	4	0	1	3	0	1	1	1	1
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	1	1	1	3	3	2	5	3	2	3	2	0	0
<i>Trollius europaeus</i> (smörbollor)	4	4	1	2	3	0	0	0	0	0	0	1	0	0
<i>Veronica chamaedrys</i> (teveronika)	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Vicia cracca</i> (kråkvicker)	0	0	1	0	3	1	3	1	0	0	1	0	1	0
<i>Viola riviniana</i> (skogsviol)	0	0	0	0	0	0	0	1	0	0	0	0	0	0

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	1	1	1	1	0	1	0	0	0	0	1	1	1	0
<i>Achillea ptarmica</i> (nysört)	1	1	0	0	1	1	0	0	1	1	1	0	1	0
<i>Agropyron repens</i> (kvikrot)	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<i>Agrostis tenuis</i> (rödven)	0	0	1	0	0	1	1	0	0	1	0	1	1	0
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<i>Arrhenatherum pratensis</i> (ängshavre)	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<i>Arrhenatherum pubescens</i> (luddhavre)	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Betula verrucosa</i> (vårtbjörk)	0	0	0	0	0	0	5	0	0	0	0	0	0	0
<i>Carex hartmanii</i> (hartmansstarr)	1	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	1	2	1	1	0	0	0	0	0
<i>Carex pallescens</i> (blekstarr)	0	1	0	0	0	0	0	0	0	0	0	1	0	0
<i>Centaurea jacea</i> (rödclint)	2	2	4	1	3	0	1	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvatätel)	0	0	0	0	1	0	0	0	0	0	1	1	0	1
<i>Deschampsia flexuosa</i> (krustätel)	0	0	0	0	0	0	0	0	1	1	1	1	0	1
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	0	0	0	0	1	1	1
<i>Festuca ovina</i> (fårsvingel)	0	0	0	0	0	0	0	0	0	0	1	0	1	0
<i>Festuca pratensis</i> (ängssvingel)	0	1	1	1	0	0	0	0	0	0	0	1	0	0
<i>Festuca rubra</i> (rödsvingel)	2	1	1	1	1	3	1	0	1	3	1	1	2	1
<i>Filipendula ulmaria</i> (älgört)	0	4	0	0	0	0	0	0	0	0	0	0	0	0

<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	1	1	0	1	0	0	0	2	0	0	0
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	0	2	0	1	1	0	0	0
<i>Galium boreale</i> (vitmåra)	1	1	1	2	5	3	1	3	2	0	3	2	0	0
<i>Galium saxatile</i> (stenmåra)	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<i>Galium verum</i> (gulmåra)	2	2	1	4	1	2	2	0	0	0	1	1	0	0
<i>Geranium sanguineum</i> (blodnäva)	0	0	0	0	0	0	0	0	0	0	4	0	0	0
<i>Geum rivale</i> (humleblomster)	1	3	2	2	3	0	1	0	0	0	0	3	0	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	4	1	0	0	0	0	0	0	0	0	0	0	0
<i>Hieracium umbellatum</i> (flockfibbla)	0	0	1	1	0	0	0	0	0	0	0	1	0	0
<i>Holcus lanatus</i> (luddtätel)	1	0	0	0	1	0	0	0	0	0	0	0	1	0
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	0	0	0	0	1	0	1	2	3	1	1	1	1
<i>Lathyrus montanus</i> (gökärt)	0	0	0	0	0	0	0	0	0	1	1	0	1	1
<i>Lathyrus pratensis</i> (gulvial)	1	1	0	1	1	0	1	0	1	0	0	0	0	0
<i>Molinia caerulea</i> (blåtätel)	1	0	3	0	0	0	2	0	0	3	0	0	2	2
<i>Poa pratensis</i> (ängsgröe)	1	0	0	0	1	3	0	1	1	0	0	1	0	1
<i>Potentilla erecta</i> (blodrot)	1	0	0	1	0	1	1	2	1	4	1	1	1	1
<i>Primula veris</i> (gullviva)	0	0	0	1	0	0	0	0	0	0	0	1	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	1	0	0	1	1	0	0	0	0	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	0	0	1	1	1	1	1	1	1	1	1	0	0	1
<i>Scorzonera humilis</i> (svinrot)	0	0	0	1	0	1	3	1	3	2	4	0	3	2
<i>Serratula tinctoria</i> (ängsskära)	3	1	0	1	3	1	2	2	3	2	2	3	4	5
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Thalictrum simplex</i> (vanlig backruta)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	2	0	1	3	3	5	4	4	2	4	4	1
<i>Trollius europaeus</i> (smörbollor)	4	3	4	4	1	0	1	0	0	0	0	0	0	0
<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	0	2	1	0	0	0	0	0	0	1
<i>Vicia cracca</i> (kråkvicker)	2	1	1	0	0	1	0	1	2	1	1	2	1	0
<i>Viola riviniana</i> (skogsviol)	0	0	1	0	0	3	0	0	0	1	1	2	0	1

B8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Achillea millefolium</i> (röllika)	0	0	1	1	1	1	0	1	1	0	1	1	1	1
<i>Achillea ptarmica</i> (nysört)	0	1	0	1	1	1	1	1	1	1	1	1	1	1
<i>Agrostis canina</i> (brunven)	0	0	1	0	0	0	1	0	0	0	1	0	1	0
<i>Agrostis tenuis</i> (rödven)	0	1	0	1	1	1	0	0	1	0	1	1	1	1
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	1	0	0	0	0	0	0
<i>Arrhenatherum pratensis</i> (ängshavre)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<i>Arrhenatherum pubescens</i> (luddhavre)	0	0	0	0	1	1	0	1	0	0	0	1	0	1

<i>Betula verrucosa</i> (vårbjörk)	0	0	0	0	0	5	5	0	0	0	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	0	1	2	0	0	0	0	0	0
<i>Carex montana</i> (lundstarr)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>Carex nigra</i> (hundstarr)	0	0	0	1	0	0	0	0	0	0	0	0	0	0
<i>Carex pallescens</i> (blekstarr)	0	0	0	0	1	0	1	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvtåtel)	0	0	0	0	0	0	0	0	2	0	1	0	0	0
<i>Deschampsia flexuosa</i> (kruståtel)	0	0	0	1	2	0	0	0	0	0	0	0	2	0
<i>Festuca ovina</i> (fårsvingel)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Festuca rubra</i> (rödsvingel)	1	2	1	1	3	1	1	1	1	1	1	1	0	1
<i>Filipendula ulmaria</i> (älgört)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	0	0	0	0	1	0	0	0	1	3	1
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Galium boreale</i> (vitmåra)	5	4	4	3	4	2	4	1	1	1	1	1	2	3
<i>Galium verum</i> (gulmåra)	1	0	0	0	0	0	2	0	0	0	0	1	0	0
<i>Geranium sanguineum</i> (blodnäva)	0	0	0	0	0	0	0	0	0	3	1	2	0	0
<i>Geum rivale</i> (humleblomster)	2	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Hieracium umbellatum</i> (flockfibbla)	0	0	0	0	1	0	0	2	0	0	0	0	0	0
<i>Hypericum maculatum</i> (fyrkantig johannesört)	0	1	0	0	1	1	1	2	3	3	1	2	2	2
<i>Juncus conglomeratus</i> (knapptåg)	0	0	1	1	0	0	0	0	0	0	0	0	0	0
<i>Lathyrus montanus</i> (gökärt)	0	0	0	2	2	0	0	1	0	1	1	1	1	0
<i>Lathyrus pratensis</i> (gulvial)	0	4	1	1	1	1	1	1	1	0	1	0	0	0
<i>Molinia caerulea</i> (blåtåtel)	0	0	0	5	0	0	1	3	0	3	0	0	0	3
<i>Nardus stricta</i> (stagg)	0	0	0	0	0	4	0	0	0	0	0	0	1	0
<i>Poa pratensis</i> (ängsgröe)	0	1	1	0	1	1	1	1	0	1	1	0	0	0
<i>Potentilla erecta</i> (blodrot)	0	2	1	1	1	1	0	2	1	1	1	1	1	1
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	1	0	0	0	1	0	0	0	0	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	0	1	0	0	0	0	0	0	0	0	0	0	0	1
<i>Rumex acetosa</i> (ängssyra)	1	1	1	1	1	1	1	0	1	1	1	0	0	1
<i>Salix repens</i> (krypvide)	0	0	0	1	2	0	0	0	0	0	0	0	0	0
<i>Scorzonera humilis</i> (svinrot)	0	0	1	1	2	3	1	2	2	2	3	3	4	4
<i>Serratula tinctoria</i> (ängsskära)	1	2	4	0	1	0	3	1	0	0	1	3	3	3
<i>Sieglingia decumbens</i> (knägräs)	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<i>Stellaria graminea</i> (grässtjärnblomma)	0	0	1	1	1	0	0	0	0	1	0	1	0	0
<i>Succisa pratensis</i> (ängsvädd)	0	0	0	0	0	0	0	0	3	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	3	0	2	0	5	4	5	3	2	1
<i>Trollius europaeus</i> (smörbollar)	4	2	3	0	0	0	0	3	2	0	0	2	0	1

<i>Veronica chamaedrys</i> (teveronika)	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0
<i>Vicia cracca</i> (kråkvicker)	0	1	1	1	1	1	2	1	1	0	0	1	1	0	2
<i>Viola riviniana</i> (skogsviol)	0	0	1	1	1	1	3	0	0	0	0	0	2	0	0

Appendix 5; Species found in plots A and B in 1976.

The species are categorized in succession connected groups A, B, C and D. Species categorized in more than one group are marked A+B and B+C. The group represented by a line contains species that were not categorized by Ekstam & Forshed (1992). Those species were mostly ruderal- and forest species.

A	B
<i>Achillea millefolium</i> (röllika) C	<i>Achillea millefolium</i> (röllika) C
<i>Achillea ptarmica</i> (nysört) C	<i>Achillea ptarmica</i> (nysört) C
<i>Aegopodium podagraria</i> (kirskaål) - (ruderal)	<i>Agropyron repens</i> (kvickrot) C
<i>Agrostis canina</i> (brunven) B	<i>Agrostis canina</i> (brunven) B
<i>Agrostis tenuis</i> (rödven) C	<i>Agrostis tenuis</i> (rödven) C
<i>Alchemilla acutiloba</i> (stjärndaggkåpa) C	<i>Alchemilla glabra</i> (glatt daggkåpa) C
<i>Alopecurus pratensis</i> (ängskavle) C	<i>Alopecurus pratensis</i> (ängskavle) C
<i>Anemone nemorosa</i> (vitsippa) D	<i>Anemone nemorosa</i> (vitsippa) D
<i>Anthoxanthum odoratum</i> (vårbrodd) B	<i>Anthoxanthum odoratum</i> (vårbrodd) B
<i>Anthriscus sylvestris</i> (hundkäx) C	<i>Anthriscus sylvestris</i> (hundkäx) C
<i>Arrhenatherum pubescens</i> (luddhavre) C	<i>Arrhenatherum pratensis</i> (ängshavre) C
<i>Betula verrucosa</i> (vårtbjörk) - (D)	<i>Arrhenatherum pubescens</i> (luddhavre) C
<i>Briza media</i> (darrgräs) A	<i>Betula sp</i> (björk) - (D)
<i>Campanula rotundifolia</i> (liten blåklocka) B	<i>Betula verrucosa</i> (vårtbjörk) - (D)
<i>Cardamine pratensis</i> (ängsbräsma) C	<i>Caltha palustris</i> (kabbleka) C
<i>Carex flacca</i> (slankstarr) B	<i>Campanula rotundifolia</i> (liten blåklocka) B
<i>Carex hartmanii</i> (hartmansstarr) B	<i>Cardamine pratensis</i> (ängsbräsma) C
<i>Carex hirta</i> (grusstarr) B	<i>Carex caespitosa</i> (tuvstarr) B
<i>Carex pallescens</i> (blekstarr) B	<i>Carex flacca</i> (slankstarr) B
<i>Carex panicea</i> (hirsstarr) B	<i>Carex hartmanii</i> (hartmansstarr) B
<i>Carex pilulifera</i> (pillerstarr) A+B	<i>Carex hirta</i> (grusstarr) B
<i>Centaurea jacea</i> (rödklint) C	<i>Carex montana</i> (lundstarr) B+C
<i>Cerastium holosteoides</i> (hönsarv) A	<i>Carex nigra</i> (hundstarr) C
<i>Chrysanthemum leucanthemum</i> (prästkraige) B	<i>Carex pallescens</i> (blekstarr) B
<i>Cirsium acaule</i> (jordtistel) B	<i>Carex panicea</i> (hirsstarr) B
<i>Cirsium arvense</i> (åkertistel) - (ruderal)	<i>Centaurea jacea</i> (rödklint) C
<i>Crataegus sp</i> (hagtorn) C	<i>Cirsium acaule</i> (jordtistel) B
<i>Crepis praemorsa</i> (klasefibbla) B	<i>Cirsium arvense</i> (åkertistel) - (ruderal)
<i>Dactylis glomerata</i> (hundäxing) C	<i>Crataegus sp</i> (hagtorn) C
<i>Deschampsia caespitosa</i> (tuvtätel) C	<i>Dactylis glomerata</i> (hundäxing) C
<i>Epilobium angustifolium</i> (mjölkört) - (ruderal)	<i>Deschampsia caespitosa</i> (tuvtätel) C
<i>Epilobium montanum</i> (bergdunört) - (D)	<i>Deschampsia flexuosa</i> (krustätel) D
<i>Equisetum arvense</i> (åkerfräken) - (ruderal)	<i>Equisetum arvense</i> (åkerfräken) - (ruderal)
<i>Festuca ovina</i> (fårsvingel) B	<i>Festuca ovina</i> (fårsvingel) B
<i>Festuca pratensis</i> (ängssvingel) C	<i>Festuca pratensis</i> (ängssvingel) C
<i>Festuca rubra</i> (rödsvingel) B	<i>Festuca rubra</i> (rödsvingel) B
<i>Filipendula ulmaria</i> (älgört) D	<i>Filipendula ulmaria</i> (älgört) D
<i>Filipendula vulgaris</i> (brudbröd) C	<i>Filipendula vulgaris</i> (brudbröd) C
<i>Galium boreale</i> (vitmåra) C	<i>Galeopsis bifida</i> (toppdån) - (ruderal)
<i>Galium verum</i> (gulmåra) C	<i>Galium aparine</i> (snärjmåra) - (ruderal)
<i>Geum rivale</i> (humleblomster) C	<i>Galium boreale</i> (vitmåra) C
<i>Heracleum sphondylium</i> (vit björnloka) C	<i>Galium saxatile</i> (stenmåra) A
<i>Hieracium umbellatum</i> (flockfibbla) C	<i>Galium uliginosum</i> (sumpmåra) A+B
<i>Holcus lanatus</i> (luddtätel) C	<i>Galium verum</i> (gulmåra) C
<i>Hypericum maculatum</i> (fyrkantig johannesört) C	<i>Geranium sanguineum</i> (blodnäva) C
<i>Inula salicina</i> (krissla) C	<i>Geum rivale</i> (humleblomster) C
<i>Juncus conglomeratus</i> (knappståg) C	<i>Heracleum sphondylium</i> (vit björnloka) C
<i>Lathyrus montanus</i> (gökärt) C	<i>Hieracium umbellatum</i> (flockfibbla) C
<i>Lathyrus pratensis</i> (gulvial) C	<i>Holcus lanatus</i> (luddtätel) C
<i>Luzula campestris</i> (knippfryle) A+B	<i>Hypericum maculatum</i> (fyrkantig johannesört) C
<i>Mentha arvensis</i> (åkermynta) C	<i>Inula salicina</i> (krissla) C
<i>Molinia caerulea</i> (blåtätel) C	<i>Juncus conglomeratus</i> (knappståg) C
<i>Pastinaca sativa</i> (palsternacka) - (ruderal)	<i>Lathyrus montanus</i> (gökärt) C

Pimpinella saxifraga (vanlig bockrot) B
Poa pratensis (ängsgröe) C
Potentilla anserina (gåsört) B
Potentilla erecta (blodrot) C
Ranunculus acris (vanlig smörblomma) C
Ranunculus auricomus (majsmörblomma) B
Rumex acetosa (ängssyra) C
*Salix aurita*cinerea* (bindvide*gråvide) - (D)
Salix pentandra (jolster) - (D)
Salix repens (krypvide) C
Scorzonera humilis (svinrot) B
Selinum carvifolia (krussilja) C
Serratula tinctoria (ängsskära) B
Stellaria graminea (grässtjämblomma) C
Succisa pratensis (ängsvädd) B
Taraxacum sekt. *Ruderalia* (ogräsmaskros) A
Thalictrum simplex (vanlig backruta) B
Tragopogon pratensis (ängshaverrot) - (ruderal)
Trifolium medium (skogsklöver) C
Trollius europaeus (smörbollar) C
Valeriana dioica (smävänderot) B
Valeriana officinalis (läkevänderot) -
Veronica chamaedrys (teveronika) B
Vicia cracca (kråkvicker) C
Viola riviniana (skogsviol) D

Lathyrus pratensis (gulvial) C
Luzula campestris (knippfryle) A+B
Lysimachia vulgaris (videört) D
Molinia caerulea (blåtåtel) C
Nardus stricta (stagg) B+C
Ononis repens (puktörne) C
Poa pratensis (ängsgröe) C
Poa trivialis (kärrgröe) C
Polygonum amphibium (vattenpilört) B
Potentilla erecta (blodrot) C
Primula veris (gullviva) B
Ranunculus acris (vanlig smörblomma) C
Ranunculus auricomus (majsmörblomma) B
Rumex acetosa (ängssyra) C
Salix repens (krypvide) C
Scorzonera humilis (svinrot) B
Selinum carvifolia (krussilja) C
Serratula tinctoria (ängsskära) B
Sieglingia decumbens (knägräs) A
Sorbus aucuparia (rönn) - (D)
Stellaria graminea (grässtjämblomma) C
Succisa pratensis (ängsvädd) B
Taraxacum sekt. *Ruderalia* (ogräsmaskros) A
Thalictrum simplex (vanlig backruta) B
Trifolium medium (skogsklöver) C
Trollius europaeus (smörbollar) C
Urtica dioica (brännässla) C
Valeriana dioica (smävänderot) B
Veronica chamaedrys (teveronika) B
Veronica officinalis (ärenpris) B
Vicia cracca (kråkvicker) C
Viola riviniana (skogsviol) D

<i>Cirsium arvense</i> (åkertistel)	0	0	0	2	4	4	0	0	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	3	3	0	0	0	0	0	0	4	3	0	0
<i>Deschampsia caespitosa</i> (tuvtätel)	0	0	0	3	0	0	4	4	3	0	2	2	0	5
<i>Epilobium montanum</i> (bergdunört)	1	0	3	2	0	0	0	3	0	0	0	0	0	0
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	0	0	2	0	0	0	0
<i>Filipendula ulmaria</i> (älgört)	5	6	5	4	5	6	5	4	5	5	4	6	6	0
<i>Galium boreale</i> (vitmåra)	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Galium verum</i> (gulmåra)	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Geranium robertianum</i> (stinknäva)	0	0	4	0	0	0	0	0	0	0	0	0	0	0
<i>Geum rivale</i> (humleblomster)	0	0	4	5	4	5	4	0	0	0	0	0	0	4
<i>Moehringia trinervia</i> (skogsnarv)	0	0	4	0	0	0	0	0	0	0	0	0	0	0
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	3	3	0	0	0	2	0	0	0	0	0	6
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	0	0	0	0	0	0	0	1	0	0	0	4
<i>Rubus idaeus</i> (hallon)	2	0	0	0	0	0	3	P	3	4	0	0	0	0
<i>Taraxacum sekt. Ruderalia</i> (ogräsmaskros)	0	0	0	0	0	2	0	0	1	0	0	0	0	0
<i>Valeriana dioica</i> (småvänderot)	0	0	0	0	0	0	0	2	0	0	0	0	0	0
<i>Valeriana officinalis</i> (läkevänderot)	0	0	3	0	0	0	0	0	0	0	0	0	0	0
<i>Vicia cracca</i> (kråkvicker)	0	0	0	3	0	0	0	0	0	0	0	0	0	3

A4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Agrostis capillaris</i> (rödven)	0	0	0	0	0	0	0	3	0	0	0	0	3	5
<i>Alchemilla glabra</i> (glatt daggkäpa)	0	0	0	0	0	0	0	0	0	2	0	0	0	0
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	3	0	0	0	0	0	0	0	0
<i>Carex flacca</i> (slankstarr)	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Circaea lutetiana</i> (stor häxört)	0	3	0	0	0	0	0	0	0	3	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	4	3	0	4	0	0	0	0	3	0	0	0	0	0
<i>Cirsium spp</i> (tistel)	0	0	3	0	0	0	0	0	0	0	0	0	0	0
<i>Crataegus sp</i> (hagtorn)	0	0	0	0	0	2	0	2	0	0	3	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	3	0	2	3	4	0	0	4	0	3	3
<i>Deschampsia caespitosa</i> (tuvtätel)	5	0	0	4	0	3	5	6	3	0	3	3	4	5
<i>Epilobium montanum</i> (bergdunört)	0	0	2	0	0	3	1	2	0	2	2	0	0	0
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	0	3	2	0	2	3	0
<i>Festuca gigantea</i> (långsvingel)	0	0	0	0	0	0	0	3	0	0	0	0	0	0
<i>Festuca rubra</i> (rödsvingel)	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Filipendula ulmaria</i> (älgört)	4	0	0	3	3	3	0	0	5	3	0	4	0	0
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	0	0	0	0	0	0	0	2	0	0	0
<i>Galium boreale</i> (vitmåra)	4	0	0	0	0	0	0	0	0	0	3	3	4	3

<i>Galium verum</i> (gulmåra)	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
<i>Geranium robertianum</i> (stinknäva)	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0
<i>Geum rivale</i> (humleblomster)	5	6	4	4	5	0	5	2	0	3	4	5	4	4	
<i>Hypericum perforatum</i> (äkta johannesört)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
<i>Lathyrus pratensis</i> (gulvial)	0	0	2	0	0	1	3	0	0	0	2	0	0	3	
<i>Potentilla erecta</i> (blodrot)	3	0	0	0	0	0	0	0	0	0	0	3	4	0	
<i>Prunus spinosa</i> (slånbär)	0	0	0	0	0	0	0	0	0	0	3	3	3	0	3
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	3	0	0	0	0	0	0	3	0	0	3	0	
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	3	0	0	3	0	0	0	2	0	3	0	0	
<i>Rubus idaeus</i> (hallon)	4	0	5	0	0	0	4	0	0	0	0	0	0	0	
<i>Rumex acetosa</i> (ängssyra)	0	0	0	0	0	0	0	2	0	0	0	0	4	0	
<i>Salix repens</i> (krypvide)	0	0	0	0	0	0	0	0	0	0	4	0	0	0	
<i>Selinum carvifolia</i> (krusfrö)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Taraxacum sekt. Ruderalia</i> (ogräsmaskros)	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	0	3	3	3	0	3	
<i>Urtica dioica</i> (brännässla)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Veronica agrestis</i> (åkerveronika)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	

A3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Agrostis capillaris</i> (rödven)	0	0	0	0	0	0	0	0	0	0	0	0	3	0
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	0	0	0	0	5	0
<i>Betula pendula</i> (vårtbjörk)	0	3	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	0	0	2	0	0	0	0	0	0	0	0
<i>Circaea lutetiana</i> (stor häxört)	0	0	0	5	0	0	0	0	0	0	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	0	0	0	0	0	0	1	2	0	0	0	0	0	0
<i>Crataegus sp</i> (hagtorn)	3	0	0	0	1	0	1	3	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	3	0	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvtätel)	4	2	4	4	5	5	4	0	3	0	0	0	5	3
<i>Epilobium montanum</i> (bergdunört)	0	3	0	0	P	3	2	3	0	0	0	0	0	0
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	0	0	0	0	2	3	3
<i>Festuca rubra</i> (rödsvingel)	0	0	0	0	0	0	0	0	0	0	0	0	3	3
<i>Filipendula ulmaria</i> (älgört)	5	0	4	0	0	0	0	0	0	0	0	0	0	0
<i>Geranium robertianum</i> (stinknäva)	3	4	3	4	0	0	0	0	0	0	0	0	0	0
<i>Geum rivale</i> (humleblomster)	5	0	5	0	3	4	0	0	5	0	0	3	0	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	0	4	0	0	3	P	0	0	0	0	0	5	4
<i>Holcus lanatus</i> (luddtätel)	0	0	2	0	0	0	0	0	0	0	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	0	0	0	0	0	0	0	P	0	0	0	0	0	0

<i>Plantago lanceolata</i> (svartkämpar)	0	0	0	3	0	0	0	0	0	0	0	0	0	0
<i>Potentilla erecta</i> (blodrot)	0	0	0	0	0	0	0	0	0	0	0	3	0	0
<i>Prunus avium</i> (sötkörbär)	0	0	0	0	0	0	0	3	0	0	0	0	0	0
<i>Prunus spinosa</i> (slånbär)	0	0	0	0	0	0	0	0	0	6	6	4	0	0
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	3	1	0	0	0	0	3	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	2	0	0	2	0	0	0	0	0	0	0	0	0	0
<i>Rubus idaeus</i> (hallon)	0	4	0	3	3	4	4	1	5	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	0	0	0	0	0	0	0	0	0	0	0	0	3	0
<i>Sorbus aucuparia</i> (rönn)	0	3	0	0	0	0	0	0	0	0	0	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	0	0	0	5	0	5

A2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Agrostis capillaris</i> (rödven)	0	0	0	0	0	0	0	0	0	0	0	0	0	6
<i>Alchemilla glabra</i> (glatt daggkäpa)	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	0	0	3	2	1	2	0	0	0
<i>Apium graveolens</i> (selleri)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	0	0	0	0	p	0	3	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	0	0	0	0	0	0	3	0	0
<i>Carex spp</i> (starr)	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	0	0	0	0	2	0	0	0	0	0	3	3	3	0
<i>Crataegus sp</i> (hagtorn)	3	0	0	1	3	3	3	2	0	3	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	4	3	1	3	0	5	3	4	4
<i>Deschampsia caespitosa</i> (tuvtätel)	4	4	4	5	3	5	4	4	4	6	4	5	5	0
<i>Epilobium montanum</i> (bergdunört)	3	1	1	1	1	0	0	0	2	0	0	3	3	0
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	2	1	1	0	0	2	0	0	0
<i>Festuca rubra</i> (rödsvingel)	0	0	0	0	0	0	0	0	0	0	0	0	0	5
<i>Filipendula ulmaria</i> (älgört)	0	4	4	0	0	4	4	0	0	0	0	0	0	0
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	0	0	0	0	0	0	0	0	1	3	0
<i>Galium boreale</i> (vitmåra)	0	0	0	0	0	0	0	0	0	0	0	2	3	3
<i>Galium verum</i> (gulmåra)	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Geranium robertianum</i> (stinknäva)	0	1	2	0	0	4	2	0	0	0	0	0	0	0
<i>Geum rivale</i> (humleblomster)	2	3	3	4	0	2	4	3	0	0	4	4	0	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	3	0	0	0	0	0	0	0	0	0	0	0	0
<i>Holcus lanatus</i> (luddtätel)	0	0	0	0	0	0	0	0	0	2	0	0	0	2
<i>Lathyrus pratensis</i> (gulvial)	0	0	0	0	0	0	0	0	0	0	0	3	0	0
<i>Pastinaca sativa</i> (palsternacka)	0	0	0	0	0	0	0	0	3	2	4	4	0	0
<i>Plantago lanceolata</i> (svartkämpar)	0	0	0	0	0	0	0	2	0	0	0	0	0	0

<i>Prunus spinosa</i> (slånbär)	3	0	0	0	0	0	0	0	0	4	2	3	0	0	0	
<i>Quercus robur</i> (ek)	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	
<i>Ranunculus auricomus</i> (majsmörblomma)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Rubus idaeus</i> (hallon)	5	1	3	0	3	0	5	2	0	0	0	0	0	0	0	
<i>Rumex acetosa</i> (ängssyra)	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	
<i>Sorbus aucuparia</i> (rönn)	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	0	0	0	0	5	5	3	5	5

A1

	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Alopecurus pratensis</i> (ängskavle)	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Betula pendula</i> (vårtbjörk)	0	0	0	0	4	0	0	0	0	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	0	0	0	0	0	0	0	0	0	2	0	0	4
<i>Crataegus sp</i> (hagtorn)	0	0	0	2	0	0	4	0	0	0	0	1	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	0	0	0	0	3	2	0	0
<i>Deschampsia caespitosa</i> (tuvtätel)	4	2	4	6	3	0	4	0	2	3	0	3	4
<i>Epilobium montanum</i> (bergdunört)	4	0	0	0	P	P	0	0	0	0	2	1	0
<i>Equisetum arvense</i> (åkerfräken)	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Euonymus europaeus</i> (benved)	0	0	0	0	3	0	0	0	0	0	0	0	0
<i>Filipendula ulmaria</i> (älgört)	0	0	0	0	0	6	0	4	6	0	4	4	5
<i>Geranium robertianum</i> (stinknäva)	4	2	2	3	0	0	0	0	0	0	0	1	0
<i>Geranium sanguineum</i> (blodnäva)	0	0	0	0	0	0	0	0	0	0	0	0	4
<i>Geum rivale</i> (humleblomster)	2	0	6	0	0	3	3	3	6	6	4	4	3
<i>Juncus conglomeratus</i> (knapptåg)	0	0	0	0	2	0	0	0	0	0	0	0	0
<i>Lathyrus pratensis</i> (gulvial)	0	0	0	0	0	0	0	0	0	0	0	0	4
<i>Pastinaca sativa</i> (palsternacka)	0	0	3	0	3	0	0	0	0	0	0	0	0
<i>Plantago lanceolata</i> (svartkämpar)	2	0	0	P	0	0	0	0	0	0	0	0	0
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	0	p	0	0	0	0	0	0	0	0	0
<i>Rosa dumalis</i> (nyponros)	0	0	0	2	0	0	0	0	0	0	0	0	0
<i>Rubus idaeus</i> (hallon)	4	4	3	3	0	0	0	0	0	0	0	0	0
<i>Sorbus aucuparia</i> (rönn)	0	0	0	2	3	0	0	0	0	0	0	0	0
<i>Taraxacum sekt. Ruderalia</i> (ogräsmaskros)	0	0	3	0	0	0	0	0	0	0	0	0	0
<i>Urtica dioica</i> (brännässla)	0	0	0	0	0	2	0	0	0	0	0	0	0

B1

	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Acer platanooides</i> (lönn)	0	0	0	0	0	0	0	0	2	0	0	0	0
<i>Achillea ptarmica</i> (nysört)	0	0	0	0	0	0	0	0	0	2	0	0	0
<i>Agrostis stolonifera</i> (krypven)	0	0	0	0	0	4	0	0	0	0	0	0	0

<i>Alopecurus pratensis</i> (ängskavle)	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
<i>Carex pallescens</i> (blekstarr)	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Carex spp</i> (starr)	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
<i>Crataegus sp</i> (hagtom)	0	0	3	0	0	4	3	0	3	2	2	3	4						
<i>Deschampsia caespitosa</i> (tuvtåtel)	2	3	3	4	4	4	3	4	5	5	3	4	3						
<i>Deschampsia flexuosa</i> (kruståtel)	0	0	0	0	0	0	0	0	0	0	0	0	5						
<i>Dryopteris filix-mas</i> (träjon)	0	0	0	0	0	0	0	0	0	3	0	0	0						
<i>Epilobium montanum</i> (bergdunört)	0	0	0	2	0	2	0	3	3	0	2	1	0						
<i>Equisetum arvense</i> (åkerfräken)	2	3	3	5	0	0	0	3	3	0	0	0	0						
<i>Filipendula ulmaria</i> (älgört)	5	6	5	4	3	3	0	3	4	3	0	0	0						
<i>Galium boreale</i> (vitmåra)	0	0	0	0	0	0	0	0	0	0	0	0	2						
<i>Geranium robertianum</i> (stinknäva)	0	2	0	0	0	0	0	0	0	0	0	0	0						
<i>Geum rivale</i> (humleblomster)	4	0	4	4	0	0	4	4	3	4	3	0	0						
<i>Heracleum sphondylium</i> (vit björnloka)	0	0	0	0	0	0	4	3	0	0	0	0	3						
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	0	0	0	3	0	0	0	0						
<i>Hypericum perforatum</i> (äkra johannesört)	0	0	0	3	0	0	0	0	0	0	0	P	0						
<i>Inula salicina</i> (krissla)	0	3	0	2	0	0	0	0	0	0	0	0	0						
<i>Lathyrus linifolius</i> (gökärt)	0	0	0	0	0	0	0	0	0	0	0	0	3						
<i>Lathyrus pratensis</i> (gulvial)	0	0	0	1	0	0	0	0	0	0	0	0	0						
<i>Molinia caerulea</i> (blåtåtel)	0	0	0	0	6	4	0	0	4	5	0	0	0						
<i>Potentilla erecta</i> (blodrot)	0	0	0	0	0	3	0	0	0	0	0	0	0						
<i>Prunus spinosa</i> (slånbär)	0	0	0	0	0	3	0	0	3	0	0	0	0						
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	3	0	3	0	0	0	3	0						
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	0	0	0	0	1	3	0	0	3	2	0						
<i>Rosa dumalis</i> (nyponros)	0	0	0	0	0	0	0	0	0	0	0	0	2						
<i>Rubus idaeus</i> (hallon)	0	0	0	0	0	0	4	4	0	0	4	4	2						
<i>Scorzonera humilis</i> (svinrot)	0	0	0	0	4	0	0	0	0	0	0	0	4						
<i>Sorbus aucuparia</i> (rönn)	0	0	0	0	0	0	0	0	3	0	0	0	0						
<i>Taraxacum sekt. Ruderalia</i> (ogräsmaskros)	0	0	0	0	0	0	0	0	0	0	3	0	1						
<i>Trollius europaeus</i> (smörboll)	0	0	0	0	3	0	0	0	0	0	0	0	0						
<i>Vicia cracca</i> (kråkvicker)	0	0	0	0	0	2	0	0	0	0	0	0	0						

B2

<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	0	2	0	0	0	0	0	2	0					
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	0	0	0	0	5	0	0	3	0					

<i>Carex spp</i> (starr)	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0			
<i>Cirsium spp</i> (tistel)	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0			
<i>Crataegus sp</i> (hagtom)	0	0	0	0	0	3	0	0	4	3	0	0	0						
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	4	3	0	4	0	5	0	3	6					
<i>Deschampsia caespitosa</i> (tuvtåtel)	4	0	4	4	0	5	3	4	5	5	0	4	3	3					
<i>Epilobium montanum</i> (bergdunört)	0	0	0	0	0	3	0	0	3	2	0	3	0	0					
<i>Equisetum arvense</i> (åkerfräken)	0	0	3	4	0	0	0	0	0	2	0	0	0	0					
<i>Filipendula ulmaria</i> (älgört)	6	6	5	6	6	4	5	6	0	0	0	0	0	0					
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	3	0	0	0	0	0	0	0					
<i>Geum rivale</i> (humleblomster)	5	0	0	0	0	4	4	0	4	4	4	3	0	0					
<i>Heracleum sphondylium</i> (vit björnloka)	0	0	0	0	0	4	0	0	4	0	0	0	0	3					
<i>Holcus lanatus</i> (luddtåtel)	0	0	0	0	0	0	0	0	0	0	0	0	3	0					
<i>Hypericum perforatum</i> (äkra johannesört)	0	0	0	0	0	0	0	0	0	0	0	0	3	0					
<i>Juncus bufonius</i> (vägtåg)	0	0	0	0	0	0	0	0	0	2	0	0	0	0					
<i>Juncus effusus</i> (veketåg)	0	0	0	0	0	0	0	0	0	0	0	3	0	0					
<i>Mycelis muralis</i> (skogssallat)	0	0	0	0	0	4	3	0	0	0	0	0	0	0					
<i>Prunus spinosa</i> (slånbär)	0	0	0	0	0	1	0	0	0	0	0	0	0	0					
<i>Ranunculus acris</i> (vanlig smörblomma)	0	0	0	0	0	0	0	0	0	0	3	3	0	0					
<i>Ranunculus auricomus</i> (majsmörblomma)	0	0	0	0	0	2	0	0	0	2	0	3	0	0					
<i>Rosa dumalis</i> (nyponros)	0	0	0	0	0	0	0	0	0	2	0	0	0	0					
<i>Rubus idaeus</i> (hallon)	0	0	0	0	0	0	0	0	0	0	0	4	3	4					
<i>Rumex acetosa</i> (ängssyra)	0	0	0	0	0	0	0	0	0	3	0	0	0	3					
<i>Salix cinerea</i> (gråvide)	0	0	0	0	0	0	0	0	0	0	0	0	4	0					
<i>Scorzonera humilis</i> (svinrot)	0	0	0	0	0	0	0	0	0	3	3	0	0	3					
<i>Serratula tinctoria</i> (ängsskära)	0	0	0	0	0	0	0	0	0	0	0	0	0	3					
<i>Taraxacum sekt. Ruderalia</i> (ogräsmaskros)	0	0	0	0	0	2	0	0	0	0	0	2	0	0					
<i>Trollius europaeus</i> (smörboll)	0	0	0	0	0	0	0	0	2	0	0	0	0	0					
<i>Urtica dioica</i> (brännässla)	0	0	3	0	0	0	0	0	0	0	0	0	0	0					

B3

<i>Achillea ptarmica</i> (nysört)	0	0	0	0	0	0	0	0	0	3	0	0	0	0					
<i>Agrostis capillaris</i> (rödven)	2	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Agrostis stolonifera</i> (krypven)	0	0	0	0	0	0	0	0	0	0	0	0	0	3					
<i>Anemone nemorosa</i> (vitsippa)	0	0	0	0	0	0	0	0	0	1	0	0	0	0					
<i>Betula pendula</i> (vårtbjörk)	0	0	0	0	0	0	0	0	0	0	3	0	0	0					
<i>Capsella bursa-pastoris</i> (lomme)	0	0	3	0	0	0	0	0	0	0	0	0	0	0					
<i>Cardamine pratensis</i> (ängsbräsma)	0	0	0	0	0	0	0	0	0	0	0	0	0	3					

<i>Rubus idaeus</i> (hallon)	4	5	5	6	0	6	6	0	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	0	0	0	0	0	0	3	0	3	3	0	0	0
<i>Scorzonera humilis</i> (svinrot)	0	0	0	0	0	0	0	4	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	0	0	0	0	0	0	0	0	0	0	0	3	0
<i>Stellaria media</i> (våtarv)	0	0	0	0	0	0	2	0	0	0	0	0	0
<i>Succisa pratensis</i> (ängsvädd)	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	0	0	0	4	3	0	0	0	0

B7

	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Achillea millefolium</i> (röllika)	0	0	0	0	3	0	0	3	0	0	3	0	3
<i>Achillea ptarmica</i> (nysört)	0	0	0	0	0	3	0	0	0	0	3	0	0
<i>Agrostis stolonifera</i> (krypven)	0	0	0	0	5	5	0	4	0	5	3	5	4
<i>Anthriscus sylvestris</i> (hundkäx)	0	0	0	0	0	0	0	0	0	0	3	0	0
<i>Arrhenatherum elatius</i> (knylhavre)	0	0	0	0	0	0	0	3	0	0	0	0	0
<i>Carex hirta</i> (grusstarr)	0	0	0	0	0	0	3	3	0	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	0	4	0	4	4	0	0	0	0	0	0	0	0
<i>Cirsium spp</i> (tistel)	4	0	0	0	0	0	0	2	0	0	0	0	0
<i>Crataegus sp</i> (hagtorn)	0	0	0	0	0	3	0	0	0	0	0	0	0
<i>Dactylis glomerata</i> (hundäxing)	0	0	0	0	0	0	0	3	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvtåtel)	5	0	0	0	0	0	0	4	0	0	5	3	4
<i>Deschampsia flexuosa</i> (kruståtel)	0	0	0	0	0	0	0	0	0	0	0	0	6
<i>Elymus caninus</i> (lundelm)	0	0	0	0	0	0	0	0	0	0	0	0	2
<i>Epilobium angustifolium</i> (mjölkört)	0	0	0	0	3	0	0	0	0	0	0	0	0
<i>Equisetum arvense</i> (åkerfräken)	4	0	0	3	0	0	0	0	0	0	0	0	0
<i>Festuca rubra</i> (rödsvingel)	0	0	0	0	0	0	0	0	0	0	0	4	0
<i>Filipendula vulgaris</i> (brudbröd)	0	0	0	4	3	0	0	0	0	0	0	0	0
<i>Galeopsis bifida</i> (toppdån)	0	0	0	0	0	0	4	3	0	3	4	3	4
<i>Galium boreale</i> (vitmåra)	3	0	0	0	2	0	0	0	0	0	3	4	3
<i>Holcus lanatus</i> (luddtåtel)	3	0	0	5	5	5	4	3	0	3	4	4	4
<i>Hypericum perforatum</i> (äkta johannesört)	3	3	0	0	0	3	0	0	0	3	3	3	4
<i>Juncus conglomeratus</i> (knapptåg)	0	2	0	0	0	0	0	0	0	0	0	0	0
<i>Lathyrus linifolius</i> (gökärt)	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Lathyrus pratensis</i> (gulvial)	0	0	0	3	0	0	0	0	0	0	0	0	0
<i>Molinia caerulea</i> (blåtåtel)	0	4	0	0	3	0	0	0	0	0	0	0	0
<i>Poa spp</i> (gröe)	0	0	0	4	0	0	0	0	0	0	0	0	0
<i>Potentilla erecta</i> (blodrot)	0	0	0	0	0	0	0	0	0	0	0	4	0
<i>Rubus idaeus</i> (hallon)	5	5	6	0	0	0	0	0	6	0	0	0	0

<i>Rumex acetosa</i> (ängssyra)	2	0	0	5	3	3	0	3	0	4	3	3	3
<i>Stellaria palustris</i> (kärrstjärnblomma)	0	0	0	0	0	0	0	0	0	4	0	0	0
<i>Trifolium medium</i> (skogsklöver)	0	0	0	0	2	0	0	4	0	3	3	3	3
<i>Trollius europaeus</i> (smörbollor)	3	0	0	0	0	2	0	0	0	0	0	0	0
<i>Veronica agrestis</i> (åkerveronika)	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Vicia cracca</i> (kråkvicker)	0	0	0	0	0	2	0	0	0	2	0	0	0

B8

	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Achillea ptarmica</i> (nysört)	0	0	0	2	0	0	2	0	2	0	0	0	0
<i>Agrostis gigantea</i> (storven)	0	4	0	0	6	0	0	0	0	0	0	0	5
<i>Agrostis stolonifera</i> (krypven)	5	0	0	0	0	6	5	5	4	3	3	3	5
<i>Agrostis vinealis</i> (bergven)	0	3	0	0	0	0	0	0	0	0	0	0	0
<i>Anthoxanthum odoratum</i> (vårbrodd)	0	0	0	0	0	0	0	0	0	0	0	0	3
<i>Carex flacca</i> (slankstarr)	0	0	0	0	0	3	0	0	0	0	0	0	0
<i>Cirsium arvense</i> (åkertistel)	3	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cirsium spp</i> (tistel)	2	0	0	0	0	0	0	0	0	0	0	0	0
<i>Crataegus sp</i> (hagtorn)	3	0	0	0	0	0	0	0	0	0	0	0	0
<i>Deschampsia caespitosa</i> (tuvtåtel)	5	3	0	0	4	3	6	6	6	5	6	5	0
<i>Elymus caninus</i> (lundelm)	0	2	0	0	0	0	0	0	0	0	0	0	0
<i>Festuca ovina</i> (fårsvingel)	0	4	0	0	0	0	0	0	0	0	0	0	0
<i>Galeopsis bifida</i> (toppdån)	0	3	4	4	4	0	2	2	2	3	3	3	4
<i>Geum rivale</i> (humleblomster)	4	0	0	0	0	0	0	0	0	0	0	0	0
<i>Heracleum sphondylium</i> (vit björnloka)	0	3	0	0	0	0	0	0	0	0	0	0	0
<i>Holcus lanatus</i> (luddtåtel)	4	4	5	4	0	3	0	4	0	0	0	0	3
<i>Hypericum perforatum</i> (äkta johannesört)	0	2	3	0	0	0	3	0	0	4	0	4	0
<i>Juncus effusus</i> (veketåg)	0	0	0	0	0	0	0	0	0	0	0	3	0
<i>Lathyrus linifolius</i> (gökärt)	0	0	2	0	0	3	3	0	2	3	0	3	2
<i>Lathyrus pratensis</i> (gulvial)	2	0	0	0	0	0	0	0	0	0	0	0	0
<i>Molinia caerulea</i> (blåtåtel)	0	4	0	4	0	0	0	0	3	3	0	0	0
<i>Poa spp</i> (gröe)	0	0	0	0	0	0	0	0	0	0	0	0	6
<i>Potentilla erecta</i> (blodrot)	0	0	2	0	4	4	0	0	0	4	0	0	0
<i>Ranunculus acris</i> (vanlig smörblomma)	2	0	0	0	0	0	0	0	0	0	0	0	0
<i>Rubus idaeus</i> (hallon)	2	3	0	0	0	0	0	0	0	0	0	0	0
<i>Rumex acetosa</i> (ängssyra)	2	3	0	3	0	3	3	2	3	4	3	0	0
<i>Scorzonera humilis</i> (svinrot)	0	0	0	0	0	0	0	2	0	0	0	0	0
<i>Serratula tinctoria</i> (ängsskära)	2	0	0	0	0	0	0	0	0	0	0	0	0
<i>Sorbus aucuparia</i> (rönn)	0	0	0	0	0	0	0	3	0	0	0	0	0

Appendix 7; Species found in plots A and B 2005.

The species are categorized in succession connected groups. Species categorized to more than one group are marked A+B and B+C. The group represented by a line contains species that were not categorized by Ekstam & Forshed (1992). Those species were mostly ruderal- and forest species.

A	B
<i>Achillea ptarmica</i> (nysört) C	<i>Acer platanoides</i> (lönn) - (D)
<i>Agrostis capillaris</i> (rödven) C	<i>Achillea millefolium</i> (röllika) C
<i>Alchemilla glabra</i> (glatt daggkåpa) C	<i>Achillea ptarmica</i> (nysört) C
<i>Alopecurus pratensis</i> (ängskavle) C	<i>Agrostis capillaris</i> (rödven) C
<i>Anemone nemorosa</i> (vitsippa) D	<i>Agrostis gigantea</i> (storven) C
<i>Anthoxanthum odoratum</i> (vårbrodd) B	<i>Agrostis stolonifera</i> (krypven) B
<i>Apium graveolens</i> (selleri) - (ruderal)	<i>Agrostis vinealis</i> (bergven) C
<i>Betula pendula</i> (vårtbjörk) - (D)	<i>Alchemilla glabra</i> (glatt daggkåpa) C
<i>Cardamine pratensis</i> (ängsbräsma) C	<i>Alopecurus pratensis</i> (ängskavle) C
<i>Carex flacca</i> (slankstarr) B	<i>Anemone nemorosa</i> (vitsippa) D
<i>Carex hirta</i> (grusstarr) B	<i>Anthoxanthum odoratum</i> (vårbrodd) B
<i>Carex pallescens</i> (blekstarr) B	<i>Anthriscus sylvestris</i> (hundkåx) C
<i>Carex spp</i> (starr) -	<i>Arrhenatherum elatius</i> (knylhavre) C
<i>Circaea lutetiana</i> (stor häxört) - (D)	<i>Betula pendula</i> (vårtbjörk) - (D)
<i>Cirsium arvense</i> (åkertistel) - (ruderal)	<i>Capsella bursa-pastoris</i> (lomme) A
<i>Cirsium spp</i> (tistel) - (ruderal)	<i>Cardamine pratensis</i> (ängsbräsma) C
<i>Crataegus sp</i> (hagtorn) C	<i>Carex flacca</i> (slankstarr) B
<i>Dactylis glomerata</i> (hundäxing) C	<i>Carex hirta</i> (grusstarr) B
<i>Deschampsia caespitosa</i> (tuvtåtel) C	<i>Carex pallescens</i> (blekstarr) B
<i>Elymus caninus</i> (lundelm) - (D)	<i>Carex spp</i> (starr) -
<i>Epilobium montanum</i> (bergdunört) - (D)	<i>Cirsium arvense</i> (åkertistel) - (ruderal)
<i>Equisetum arvense</i> (åkerfräken) - (ruderal)	<i>Cirsium helenioides</i> (borstistel) C
<i>Euonymus europaeus</i> (bened) - (D)	<i>Cirsium spp</i> (tistel) - (ruderal)
<i>Festuca gigantea</i> (långsvingel) - (D)	<i>Crataegus sp</i> (hagtorn) C
<i>Festuca rubra</i> (rödsvingel) B	<i>Dactylis glomerata</i> (hundäxing) C
<i>Filipendula ulmaria</i> (älgört) D	<i>Deschampsia caespitosa</i> (tuvtåtel) C
<i>Filipendula vulgaris</i> (brudbröd) C	<i>Deschampsia flexuosa</i> (kruståtel) D
<i>Galium boreale</i> (vitmåra) C	<i>Dryopteris filix-mas</i> (träjon) - (D)
<i>Galium verum</i> (gulmåra) C	<i>Elymus caninus</i> (lundelm) - (D)
<i>Geranium robertianum</i> (stinknäva) - (ruderal)	<i>Epilobium angustifolium</i> (mjölkört) - (ruderal)
<i>Geranium sanguineum</i> (blodnäva) C	<i>Epilobium montanum</i> (bergdunört) - (D)
<i>Geum rivale</i> (humleblomster) C	<i>Equisetum arvense</i> (åkerfräken) - (ruderal)
<i>Heracleum sphondylium</i> (vit björnloka) C	<i>Festuca ovina</i> (fårsvingel) B
<i>Holcus lanatus</i> (luddtåtel) C	<i>Festuca rubra</i> (rödsvingel) B
<i>Hypericum perforatum</i> (äkta johannesört) B	<i>Filipendula ulmaria</i> (älgört) D
<i>Inula salicina</i> (krissla) C	<i>Filipendula vulgaris</i> (brudbröd) C
<i>Juncus conglomeratus</i> (knapptåg) C	<i>Galeopsis bifida</i> (toppdån) - (ruderal)
<i>Lathyrus pratensis</i> (gulvial) C	<i>Galium boreale</i> (vitmåra) C
<i>Moehringia trinervia</i> (skogsnarv) - (D)	<i>Galium verum</i> (gulmåra) C
<i>Molinia caerulea</i> (blåtåtel) C	<i>Geranium robertianum</i> (stinknäva) - (ruderal)
<i>Pastinaca sativa</i> (palsternacka) - (ruderal)	<i>Geranium sanguineum</i> (blodnäva) C
<i>Plantago lanceolata</i> (svartkämpar) A	<i>Geum rivale</i> (humleblomster) C
<i>Potentilla erecta</i> (blodrot) C	<i>Heracleum sphondylium</i> (vit björnloka) C
<i>Prunus avium</i> (sötkörbär) - (D)	<i>Holcus lanatus</i> (luddtåtel) C
<i>Prunus spinosa</i> (slånbär) C	<i>Hypericum perforatum</i> (äkta johannesört) B
<i>Quercus robur</i> (ek) - (D)	<i>Inula salicina</i> (krissla) C
<i>Ranunculus acris</i> (vanlig smörblomma) C	<i>Juncus bufonius</i> (vägtåg) A
<i>Ranunculus auricomus</i> (majsmörblomma) B	<i>Juncus conglomeratus</i> (knapptåg) C
<i>Rosa dumalis</i> (nyponros) C	<i>Juncus effusus</i> (veketåg) C
<i>Rubus idaeus</i> (hallon) - (ruderal)	<i>Lathyrus linifolius</i> (gökärt) C
<i>Rumex acetosa</i> (ängssyra) C	<i>Lathyrus pratensis</i> (gulvial) C
<i>Salix cinerea</i> (gråvide) - (D)	<i>Molinia caerulea</i> (blåtåtel) C
<i>Salix repens</i> (krypvide) C	<i>Mycelis muralis</i> (skogssallat) - (D)

Selinum carvifolia (krusfrö) -
Sorbus aucuparia (rönn) - (D)
Taraxacum sekt. *Ruderalia* (ogräsmaskros) A
Trifolium medium (skogsklöver) C
Urtica dioica (brännässla) C
Valeriana dioica (småvänderot) B
Valeriana officinalis (läkevänderot) -
Veronica agrestis (åkerveronika) - (ruderal)
Vicia cracca (kråkvicker) C

Myosotis sylvatica (skogsförgätmigej) - (D)
Persicaria amphibia (vattenpilört) B
Phalaris aurundinacea (rörflen) D
Poa annua (vitgröe) A
Poa spp (gröe) -
Potentilla erecta (blodrot) C
Prunus spinosa (slånbär) C
Ranunculus acris (vanlig smörblomma) C
Ranunculus auricomus (majsmörblomma) B
Ranunculus bulbosus (knölsmörblomma) B
Rosa dumalis (nyponros) C
Rubus idaeus (hallon) - (ruderal)
Rumex acetosa (ängssyra) C
Salix cinerea (gråvide) - (D)
Scorzonera humilis (svinrot) B
Serratula tinctoria (ängsskära) B
Solidago virgaurea (gullris) C
Sorbus aucuparia (rönn) - (D)
Stellaria media (våtarv) - (ruderal)
Stellaria palustris (kärstjämbomma) -
Succisa pratensis (ängsvädd) B
Taraxacum sekt. *Ruderalia* (ogräsmaskros) A
Trifolium medium (skogsklöver) C
Trifolium repens (vitklöver) A
Trollius europaeus (smörboll) C
Urtica dioica (brännässla) C
Veronica agrestis (åkerveronika) - (ruderal)
Vicia cracca (kråkvicker) C
Viola canina (ängsviol) A

Appendix 8; Species involved in the turnover between the inventories of 1952, 1976 and 2005.

Sps that were same in A 52 & 76	Sps existing in A 52 not 76	Sps existing in A 76 not 52	Sps that were same in B 52 & 76	Sps existing in B 52 not 76	Sps existing in B 76 not 52
<i>Achillea millefolium</i> (röllika)	<i>Alchemilla glabra</i> (glatt daggkåpa)	<i>Aegopodium podagraria</i> (kirskaål)	<i>Achillea millefolium</i> (röllika)	<i>Anemone pulsatilla</i> (backsippa)	<i>Agropyron repens</i> (kvickrot)
<i>Achillea ptarmica</i> (nysört)	<i>Antennaria dioica</i> (kattfot)	<i>Alchemilla acutiloba</i> (stjärndaggkåpa)	<i>Achillea ptarmica</i> (nysört)	<i>Antennaria dioica</i> (kattfot)	<i>Alopecurus pratensis</i> (ängskavle)
<i>Agrostis canina</i> (brunven)	<i>Arrhenatherum pratensis</i> (ängshavre)	<i>Alopecurus pratensis</i> (ängskavle)	<i>Agrostis canina</i> (brunven)	<i>Briza media</i> (darrgräs)	<i>Anthriscus sylvestris</i> (hundkäx)
<i>Agrostis tenuis</i> (rödven)	<i>Calluna vulgaris</i> (ljung)	<i>Anemone nemorosa</i> (vitsippa)	<i>Agrostis tenuis</i> (rödven)	<i>Calluna vulgaris</i> (ljung)	<i>Betula sp</i> (björk)
<i>Anthoxanthum odoratum</i> (vårbrodd)	<i>Carex caryophyllea</i> (vårstarr)	<i>Anthriscus sylvestris</i> (hundkäx)	<i>Alchemilla glabra</i> (glatt daggkåpa)	<i>Carex caryophyllea</i> (vårstarr)	<i>Betula verrucosa</i> (vårtbjörk)
<i>Arrhenatherum pubescens</i> (luddhavre)	<i>Carex hostiana</i> (ängsstarr)	<i>Betula verrucosa</i> (vårtbjörk)	<i>Anemone nemorosa</i> (vitsippa)	<i>Carex disticha</i> (plattstarr)	<i>Carex caespitosa</i> (tuvstarr)
<i>Briza media</i> (darrgräs)	<i>Carex leporina</i> (harstarr)	<i>Carex hartmanii</i> (hartmansstarr)	<i>Anthoxanthum odoratum</i> (vårbrodd)	<i>Carex hostiana</i> (ängsstarr)	<i>Carex hartmanii</i> (hartmansstarr)
<i>Campanula rotundifolia</i> (liten blålocka)	<i>Carex montana</i> (lundstarr)	<i>Carex pilulifera</i> (pillerstarr)	<i>Arrhenatherum pratensis</i> (ängshavre)	<i>Carex leporina</i> (harstarr)	<i>Cirsium arvense</i> (åkertistel)
<i>Cardamine pratensis</i> (ängsbräsma)	<i>Carex nigra</i> (hundstarr)	<i>Cirsium arvense</i> (åkertistel)	<i>Arrhenatherum pubescens</i> (luddhavre)	<i>Carex pilulifera</i> (pillerstarr)	<i>Crataegus sp</i> (hagtom)
<i>Carex flacca</i> (slankstarr)	<i>Carex pulicaris</i> (loppstarr)	<i>Crataegus sp</i> (hagtom)	<i>Caltha palustris</i> (kabbleka)	<i>Carex pulicaris</i> (loppstarr)	<i>Dactylis glomerata</i> (hundäxing)
<i>Carex hirta</i> (grusstarr)	<i>Cynosurus cristatus</i> (kamäxing)	<i>Crepis praemorsa</i> (klasefibbla)	<i>Campanula rotundifolia</i> (liten blålocka)	<i>Cerastium holosteoides</i> (hönsarv)	<i>Galeopsis bifida</i> (toppdån)
<i>Carex pallescens</i> (blekstarr)	<i>Galium saxatile</i> (stenmåra)	<i>Dactylis glomerata</i> (hundäxing)	<i>Cardamine pratensis</i> (ängsbräsma)	<i>Chrysanthemum leucanthemum</i> (prästrage)	<i>Galium aparine</i> (snärjmåra)
<i>Carex panicea</i> (hirsstarr)	<i>Gentianella uliginosa</i> (sumpgentiana)	<i>Epilobium angustifolium</i> (mjölkört)	<i>Carex flacca</i> (slankstarr)	<i>Crepis praemorsa</i> (klasefibbla)	<i>Galium uliginosum</i> (sumpmåra)
<i>Centaurea jacea</i> (rödsklint)	<i>Hieracium piloselloidea /coll</i> (gråfibbla coll)	<i>Epilobium montanum</i> (bergdunört)	<i>Carex hirta</i> (grusstarr)	<i>Cynosurus cristatus</i> (kamäxing)	<i>Heracleum sphondylium</i> (vit björnloka)
<i>Cerastium holosteoides</i> (hönsarv)	<i>Hieracium pilosella</i> (gråfibbla)	<i>Equisetum arvense</i> (åkerfräken)	<i>Carex montana</i> (lundstarr)	<i>Dactylorhiza maculata</i> (jungfru Marie nycklar)	<i>Inula salicina</i> (krissla)
<i>Chrysanthemum leucanthemum</i> (prästrage)	<i>Juncus articulatus</i> (ryltåg)	<i>Heracleum sphondylium</i> (vit björnloka)	<i>Carex nigra</i> (hundstarr)	<i>Dactylorhiza sambucina</i> (Adam och Eva)	<i>Lysimachia vulgaris</i> (videört)
<i>Cirsium acaule</i> (jordtistel)	<i>Leontodon autumnalis</i> (höstfibbla)	<i>Inula salicina</i> (krissla)	<i>Carex pallescens</i> (blekstarr)	<i>Hieracium piloselloidea /coll</i> (gråfibbla coll)	<i>Ononis repens</i> (puktörne)
<i>Deschampsia caespitosa</i> (tuvtåtel)	<i>Linum catharticum</i> (vildlin)	<i>Lathyrus montanum</i> (gökärt)	<i>Carex panicea</i> (hirsstarr)	<i>Hieracium pilosella</i> (gråfibbla)	<i>Polygonum amphibium</i> (vattenpilört)
<i>Festuca ovina</i> (fårsvingel)	<i>Lotus corniculatus</i> (kåringtand)	<i>Molinia caerulea</i> (blåtåtel)	<i>Centaurea jacea</i> (rödsklint)	<i>Hypochoeris maculata</i> (slätterfibbla)	<i>Primula veris</i> (gullviva)
<i>Festuca pratensis</i> (ängssvingel)	<i>Nardus stricta</i> (stagg)	<i>Pastinaca sativa</i> (palsternacka)	<i>Cirsium acaule</i> (jordtistel)	<i>Hypochoeris radicata</i> (rotfibbla)	<i>Selinum carvifolia</i> (krussilja)
<i>Festuca rubra</i> (rödsvingel)	<i>Phleum pratense</i> (timotej)	<i>Pimpinella saxifraga</i> (vanlig bockrot)	<i>Deschampsia caespitosa</i> (tuvtåtel)	<i>Juncus articulatus</i> (ryltåg)	<i>Sorbus aucuparia</i> (rönn)
<i>Filipendula ulmaria</i> (älgört)	<i>Plantago lanceolata</i> (svartkämpar)	<i>Salix aurita*cinerea</i> (bindvide*gråvide)	<i>Deschampsia flexuosa</i> (kruståtel)	<i>Leontodon autumnalis</i> (höstfibbla)	<i>Urtica dioica</i> (brännässla)
<i>Filipendula vulgaris</i> (brudbröd)	<i>Plantago major</i> (gårdsgroblad)	<i>Salix pentandra</i> (jolster)	<i>Equisetum arvense</i> (åkerfräken)	<i>Leontodon hispidus</i> (sommarrfibbla)	
<i>Galium boreale</i> (vitmåra)	<i>Plantago media</i> (rödskämpar)	<i>Selinum carvifolia</i> (krussilja)	<i>Festuca ovina</i> (fårsvingel)	<i>Linum catharticum</i> (vildlin)	
<i>Galium verum</i> (gulmåra)	<i>Poa annua</i> (vitgröe)	<i>Tragopogon pratensis</i> (ängshaverrot)	<i>Festuca pratensis</i> (ängssvingel)	<i>Lotus corniculatus</i> (kåringtand)	
<i>Geum rivale</i> (humleblomster)	<i>Poa supina</i> (trampgröe)	<i>Valeriana officinalis</i> (läkevänderot)	<i>Festuca rubra</i> (rödsvingel)	<i>Lychnis flos-cuculi</i> (gökblomster)	
<i>Hieracium umbellatum</i> (flockfibbla)	<i>Polygala vulgaris</i> (jungfrulin)		<i>Filipendula ulmaria</i> (älgört)	<i>Mentha arvensis</i> (åkermynta)	
<i>Holcus lanatus</i> (luddtåtel)	<i>Prunella vulgaris</i> (brunört)		<i>Filipendula vulgaris</i> (brudbröd)	<i>Orchis morio</i> (göknycklar)	
<i>Hypericum maculatum</i> (fyrcantig johannesört)	<i>Sagina nodosa</i> (sydknutnarv)		<i>Galium boreale</i> (vitmåra)	<i>Persicaria amphibia</i> (vattenpilört)	
<i>Juncus conglomeratus</i> (knapptåg)	<i>Sagina procumbens</i> (krypnarv)		<i>Galium saxatile</i> (stenmåra)	<i>Phleum pratense</i> (timotej)	
<i>Lathyrus pratensis</i> (gulvial)	<i>Saxifraga granulata</i> (mandelblomma)		<i>Galium verum</i> (gulmåra)	<i>Plantago lanceolata</i> (svartkämpar)	

Luzula campestris (knippfryle)

Mentha arvensis (åkermynta)

Poa pratensis (ängsgröe)

Potentilla anserina (gåsört)

Potentilla erecta (blodrot)

Ranunculus acris
(vanlig smörblomma)

Ranunculus auricomus
(majsmörblomma)

Rumex acetosa (ängssyra)

Salix repens (krypvide)

Scorzonera humilis (svinrot)

Serratula tinctoria (ängsskära)

Stellaria graminea (grässtjärnblomma)

Succisa pratensis (ängsvädd)

Taraxacum sekt. *Ruderalia*
(ogräsmaskros)

Thalictrum simplex (vanlig backruta)

Trifolium medium (skogsklöver)

Trollius europaeus (smörbollor)

Valeriana dioica (smävänderot)

Veronica chamaedrys (teveronika)

Vicia cracca (kråkvicker)

Viola riviniana (skogsviol)

Sieglingia decumbens (knägräs)

Trifolium pratense (rödkläöver)

Trifolium repens (vitkläöver)

Veronica officinalis (ärenpris)

Veronica serpyllifolia (majveronika)

Viola canina (ängsviol)

Geranium sanguineum (blodnäva)

Geum rivale (humleblomster)

Hieracium umbellatum (flockfibbla)

Holcus lanatus (luddtåtel)

Hypericum maculatum (fyrkantig
johannesört)

Juncus conglomeratus (knapptåg)

Lathyrus montanus (gökärt)

Lathyrus pratensis (gulvial)

Luzula campestris (knippfryle)

Molinia caerulea (blåtåtel)

Nardus stricta (stagg)

Poa pratensis (ängsgröe)

Poa trivialis (kärrgröe)

Potentilla erecta (blodrot)

Ranunculus acris (vanlig smörblomma)

Ranunculus auricomus
(majsmörblomma)

Rumex acetosa (ängssyra)

Salix repens (krypvide)

Scorzonera humilis (svinrot)

Serratula tinctoria (ängsskära)

Sieglingia decumbens (knägräs)

Stellaria graminea (grässtjärnblomma)

Succisa pratensis (ängsvädd)

Taraxacum sekt. *Ruderalia*
(ogräsmaskros)

Thalictrum simplex (vanlig backruta)

Trifolium medium (skogsklöver)

Trollius europaeus (smörbollor)

Valeriana dioica (smävänderot)

Veronica chamaedrys (teveronika)

Veronica officinalis (ärenpris)

Vicia cracca (kråkvicker)

Viola riviniana (skogsviol)

Plantago major (gårdsgroblad)

Plantago media (rödkämpar)

Poa annua (vitgröe)

Polygala vulgaris (jungfrulin)

Potentilla anserina (gåsört)

Prunella vulgaris (brunört)

Ranunculus polyanthemos
(backsmörblomma)

Rhinanthus minor (äka ängsskallra)

Rumex thyrsiflorus (stor ängssyra)

Sagina procumbens (krypnarv)

Saxifraga granulata (mandelblomma)

Trifolium montanum (backklöver)

Trifolium pratense (rödkläöver)

Trifolium repens (vitkläöver)

Viola canina (ängsviol)

Viola hirta (buskviol)

**Sps that were same in A
76 & 05**

Achillea ptarmica (nysört)
Agrostis tenuis (rödven)
Alopecurus pratensis (ängskavle)
Anemone nemorosa (vitsippa)
Anthoxanthum odoratum (vårbrodd)
Betula verrucosa (vårtbjörk)
Cardamine pratensis (ängsbräsma)
Carex flacca (slankstarr)
Carex hirta (grusstarr)
Carex pallescens (blekstarr)
Cirsium arvense (åkertistel)
Crataegus sp (hagtorn)
Dactylis glomerata (hundäxing)
Deschampsia caespitosa (tuvtåtel)
Epilobium montanum (bergdunört)
Equisetum arvense (åkerfräken)
Festuca rubra (rödsvingel)
Filipendula ulmaria (älgört)
Filipendula vulgaris (brudbröd)
Galium boreale (vitmåra)
Galium verum (gulmåra)
Geum rivale (humleblomster)
Heracleum sphondylium
 (vit björnloka)
Holcus lanatus (luddtåtel)
Inula salicina (krissla)
Juncus conglomeratus (knappståg)
Lathyrus pratensis (gulvial)
Molinia caerulea (blåtåtel)
Pastinaca sativa (palsternacka)
Potentilla erecta (blodrot)

**Sps existing in A
76 not 05**

Achillea millefolium (röllika)
Aegopodium podagraria (kirskål)
Agrostis canina (brunven)
Alchemilla acutiloba
 (stjärndaggkäpa)
Anthriscus sylvestris (hundkäk)
Arrhenatherum pubescens (luddhavre)
Briza media (darrgräs)
Campanula rotundifolia (liten
 blåklocka)
Carex hartmanii (hartmansstarr)
Carex panicea (hirsstarr)
Carex pilulifera (pillerstarr)
Centaurea jacea (rödklint)
Cerastium holosteoides (hönsarv)
Chrysanthemum leucanthemum
 (prästkraige)
Cirsium acaule (jordtistel)
Crepis praemorsa (klasefibbla)
Epilobium angustifolium (mjölkört)
Festuca ovina (fårsvingel)
Festuca pratensis (ängssvingel)
Hieracium umbellatum (flockfibbla)
Hypericum maculatum (fyrkantig
 johannesört)
Lathyrus montanum (gökärt)
Luzula campestris (knippfryle)
Mentha arvensis (åkermynta)
Pimpinella saxifraga (vanlig bockrot)
Poa pratensis (ängsgröe)
Potentilla anserina (gåsört)
*Salix aurita*cinerea* (bindvide*gråvide)
Salix pentandra (jolster)
Scorzonera humilis (svinrot)

**Sps existing in A
05 not 76**

Alchemilla glabra (glatt daggkäpa)
Apium graveolens (selleri)
Carex spp (starr)
Circaea lutetiana (stor häxört)
Cirsium spp (tistel)
Elymus caninus (lundelm)
Euonymus europaeus (bened)
Festuca gigantea (långsvingel)
Geranium robertianum (stinknäva)
Geranium sanguineum (blodnäva)
Hypericum perforatum
 (ähta johannesört)
Moehringia trinervia (skogsnarv)
Plantago lanceolata (svartkämpar)
Prunus avium (sötkörbsbär)
Prunus spinosa (slånbär)
Quercus robur (ek)
Rosa dumalis (nyponros)
Rubus idaeus (hallon)
Salix cinerea (gråvide)
Sorbus aucuparia (rönn)
Urtica dioica (brännässla)
Veronica agrestis (åkerveronika)

**Sps that were same in B
76 & 05**

Achillea millefolium (röllika)
Achillea ptarmica (nysört)
Agrostis tenuis (rödven)
Alchemilla glabra (glatt daggkäpa)
Alopecurus pratensis (ängskavle)
Anemone nemorosa (vitsippa)
Anthoxanthum odoratum (vårbrodd)
Anthriscus sylvestris (hundkäk)
Betula verrucosa (vårtbjörk)
Cardamine pratensis (ängsbräsma)
Carex flacca (slankstarr)
Carex hirta (grusstarr)
Carex pallescens (blekstarr)
Cirsium arvense (åkertistel)
Crataegus sp (hagtorn)
Dactylis glomerata (hundäxing)
Deschampsia caespitosa (tuvtåtel)
Deschampsia flexuosa (kruståtel)
Equisetum arvense (åkerfräken)
Festuca ovina (fårsvingel)
Festuca rubra (rödsvingel)
Filipendula ulmaria (älgört)
Filipendula vulgaris (brudbröd)
Galeopsis bifida (toppdån)
Galium boreale (vitmåra)
Galium verum (gulmåra)
Geranium sanguineum (blodnäva)
Geum rivale (humleblomster)
Heracleum sphondylium (vit björnloka)
Holcus lanatus (luddtåtel)

**Sps existing in B
76 not 05**

Agropyron repens (kvickrot)
Agrostis canina (brunven)
Arrhenatherum pratensis (ängshavre)
Arrhenatherum pubescens
 (luddhavre)
Betula sp (björk)
Caltha palustris (kabbleka)
Campanula rotundifolia (liten
 blåklocka)
Carex caespitosa (tuvstarr)
Carex hartmanii (hartmansstarr)
Carex montana (lundstarr)
Carex nigra (hundstarr)
Carex panicea (hirsstarr)
Centaurea jacea (rödklint)
Cirsium acaule (jordtistel)
Festuca pratensis (ängssvingel)
Galium aparine (snärjmåra)
Galium saxatile (stenmåra)
Galium uliginosum (sumpmåra)
Hieracium umbellatum (flockfibbla)
Hypericum maculatum
 (fyrkantig johannesört)
Luzula campestris (knippfryle)
Lysimachia vulgaris (videört)
Nardus stricta (stagg)
Ononis repens (puktörne)
Poa pratensis (ängsgröe)
Poa trivialis (kärgröe)
Primula veris (gullviva)
Salix repens (krypvide)
Selinum carviifolia (krussilja)
Sieglingia decumbens (knägräs)

**Sps existing in B
05 not 76**

Acer platanoides (lönn)
Agrostis gigantea (storven)
Agrostis stolonifera (krypven)
Agrostis vinealis (bergven)
Arrhenatherum elatius (knylhavre)
Capsella bursa-pastoris (lomme)
Carex spp (starr)
Cirsium helenioides (borsttistel)
Cirsium spp (tistel)
Dryopteris filix-mas (träjon)
Elymus caninus (lundelm)
Epilobium angustifolium (mjölkört)
Epilobium montanum (bergdunört)
Geranium robertianum (stinknäva)
Hypericum perforatum
 (ähta johannesört)
Juncus bufonius (vägtåg)
Juncus effusus (veketåg)
Mycelis muralis (skogssallat)
Myosotis sylvatica
 (skogsförgätmigej)
Phalaris aurundinacea (rörflen)
Poa annua (vitgröe)
Poa spp (gröe)
Prunus spinosa (slånbär)
Ranunculus bulbosus
 (knölsmörblomma)
Rosa dumalis (nyponros)
Rubus idaeus (hallon)
Salix cinerea (gråvide)
Solidago virgaurea (gullris)
Stellaria media (våtarv)
Stellaria palustris
 (kärstjärnblomma)

Ranunculus acris
(vanlig smörblomma)
Ranunculus auricomus
(majsmörblomma)

Rumex acetosa (ängssyra)

Salix repens (krypvide)

Selinum carvifolia (krussilja)
Taraxacum sekt. *Ruderalia*
(ogräsmaskros)

Trifolium medium (skogsklöver)

Valeriana dioica (småvänderot)

Valeriana officinalis (läkevänderot)

Vicia cracca (kråkvicker)

Serratula tinctoria (ängsskära)

Stellaria graminea (grässtjärnblomma)

Succisa pratensis (ängsvädd)

Thalictrum simplex (vanlig backruta)

Tragopogon pratensis (ängshaverrot)

Trollius europaeus (smörbollor)

Veronica chamaedrys (teveronika)

Viola riviniana (skogsviol)

Inula salicina (krissla)

Juncus conglomeratus (knapptåg)

Lathyrus montanum (gökärt)

Lathyrus pratensis (gulvial)

Molinia caerulea (blåtåtel)

Polygonum amphibium (vattenpilört)

Potentilla erecta (blodrot)

Ranunculus acris (vanlig smörblomma)
Ranunculus auricomus
(majsmörblomma)

Rumex acetosa (ängssyra)

Scorzonera humilis (svinrot)

Serratula tinctoria (ängsskära)

Sorbus aucuparia (rönn)

Succisa pratensis (ängsvädd)
Taraxacum sekt. *Ruderalia*
(ogräsmaskros)

Trifolium medium (skogsklöver)

Trollius europaeus (smörbollor)

Urtica dioica (brännässla)

Vicia cracca (kråkvicker)

Stellaria graminea
(grässtjärnblomma)

Thalictrum simplex (vanlig backruta)

Valeriana dioica (småvänderot)

Veronica chamaedrys (teveronika)

Veronica officinalis (ärenpris)

Viola riviniana (skogsviol)

Trifolium repens (vitklöver)

Veronica agrestis (åkerveronika)

Viola canina (ängsviol)

Appendix 9; Number of subplots that the different species were present in, the different inventories.

Plot A species	Number of subplots present in		Plot B species	Number of subplots present in	
	1976	2005		1976	2005
<i>Achillea millefolium</i> (röllika)	64	0	<i>Acer platanoides</i> (lönn)	0	1
<i>Achillea ptarmica</i> (nysört)	38	1	<i>Achillea millefolium</i> (röllika)	51	8
<i>Aegopodium podagraria</i> (kirsåål)	1	0	<i>Achillea ptarmica</i> (nysört)	75	12
<i>Agrostis canina</i> (brunven)	4	0	<i>Agropyron repens</i> (kvickrot)	1	0
<i>Agrostis tenuis/Agrostis capillaris</i> (rödven)	68	7	<i>Agrostis canina</i> (brunven)	9	0
<i>Alchemilla acutiloba</i> (stjärndaggkäpa)	1	0	<i>Agrostis gigantea</i> (storven)	0	3
<i>Alchemilla glabra</i> (glatt daggkäpa)	0	2	<i>Agrostis stolonifera</i> (krypven)	0	31
<i>Alopecurus pratensis</i> (ängskavle)	7	1	<i>Agrostis tenuis/Agrostis capillaris</i> (rödven)	68	2
<i>Anemone nemorosa</i> (vitsippa)	5	6	<i>Agrostis vinealis</i> (bergven)	0	1
<i>Anthoxanthum odoratum</i> (vårbrodd)	15	1	<i>Alchemilla glabra</i> (glatt daggkäpa)	3	1
<i>Anthriscus sylvestris</i> (hundkåx)	1	0	<i>Alopecurus pratensis</i> (ängskavle)	3	3
<i>Apium graveolens</i> (selleri)	0	1	<i>Anemone nemorosa</i> (vitsippa)	3	6
<i>Arrhenatherum pubescens</i> (luddhavre)	27	0	<i>Anthoxanthum odoratum</i> (vårbrodd)	8	2
<i>Betula verrucosa/Betula pendula</i> (vårtbjörk)	25	2	<i>Anthriscus sylvestris</i> (hundkåx)	12	13
<i>Briza media</i> (darrgräs)	1	0	<i>Arrhenatherum elatius</i> (knylhavre)	0	3
<i>Campanula rotundifolia</i> (liten blåklocka)	3	0	<i>Arrhenatherum pratensis</i> (ängshavre)	3	0
<i>Cardamine pratensis</i> (ängsbräsma)	9	5	<i>Arrhenatherum pubescens</i> (luddhavre)	17	0
<i>Carex flacca</i> (slankstarr)	23	2	<i>Betula sp</i> (björk)	1	0
<i>Carex hartmanii</i> (hartmanstarr)	3	0	<i>Betula verrucosa/Betula pendula</i> (vårtbjörk)	35	1
<i>Carex hirta</i> (grusstarr)	15	1	<i>Caltha palustris</i> (kabbleka)	4	0
<i>Carex pallescens</i> (blekstarr)	10	1	<i>Campanula rotundifolia</i> (liten blåklocka)	4	0
<i>Carex panicea</i> (hirsstarr)	5	0	<i>Capsella bursa-pastoris</i> (lomme)	0	1
<i>Carex pilulifera</i> (pillerstarr)	1	0	<i>Cardamine pratensis</i> (ängsbräsma)	4	3
<i>Carex spp</i> (starr)	0	1	<i>Carex caespitosa</i> (tuvstarr)	7	0
<i>Centaurea jacea</i> (rödsklint)	33	0	<i>Carex flacca</i> (slankstarr)	13	1
<i>Cerastium holosteoides</i> (hönsarv)	1	0	<i>Carex hartmanii</i> (hartmanstarr)	11	0
<i>Chrysanthemum leucanthemum</i> (prästkraige)	1	0	<i>Carex hirta</i> (grusstarr)	14	15
<i>Circaea lutetiana</i> (stor häxört)	0	5	<i>Carex montana</i> (lundstarr)	8	0
<i>Cirsium acaule</i> (jordtistel)	3	0	<i>Carex nigra</i> (hundstarr)	1	0
<i>Cirsium arvense</i> (åkertistel)	21	35	<i>Carex pallescens</i> (blekstarr)	18	2
<i>Cirsium spp</i> (tistel)	0	2	<i>Carex panicea</i> (hirsstarr)	1	0
<i>Crataegus sp</i> (hagtorn)	2	29	<i>Carex spp</i> (starr)	0	7
<i>Crepis praemorsa</i> (klasefibbla)	2	0	<i>Centaurea jacea</i> (rödsklint)	35	0
<i>Dactylis glomerata</i> (hundåxing)	9	35	<i>Cirsium acaule</i> (jordtistel)	6	0
<i>Deschampsia caespitosa</i> (tuvtåtel)	54	66	<i>Cirsium arvense</i> (åkertistel)	7	23
<i>Elymus caninus</i> (lundelm)	0	2	<i>Cirsium helenioides</i> (borsttistel)	0	2
<i>Epilobium angustifolium</i> (mjölkört)	1	0	<i>Cirsium spp</i> (mjuktistel)	0	4
<i>Epilobium montanum</i> (bergdunört)	1	35	<i>Crataegus sp</i> (hagtorn)	1	21
<i>Equisetum arvense</i> (åkerfråken)	13	13	<i>Dactylis glomerata</i> (hundåxing)	13	16
<i>Euonymus europaeus</i> (bened)	0	1	<i>Deschampsia caespitosa</i> (tuvtåtel)	41	70
<i>Festuca gigantea</i> (långsvingel)	0	1	<i>Deschampsia flexuosa</i> (kruståtel)	17	3
<i>Festuca ovina</i> (fårsvingel)	4	0	<i>Dryopteris filix-mas</i> (träjon)	0	1
<i>Festuca pratensis</i> (ängssvingel)	29	0	<i>Elymus caninus</i> (lundelm)	0	3
<i>Festuca rubra</i> (rödsvingel)	107	4	<i>Epilobium angustifolium</i> (mjölkört)	0	1
<i>Filipendula ulmaria</i> (ålgört)	40	57	<i>Epilobium montanum</i> (bergdunört)	0	18
<i>Filipendula vulgaris</i> (brudbröd)	31	3	<i>Equisetum arvense</i> (åkerfråken)	38	36
<i>Galium boreale</i> (vitmåra)	110	12	<i>Festuca ovina</i> (fårsvingel)	4	1
<i>Galium verum</i> (gulmåra)	88	3	<i>Festuca pratensis</i> (ängssvingel)	6	0
<i>Geranium robertianum</i> (stinknäva)	0	16	<i>Festuca rubra</i> (rödsvingel)	78	2
<i>Geranium sanguineum</i> (blodnäva)	0	1	<i>Filipendula ulmaria</i> (ålgört)	28	40
<i>Geum rivale</i> (humleblomster)	90	58	<i>Filipendula vulgaris</i> (brudbröd)	32	3
<i>Heracleum sphondylium</i> (vit björnlöka)	1	6	<i>Galeopsis bifida</i> (toppdån)	23	37
<i>Hieracium umbellatum</i> (flockfibbla)	3	0	<i>Galium aparina</i> (snärjmåra)	1	0
<i>Holcus lanatus</i> (luddtåtel)	30	6	<i>Galium boreale</i> (vitmåra)	98	22
<i>Hypericum maculatum</i> (fyrkantig johannesört)	21	0	<i>Galium saxatile</i> (stenmåra)	1	0
<i>Hypericum perforatum</i> (ähta johannesört)	0	5	<i>Galium uliginosum</i> (sumpmåra)	1	0

<i>Inula salicina</i> (krissla)	3	1	<i>Galium verum</i> (gulmåra)	37	2
<i>Juncus conglomeratus</i> (knapptåg)	9	1	<i>Geranium robertianum</i> (stinknäva)	0	1
<i>Lathyrus montanus/Lathyrus linifolius</i> (gökört)	1	0	<i>Geranium sanguineum</i> (blodnäva)	8	4
<i>Lathyrus pratensis</i> (gulvial)	62	9	<i>Geum rivale</i> (humleblomster)	61	27
<i>Luzula campestris</i> (knippfryle)	2	0	<i>Heracleum sphondylium</i> (vit björnlöka)	20	13
<i>Mentha arvensis</i> (åkermynta)	2	0	<i>Hieracium umbellatum</i> (flockfibbla)	12	0
<i>Moehringia trinervia</i> (skogsnarv)	0	1	<i>Holcus lanatus</i> (luddtätel)	24	49
<i>Molinia caerulea</i> (blåtätel)	5	1	<i>Hypericum maculatum</i> (fyrkantig johannesört)	35	0
<i>Pastinaca sativa</i> (palsternacka)	8	6	<i>Hypericum perforatum</i> (äkta johannesört)	0	27
<i>Pimpinella saxifraga</i> (vanlig bockrot)	5	0	<i>Inula salicina</i> (krissla)	9	4
<i>Plantago lanceolata</i> (svartkämpar)	0	5	<i>Juncus bufonius</i> (vägtåg)	0	1
<i>Poa pratensis</i> (ängsgröe)	78	0	<i>Juncus conglomeratus</i> (knapptåg)	9	2
<i>Potentilla anserina</i> (gåsört)	6	0	<i>Juncus effusus</i> (veketåg)	0	6
<i>Potentilla erecta</i> (blodrot)	68	5	<i>Lathyrus montanus/Lathyrus linifolius</i> (gökört)	28	13
<i>Prunus avium</i> (sötkörsbär)	0	4	<i>Lathyrus pratensis</i> (gulvial)	57	7
<i>Prunus spinosa</i> (slånbär)	0	17	<i>Luzula campestris</i> (knippfryle)	1	0
<i>Quercus robur</i> (ek)	0	2	<i>Lysimachia vulgaris</i> (videört)	2	0
<i>Ranunculus acris</i> (vanlig smörblomma)	32	17	<i>Molinia caerulea</i> (blåtätel)	44	13
<i>Ranunculus auricomus</i> (majsmörblomma)	39	12	<i>Mycelis muralis</i> (skogssallat)	0	5
<i>Rosa dumalis</i> (nyponros)	0	1	<i>Myosotis sylvatica</i> (skogsförgätmigej)	0	1
<i>Rubus idaeus</i> (hallon)	0	28	<i>Nardus stricta</i> (stagg)	4	0
<i>Rumex acetosa</i> (ängssyra)	95	5	<i>Ononis repens</i> (puktörne)	1	0
<i>Salix aurita*cinerea</i> (bindvide*gråvide)	1	0	<i>Phalaris aurundinacea</i> (rörflen)	0	1
<i>Salix cinerea</i> (gråvide)	0	8	<i>Poa annua</i> (vitgröe)	0	1
<i>Salix pentandra</i> (jolster)	2	0	<i>Poa pratensis</i> (ängsgröe)	52	0
<i>Salix repens</i> (krypvide)	3	2	<i>Poa spp</i> (gröe)	0	4
<i>Scorzonera humilis</i> (svinrot)	23	0	<i>Poa trivialis</i> (kärrgröe)	1	0
<i>Selinum carvifolia</i> (krussilja/krusfrö)	9	2	<i>Polygonum amhibium/Persicaria amphibia</i> (vattenpilört)	1	3
<i>Serratula tinctoria</i> (ängsskära)	49	0	<i>Potentilla erecta</i> (blodrot)	83	10
<i>Sorbus aucuparia</i> (rönn)	0	5	<i>Primula veris</i> (gullviva)	3	0
<i>Stellaria graminea</i> (grässtjärnblomma)	14	0	<i>Prunus spinosa</i> (slånbär)	0	5
<i>Succisa pratensis</i> (ängsvädd)	3	0	<i>Ranunculus acris</i> (vanlig smörblomma)	16	11
<i>Taraxacum</i> sekt. <i>Ruderalia</i> (ogräsmaskros)	1	5	<i>Ranunculus auricomus</i> (majsmörblomma)	36	18
<i>Thalictrum simplex</i> (vanlig backruta)	4	0	<i>Ranunculus bulbosus</i> (knölsmörblomma)	0	1
<i>Tragopogon pratensis</i> (ängshaverrot)	1	0	<i>Rosa dumalis</i> (nyponros)	0	2
<i>Trifolium medium</i> (skogsklöver)	32	12	<i>Rubus idaeus</i> (hallon)	0	35
<i>Trollius europaeus</i> (smörboll)	6	0	<i>Rumex acetosa</i> (ängssyra)	80	28
<i>Urtica dioica</i> (brännässla)	0	3	<i>Salix cinerea</i> (gråvide)	0	1
<i>Valeriana dioica</i> (småvänderot)	2	1	<i>Salix repens</i> (krypvide)	7	0
<i>Valeriana officinalis</i> (läkevänderot)	1	1	<i>Scorzonera humilis</i> (svinrot)	71	15
<i>Veronica agrestis</i> (åkerveronika)	0	1	<i>Selinum carvifolia</i> (krussilja)	5	0
<i>Veronica chamaedrys</i> (teveronika)	6	0	<i>Serratula tinctoria</i> (ängsskära)	81	6
<i>Vicia cracca</i> (kråkvicker)	71	5	<i>Siegingia decumbens</i> (knägräs)	1	0
<i>Viola riviniana</i> (skogsviol)	2	0	<i>Solidago virgaurea</i> (gullris)	0	1
			<i>Sorbus aucuparia</i> (rönn)	1	4
			<i>Stellaria graminea</i> (grässtjärnblomma)	17	0
			<i>Stellaria media</i> (våtarv)	0	2
			<i>Stellaria palustris</i> (kärrstjärnblomma)	0	1
			<i>Succisa pratensis</i> (ängsvädd)	3	1
			<i>Taraxacum</i> sekt. <i>Ruderalia</i> (ogräsmaskros)	1	9
			<i>Thalictrum simplex</i> (backruta)	3	0
			<i>Trifolium medium</i> (skogsklöver)	44	22
			<i>Trifolium repens</i> (vitklöver)	0	1
			<i>Trollius europaeus</i> (smörboll)	49	6
			<i>Urtica dioica</i> (brännässla)	1	4
			<i>Valeriana dioica</i> (småvänderot)	1	0
			<i>Veronica agrestis</i> (åkerveronika)	0	1
			<i>Veronica chamaedrys</i> (teveronika)	14	0
			<i>Veronica officinalis</i> (ärenpris)	1	0
			<i>Vicia cracca</i> (kråkvicker)	72	6
			<i>Viola canina</i> (ängsviol)	0	2
			<i>Viola riviniana</i> (skogsviol)	16	0